



Nortel Communication Server 1000

Element Manager System Reference - Administration

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New in This Release

Group Call Pickup configuration

In Communication Server 1000 Release 7.0, you can configure Group Call Pickup option. The group call pickup option provide an interface to configure LD 15 options for all the data types. You can also enable/disable the feature options.

IPv6 Support for TLAN IP

The CS 1000 Element Manager provides an interface to configure IPv6 IP address for TLAN fields in the IP Telephony Node page. See ["IP Telephony Nodes" \(page 137\)](#).

Mobile Extension Enhancements

The Mobile Extension feature was designed in the previous release of CS 1000. In Release 7.0, Cellular voice mail avoidance, mid-call feature, Dial-able single number mobile number (SNMN), and Mobile extension outgoing type enhancements are added. The Mobile extension outgoing type option helps to decide on the type of Mobile CLID (national or international) to send across the route. For more information, see [Figure 181 "Route Property Configuration Web page" \(page 268\)](#)

IP Conference

The CS 1000 Element Manager provides an interface to configure IP Conference loops and to maintain IP conference loops using LD 38.

The configured loops in a data grid provides an option to select the required loops from the drop-down list for adding a new configuration. You can add, edit and delete a loop using this feature. You can also check the status of a required loop using STAT button. It runs the maintenance overlay command and displays the result in text area. See [Figure 42 "IP Conference Loop Number Details" \(page 120\)](#).

R-factor support

The CS 1000 Element Manager provides an interface to enable or disable R-factor for Media Gateway Configuration. It is a calculation field provided in IP Telephony nodes page for Media cards. For more information about R-factor for Media Gateway Configuration, .

International number

The CS 1000 Element Manager should provide an interface to configure NET_DATA block of customer. The Integrated Services Digital Network (ISDN) is introduced as part of this feature. The Microsoft converged office dialing plan and private dialing plan fields are introduced in ISDN and ESN Networking page. See, [“ISDN and ESN Networking” \(page 256\)](#).

Bandwidth Management

Communication Server 1000 Release 7.0 provides an increase in the number of bandwidth management zones. The range of allowable bandwidth management zone values is increased from 0–255 to 0–8000. For more information about Bandwidth Management, see [“Zones” \(page 180\)](#).

Phone Provisioning

In Release 7.0, the new features added are Canned Reports, Updating phones using phone templates, IP Attendant, High Scalability, Custom Views, and Virtual Office Setting and Logout.

CLID-C: Enhance Override CLID Presentation Restriction

In CS 1000 Release 7.0, you can configure currently existing PII (Privacy Indicator Ignore) prompt for all the ISDN interfaces on the Route page of EM. A new AUXP (Auxiliary Application) prompt is introduced in overlay 16 (RDB) to enhance the ability of the system to honor or ignore the Privacy indicator for a Calling Party Privacy call for each incoming route.

Lists

The Lists feature enables you to create, view, edit, and delete lists in the Element Manager. You can also add and modify lists through a comma-separated value (CSV) file or a web detailed interface. You can import new lists into the system in the CSV format.

Traffic

By using the traffic feature you can collect traffic data on the system, enable or disable specific traffic report, and view the historic and current traffic records. By default, the reports are collected every 30 minutes and is stored locally. You can also view the historic and current records by clicking on the corresponding report type.

For more information about traffic report collection, see [“Traffic Report Collection” \(page 429\)](#) and for more information about viewing historic and current records, see [“Viewing historic and current traffic reports for system traffic” \(page 431\)](#).

SIP Proxy Server Route 2

In Release 7.0, SIP Proxy Server Route 2 is introduced to configure the second route details for SIP GW. For more information, see [“Add a new IP Telephony Node” \(page 140\)](#).

MGS support

The Communication Server Release 7.0 supports MGS for IPMG. For more information on the MGS configuration, see [“Media Gateway configuration” \(page 167\)](#).

Tertiary NRS

A tertiary NRS server for a SIP Gateway (SIPGW) provides a third level of redundancy. The tertiary NRS can run on any device on the network and can operate in a one-for-many or in a one-to-one mode. The Tertiary NRS server provides a more flexible alternative and is mutually exclusive to the existing Failsafe operations. The tertiary NRS has a database independent of the primary NRS that is tailored for routing calls during a WAN outage scenario. This is different from the failsafe NRS which has a snapshot of the database on the primary NRS. The third level of redundancy does not apply to the H.323 gateway because if a system has a tertiary NRS defined for the SIPGW, the co-residing H.323 solution has only two levels of redundancy, as the failsafe NRS cannot run on this system. You can configure the Tertiary NRS using the NRS Manager Web User Interface. For more information about configuring the SIP Gateway IP address of the Tertiary NRS server in Element Manager, see IP Telephony Node - SIP GW settings 1 in IP Network section.

Other

Revision History

June 2010	Standard 04.02. This document is up-issued to update content for Communication Server 1000 Release 7.0.
June 2010	Standard 04.01. This document is up-issued to support Communication Server 1000 Release 7.0.
October 2009	Standard 03.19. This document is up-issued to support MG XPEC.

June 2009	Standard 03.18. This document is up-issued to provide information concerning deploying more than one Element Manager to manage a single Call Server and the effects on the EM Phone provisioning application and to provide a procedure for removing control M characters from TM configuration files.
June 2009	Standard 03.17. This document is up-issued to support Communication Server 1000 Release 6.0. This NTP may contain information on or refer to products and naming conventions that are not supported in this release. This information is included for legacy purposes and convenience only. This includes but is not limited to items, such as: SSC; ISP 1100; ITG Pentium cards; and Media Cards running certain IP Line applications.
May 2009	Standard 03.16. This document is up-issued to support Communication Server 1000 Release 6.0. This NTP may contain information on or refer to products and naming conventions that are not supported in this release. This information is included for legacy purposes and convenience only. This includes but is not limited to items, such as: SSC; ISP 1100; ITG Pentium cards; and Media Cards running certain IP Line applications.
July 2008	Standard 02.15. This document is up-issued to update the Station Fast Sync feature section.
April 2008	Standard 02.14. This document is up-issued to add patching information.
March 2008	Standard 02.12. This document is up-issued to add information about Zone 0 and CR Q01834961.
February 2008	Standard 02.11. This document is up-issued to reflect changes in technical content.
January 2007	Standard 02.10. This document is up-issued to reflect changes in technical content.
December 2007	Standard 02.09. This document is up-issued to support Communication Server 1000 Release 5.5.
August 2007	Standard 01.05. This document is up-issued to support Microsoft Exchange Server 2007 Unified Messaging.
June 2007	Standard 01.03. This document is up-issued for: (1) to specify that PDT access is required to access the Element Manager patching feature. (2) to indicate that the rows in the Excel spreadsheet must be completed sequentially. (3) to correct the graphic Digit Conversion Tree Configuration Web page. (4) to provide more information about QoS threshold values. (5) to correct the graphic Clock Controller Basic Properties Web page.
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	Standard 3.00. This document is up-issued to support Communication Server 1000 Release 4.5.
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).

How to get help

Contents

This section contains information about the following topics:

- “Getting help from the Nortel Web site” (page 17)
- “Getting help over the telephone from a Nortel Solutions Center” (page 17)
- “Getting help from a specialist by using an Express Routing Code” (page 18)
- “Getting help through a Nortel distributor or reseller” (page 18)

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.

Introduction

This document is a global document. Contact your system supplier or your Nortel representative to verify that the hardware and software described are supported in your area.

Subject

This document describes the Element Manager interface.

Applicable Systems

This document applies to the following systems:

- Communication Server 1000M Single Group (CS 1000M SG)
- Communication Server 1000M Multi Group (CS 1000M MG)
- Communication Server 1000E (CS 1000E)

Intended Audience

This document is intended for individuals responsible for administering CS 1000 and Meridian 1 systems.

Conventions

Terminology

In this document, the following systems are referred to generically as system:

- Communication Server 1000E (CS 1000E)
- Communication Server 1000M (CS 1000M)
- Meridian 1

Related information

This section lists information sources that relate to this document.

Technical Documentation

The following technical documents are referenced in this document:

- *Unified Communications Management Common Services Fundamentals* (NN43001-116)
- *Signaling Server IP Line Applications Fundamentals* (NN43001-125)
- *Network Routing Service Fundamentals* (NN43001-130)
- *SIP Line Fundamentals* (NN43001-508)
- *Co-resident Call Server and Signaling Server Fundamentals* (NN43001-509)
- *Subscriber Manager Fundamentals* (NN43001-120)
- *Transmission Parameters Reference* (NN43001-282)
- *Dialing Plans Reference* (NN43001-283)
- *Security Management Fundamentals* (NN43001-604).
- *Linux Platform Base and Applications Installation and Commissioning* (NN43001-315)
- *System Management Reference* (NN43001-600)
- *Communication Server 1000 Fault Management - SNMP* (NN43001-719)
- *Software Input Output Reference — Maintenance* (NN43001-711)
- *Branch Office Installation and Commissioning* (NN43001-314)
- *System Redundancy Fundamentals* (NN43001-507)
- *Software Input Output Administration* (NN43001-611)

Overview

Contents

This section contains information about the following topics:

[“Element Manager overview” \(page 21\)](#)

[“Key features” \(page 23\)](#)

[“Signaling Server” \(page 23\)](#)

[“Call Server and Media Gateway” \(page 24\)](#)

[“IP Line and Voice Gateway” \(page 24\)](#)

Element Manager overview

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

Element Manager is deployed with the Nortel Unified Communications Management solution on a Linux based operating system. UCM provides logon and security features for Element Manager.

For more information about UCM, see *Unified Communication Management* (NN43001-116).

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

With Subscriber Manager, an administrator can create an account, publish/display phone attributes, and add and configure phone services for subscribers with available Templates in Element Manager. A template contains attributes common to a CS 1000 phone type. Once a template is created, you can use it to apply these common attributes to a group

of phones, without having to repetitively define the same value for each phone. In general, using a template is a more efficient method of adding large numbers of phones than maintaining each phone individually.

Note: It is possible to deploy more than one EM pointing to a Call Server using Deployment Manager, but the EM Phone provisioning application (**Phones**) does not support this. See, [“Limitations of deploying multiple Element Managers to manage a single Call Server” \(page 305\)](#).

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, lists, checkboxes, and range values.
- To simplify the importing of phones to the database a Comma Separated Value (CSV) file can be used.

Note 1: All screen captures in this chapter are applicable to CS 1000E and CS 1000M systems. Where there is no indicator, the screen and commands are available on both.

Note 2: Option 81C and 61C must be upgraded to a CS 1000 M (SG or MG) in order to deploy it with UCM.

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 way to configure all Electronic Switched Network (ESN) data blocks for the Call Server. Network Routing Service cannot be launched from inside EM from CS 1000 Release 6.0 onwards. To access configuration for the Network Routing Service (NRS), you must log on through UCM.
- **Phones** — Enables users to import and 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 and Voice Gateway

Element Manager enables administrators to perform the following activities on the IP Line and 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 Time 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 and Voice Gateway Media Card parameters that can be configured and managed in Element Manager, see *IP Line Application Fundamentals (NN43001-125)*.

The following maintenance activities are supported when using Element Manager for IP Line 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 and Voice Gateway maintenance activities that are supported by Element Manager, see [“IP Network” \(page 137\)](#).

How to use Element Manager

Contents

This section contains information about the following topics:

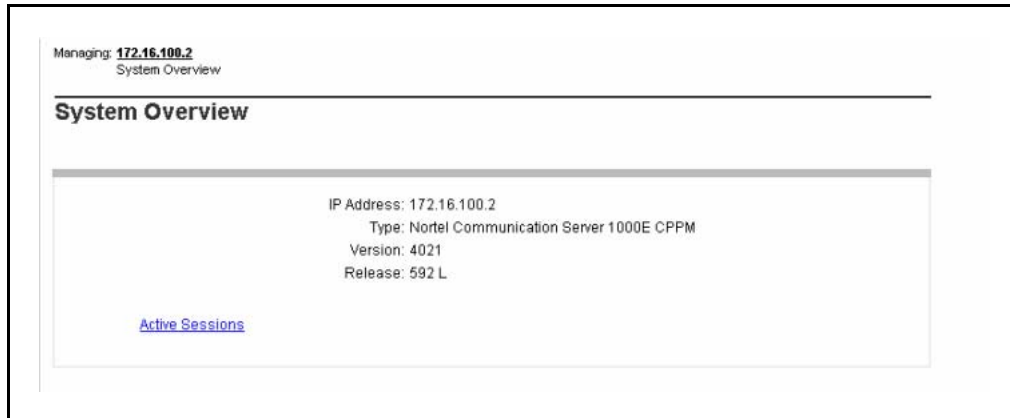
- [“Launching Element Manager” \(page 27\)](#)
- [“Timeout after a period of inactivity” \(page 29\)](#)
- [“Navigation” \(page 29\)](#)
- [“Configuring data” \(page 32\)](#)
- [“Logging off” \(page 32\)](#)

Launching Element Manager

You can launch the Element Manager from the UCM or using local login method. Element Manager is installed with the Nortel Unified Communications Management (UCM) solution on a Nortel CP PM server or on one of the Commercial off the shelf (COTS) servers.

Start Element Manager from the UCM solution. This solution supports Single Sign-on so that you can access multiple systems. Users access UCM Common Services through Microsoft Internet Explorer 6.02600 or later. For information about how to log on to UCM Common Services, configure the UCM Common Services, and log on to Element Manager, see *Unified Communications Management* (NN43001-116).

Figure 1
Element Manager System Overview Web page



Element Manager Local login

To activate local Element Manager, you must restart Jboss application. When you login to the Element Manager locally, you must provide a Call server IP address.

Figure 2
Element Manager Login page



When accessing Element Manager locally, you will not be able to access the following links.

- Nodes: Servers, Media Cards
- Maintenance and Reports
- Call Server PEP
- File Upload
- IP Phone Firmware

- Voice Gateway Media Card
- Media Cards PEPS
- Date and time
- Phones

Timeout after a period of inactivity

Element Manager times out after a period of inactivity. Users are logged off without warning in all Element Manager Web pages. The exception is the **Edit** Web pages. When a user is works on this Web page, a message appears that warns of the impending timeout action. Click OK (on the warning message) within the remaining timeout period (5 minutes) to reset the timer. If no response occurs within the five-minute warning period, the session is cancelled, and the user must log in again. Data modifications made on screen, but not submitted to the system, are lost.

ActiveX configuration in Internet Explorer

Element Manager uses ActiveX controls in several of the Internet Explorer pages. You must make the following required IE settings for Element Manager to work properly.

- Change or configure the Security settings.
- Go to **Tools, Internet Options, Security, Custom Level**. In the **Security Settings** dialog box, select **Enable** or **Prompt** for the **Initialize and script ActiveX controls not marked as safe** field.
If **Disable** is selected, then you get an error "Automation server can not create object".

Navigation

The Element Manager navigator is on the left side of the Web page as shown in [Figure 3 "Element Manager navigator" \(page 30\)](#).

Figure 3
Element Manager navigator



Links in the Element Manager 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
 - Flexible Code Restriction
 - Incoming Digit Conversion
- **Phones**
 - Templates
 - Reports
 - Views
 - Lists
 - Properties
 - Migration
- **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 slowly.

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 off

To log off Element Manager and UCM, click the **Logout** link in the top right corner of the Web page.

Links

Contents

This section contains information about the following topics:

[“Introduction” \(page 33\)](#)

[“Virtual Terminals” \(page 33\)](#)

Introduction

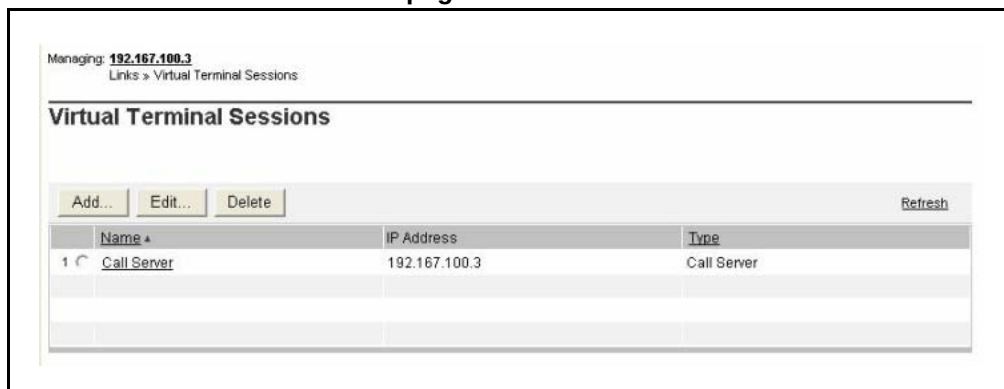
The features available under the **Links** branch of the Element Manager navigator enable Element Manager to be the single point of management access to Web pages and character-based interfaces.

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

Virtual Terminals

Click the **Virtual Terminals** link to open the **Virtual Terminal Sessions** Web page as shown in [Figure 4 “Virtual Terminal Sessions Web page” \(page 33\)](#).

Figure 4
Virtual Terminal Sessions Web page



The **Virtual Terminal Sessions** Web page enables users to bookmark the connection details to any IP-based element on the network. Virtual Terminal can be used to connect to an element which supports Telnet, Rlogin or SSH2.

Virtual Terminal (VT) sessions are secured using SSL and SSH. If the element doesn't support SSH then normal TCP fallback is also provided (either to the Telnet or Rlogin server) to connect to the elements.

ATTENTION

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

Follow the steps in [Procedure 1 "Adding a Virtual Terminal session" \(page 34\)](#) to add a Virtual Terminal Session .

Procedure 1 Adding a Virtual Terminal session

Step	Action
1	On the Virtual Terminal Sessions Web page, click Add . The Add Virtual Terminal Session Web page appears, as shown in Figure 5 "Add Virtual Terminal Session Web page" (page 34) .

Figure 5
Add Virtual Terminal Session Web page

- 2 Enter a **Name** and **IP Address** for the session.
- 3 Select the **Type** from the list.
- 4 Click **Save** 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 appears in a separate browser window.

Note 1: Virtual terminal prompts for pdt2 password, but you can press Enter and give the admin1 or admin2 password to get connected, and pdt2 password is not mandatory if you start Virtual Terminal through UCM.

Note 2: Upon initial launch of Virtual terminal, the user is prompted for the PDT2 level password. Entering this password will navigate user to the PDT2 shell of the Call Server. The user can also carriage return past the PDT2 password prompt. This action will prompt the user for a new username for other accounts on the Call Server. The user can provide admin1 or admin2 login credentials allowing overlay access to the Call Server.

Note 3: For security reasons, each Virtual Terminal session is forced to time out in 20 minutes.

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 2 "Editing an existing Virtual Terminal session" \(page 35\)](#) to edit an existing Virtual Terminal session.

Procedure 2 **Editing an existing Virtual Terminal session**

Step	Action
1	Select the radio button beside the appropriate Virtual Terminal name on the Virtual Terminal Sessions Web page.
2	Click Edit .

The information about the Virtual Terminal Session selected is displayed in the fields.

- 3 Edit the **Name** and **IP Address** values as necessary.
- 4 To change this session so that it logs into a Call Server, select the **Call Server** check box.
- 5 Click **Save** to save the changes.
- 6 Click **Cancel** to undo any changes made.

--End--

Procedure 3 Deleting an existing Virtual Terminal Session

Step	Action
1	Select the radio button beside the appropriate Virtual Terminal name on the Virtual Terminal Sessions Web page.
2	Click Delete to remove the Virtual Terminal Session information completely.

--End--

Edit Event ERR1

This **Edit Event ERR1** Web page contains site-specific preferences for event severities as well as criteria for severity escalation.

This page contains two fields as follows:

- Severity: User can change the severity of the event by changing the value of this field. It has the following options:
 - Default
 - Information
 - Minor

- Major
- Critical
- Escalation value : The escalation threshold specifies a number of events per window timer length that, when exceeded, causes the event severity to be escalated up one level. The window timer length is set to 0 minute by default. Escalation occurs only for minor or major alarms. Escalation value must be less than the universal suppression threshold value. This field can have values from 0 to 14.

System

Contents

This section contains information about the following topics:

- [“Introduction” \(page 40\)](#)
- [“Maintenance” \(page 46\)](#)
 - [“Application Module Link Diagnostics” \(page 50\)](#)
 - [“Background Signaling and Switching Diagnostics” \(page 53\)](#)
 - [“Call Trace Diagnostics” \(page 54\)](#)
 - [“Clock Controller Diagnostics” \(page 59\)](#)
 - [“Core Common Equipment Diagnostics” \(page 61\)](#)
 - [“Core Input/Output Diagnostics” \(page 65\)](#)
 - [“D-channel Diagnostics” \(page 68\)](#)
 - [“D-Channel Expansion Diagnostics” \(page 71\)](#)
 - [“Digital Trunk Diagnostics” \(page 74\)](#)
 - [“Digital Trunk Maintenance Diagnostics” \(page 77\)](#)
 - [“Emergency Services Diagnostics” \(page 80\)](#)
 - [“Ethernet Diagnostics” \(page 82\)](#)
 - [“Ethernet Quality of Service Diagnostics” \(page 87\)](#)
 - [“Input/Output Diagnostics” \(page 89\)](#)
 - [“Intergroup Switch and System Clock Generator Diagnostics” \(page 92\)](#)
 - [“MSDL Diagnostics” \(page 96\)](#)
 - [“Multifrequency Sender Diagnostics” \(page 98\)](#)
 - [“Multifrequency Signaling Diagnostics” \(page 101\)](#)
 - [“Network and Peripheral Equipment Diagnostics” \(page 103\)](#)
 - [“Network and Signaling Diagnostics” \(page 108\)](#)
 - [“TMDI Diagnostics” \(page 110\)](#)
 - [“Tone and Digit Switch Diagnostics” \(page 111\)](#)

- ["Trunk Diagnostics" \(page 113\)](#)
- ["Zone Diagnostics" \(page 116\)](#)
- ["Loops" \(page 118\)](#)
- ["Superloops" \(page 121\)](#)
- ["MSDL/MSIP Cards" \(page 123\)](#)
- ["Conference/TDS/Multifrequency Cards" \(page 124\)](#)
- ["Tone Senders and Detectors" \(page 125\)](#)

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.

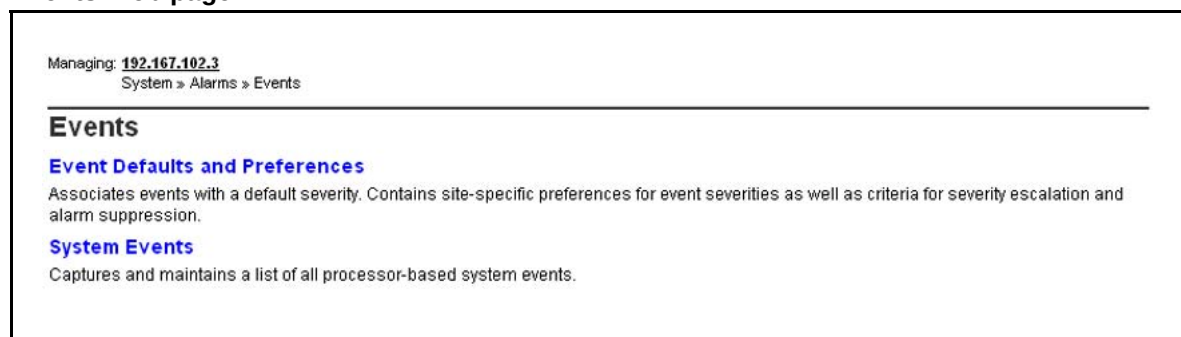
The following buttons appear on some or all of the System Web pages:

- **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 6 "Events Web page" \(page 40\)](#).

Figure 6
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 7 "Event Defaults and Preferences Web page" \(page 41\)](#).

Figure 7
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: [▼](#)

☐ 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 8 "Edit Thresholds Web page" \(page 42\)](#).

Figure 8
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 Threshold 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 9 "System Events Web page" \(page 43\)](#).

Figure 9
System Events Web page

Managing: [192.167.102.3](#)
System » Alarms » [Events](#) » System Events

System Events

Collection Limits
[Edit...](#)

System Event List Size: 500

of Events: 500 [Refresh](#)

Printing [100%] (500 of 500) most recent events

```

AUD000
AUD000
AUD000
AUD000
AUD000
AUD000
AUD000
AUD000

```

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.

Use this page to import an Event Preference Table from a user specified location to the switch.

Import Event Preference Table (EPT)

Use this page to import an Event Preference Table from a user specified location to the switch.

To display this page, choose **System>Alarms>Events>Event Defaults and Preferences**. In the Event Preference Table Section, click **Import**.

The Event Preference Table page appears.

Note: The user needs to change the Security settings in Microsoft Internet Explorer while doing Import EPT. This file is residing at the user PC which uses ActiveX FileSystemObject to do the validations. This provides access to the local file system of the PC using even JavaScript code. Microsoft IE has a field called "Initialize and script ActiveX controls not marked as safe" under IE -> Tools -> Security -> Custom Level. This field needs to be either set to "Prompt" or "Enable". When this field is set to Disabled it doesn't allow IE to create ActiveX object and we find an error called "Automation server can not create object" and our validation for the file fails. If the IE Security level setting is set to High then no ActiveX controls is allowed, hence it should be set to Medium with the specified field to set to either "Prompt" or "Enable".

Procedure 4
Import Event Preference Table

Step	Action
1	Click Browse , to browse for the Event Preference Table.
2	Click Import & Activate to import the Event Preference Table to the switch.
3	Click Cancel to return to the Event Defaults and Preferences without importing a Event Preference Table to the switch.
--End--	

SNMP

The SNMP Profile Manager provides a common interface for configuring SNMP parameters on all CS 1000 Network Elements. You can use SNMP Profile Manager which is part of the UCM solution, to add, modify and delete SNMP profiles. Profiles can be configured and assigned to the following types of UCM managed elements:

- Element Manager
- Call Server (configuration settings are migrated to the SS, VGMC, and MGC)
- NRSM (configuration settings are migrated to NRS)

Fault management is implemented in Element Manager.

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 appears as shown in [Figure 10 "SNMP Configuration Web page" \(page 45\)](#).

Figure 10
SNMP Configuration Web page

Managing: 172.16.100.2
System » Alarms » SNMP Configuration

SNMP Configuration

System Info

System name:

System contact:

System location:

Navigation site name:

Navigation system name:

Management Information Base Access

Administrator group 1: *

Administrator group 2: *

Administrator group 3: *

System management read: *

System management read/write: *

Alarm

Trap community:

Alarm threshold: ▼
Alarms below this threshold will be suppressed

Options: ☐ Enable trap sending

Trap Destination:

IP address 1: Port 1:

IP address 2: Port 2:

IP address 3: Port 3:

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

The SNMP parameters are grouped in three logical groups in the SNMP Configuration Web page:

- System Info
- Management Information Base Access
- Alarm

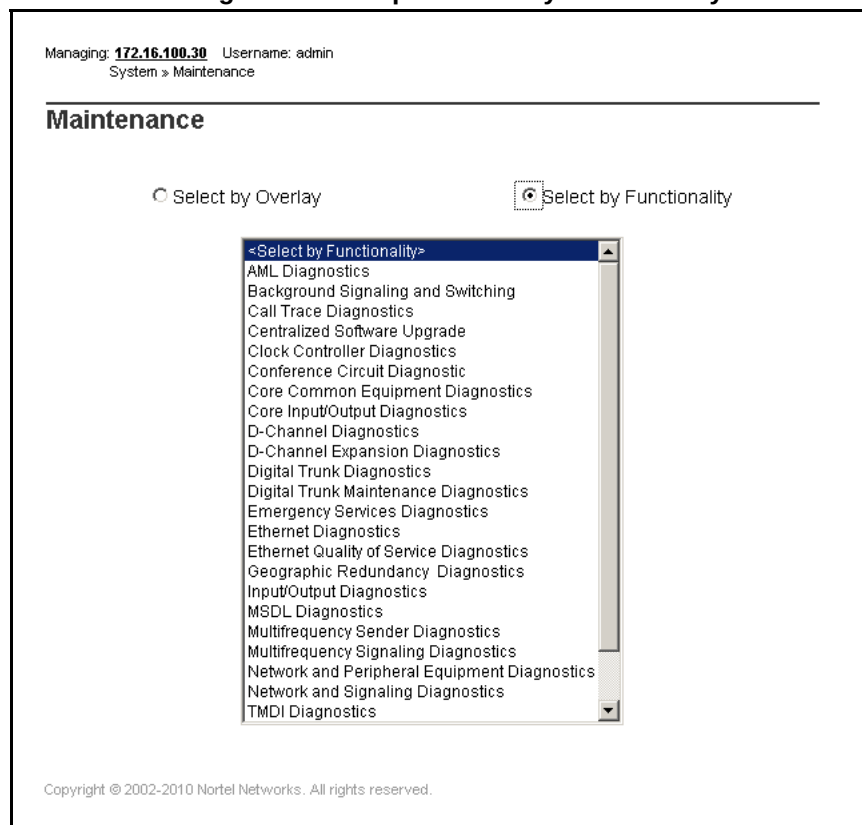
Configuration of SNMP by Element Manager at the system level propagates upward to the SNMP Profile Manager. Changes made in Element Manager apply to all CS 1000 elements.

For detailed information about 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 11 "Maintenance diagnostic tools presented by functionality" \(page 46\)](#).

Figure 11
Maintenance diagnostic tools presented by functionality



The following tool options are available from this Web page:

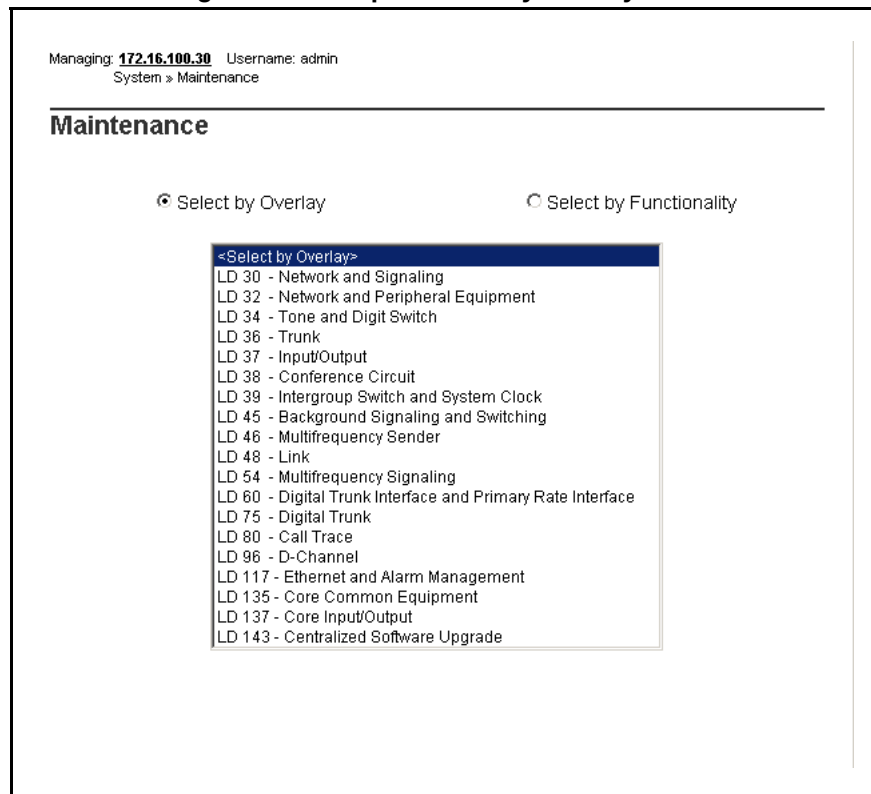
- AML Diagnostics
- Background Signaling and Switching
- Call Trace Diagnostics
- Centralized Software Upgrade
- Clock Controller Diagnostics
- Conference Circuit Diagnostic
- Core Common Equipment Diagnostics
- Core Input/Output Diagnostics
- D-Channel Diagnostics
- D-Channel Expansion Diagnostics
- Digital Trunk Diagnostics
- Digital Trunk Maintenance Diagnostics
- Emergency Services Diagnostics
- Ethernet Diagnostics
- Ethernet Quality of Service Diagnostics
- Geographic Redundancy Diagnostics
- Input/Output Diagnostics
- InterGroup Switch & System Clock
- 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 12 "Call Server diagnostic tools presented by overlay" \(page 49\)](#):

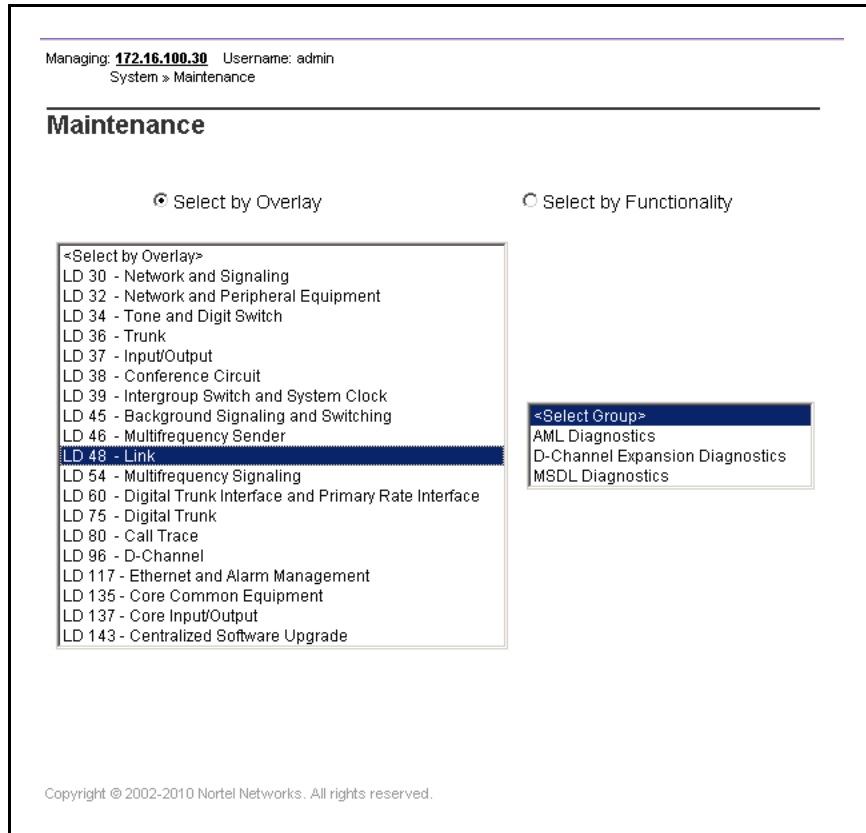
- LD 30 - Network and Signaling
- LD 32 - Network and Peripheral Equipment
- LD 34 - Tone and Digit Switch
- LD 36 - Trunk
- LD 37 - Input/Output
- LD 38 – Conference Circuit
- LD 39 - Intergroup Switch and System Clock
- LD 45 - Background Signaling and Switching
- LD 46 - Multifrequency Sender
- LD 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 12
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 13 "Select Group list" \(page 50\)](#).

Figure 13
Select Group list



Managing: 172.16.100.30 Username: admin
 System > Maintenance

Maintenance

☒ Select by Overlay ☐ Select by Functionality

<Select by Overlay>
 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 38 - Conference Circuit
 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

<Select Group>
 AML Diagnostics
 D-Channel Expansion Diagnostics
 MSDL Diagnostics

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

The following sections provide information about 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 14 "AML Diagnostics Web page"](#) (page 51).

Figure 14
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	(device #)	Submit
DIS AML - Disable AML	(device #)	Submit
ENL AML - Enable AML	(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 5 "Performing AML commands" \(page 51\)](#).

Procedure 5 **Performing AML commands**

Step	Action
1	Select one of the following commands from the first Commands list: - a STAT AML - Get AML status - b STAT ELAN - Check status of all specified / all configured ELANs - c EST AML - Establish layer 2 on AML - d MAP AML - Get card information of one or all AMLs - e RLS AML - Release layer 2 on AML - f SLFT AML - Perform self-test on AML - g UPLD AML - Upload parameter table 1 to 4 from AML
2	(Optional) 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 6 "Disabling AML "](#) (page 52).

Procedure 6
Disabling AML

Step	Action
1	Select one of the following commands from the second Commands 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	(Optional) 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 7 "Enabling AML "](#) (page 52).

Procedure 7
Enabling AML

Step	Action
1	Select one of the following commands from the third Commands 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 (Optional) 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 15 "Background Signaling and Switching Diagnostics Web page"](#) (page 53).

Figure 15
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]

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 8 Performing the TEST command

Step	Action
1	Select the Diagnostic Command from the list.
2	Enter the loop number in the Command Parameters box.
	Note: To run the TEST command on all loops, leave the Command Parameters box empty.
3	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 16 "Call Trace Diagnostics Web page" \(page 54\)](#).

Figure 16
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	(cust# acod#)	☐ DEV Submit
TRAD - Trace DTI/DLI calls on a channel of a loop	(loop# ch#)	Submit
TRAT - Trace calls for an attendant of a customer	(cust# atnd#)	☐ DEV Submit
TRIP - Trace Calls for IP Phone	(IP Address)	Submit

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

Cancel

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
- TRAT commands
- TRIP commands

To perform TRAC commands, follow the steps in [Procedure 9 “Performing TRAC commands” \(page 55\)](#).

Note: To issue a detailed call trace select the **DEV** checkbox.

Procedure 9
Performing TRAC commands

Step	Action
1	Select one of the following commands from the first Commands 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 10 “Performing TRAD commands” \(page 56\)](#).

Procedure 10
Performing TRAD commands

Step	Action
1	Select the following command from the second Commands list: • TRAD - Trace DTI/DLI calls on a channel of a loop
2	Enter the loop number and channel number in the Command Parameters text box.
3	Click Submit .
--End--	

To perform TRAT commands, follow the steps in [Procedure 11](#) “Performing TRAT commands” (page 56).

Note: To issue a detailed call trace select the **DEV** checkbox.

Procedure 11
Performing TRAT commands

Step	Action
1	Select one of the following commands from the third Commands list: - 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 customer number and attendant number in the Command Parameters text box.
3	Click Submit .
--End--	

To perform TRIP commands, follow the steps in [Procedure 12](#) “Performing TRIP commands” (page 56).

Procedure 12
Performing TRIP commands

Step	Action
1	Select the following command from the fourth Commands list:

- 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 17 "Centralized Software Upgrade Web page" \(page 57\)](#).

Figure 17
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 ----		Submit
- ----Enabling and Disabling Commands ----		Submit
- ----Status Commands ----		Submit

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

To perform Upgrade commands, follow the steps in [Procedure 13 "Performing Upgrade commands" \(page 58\)](#).

Procedure 13
Performing Upgrade commands

Step	Action
1	Select the following commands from the first Commands list: - a UPGMG - Upgrade IPMG - b UPGMG ALL - Upgrade ALL IPMGs - c UPGMGCOMMIT - Initiate Reboot of the IPMG after upgrade - d UPGMGCOMMI ALL - Initiate Reboot of all the 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 14 "Performing Enabling and Disabling commands" \(page 58\)](#).

Procedure 14
Performing Enabling and Disabling commands

Step	Action
1	Select the following commands from the second Commands list: - a ENL AUTOUPGMG - Enable Automatic Software Upgrade - b DIS AUTOUPGMG - Disable Automatic Software Upgrade
2	If ENL AUTOUPGMG is used, select either SEQ or SIM from the menu.
3	Click Submit .
--End--	

To perform Status commands, follow the steps in [Procedure 15 "Performing Status commands" \(page 58\)](#).

Procedure 15
Performing Status commands

Step	Action
1	Select the following commands from the third Commands list:

- 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 If UPGMG STAT is used, enter the Superloop # and Shelf # 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 18 "Digital Trunk Interface and Primary Rate Interface: Clock Controller Diagnostics Web page"](#) (page 60).

Figure 18
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: SSCK - Get Status of the Clock In Side: 0 Submit

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]									

Cancel

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 16 "Performing Clock Controller maintenance activities"](#) (page 60).

Procedure 16 **Performing Clock Controller maintenance activities**

Step	Action
1	Select one of the following commands from the Action list: 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 Side** list.
 - 3 Select the appropriate sub-parameters.
 - 4 Click **Submit**.

--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 19 "Core Common Equipment Diagnostic Web page" \(page 62\)](#).

Figure 19
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)	Submit
ENL CNI - Enable CNI card/port(c=side,s=slot,p=port)	(c# s#/c# s# p#)	Submit
TEST CPU - Test the inactive core	(none)	Submit
SCPU - Switch cores	(none)	Submit
STAT HEALTH HELP - Help for health commands	(none)	Submit
STAT GR - Status of Geographic Redundancy	(none)	Submit

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

The commands available from this Web page correspond to the Core Common Equipment data traditionally maintained by using LD 135 - Core Common Equipment.

To execute status commands using this Web page, follow the steps in [Procedure 17 "Performing Core Common Equipment Status commands"](#) (page 62).

Procedure 17
Performing Core Common Equipment Status commands

Step	Action
1	Select one of the following commands from the first Commands list: 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

- 2 Enter appropriate **Command Parameters** wherever applicable.
- 3 Click **Submit**.

--End--

To execute CNI commands using this Web page, follow the steps in [Procedure 18 "Performing Core Common Equipment CNI commands "](#) (page 63).

Procedure 18
Performing Core Common Equipment CNI commands

Step	Action
1	Select one of the following commands from the second Commands list: - 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.
3	Click Submit .
--End--	

To execute test commands using this Web page, follow the steps in [Procedure 19 "Performing Core Common Equipment test commands"](#) (page 63).

Procedure 19
Performing Core Common Equipment test commands

Step	Action
1	Select one of the following commands from the third Commands list: - 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 Enter appropriate **Command Parameters** wherever applicable.
- 3 Click **Submit**.

--End--

To execute miscellaneous commands using this Web page, follow the steps in [Procedure 20 "Performing Core Common Equipment miscellaneous commands"](#) (page 64).

Procedure 20
Performing Core Common Equipment miscellaneous commands

Step	Action
1	Select one of the following commands from the fourth Commands 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 alarm for all customers - f CUTOVR - Transfer call processing from active to standby cores - g JOIN - Synchronize the memory and drives
2	Click Submit .

--End--

To execute status health commands using this Web page, follow the steps in [Procedure 21 "Performing Core Common Equipment status health commands"](#) (page 64).

Procedure 21
Performing Core Common Equipment status health commands

Step	Action
1	Select one of the following commands from the fifth Commands 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 22
Performing Core Common Equipment Geographic Redundancy commands

Step	Action
1	Select one of the following commands from the sixth Commands list: - a STAT GR - Status of Geographic Redundancy - b TEST GR - Test Geographic Redundancy - c CLR GR - Clear operation for the secondary CS
2	Enter appropriate Command Parameters wherever applicable.
3	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 20 "Core Input/Output Diagnostics Web page" \(page 66\)](#).

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 20
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) ☐ 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 23 "Performing Core Input/Output diagnostic commands" \(page 66\)](#).

Procedure 23 Performing Core Input/Output diagnostic commands

Step	Action
1	Use the first Commands list to perform the following diagnostic activities: - a STAT - Status of both IOPs and CMDUs and ethernet link - b STAT RDUN - Status of both disks - c STAT FMD - Status of active Fixed Media Devices - d STAT RMD - Status of active Removable Media Devices
2	Click Submit .
3	Use the second Commands list to perform the following diagnostic activities: a DATA RDUN - Sector level check on both hard disks

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

--End--

Network and Conference Circuit Diagnostic

Click the **Conference Circuit** link in the list of **Maintenance** diagnostic tools to open the **Conference Circuit** Web page as shown in the following figure.

Figure 21
Network and Conference Circuit Diagnostic Web page

Managing: [47.11.73.131](#) Username: admin2
System » [Maintenance](#) » Network & Conference Circuit Diagnostic

Network & Conference Circuit Diagnostic

Diagnostic Commands	Command Parameters	Action
- ---- Loop Commands ----		Submit

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

Step	Action
1	Use the Diagnostic Commands list to perform the following commands: a ENLL - Enable Conference Loops b DISL - Disable Conference Loops

- c STAT - Status of Conference Loops
- 2 Add a value in the **Command Parameters** field.
- 3 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 22 "D-channel Diagnostics Web page"](#) (page 68).

Figure 22
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)	☐ ALL	Submit
Enable Automatic Recovery (ENL AUTO)	☐ FDL	Submit
Test Interrupt Generation (TEST 100)		Submit
Establish D-Channel (EST DCH)		Submit

☐ ALL ☐ FDL

DCH|DES|APPL_STATUS|LINK_STATUS|AUTO_RECV|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 24 “Performing D-channel status commands” \(page 69\)](#).

Procedure 24
Performing D-channel status commands

Step	Action
1	Select one of the following commands from the first Commands list: - a 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 25 “Performing D-channel disable commands” \(page 69\)](#).

Procedure 25
Performing D-channel disable commands

Step	Action
1	Select one of the following commands from the second Commands 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 26 “Performing D-channel enable commands” \(page 70\)](#).

Procedure 26
Performing D-channel enable commands

Step	Action
1	Select one of the following commands from the third Commands 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 27 "Performing D-channel test commands" \(page 70\)](#).

Procedure 27
Performing D-channel test commands

Step	Action
1	Select one of the following commands from the fourth Commands list: - 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 28 "Performing D-channel commands" \(page 71\)](#).

Procedure 28
Performing D-channel commands

Step	Action
1	Select one of the following commands from the fifth Commands list: - 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 23 "Link: D-Channel Expansion Diagnostics Web page" \(page 72\)](#).

Figure 23
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)	Submit
DIS MSDL - Disable the given MSDL card	(none)	Submit
ENL MSDL - Enable the given MSDL card	(none)	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 29 "Performing D-channel Expansion MSDL diagnostic commands"](#) (page 72).

Procedure 29
Performing D-channel Expansion MSDL diagnostic commands

Step	Action
1	Select one of the following commands from the first Commands list: - a STAT MSDL - Status of MSDL card - b STAT MSDL full - Status MSDL card and available RAM - c SLFT MSDL - Self test on the given MSDL card - d RST 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 30 "Performing D-channel Expansion disable commands"](#) (page 73).

Procedure 30
Performing D-channel Expansion disable commands

Step	Action
1	Select one of the following commands from the second Commands list: - a DIS MSDL all - Disable the given MSDL card - b DIS MSDL ALL - Disable all ports and then the MSDL card - c DIS MSDL AUDM - Disable MSDL auditing for the MSDL card - d DIS 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 31 "Performing D-channel Expansion enable commands"](#) (page 73).

Procedure 31
Performing D-channel Expansion enable commands

Step	Action
1	Select one of the following commands from the third Commands 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 24 "Digital Trunk Interface and Primary Rate Interface: Digital Trunk Diagnostics Web page"](#) (page 74).

Figure 24
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) v	(loop#)	Submit
STAT - Get Status of the Channel v	(ch#)	Submit
LOVF - List Threshold Overflows for Route v	(cust# route#)	Submit
ATLP - Daily routine auto loop test v	(0 or 1)	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 list and parameter text box.

To perform maintenance activities on a Digital Trunk Card using this Web page, follow the steps in [Procedure 32 “Performing maintenance activities on a Digital Trunk Card” \(page 75\)](#).

Procedure 32

Performing maintenance activities on a Digital Trunk Card

Step	Action
1	Select one of the following commands from the first Commands drop-down list: - a STAT - Get Status of loop(s) - b DISL - Disable network and DTI/PRI cards of loop - c DISI - 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 RLBK - Close loop at carrier interface point for testing - m RMST - Perform remote loop back test on loop
2	Enter the Loop 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 33 “Performing maintenance activities on a Channel” \(page 75\)](#).

Procedure 33

Performing maintenance activities on a Channel

Step	Action
1	Select one of the following commands from the second Commands drop-down list: 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 Loop 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 34 "Performing maintenance activities on a Digital Trunk Route"](#) (page 76).

Procedure 34
Performing maintenance activities on a Digital Trunk Route

Step	Action
1	Select one of the following commands from the third Commands drop-down list: a LOVF - List Thresholds Overflows for the Route b CMIN - Clear minor alarm indication for customer
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 35 "Performing maintenance activities on a card"](#) (page 76).

Procedure 35
Performing maintenance activities on a card

Step	Action
1	Select one of the following commands from the fourth Commands drop-down list:

- a ATLP - Daily routine automatic card test
 - b 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 25 "Digital Trunk Diagnostics Web page" \(page 77\)](#).

Figure 25
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	((loop))	Submit
DIS DDCS - Disable DDCS number	(number)	Submit
ENL DDCS - Enable DDCS number	(number)	Submit
CDSP - Clear Display on active CPU	(none)	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 about a digital trunk using this Web page, follow the steps in [Procedure 36 “Performing status commands on a digital trunk” \(page 78\)](#).

Procedure 36
Performing status commands on a digital trunk

Step	Action
1	Select one of the following status commands from the first Commands drop-down list: - 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 37 “Performing disable commands on a digital trunk” \(page 78\)](#).

Procedure 37
Performing disable commands on a digital trunk

Step	Action
1	Select one of the following disable commands from the second Commands drop-down list: - 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 DDSCS - 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 38 "Performing enable commands on a digital trunk" \(page 79\)](#).

Procedure 38
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 39 "Performing miscellaneous commands on a digital trunk" \(page 80\)](#).

Procedure 39
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 - Clear minor alarm for all customers - c STRT - Start DDSL number
2	Enter the necessary parameters.
3	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 26 "Emergency Services Diagnostics Web page"](#) (page 80).

Figure 26
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 ----		Submit
- ---- Subnet Information Commands ----		Submit
- --- Dynamic Location Identification Commands ---		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 40 "Performing Emergency Response Location commands" \(page 81\)](#).

Procedure 40
Performing Emergency Response Location commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: - a PRT ERL - Print Emergency Response Location - b ENL ERL - Enable ERL - c 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 41 "Performing Subnet Information commands" \(page 81\)](#).

Procedure 41
Performing Subnet Information commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: - a PRT SUBNET - Print Subnet Location - b PRT SUBNET NTH - Print Subnet Locations Starting from Index # - c PRT SUBNET ERL - Print All Subnet Locations for ERL - d PRT SUBNET ECL - Print All Subnet Locations for ECL - e 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 42 "Performing Dynamic Location Identification commands"](#) (page 82).

Procedure 42
Performing Dynamic Location Identification commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: a PRT ELIN - Print Dynamic ELIN b STAT ELIN - Get Status of Dynamic ELIN c STAT ELIN ACTIVE - Get Status of active Dynamic ELIN
2	Enter the required parameters in the Command Parameters text box.
3	Click Submit .
--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 27 "Ethernet Diagnostics Web page"](#) (page 83).

Figure 27
Ethernet Diagnostics Web page

Status Commands [-- Filters]	Command Parameters
STAT LINK IP - Link status -- IP	Submit
STAT SERV - Server status	Submit
STIP TN - IP Status -- TN	Submit
PRT IPDN - Print DNS with a given IP address	Submit
ECNT FW - Etherset Count -- FWID MajorVer MinorVer Filter	Submit
RST ZONE - Reset IP Phone -- Zone START/STOP HH:MM	Submit
STAT IPMG - Print status of the given or all IPMGs	Submit
STAT RFC2833 - RFC2833 Status -- TN	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 43 "Performing Link status commands" \(page 83\)](#).

Procedure 43
Performing Link status commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: - STAT LINK IP - Link Status -- IP - STAT LINK SRV - Link Status -- Server - STAT LINK NAME - Link Status -- Host Name - STAT 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 44](#) "Performing server status commands" (page 84).

Procedure 44
Performing server status commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: - a STAT SERV - Server Status - b STAT SERV IP - Server Status --IP - c STAT SERV TYPE - Server Status -- Type - d STAT SERV APP - Server Status -- Application - e STAT SERV NAME - Server Status -- Name - f STAT 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 45](#) "Performing IP status commands" (page 84).

Procedure 45
Performing IP status commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: - 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 46 “Performing print commands” \(page 85\)](#).

Procedure 46
Performing print commands

Step	Action
1	Select one of the following commands from the fourth Commands drop-down list: - 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 47 “Performing Etherset Count commands” \(page 85\)](#).

Procedure 47
Performing Etherset Count commands

Step	Action
1	Select one of the following commands from the fifth Commands drop-down list: 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 48 "Performing Reset IP Phone commands" \(page 86\)](#).

Procedure 48
Performing Reset IP Phone commands

- | Step | Action |
|----------|---|
| 1 | Select one of the following commands from the sixth Commands drop-down list: <ul style="list-style-type: none">a RST ZONE - Reset IP Phone -- Zone START/STOP HH:MMb 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 49 "Performing IPMG commands" \(page 86\)](#).

Procedure 49
Performing IPMG commands

- | Step | Action |
|----------|--|
| 1 | Select one of the following commands from the seventh Commands drop-down list: <ul style="list-style-type: none">a STAT IPMG - Print status of the given or all IPMGsb 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 50 "Performing RFC2833 commands" \(page 87\)](#).

Procedure 50
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 **Maintenancediagnostic** tools to open the **Ethernet Quality of Service Diagnostics** Web page as shown in [Figure 28 "Ethernet Quality of Service Diagnostics Web page" \(page 88\)](#).

Figure 28
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: Print QoS Attribute for Zone (PRT AQOS) Zone Number: Attribute: Submit

Action: Change Zone Notification Level (CHG ZQNL) Zone Number: Level: Submit

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

Cancel

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 51 "Performing maintenance activities for Zone Attributes"](#) (page 88).

Procedure 51 **Performing maintenance activities for Zone Attributes**

Step	Action
1	Select one of the following commands from the Action drop-down list: - 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 52 "Performing maintenance activities for Zone Levels"](#) (page 89).

Procedure 52
Performing maintenance activities for Zone Levels

Step	Action
1	Select one of the following commands from the Action drop-down list: - 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 29 "Input/Output Diagnostics Web page"](#) (page 90).

Figure 29
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 ----		Submit
- ---- Printer Commands ----		Submit
- ---- MSDL Commands ----		Submit
- ---- Miscellaneous Commands ----		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 53 "Performing Input/Output TTY commands" \(page 90\)](#).

Procedure 53
Performing Input/Output TTY commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: a STAT TTY - Get status of TTY device(s) b ENL TTY - Enable TTY c 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 54](#) “Performing Input/Output Printer commands” (page 91).

Procedure 54
Performing Input/Output Printer commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: - 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 55](#) “Performing Input/Output MDSL commands” (page 91).

Procedure 55
Performing Input/Output MDSL commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: - a STAT MDSL - Get status of MDSL card(s) - b ENL MDSL - Enable MDSL device - c DIS MDSL - Disable MDSL device - d SLFT MDSL - Self test MDSL device - e RST MDSL - Reset MDSL 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: - a STAT - Get status of all I/O devices in system - b STAT XSM - Get status of the system monitor - c STAT LINK - Get status of CDR data Link(s) - d CMIN - Clear minor alarm for all customers - e 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 30 "Intergroup Switch and System Clock Generator Diagnostics Web page" \(page 93\)](#).

Figure 30
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	Ac
STAT FIJI - Status of FIJI in specified Grp, Side	(grp# side#)	Sub
DIS ALRM - Disable specified Alarm (or all) for FIJI	(grp# side# (alarm#))	Sub
ENL ALRM - Enable specified Alarm (or all) for FIJI	(grp# side# (alarm#))	Sub
TEST 360 - Perform 360 test on FIJI card	(grp# side# (time#))	Sub
CDSP - Clear Maintenance Display on active CPU	(none)	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 56 "Performing Intergroup status commands"](#) (page 93).

Procedure 56 **Performing Intergroup status commands**

Step	Action
1	Select one of the following commands from the first Commands drop-down list: 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 57](#) "Performing Intergroup disable commands" (page 94).

Procedure 57
Performing Intergroup disable commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: - 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 58](#) "Performing Intergroup enable commands" (page 94).

Procedure 58
Performing Intergroup enable commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: - 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 59 "Performing Intergroup test commands" \(page 95\)](#).

Procedure 59
Performing Intergroup test commands

Step	Action
1	Select one of the following commands from the fourth Commands drop-down list: - 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 60 "Performing Intergroup miscellaneous commands" \(page 95\)](#).

Procedure 60
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 for all customers

- c ARCV ON - Set auto-recovery operation for ring
 - d ARCV OFF - Reset auto-recovery operation for ring
 - e ALRD ON - Turn on alarm display for all FIJI cards
 - f ALRD OFF - Turn off alarm display for all FIJI cards
 - g RSET - Reset thresholds for switchover functionality
 - h RSTR - Restore Ring(s)
 - i SCLK - Switchover to the other SCG
 - j SLCK FRCE - Force clock to switch to other SCG
 - k SWRG - Switch Call Processing to specified ring
- 2 If SWRG is selected, enter appropriate **Command Parameter**.
- 3 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 31 "MSDL Diagnostics Web page" \(page 97\)](#).

Figure 31
MSDL Diagnostics Web page

Managing: **192.167.102.3**
 System > Maintenance > MSDL Diagnostics

MSDL Diagnostics

Diagnostic Commands	Command Parameters	Action
Disable MSDL Device (DIS) ▼	☐ FDL ☐ FULL ☐ ALL	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 61 "Performing MSDL diagnostic activities" \(page 98\)](#).

Procedure 61
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 MSDL devices, select the Full check box when the Get Status of MSDL Device command is selected.
4	Enter the required command parameters in the Command Parameters text box.
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 32 "Multifrequency Sender Diagnostics Web page" \(page 99\)](#).

Figure 32
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 ----		Submit
----- Card Commands ----		Submit
----- Alarm Commands ----		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 62 “Performing Multifrequency Sender loop commands”](#) (page 99).

Procedure 62 **Performing Multifrequency Sender loop commands**

Step	Action
1	Select one of the following commands from the first Commands drop-down list: a STAT - Get Status 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 63 “Performing Multifrequency Sender card commands” \(page 100\)](#).

Procedure 63
Performing Multifrequency Sender card commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: - 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 64 “Performing Multifrequency Sender alarm commands” \(page 100\)](#).

Procedure 64
Performing Multifrequency Sender alarm commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: - a CMAJ - Clear major alarm and reset power fail - b CDSP - Clear Maint display on active CPU - c CMIN - Clear minor alarm for all customers
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 33 "Multifrequency Signaling Diagnostics Web page"](#) (page 101).

Figure 33
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 ----		Submit
- ---- Unit Commands ----		Submit
- ---- Miscellaneous Commands ----		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 65 "Performing Multifrequency Signaling card commands"](#) (page 101).

Procedure 65 Performing Multifrequency Signaling card commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: 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 66 “Performing Multifrequency Signaling unit commands”](#) (page 102).

Procedure 66
Performing Multifrequency Signaling unit commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: 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 67 “Performing Multifrequency Signaling miscellaneous commands”](#) (page 102).

Procedure 67
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 - 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 34 "Network and Peripheral Diagnostics Web page"](#) (page 103).

Figure 34
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 ----		Submit
- ---- Shelf Commands ----		Submit
- ---- Card Commands ----		Submit
- ---- Unit Commands ----		Submit
- ---- M39XX Unit Commands ----		Submit
- ---- DSL Commands ----		Submit
- ---- Application Commands ----		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 the shelf
 - ENLS - Enable specified shelf
 - 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 peripheral card
 - IDC - Print card ID for PE card
 - 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
 - FDLC - 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
 - EISU - Enable specified DSL
 - 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 68 "Performing Network and Peripheral maintenance activities"](#) (page 107).

Procedure 68 **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 35 "Network and Signaling Diagnostics Web page"](#) (page 108).

Figure 35
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 ----		Submit
- ---- Shelf/Card/Unit Commands ----		Submit
- ---- BRI Commands ----		Submit
- ---- Superloop Commands ----		Submit
- ---- Alarm Commands ----		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
 - 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 for all customers

To perform diagnostic activities using this Web page, follow the steps in [Procedure 69 "Performing Network and Signaling diagnostic activities"](#) (page 110).

Procedure 69
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 1000MSmall 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 36 "TMDI Diagnostics Web page" \(page 110\)](#).

Figure 36
TMDI Diagnostics Web page

Managing: 207.179.153.99
 System > Maintenance > TMDI Diagnostics

TMDI Diagnostics

Diagnostic Commands	Command Parameters	Action
Enable TMDI Card (ENL) ▼	☐ FDL ☐ FULL ☐ ALL	Submit

TMDI STATUS

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

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 70 "Performing TMDI diagnostic activities" \(page 111\)](#).

Procedure 70
Performing TMDI diagnostic activities

Step	Action
1	Select one of the following Actions from the Commands drop-down list: - 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	Select one of the following Command Parameters : - a FDL - b FULL - c ALL
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 37 "Tone and Digit Switch and Digitone Receiver Diagnostics Web page" \(page 112\)](#).

Figure 37
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 -----		Submit
----- Card and Unit Commands -----		Submit
----- Miscellaneous Commands -----		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 71 "Performing Tone and Digit diagnostic activities" \(page 112\)](#).

Procedure 71 **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 ANI Multifrequency Card/Unit
 - 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 all customers
 - 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 38](#) "Trunk Diagnostics Web page" (page 114).

Figure 38
Trunk Diagnostics Web page

Managing: **192.167.102.3**
 System > Maintenance > Trunk Diagnostics

Trunk Diagnostics

Diagnostic Commands	Command Parameters	Action
- ---- Card Commands ----		Submit
- ---- Unit Commands ----		Submit
- ---- Customer Route Commands ----		Submit
- ---- Miscellaneous Commands ----		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 72 "Performing Trunk card commands" \(page 114\)](#).

Procedure 72 **Performing Trunk card commands**

Step	Action
1	Select one of the following commands from the first Commands drop-down list: a STAT - Get card status b ENLC - Enable and reset card c 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 73 “Performing Trunk unit commands”](#) (page 115).

Procedure 73
Performing Trunk unit commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: - a ENLU - Enable unit - b LDIC - Number of days since last inc. call - c DISU - Disable unit - d RSET - Reset thresholds for the trunk - e 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 74 “Performing Trunk customer route commands”](#) (page 115).

Procedure 74
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 75 "Performing Trunk miscellaneous commands" \(page 116\)](#).

Procedure 75
Performing Trunk miscellaneous commands

Step	Action
1	Select one of the following commands from the fourth Commands drop-down list: - a CMIN - Clear minor alarm for all customers - b 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 39 "Maintenance Commands for Zones Web page" \(page 117\)](#).

Figure 39
Maintenance Commands for Zones Web page

Managing: **192.167.102.3**
System » [Maintenance](#) » Maintenance Commands for Zones

Maintenance Commands for Zones

Action

Zone Number

Zone Number	State	Resource Type	Intrazone Strategy	Zone Intent	Bandwidth(Kbps)	Usage(Kbps)	Peak(%)
0	ENABLED	SHARED	BQ	MO	1000000	0	0
1	ENABLED	SHARED	BQ	MO	1000000	0	0
2	ENABLED	SHARED	BQ	VTRK	1000000	0	0
3	ENABLED	SHARED	BQ	MO	1000000	0	0

Number of Zones configured = 4

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 76 "Performing Zone maintenance activities" \(page 117\)](#).

Procedure 76 **Performing Zone maintenance activities**

Step	Action
1	Select one of the following commands from the Actions drop-down list: 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 Select the **Zone Number** assigned to a configured zone from the drop-down list.
 - 3 Click **Submit**.

--End--

Loops

To configure or edit Loops (Common Equipment) information, click the **Core Equipment > Loops** link of the **System** branch of the Element Manager navigator. The **Common Equipment** Web page appears (see [Figure 40 "Loops Web page" \(page 119\)](#)).

Figure 40
Loops Web page

CS 1000 ELEMENT MANAGER Help | Logout

Managing: 192.168.55.152 Username: admin2
System » Core Equipment » Loops

Loops

--Select a loop--

	Loop Number *	Loop Type	Current status
1	☐ 000	Extended Conference	Disabled
2	☐ 016	Extended Conference	Disabled
3	☐ 100	MG Conference	Disabled
4	☐ 104	DPNSS Channel Switch	Enabled

System Response

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

- Add
- Delete
- Enable
- Disable
- Status

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

To check the status of a loop, select a loop and click on **Status** button. The loop status is displayed below in the system response pane.

Figure 43
IP TDS Loop Number Details

Enter IP TDS loop number, Node Id and then click **Save**.

Superloops

To view, configure or edit Superloop information, click the Core Equipment > Superloop link of the System branch of the Element Manager navigator. The **Superloops** Web page appears as shown in [Figure 44 "Superloops Web page"](#) (page 121).

Figure 44
Superloops Web page

Superloop Number	Superloop Type
1	IPMG

To view, configure, or edit a Superloop click on the corresponding Superloop Number. The **Superloops Details** Web page appears as shown in [Figure 45 "Superloop Details Web page"](#) (page 122)

Figure 45
Superloop Details Web page

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

To save changes made in the **Superloop Details** Web page, click Save at the bottom.

To add a Superloop, click the Add button on the **Superloops** Web page. The **Add Superloop** Web page appears, as shown in [Figure 46 "Add Superloop Web page" \(page 122\)](#).

Figure 46
Add Superloop Web page

Select the Superloop type from the drop-down list. For IPMG superloop type, the Add Superloop web page appears as shown in the following figure.

Figure 47
Add IPMG Superloop

CS 1000 ELEMENT MANAGER Help | Logout

Managing: 192.168.55.152 Username: admin2
System » Core Equipment » Superloops » Add Superloop

Add Superloop

Superloop: 16
Superloop type: IPMG

Shelf 0

Bandwidth zone number: (0 - 255)

ELAN IP address:

IPMG type: MGC

ELAN passthrough port: CE

Faceplate ELAN port: 1E

Backplane ELAN connection: 1ELAN

TLAN passthrough port: CT

Faceplate TLAN port: 2T

Backplane TLAN connection: 2TLAN

Shelf 1

Bandwidth zone number: (0 - 255)

ELAN IP address:

IPMG type: MGC

ELAN passthrough port: CE

Faceplate ELAN port: 1E

Backplane ELAN connection: 1ELAN

TLAN passthrough port: CT

Faceplate TLAN port: 2T

Backplane TLAN connection: 2TLAN

* Required value.

Save Cancel

Fill in the appropriate information and click Save to add the new Superloop.

MSDL/MSIP Cards

The Multipurpose Serial Data Link / Multi-Purpose ISDN Signaling Processor (MSDL/MSIP) Cards navigation link appears the **Fast Download Control Web** page, as shown in [Figure 48 "Fast Download Control Web page"](#) (page 123).

Figure 48
Fast Download Control Web page

Managing: 192.167.100.3
System » Core Equipment » Fast Download Control

Fast Download Control

Edit All Refresh

	Card Type	Download Type
1	Application Module Link	Conditional
2	Basic Rate Interface Trunk	Conditional
3	Basic Rate Signaling Concentrator	Conditional
4	Basic Rate Signaling Concentrator Application	Conditional
5	BRI Line Cards	Conditional
6	BRI Trunk Universal ISDN Protocol Engine	Conditional
7	D-Channel Cards	Conditional
8	DTI Application Loadware	Conditional
9	Meridian Packet Handler	Conditional
10	Multipurpose ISDN Signaling Link Cards	Conditional
11	Multipurpose Serial Data Link Cards	Conditional
12	Primary Rate Interface Universal ISDN Protocol Engine	Conditional
13	Serial Data Interface Cards	Conditional
14	T1E1 Application Loadware	Conditional

The **Fast Download Control** Web page appears only for large systems. The page displays the table with the card type and the download type. The download type for any card can be changed.

To configure download type for a single card, follow the steps in [Procedure 77 "Editing Fast Download Control \(single card\)" \(page 124\)](#).

Procedure 77
Editing Fast Download Control (single card)

Step	Action
1	From the Fast Download Control Web page, click on the card you want to edit. The Edit Web page for the selected card appears.
2	Choose the Download type from the drop-down menu list.
3	Click Save or click Cancel to return to the Fast Download Control Web page.
--End--	

To configure download type for all cards, follow the steps in [Procedure 78 "Editing Fast Download Control all cards" \(page 124\)](#).

Procedure 78
Editing Fast Download Control all cards

Step	Action
1	From the Fast Download Control Web page, click Edit All to edit all the cards in the list. The Edit All Web page appears.
2	Choose the Download type from the drop-down menu list.
3	Click Save or click Cancel to return to the Fast Download Control Web page.
--End--	

Conference/TDS/Multifrequency Cards

Click on the **Conference/TDS/Multifrequency Cards** link of the Element Manager Navigator to open the **Conference/TDS/Multifrequency Cards** Web page, as shown in [Figure 49 "Conference/TDS/Multifrequency Cards Web page" \(page 125\)](#).

Figure 49
Conference/TDS/Multifrequency Cards Web page

Select a **Conference Pad** from the list, enter a **Dual Tone Multifrequency** value and click **Save** or click **Cancel** to return to the **System Overview** 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 appears, as shown in [Figure 50 "Tone Senders and Detectors Web page"](#) (page 125).

Figure 50
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 appears, as shown in [Figure 51 "Digitone Receivers Web page"](#) (page 126).

Figure 51
Digitone Receivers Web page

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

To delete a Digitone Receiver, select the radio button beside the Terminal Number and click **Delete**.

The following procedure lists the steps to add a Digitone Receiver.

Procedure 79
Adding a Digitone Receiver

Step	Action
1	Click the Add button in the Digitone Receivers Web page. The New Digitone Receiver Web page appears.

Figure 52
New Digitone Receiver Web page

- 2 Type the terminal number of the Digitone Receiver to be added, in the **Terminal number** field.

- 3 Select the required value from the list in the **Number of digitone receivers** field.

This value determines the number of Digitone Receivers to be added. You can specify a maximum value of 8. The default value is **1**.

- 4 Click **Save**.

The Digitone Receivers Web page appears and the new set of Digitone Receivers are displayed in the list.

--End--

To move a Digitone Receiver card from one terminal to another, from the Digitone Receivers Web page, select the radio button beside the Terminal Number and click **Move**. The Move Digitone Receiver Web page appears, as shown in [Figure 53 "Move Digitone Receiver Web page" \(page 127\)](#).

Figure 53
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**.

To delete a Digitone Receiver, select the radio button beside the Terminal Number and click **Delete**.

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 appears, as shown in [Figure 54 "Multi Frequency Receivers Web page" \(page 128\)](#).

Figure 54
Multi Frequency Receivers Web page

Managing: **172.16.100.30** Username: admin
 System > Core Equipment > [Tone Senders and Detectors](#) > Multi Frequency Receivers

Multi Frequency Receivers

Maintenance Commands

[Refresh](#)

Terminal Number ▲	Last Modified Date
1 ☐ 008 0 00 01	8 JUN 2010

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

To delete a Multi Frequency Receiver, select the radio button beside the Terminal Number and click **Delete**.

The following procedure lists the steps to add a Multi Frequency Receiver.

Procedure 80 Adding a Multi Frequency Receiver

Step	Action
1	Click Add button in the Multi Frequency Receivers Web page. The New Multi Frequency Receiver Web page appears.

Managing: **192.168.55.143** Username: admin2
 System > Core Equipment > [Tone Senders and Detectors](#) > [Multi Frequency Receivers](#) > Add

New Multi Frequency Receiver

Terminal number: *

Number of multifrequency receivers: ▼

- 2 Enter the terminal number, of the Multi Frequency Receiver to be added, in the **Terminal number** field.
- 3 Select the required value from the drop-down list in the **Number of multifrequency receivers** field.

This value determines the number of Multi Frequency Receivers to be added. You can specify a maximum value of 4. The default value is **1**.

4 Click **Save**.

The **Multi Frequency Receivers** Web page appears and the new set of Multi Frequency Receivers are displayed on the list.

--End--

To move a Multi Frequency Receiver card from one terminal to another, from the Multi Frequency Receivers Web page, select the radio button beside the Terminal Number and click **Move**. The Move Multi Frequency Receiver Web page appears, as shown in [Figure 55 "Move Multi Frequency Web page" \(page 129\)](#).

Figure 55
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**.

Delete Multiple Multi Frequency Receivers

To delete Multi Frequency Receivers click **Multi-Delete**. The Delete Multiple Multi Frequency Receivers Web page appears as shown in the following figure.

Figure 56
Delete Multiple Multi Frequency Receivers Web page

Managing: **172.16.100.30** Username: admin
System » Core Equipment » [Tone Senders and Detectors](#) » [Multi Frequency Receivers](#) » Delete

Delete Multiple Multi Frequency Receivers

Terminal number: *

Number of multifrequency receivers:

Terminal number on the same card will be deleted.

* Required value.

Procedure 81
Deleting Multiple Multi Frequency Receivers

Step	Action
1	Enter the Terminal number of the Multi Frequency Receivers.
2	Select the number of multifrequency receivers to delete.
3	Click Delete .
--End--	

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 appears, as shown in [Figure 57 "Class Modem Units Web page"](#) (page 130).

Figure 57
Class Modem Units Web page

Managing: **172.16.100.30** Username: admin
System » Core Equipment » [Tone Senders and Detectors](#) » Class Modem Unit

Class Modem Unit

Maintenance Commands

Terminal Number ▲	Last Modified Date
1 ☐ 008 0 00 01	8 JUN 2010

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

To delete a Class Modem Unit, select the radio button beside the Terminal Number and click **Delete**.

The following procedure lists the steps to add a Class Modem Unit.

Procedure 82
Adding a Class Modem Unit

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

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

The New Class Modem Unit Web page appears.

2	Enter the terminal number of the Class Modem Unit to be added in the Terminal number field.
---	--

3	Select the required value from the drop-down list in the Number of class modem units field.
---	--

This value determines the number of Class Modem Units to be added. You can specify a maximum value of 32. The default value is **1**.

4	Click Save .
---	---------------------

The **Class Modem Unit** Web page appears and the new set of Class Modem Units are displayed on the list.

--End--

To move a Class Modem Unit card from one terminal to another, from the Class Modem Unit Web page, select the radio beside the Terminal Number to move and click **Move**. The Move Class Modem Units Web page appears, as shown in [Figure 58 "Move Class Modem Units Web page" \(page 132\)](#).

Figure 58
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**.

Delete Multiple Class Modem Units

To delete Multiple Class Modem Units click **Multi-Delete**. The Delete Multiple Class Modem Units Web page appears as shown in the following figure.

Figure 59
Delete Multiple Class Modem Units Web page

Managing: [172.16.100.30](#) Username: admin
 System » Core Equipment » [Tone Senders and Detectors](#) » [Class Modem Units](#) » Delete

Delete Multiple Class Modem

Terminal number: *
 Number of Class Modem Units:

Terminal number on the same card will be deleted.

* Required value.

Procedure 83

Deleting Multiple Class Modem Units

Step	Action
1	Enter the Terminal number of the Class Modem.
2	Select the number of Class Modem Units to delete.
3	Click Delete .
--End--	

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 appears, as shown in [Figure 60 "Extended Dial Tone Detectors Web page" \(page 133\)](#).

Figure 60
Extended Dial Tone Detectors Web page

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

Extended Dial Tone Detectors

Maintenance Commands

[Add...](#) [Move...](#) [Delete](#) [Refresh](#)

	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 delete an Extended Dial Tone Detector, select the radio button beside the Terminal Number and click **Delete**.

To add an Extended Dial Tone Detector, click **Add**. The **Add Extended Dial Tone Detector** Web page appears, as shown in [Figure 61 "Add Extended Dial Tone Detector Web page" \(page 133\)](#).

Figure 61
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: ☐

[Save](#) [Cancel](#)

Procedure 84 Adding an Extended Dial Tone Detector

Step	Action
1	Enter the Terminal Number of the Extended Dial Tone Detector.
2	Select the Extended Tone Detector Table from the drop-down list.
3	Check the box beside Dial Tone Detection , if required.
4	Click Save .
--End--	

To move an Extended Dial Tone Detector card from one terminal to another, from the **Extended Dial Tone Detectors** Web page, select the radio button beside the Terminal Number to move and click **Move**. The **Move Extended Dial Tone Detectors** Web page appears, as shown in [Figure 62 "Move Extended Dial Tone Detectors Web page" \(page 134\)](#).

Figure 62
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**.

Peripheral Equipment

The **Peripheral Equipment** Web page displays parameters such as Timers, Multi-Frequency levels, Make-Break ratio.

To view, configure, or edit Peripheral Equipment click the Peripheral Equipment link of the System branch of the Element Manager navigator. The **Peripheral Equipment** Web page appears as shown in [Figure 63 "Peripheral Equipment Web page" \(page 135\)](#).

Figure 63
Peripheral Equipment Web page

Managing: **172.16.100.2**
 System » Peripheral Equipment

Peripheral Equipment

Companding law: ☐ A Law
☒ Mu Law

Quiet Code: 0

Allowable Continuity Faults: * (1 - 32767 per time slice)

Cyclic Redundancy Check Failures: * (1 - 32767 per input cable)

Timers

Minimum Switchhook Flash: * (20 - 768 ms)

Maximum Switchhook Flash: * (120 - 1275 ms)

Off Hook Validation: * (0 - 1275 ms)

Dial Pulse: * (15 - 120 ms)

Interdigit: * (0 - 1275 ms)

Dial Pulse On: * (15 - 1275 ms)

Post Flash: * (0 - 1275 ms)

Multi Frequency

Minimum Receiver Level:

Transmit Level Code for Identifier 0:

Transmit Level Code for Identifier 1:

Make-Break Ratio

10 Pulse: (pulse per second)

12 Pulse: (pulse per second)

20 Pulse: (pulse per second)

[Fast Download Control](#)

To configure or edit the Peripheral Equipment, enter the appropriate values and click **Save**. If you enter invalid values, the system displays an error message and the original values are retained. A link for Fast Download Control is provided.

IP Network

Contents

This section contains information about the following topics:

- [“Introduction” \(page 137\)](#)
- [“IP Network” \(page 137\)](#)
 - [“IP Telephony Nodes” \(page 137\)](#)
 - [“Media Gateways” \(page 164\)](#)
 - [“32 Channel Secure Media Card \(MC32S\) commands” \(page 178\)](#)
 - [“Zones” \(page 180\)](#)
 - [“Network Address Translation \(NAT\)” \(page 192\)](#)
 - [“Quality of Service Thresholds \(QoS\)” \(page 193\)](#)
 - [“Personal Directories” \(page 196\)](#)
 - [“Unicode Name Directory” \(page 199\)](#)
- [“Interfaces” \(page 199\)](#)
- [“Engineered Values” \(page 204\)](#)
- [“Emergency Services” \(page 208\)](#)
- [“Geographic Redundancy” \(page 220\)](#)
- [“Software” \(page 222\)](#)

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

IP Telephony Nodes

The Node management in Communication Server 1000 Release 7.0 introduces a new work flow on the User Interface (UI) with Add and Modify functions of the Node. This introduces the Cluster concept, where

a Cluster represents a group of physical servers that shares the same configuration properties. The same set of services are configured and enabled on all physical servers within a Cluster.

The Nodes also provide scalability (by deploying multiple Nodes) and optionally Load sharing (by distributing processing to other Node members).

Each Node belongs to a Call Server and has a one-to-many relationship with Call Server. The IP Nodes resides on two LAN subnets: ELAN and TLAN.

The Node must have minimum one signalling server as a Node element in order for that Node to be operational. The administrator can add as many servers to be part of the Node and all the Node elements will have the same set of application services enabled. However, only one physical server can be active at a time. This active server can run all the configured services on that physical server, for example, UNISim LTPS, SIPGw, and H323Gw can all be configured and enabled on the same server. The LTPS application is one exception where several servers can run active instances of LTPS service. The LTPS application does support load sharing.

The SIP Line application in CS 1000 Release 7.0 cannot co-reside with LTPS or any other virtual trunk applications like SIPGw or H323Gw. The Node management interface does not allow the user to configure SIP Line service any other application services.

The gateway application services operate on a service IP address configured to be on the TLAN of the network and this IP address floats between active and standby servers. The standby server takes over this IP address when the active instance goes down. The active and standby roles are dynamically assigned through a service specific election process that runs on the servers.

In CS 1000 Release 7.0, the Centralized Deployment Manager (CDM), deploys software applications from Unified Communication Management (UCM).

The Node management interface adds servers in to a Node from the list of servers that UCM has learned. Before you add the servers to a Node, it is required that the CDM feature deploys the necessary software application to each of the Linux servers.

To view the **IP Telephony Nodes** Web page, select the Nodes: Servers, Media Cards link in the IP Network branch of the Element Manager navigator. The IP Telephony Node Web page appears as shown in, [Figure 64 "IP Telephony Nodes Web page" \(page 139\)](#).

Figure 64
IP Telephony Nodes Web page

Managing: 192.168.55.152 Username: admin2
System » IP Network » IP Telephony Nodes

IP Telephony Nodes

Click the Node ID to view or edit its properties.

Add... Import... Export... Delete Print Refresh

☐ Node ID ▲	Components	Enabled Applications	ELAN IP	Node/TLAN IPv4	Node/TLAN IPv6	Status
☐ 353	1	PD, Presence Publisher, IP Media Services	-	0.0.0.78		Changed
☐ 444	1	NONE	-	0.0.0.2		Changed

Show: ☒ Nodes ☐ Component servers and cards ☒ IPv6 address

The **IP Telephony Nodes** Web page appears showing the following information:

- Node ID — the ID number for each node
- Components — the number of components associated to each node
- Enabled Applications — the applications enabled to each node
- ELAN IP — the IP address for the ELAN
- Node/TLAN IPv4 — the TLAN IPv4 address of the Node or Servers and Cards
- Node/TLAN IPv6 — the TLAN IPv6 address of the Node or Servers and Cards

ATTENTION

When you select **Components servers and cards**, the servers and cards are displayed in rows along with the IPv4 and IPv6 addresses.

- Status — the status of the node

The **IP Telephony Nodes** Web page also contains buttons that link to additional Web pages:

- Add - add a new node
- Import - Import a node files
- Export - export a node file
- Delete - delete a node

To view Component Servers and Cards check the Component Servers and Cards box at the bottom of the **IP Telephony Nodes** Web page.

To view TLAN IPv6 address, check the IPv6 Address box at the bottom of the **IP Telephony Nodes** Web page.

Add a new IP Telephony Node

Click the Add button from the summary page to start the add work flow for creating a new Node to be part of the Call Server where Element Manager is hosted. The **New IP Telephony Node** Web page appears as shown in, [Figure 65 "New IP Telephony Node Web page" \(page 140\)](#).

For information about adding a new IP Telephony node refer to *Signaling Server IP Line Applications Fundamentals* (NN43001-125).

Figure 65
New IP Telephony Node Web page

Managing: 192.168.55.152 Username: admin2
System » IP Network » IP Telephony Nodes » New IP Telephony Node

New IP Telephony Node

Step 1: Define the new Node and its services.
You will also require pre-configured servers with appropriate application software already deployed to host the selected services.

Node ID: * (0-9999)	TLAN address type: ☒ IPv4 only ☐ IPv4 and IPv6
Call server IP address: 192.168.55.152 *	
Embedded LAN (ELAN)	Telephony LAN (TLAN)
Gateway IP address: 0.0.0.1 *	Node IPv4 address: 0.0.0.0 *
Subnet mask: 255.255.255.0 *	Subnet mask: 255.255.255.0 *
	Node IPv6 address:
Applications: ☐ SIP Line ☐ UNISIM Line Terminal Proxy Server (LTPS) ☐ Virtual Trunk Gateway (SIPGw, H323Gw) ☐ Personal Directory (PD) ☐ Presence Publisher ☐ IP Media Services	

* Required Value.

Next > Cancel

Figure 66
New IP Telephony Node Web page1

Managing: 192.168.55.152 Username: admin2
 System » IP Network » IP Telephony Nodes » Node Details » Virtual Trunk Gateway Configuration

Node ID: 353 - Virtual Trunk Gateway Configuration Details

General | SIP Gateway Settings | SIP Gateway Services

Vtrk gateway application: ☐ Enable gateway service on this node

General	Virtual Trunk Network Health Monitor
Vtrk gateway application: SIP Gateway (SIPGw) SIP domain name: * Local SIP port: 5060 * (1 - 65535) Gateway endpoint name: * Gateway password: * Application node ID: * (0-9999) Enable failsafe NRS: ☐ SIP ANAT: ☒ IPv4 ☐ IPv6	☐ Monitor IP addresses (listed below) Information will be captured for the IP addresses listed below. Monitor IP: Add Monitor addresses: Remove

* Required Value.

Note: Changes made on this page will NOT be transmitted until the Node is also saved.

Save Cancel

Figure 67
IP Telephony Node - SIP GW settings 1

Managing: 192.168.55.152 Username: admin2
System » IP Network » IP Telephony Nodes » Node Details » Virtual Trunk Gateway Configuration

Node ID: 353 - Virtual Trunk Gateway Configuration Details

General | SIP Gateway Settings | SIP Gateway Services

SIP Gateway Settings

TLS Security:

Port: (1 - 65535)

Number of byte re-negotiation:

Options: ☐ Client authentication
☐ X509 certificate authority

Proxy Or Redirect Server:

Proxy Server Route 1:

Primary TLAN IP address:
The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port: (1 - 65535)

Transport protocol:

Options: ☐ Support registration
☐ Primary CDS proxy

Secondary TLAN IP address:
The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port: (1 - 65535)

Transport protocol:

Options: ☐ Support registration
☐ Secondary CDS proxy

Tertiary IP address:

Port: (1 - 65535)

Transport protocol:

Options: ☐ Support registration
☐ Tertiary CDS proxy

* Required Value.

Note: Changes made on this page will NOT be transmitted until the Node is also saved.

Figure 68
IP Telephony Node - SIP GW settings 2

Managing: 192.168.55.152 Username: admin2
 System » IP Network » IP Telephony Nodes » Node Details » Virtual Trunk Gateway Configuration

Node ID: 353 - Virtual Trunk Gateway Configuration Details

General | SIP Gateway Settings | SIP Gateway Services

Proxy Server Route 2:

Primary TLAN IP address:
The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port: (1 - 65535)

Transport protocol:

Options: ☒ Registration Not Supported
☐ Primary CDS proxy

CLID Presentation:

Country code (CCC):
 Area code: NPA in North America

Number translation: Strip: Prefix: CLID display format:
 Subscriber (SN): <CCC><Area code><SN>
 National (NN): <CCC><NN>
 International: <International number>

* Required Value. Note: Changes made on this page will NOT be transmitted until the Node is also saved.

In the Proxy Server Route 2 block you can configure the following parameters.

- Primary TLAN IP Address
- Port
- Transport Protocol
- Options

You can configure both Proxy Server Routes 1 and 2 for SIP GW. The values from the config.ini file are read based on the preferred route value set in overlay 86 (PROU).

Enter the required values in the fields and click **Save**.

Import IP Telephony Nodes file

Use the import functionality to import a local configuration file from a local work station (XML format) or from a Linux signaling server.

In the case of configuration file imported from a local work station, you must enter the configuration parameters in the file in a standard template model. This template follows the same model as the existing config.ini file format. You can enter as much as information to a local file and then import, edit, and save, using the import UI page, on the Call Server just like any IP Telephony Node.

Click the Import button, the **IP Telephony Import** Web page appears as shown in, [Figure 69 "Import IP Telephony Nodes Web page" \(page 144\)](#). The options for the import operation are displayed in the **IP Telephony Import** Web page, the options are import from an XML file stored on local work station or import from a Leader server that is already part of a Node.

Figure 69
Import IP Telephony Nodes Web page

The selected XML file that is selected to import goes through two sets of validations before the file can be saved on to the system:

- An invalid XML file format is determined when you click the Preview button to preview the content, the UI will be displayed with a message indicating invalid XML file.
- If the file is valid, the next set of validations make sure that the content inside passes the filed and dependency validations. This validation is determined when you click the Save button to save the configuration to the Call Server.

When Node configuration files generated by TM application are to be imported by EM, you must remove the ^M (control M) characters from the Node files using procedure [Procedure 85 "Removing \(control M\) characters from Telephony Manager configuration files" \(page 145\)](#).

The Node configuration files generated by TM application are obtained from the same place inside the Call Server (`/u/db/node/`) as any of the EM application generated Node files.

Whether TM generated or EM generated, the Node configuration file names would be the same (nodexxxx.cfg and nodexxxx.btp) when stored on the Call Server.

During a Call Server upgrade, if the Node files that are being backed up actually come from TM application then you must remove the ^M characters from the files. Use the following procedure before they are loaded with an EM application.

Procedure 85

Removing (control M) characters from Telephony Manager configuration files

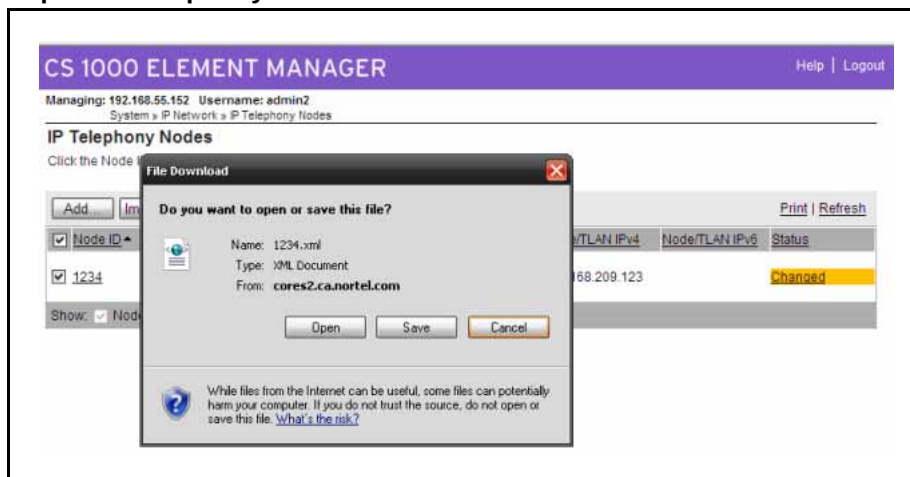
Step	Action
1	Use an FTP program to move the Node configuration files from the Call Server to any unix server, the files would have the naming as nodexxxx.cfg and nodexxxx.btp where the xxxx is the node id number.
2	You can edit these config files to see if they have ^M characters present inside
3	If ^M characters are present, run the dos2unix command on each of the files. The dos2unix command can be found on any unix server under /usr/bin/ folder .
4	The syntax of the command would be as follows: • dos2unix <old file name> <new file name> Keep the output file name the same as the input file name, you can check the time stamp and/or edit the file to verify if ^M characters have been removed. • Do this for both the xxxx.cfg and the xxxx .btp files. For example for node3434.cfg (config file) and node3434.btp (bootp file) the syntax would be: — dos2unix node3434.cfg node3434.cfg — dos2unix node3434.btp node3434.btp
5	Edit the config and bootp files to check if the ^M chars have been removed.
6	Use an FTP program to move the the files back to the Call Server under /u/db/node/ folder
7	Launch EM and open up the IP Node Telephony page, the Node summary page is displayed correctly.
--End--	

Export IP Telephony Node file

You can export a previously configured IP Telephony Node to an XML file format and save it to a local desktop. The Export function is limited to one selected Node at a time. If you select more than one node, the Export button remains disabled.

To export a IP Telephony Node to an XML file select a Node on the **IP Telephony Nodes** Web page and click Export. The export saves the configuration files in an XML format file as shown in [Figure 70 "Export IP Telephony Node file"](#) (page 146).

Figure 70
Export IP Telephony Node file



Delete an IP Telephony Node

To delete an IP Telephony Node select, the Node and click the **Delete** button. A confirmation window appears.

Node Details

Click the Node ID listed on the IP Telephony Node page to view or edit the properties of that node. The **Node Details** Web page for the Node selected appears as shown in, [Figure 71 "Node Details Web page"](#) (page 147).

Figure 71
Node Details Web page

System » IP Network » IP Telephony Nodes » Node Details

Node Details (ID: 1000 - LTPS)

Node ID: * (0-9999)

Call server IP address: *

Embedded LAN (ELAN)
Gateway IP address: *
Subnet mask: *

Telephony LAN (TLAN)
Node IPv4 address: *
Subnet mask: *
Node IPv6 address:

IP Telephony Node Properties

- [Voice Gateway \(VGW\) and Codecs](#)
- [Quality of Service \(QoS\)](#)
- [LAN](#)
- [SNTP](#)
- [Numbering Zones](#)
- [MCDN Alternative Routing Treatment \(MALT\) Causes](#)

Applications (click to edit configuration)

- [SIP Line](#)
- [Terminal Proxy Server \(TPS\)](#)
- [Gateway](#)
- [Personal Directories \(PD\)](#)
- [Presence Publisher](#)
- [IP Media Services](#)

* Required Value.

Associated Signaling Servers & Cards

Select to add

☐ Hostname	Type	Deployed Applications	ELAN IP	TLAN IPv4	Role
☐ otm-ibm18	Signaling_Server	LTPS, Gateway, PD, Presence Publisher, IP Media Services	47.11.48.253	47.11.49.211	Leader

Show: ☐ IPv6 address

Note: Only server(s) that are not part of any other IP telephony node and deployed application(s) that match the service(s) selected for this node are available in the servers list.

The **Node Details** Web page is organized to list the IP Telephony Node Properties on the left side of the page and the Applications on the right side of the page. Click on the IP Telephony Node or the Application you want to configure. For example clicking the **Voice Gateway (VGW) and Codecs** link displays the **Voice Gateway (VGW) and Codecs** Web page as shown in, [Figure 72 "Voice Gateway \(VGW\) and Codecs Web page"](#) (page 148).

Figure 72
Voice Gateway (VGW) and Codecs Web page

Managing: 192.168.55.152 Username: admin2
 System » IP Network » IP Telephony Nodes

Node ID: 9992 - Voice Gateway (VGW) and Codecs

General | Voice Codecs | Fax

General

Echo Cancellation: ☒ Use canceller, with tail delay: 128
☒ Dynamic attenuation

Voice Activity Detection Threshold: -17 (-20 - +10 DBM)

Idle Noise Level: -65 (-327 - +327 DBM)

Signaling Options: ☒ DTMF Tone Detection
☐ Low latency mode
☒ Remove DTMF delay (squelch DTMF from TDM to IP)
☒ Modem/Fax pass-through
☒ V.21 Fax Tone Detection
☐ R factor calculation

Voice Codecs

Codec G711: ☒ Enabled (required)

Voice payload size: 20 (milliseconds per frame)

Voice Playout (jitter buffer) delay: 40 80 (milliseconds)

Note: Changes made on this page will NOT be

Click **Save** or **Cancel** to return to the **Node Details** Web page. When you save the parameters configured for the **Voice Gateway (VGW) and Codecs** only the codec parameters are saved, you must click **Save** on the **Node Details** Web page to save the changes to the IP Telephony Node.

You can configure the following IP Telephony Node Properties by clicking on the appropriate link on the **Node Details** Web page:

- Voice Gateway (VGW) and Codecs
- Quality of Service (QOS)
- LAN
- SNTP
- Numbering Zones
- MCDN Alternate Routing Treatment (MALT) Causes

You can configure the applications associated to the Node by clicking the appropriate link on the **Node Details** Web page. The applications associated to a Node appear on the right and can include applications such as the following:

- SIP Line
- Terminal Proxy Server (LTPS)
- Gateway
- Personal Directories (PD)

- Presence Publisher
- IP Media Services

When you click on **Gateway** link in the Node Details Web page, the **Virtual Trunk Gateway Configuration Details** Web page displays as shown in the following figure.

Figure 73
Virtual Trunk Gateway Configuration

Managing: 192.168.209.91 Username: sowdnhb
System » IP Network » IP Telephony Nodes

Node ID: 999 - Virtual Trunk Gateway Configuration Details

General | SIP Gateway Settings | SIP Gateway Services

Vtrk gateway application: ☒ Enable gateway service on this node

General

Vtrk gateway application: SIP Gateway (SIPGw) ▼

SIP domain name: nortel *

Local SIP port: 5060 * (1 - 65535)

Gateway endpoint name: nortel *

Gateway password: *

Enable failsafe NRS: ☐

SIP ANAT: ☐ IPv4 ☒ IPv6

Virtual Trunk Network Health Monitor

☐ Monitor IP addresses (listed below)

Information will be captured for the IP addresses listed below.

Monitor IP: Add

Monitor addresses:

Remove

When you click on the **SIP Line** link in the Node Details web page, the **SIP Line Configuration Details** Web page displays as shown in the following figure.

Figure 74
SIP Line Configuration

Managing: 192.168.209.111 Username: admin2
 System » IP Network » IP Telephony Nodes » Node Details » SIP Line Configuration

Node ID: 1 - SIP Line Configuration Details

General | SIP Line Gateway Settings | SIP Line Gateway Service

SIP Line Gateway Service

Branch / GR Office Settings:

SLG Role: MO

SLG Mode: S1/S2

MO SLG IP: 2001:db::98:53
The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

MO SLG Port: 5070 (1 - 65535)

MO SLG Transport: TCP

GR SLG IP: 2001:db::98:54
The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

GR SLG Port: 5070 (1 - 65535)

GR SLG Transport: TCP

IVR Settings:

SLG IVR proxy IP: 0.0.0.0

* Required Value.

Note: Changes made on this page will NOT be transmitted until the Node is also saved.

Save Cancel

Enter the appropriate values in all the required fields and click **Save** to configure SIP Line.

For complete information about IP Telephony Nodes configuration, see *Signaling Server IP Line Applications Fundamentals* (NN43001-125), *SIP Line Fundamentals* (NN43001-508), *Dialing Plans Reference* (NN43001-283), and *IP Peer Networking Installation and Commissioning* (NN43001-313).

When you click the **IP Media Services** link in the Node Details web page, the **IP Media Services Configuration Details** web page appears, as shown in the following figure.

Figure 75
IP Media Services configuration

Managing: 192.168.209.127 Username: admin
System > IP Network > IP Telephony Nodes > Node Details > IP Media Services Configuration

Node ID: 123 - IP Media Services Configuration Details

Services | IP Media Services Settings | SIP URI Map | Port Settings

IP Media Services Settings

Import SIP gateway settings: ☐
Import SIP redirect, SIP URI and domain values from SIP gateway settings.

General

IP media services domain name:

Application node ID: (0-9999)

Proxy or Redirect Server

Primary IP address:

Port: (1 - 65535)

Transport protocol:

Secondary IP address:

Port: (1 - 65535)

Transport protocol:

* Required Value.

Note: Changes made on this page will NOT be transmitted until the Node is also saved.

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To configure IP Media Services, enter the appropriate values in the required fields and click **Save**.

For complete information about IP Media Services configuration, see *Signaling Server IP Line Applications Fundamentals* (NN43001-125).

For complete information about IP Telephony Nodes configuration, see *Signaling Server IP Line Applications Fundamentals* (NN43001-125), *SIP Line Fundamentals* (NN43001-508), *Dialing Plans Reference* (NN43001-283), and *IP Peer Networking Installation and Commissioning* (NN43001-313).

Simple Network Time Protocol

Click **SNTP** to access the SNTP Web page, as shown in the following figure.

Figure 76
SNTP Web page

The screenshot shows a web interface for configuring SNTP. At the top, it displays 'Managing: 192.168.55.142 Username: admin2' and a breadcrumb trail: 'System » IP Network » IP Telephony Nodes » Node Details » SNTP'. Below this is the title 'Node ID: 10 - SNTP'. The main content area is divided into two sections: 'SNTP Server' and 'SNTP Client'. Each section has a 'Mode' dropdown menu set to 'passive', an 'Interval' text box set to '256' with a range '(1 - 2147483647)' to its right, and a 'Port' text box set to '20000'. The 'SNTP Client' section also includes an 'SNTP server IP address' text box set to '0.0.0.0'. At the bottom, there is a note: 'Note: Changes made on this page will NOT be transmitted until the Node is also saved.' and two buttons: 'Save' and 'Cancel'.

The Simple Network Time Protocol (SNTP), is an adaptation of the Network Time Protocol (NTP) used to synchronize computer clocks. It involves no change to the current or previous NTP specification versions or known implementations, but rather a clarification of certain design features of NTP which allow operation in a simple, stateless RPC mode with accuracy and reliability expectations similar to the UDP/TIME protocol. A SNTP server running on the primary Signaling Server or the IP Telephony leader Cards actively push the date and time to the SNTP clients (Voice Gateway Cards and other Signaling Servers). Clients can also pull the date and time from SNTP server.

The following parameters are available for the network time client/server from IP Telephony Nodes page:

- Mode: This field defines the protocol mode. They are three options for this:
 - Active – Sends broadcast of time at defined intervals.
 - Passive – Waits for query from clients (default).
 - Disabled – Time server not started.
- Interval: Assigns the interval between time updates and can be set to any 2n value ($31 > n > 0$) (256).
- Port: This is the network port that the system service listens to for incoming network traffic. The port number is determined when

the connection is established. Assigns the UDP port used by time client/server($20,000 + \text{nodeId}$)

There is one more field under SNTP CLIENT section which is "SNTP server IP address". This field defines the IP address of the server to which the client communicates. It is an IPv4 address.

Enable Numbering Zones

When you click the **Numbering Zones** link in the Node Details web page, the **Node ID xx Numbering Zones** Web page appears, as shown in the following figure.

'. At the bottom, a note states: 'Note: Changes made on this page will NOT be transmitted until the Node is also saved.' There are 'Save' and 'Cancel' buttons at the bottom right."/>

To enable Numbering Zones select **Enabled** and click **Save**.

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 77 "Node Maintenance and Reports Web page" \(page 153\)](#).

Figure 77
Node Maintenance and Reports Web page

This Web page contains information about configured Signaling Servers and IP Telephony cards and is arranged by node. Click the required buttons such as, GEN CMD, SYS LOG, Reset and others beside the Node ID number to view the elements assigned to the node.

For more information about IP Telephony, see *Signaling Server IP Line Application Fundamentals (NN43001-125)*.

Six 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.
- **SYS LOG** — Launches the System log file Web page for Signaling Servers.
- **OM RPT** — Launches the **Operational Management Report** Web page.

- **Reset** — Resets the element.

Note 1: The ELAN IP address of the server must be entered in the host table prior to launching Base Manager using the **Reset** button.

Note 2: 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.

Meridian Alternate Routing and Vacant Number Routing Causes

This feature deals with Vacant Number Routing (VNR) calls at the CS 1000 that is routed over H323/SIP. Assume that the call fails to route to the destination (for example, with reason: No entry present in the NRS/SPS or due to rejection from the destination side). With this development, the call gets disconnected with a cause which matches one of the Meridian Alternate Routing (MALT) cause codes, or disconnects with an indication to "use MALT". Based on this information, MALT is performed at the Call Server to retry the call using an alternate route. If MALT exhausts all the MALT routes in the VNR Route List Index then the treatment corresponding to the disconnect cause is provided.

If the call clearing message has the cause as 'unassigned number' or 'invalid Number format' in all the accessed entries of the VNR RLI, then vacant number treatment will be provided.

With the default MALT handling, there are six causes which perform MALT at the CS 1000:

- 3 — No route to destination
- 27 — Destination is out of service
- 34 — No circuit or channel available
- 38 — Network out of service
- 41 — Temporary failure
- 42 — Switching equipment congestion

A configurable option is provided in Element Manager for the different vendors (subdivided into "all Nortel Component" and "third party", but potentially extensible, should the need be identified) in order to configure causes (other than MALT causes) to do MALT at CS 1000. The EM provisions the below causes to be configured to perform MALT. The unassigned number cause will be by default configured to perform MALT for Nortel and Third Party vendors.

- 01 — unassigned number
- 20 — subscriber absent
- 47 — Resources unavailable
- 51 — Call rejected; blocked by MBG
- 52 — Outgoing call barred
- 53 — Outgoing call barred in closed user group
- 54 — Incoming call barred
- 55 — Incoming call barred in closed user group
- 63 — service or option not available
- 127 — Interworking unspecified

To configure MALT, click the **IP Network > Nodes: Severs, Media Cards** link in the **System** branch of the Element Manager navigator. The **IP Telephony Nodes** Web page appears. Click the **Node ID** of the node you want to configure and select the **MCDN Alternative Routing Treatment (MALT) Causes** hyperlink, the **MCDN Alternative Routing Treatment (MALT) Causes** Web page appears as shown in [Figure 78 "MCDN Alternative Routing Treatment \(MALT\) Causes Web page" \(page 156\)](#).

Figure 78
MCDN Aternative Routing Treatment (MALT) Causes Web page

Managing: 172.16.100.2
 System » IP Network » IP Telephony Nodes

Node ID: 1200 - MCDN Alternative Routing Treatment (MALT) Causes

Nortel Vendor Causes:	Third Party Vendor Causes:
☒ UnassignedNumber	☒ UnassignedNumber
☐ Subscriber absent	☐ Subscriber absent
☐ Resources unavailable	☐ Resources unavailable
☐ Service or option not available	☐ Service or option not available
☐ Internetworking unspecified	☐ Internetworking unspecified
☐ Call rejected; blocked by MGB	☐ Call rejected; blocked by MGB
☐ Outgoing call barred	☐ Outgoing call barred
☐ Outgoing call barred in closed user group	☐ Outgoing call barred in closed user group
☐ Incoming call barred	☐ Incoming call barred
☐ Incoming call barred in closed user group	☐ Incoming call barred in closed user group

Note: Changes made on this page will NOT be transmitted until the Node is also saved.

Save Cancel

ATTENTION

If a Media Card is added after the Linux server is upgraded, then a Node Save and Transfer is required. For more information, see *Signaling Server IP Line Applications Fundamentals* (NN43001-125).

General Commands

Click the **GEN CMD** button, located beside the information for an IP Telephony element as shown in [Figure 77 "Node Maintenance and Reports Web page" \(page 153\)](#), to open the **General Commands** Web page for that element. See [Figure 79 "General Commands Web page" \(page 157\)](#).

Figure 79
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 *Signaling Server IP Line Application Fundamentals (NN43001-125)*.

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 nodePwd from the Group drop-down list.
2	Select nodePwdSet from the Command drop-down list.
3	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 * and #.
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 nodePwd from the Group drop-down list.
2	Select nodeTempPwdSet from the Command drop-down list.
3	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 * and #.
- 4 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).
 - 5 Enter the duration, in hours, for the temporary password in the **Timeout** text box (maximum is 240 hours).
 - 6 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, perform the following procedure.

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--	

System Log

Click the **SYS LOG** button, located beside the information for the Signaling Server, to open the **Application Logs** Web page for the Signaling Server, as shown in [Figure 80 "Application Web page" \(page 160\)](#). The Application logs are part of the Base Manager.

Figure 80
Application Web page

Element Manager redirects you to Base Manager to run the System Log for the Signaling Server. For more information about Application Logs and accessing Base Manager refer to *Linux Platform Base and Applications Installation and Commissioning* (NN43001-315) and *Unified Communications Management Common Services Fundamentals* (NN43001-116).

Signaling Server commands

Element Manager provides support for executing Signaling Server command line interface (CLI) maintenance commands.

To run Signaling Server commands from Element Manager, select the **Maintenance and Reports** link in the IP Network branch of Element Manager navigator. The **Node Maintenance and Reports** Web page appears as shown in, [Figure 77 "Node Maintenance and Reports Web page" \(page 153\)](#).

Procedure 86

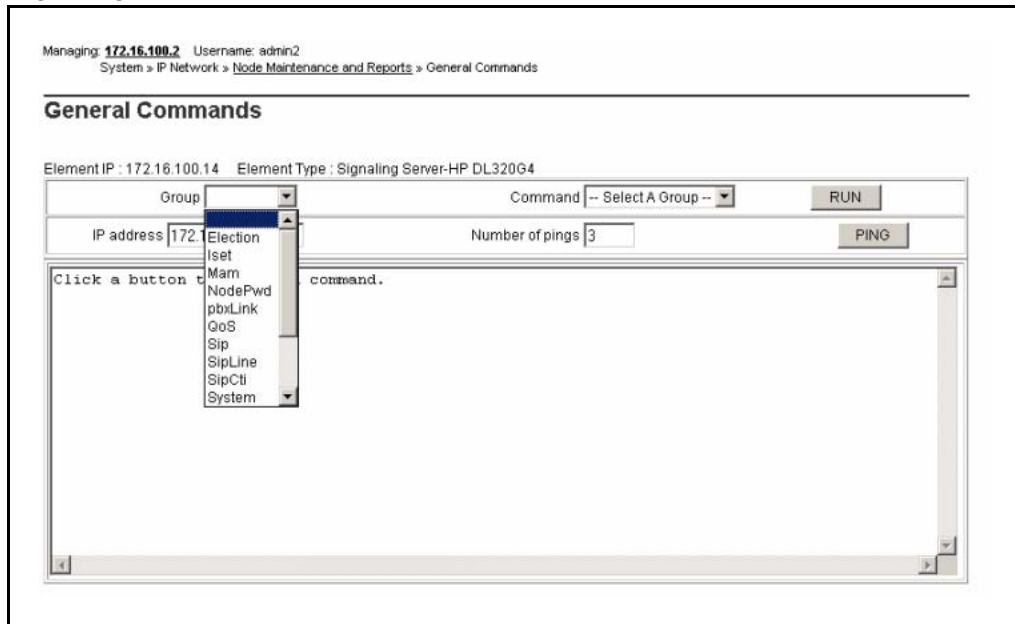
Running Signaling Server commands

Step	Action
1	Choose a Signaling Server and click GEN CMD . The General Commands Web page appears. See, Figure 81 "Signaling Server General Commands" (page 161) .
2	Select the Signaling Server CLI command group that you want to access from the Group drop-down list.
3	Choose a command from the Command drop-down list.

4 Click **Run** to execute the command.

--End--

Figure 81
Signaling Server General Commands

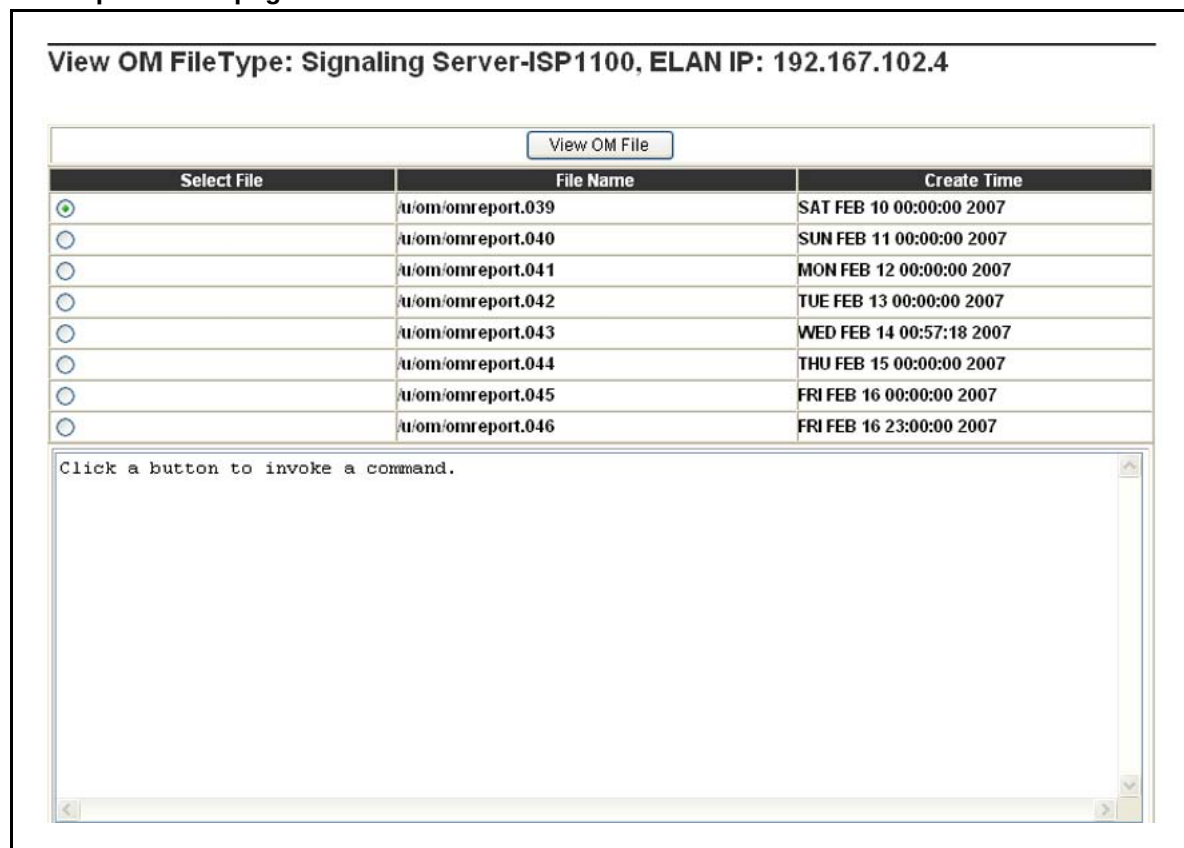


For a list of available Signaling Server commands that can be run using Element Manager, refer to *Software Input Output Reference — Maintenance* (NN43001-711).

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 77 "Node Maintenance and Reports Web page" \(page 153\)](#), to open the **OM Reports** Web page for that element, as shown in [Figure 82 "OM Reports Web page" \(page 162\)](#).

Figure 82
OM Reports Web page



To view an OM Report file, perform the following procedure.

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--	

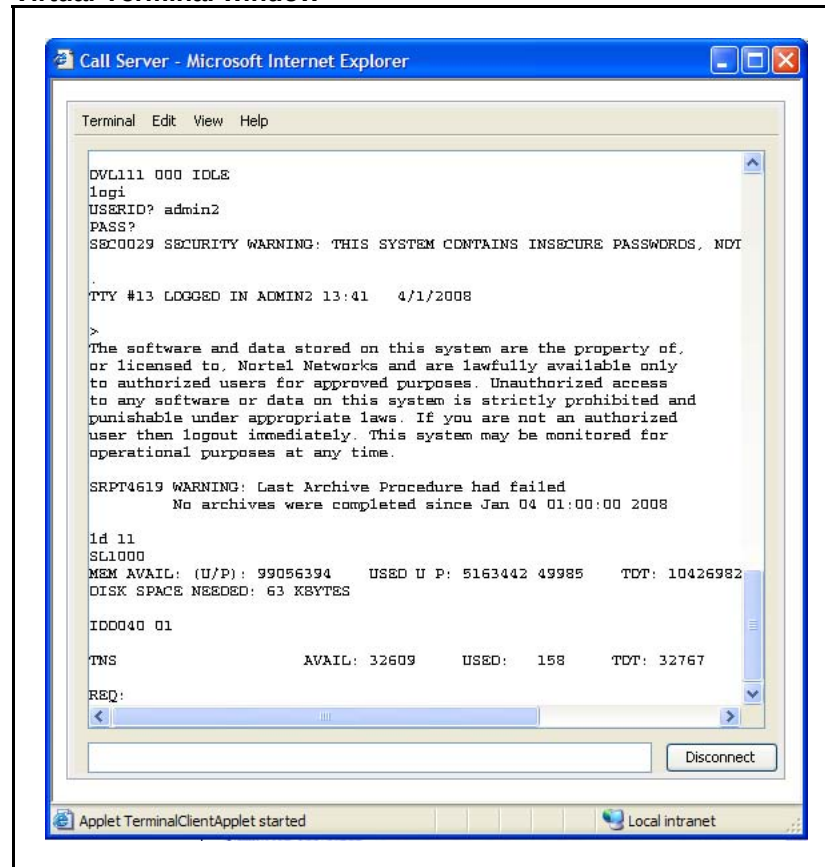
The contents of the file appear in the box at the bottom of the Web page.

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 83 "Virtual Terminal window" \(page 163\)](#).

Figure 83
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 1000system, 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, perform the following procedure.

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.
3	Enter the user name and password.
--End--	

For more information about accessing and using the Virtual Terminal, refer to [“Virtual Terminals” \(page 33\)](#).

Media Gateways

To access Media Gateways in Element Manager select the **Media Gateways** link in the IP Network branch of Element Manager navigator. The **Media Gateways** Web page appears, as shown in [Figure 84 “Media Gateways Web Page” \(page 164\)](#).

Element Manager displays Media Gateway type as MGC for a Media Gateway Controller and MGX for an MG XPEC Media Gateway Extended Peripheral Equipment Controller. The MG XPEC is used to convert a CS 1000M Intelligent Peripheral Equipment shelf (IPE) to a CS 1000E Media Gateway.

Figure 84
Media Gateways Web Page

Managing: 192.168.203.117 Username: admin2 System » IP Network » Media Gateways				
Media Gateways				
Add...	Digital Trunking...	Reboot	Delete	Virtual Terminal
More Actions ▼				Refresh
	IPMG	IP Address	Zone	Type
☐	000 00	47.11.216.79	000	MGC
☐	004 00	255.255.254.11	002	MGC
☐	004 01	1.2.3.1	004	MGX
☐	008 00	192.168.62.93	004	MGC
☐	016 00	1.2.3.6	000	MGC
☐	032 00	1.5.6.4	000	MGC
☐	036 00	192.168.209.108	000	MGC
☐	060 00	1.1.2.3	000	MGC
☐	108 00	1.85.26.56	000	MGC

IPMG Property Configuration

To configure the properties of an IPMG complete the following procedure.

Procedure 87 Configuring IPMG properties

Step	Action
1	Click the IPMG from the list of IPMGs on the Media Gateways Web page. The IPMG Property Configuration Web page appears as shown in the following figure.

Figure 85
IPMG Property Configuration Web page

Managing: **172.16.100.30** Username: admin
System » IP Network » [Media Gateways](#) » IPMG 4 0 Property Configuration

IPMG 4 0 Property Configuration

Input Description	Input Value
ELAN IP address:	192.167.106.10 *
Bandwidth zone number:	1 (0 - 8000)
IPMG type:	MGC
ELAN passthrough port:	CE
Faceplate ELAN port:	1E
Backplane ELAN connection:	E
TLAN passthrough port:	CT
Faceplate TLAN port:	2T
Backplane TLAN connection:	T

Save Next Cancel

- 2 Enter the appropriate values.
- 3 Click **Next**
- 4 Continue as described in [“Media Gateway configuration” \(page 167\)](#)

--End--

Adding an IPMG

Perform the following procedure to add an IPMG.

Procedure 88
Adding an IPMG

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

- | | |
|---|---|
| 1 | In the Media Gateways web page, click Add .
The Add IPMG web page appears. |
|---|---|

- | | |
|---|---|
| 2 | Choose a number and required shelf from Choose a Superloop Number and Shelf drop-down lists. |
| 3 | Click Add . |

The Add IPMG with Input Description and Input Value fields web page appears.

- 4 Enter the appropriate values in the fields and select the required IPMG type in the **IPMG type** field.
The values available in the field are MGC, MGX, and MGS. For more details on the MGS configuration, see [“Media Gateway configuration” \(page 167\)](#).
- 5 Click **Save**.

--End--

Media Gateway configuration

To view or configure the current settings of a Media Gateway Controller, select the **Media Gateways** link in the IP Network branch of Element Manager navigator as shown in the following figure. For information about the configuration of the Media Gateway Controller, refer to *Communication Server 1000E Installation and Commissioning* (NN43041-310), *Communication Server 1000E - Upgrades* (NN43041-458), and *Communication Server 1000M and Meridian 1 Large System Installation and Commissioning* (NN43021-310).

Figure 86
Media Gateway Configuration

Managing: [192.168.209.105](#) Username: admin2
System » IP Network » [Media Gateways](#) » [Add IPMG](#) » IPMG 20.0 Media Gateway (MGS) Configuration

IPMG 20.0 Media Gateway (MGS) Configuration

- Media Gateway (MGS)

Hostname *

Embedded LAN (ELAN) IP address

Embedded LAN (ELAN) gateway IP address

Embedded LAN (ELAN) subnet mask

Telephony LAN (TLAN) IP address

Telephony LAN (TLAN) gateway IP address

Telephony LAN (TLAN) subnet mask

- DSP Daughterboard

Type of the DSP daughterboard

Telephony LAN (TLAN) IP address

Telephony LAN (TLAN) gateway IP address

Telephony LAN (TLAN) subnet mask

Hostname *

+ VGW and IP phone codec profile

Media Gateway Configuration has the option to enable or disable the R-factor option for the MGC card. R-factor is disabled by default as it has an impact on the density of DSP DB. When configuring DSPs on an MGC card, the values available in **Type of DSP daughterboard** field are NODB, DB32, DB96, and DB128.

Figure 87
Media Gateway Configuration (continued)

Telephony LAN (TLAN) configuration

Hostname: DB2

- VGW and IP phone codec profile

Enable echo canceller ☒

Echo canceller tail delay: 128 (milliseconds)

Enable dynamic attenuation ☒

Voice activity detection threshold: 1 (0 - 4 DBM)

Idle noise level: 0 (0 - 1 DBM)

R factor calculation ☒ (highlighted with a red box and mouse cursor)

DTMF tone detection ☒

Enable low latency mode ☐

Remove DTMF delay (squelch DTMF from TDM to IP) ☒

Enable modem/fax pass through mode ☒

Enable V.21 FAX tone detection ☒

Fax TCF method: 2

FAX maximum rate: 14400 (bps)

FAX playout nominal delay: 100 (0 - 300 milliseconds)

Using the Media Based CLID you can enable or disable the Media based CLID for the Media Gateway Configuration.

Figure 88
Media Gateway Configuration (continued1)

Telephony LAN (TLAN) IPv6 address:

Telephony LAN (TLAN) subnet mask: 255.255.254.0

Hostname: DB2

+ VGW and IP phone codec profile

+ QoS

- Media Based CLID

Media based CLID ☒

Caller ID type: Bell202

Auto detection ☐

Analog line card D-A transmission loss: 0.0 (-13.5 to +13.0 decibel) [Lookup](#)

- Call Server LAN

Embedded LAN (ELAN) configuration

Geographic redundancy ☐

Primary call server IP address: 192.168.55.152

Primary call server hostname: Primary_CS

Signaling port: 15000

Broadcast port: 15001 (1024 - 65535)

Telephony LAN (TLAN) configuration

The **Caller ID Type** and **Auto detection** fields will be displayed only when the **Media based CLID** check box is selected.

The **Caller ID Type** has two options, Bell202 and ETSIV.23. To configure these prompts, select Bell202 or ETSIV.23 prompts from the Caller Type drop-down list and click **Submit**.

When **Auto detection** check box is not selected, you must enter a value in the **Analog line card D-A transmission loss** field or click **Lookup** to select the Analog Line Card (ALC) type and the transmission loss value in decibels.

When you have finished entering the values, click **Save**.

Ethernet Diagnostics

To run the MGC Ethernet Diagnostic commands from Element Manager, select the **Media Gateways** link in the IP Network branch of Element Manager navigator. The **Media Gateways** Web page appears.

Procedure 89 Running MGC Ethernet Diagnostics

Step	Action
1	Choose an MGC and select Ethernet Diagnostics from the More Actions drop-down list. The Ethernet Diagnostics Web page appears.

Managing: [192.168.209.105](#) Username: admin2
System » IP Network » [Media Gateways](#) » Ethernet Diagnostics

Ethernet Diagnostics

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

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

- 2 Select the MGC status command group that you want to access from the **Command** drop-down list.
- 3 Click **Submit** to execute the command.

--End--

Media Gateway Controller commands

Element Manager provides support for executing the Media Gateway Controller (MGC) command line interface (CLI) maintenance commands.

Note: Not all MGC commands are supported from Element Manager as they affect basic system configuration parameters and are used by the system administrator to closely monitor the system using serial connection.

The following MGC CLI command groups are supported from Element Manager:

- General — General purpose commands
- System — MGC platform administration and maintenance commands
- Voice Gateway — Voice Gateway application administration and maintenance commands
- Special — Special purpose PDT commands
- Security — Intra-system and cryptographic key support commands

To run MGC commands from Element Manager, select the **Media Gateways** link in the IP Network branch of Element Manager navigator. The **Media Gateways** Web page appears.

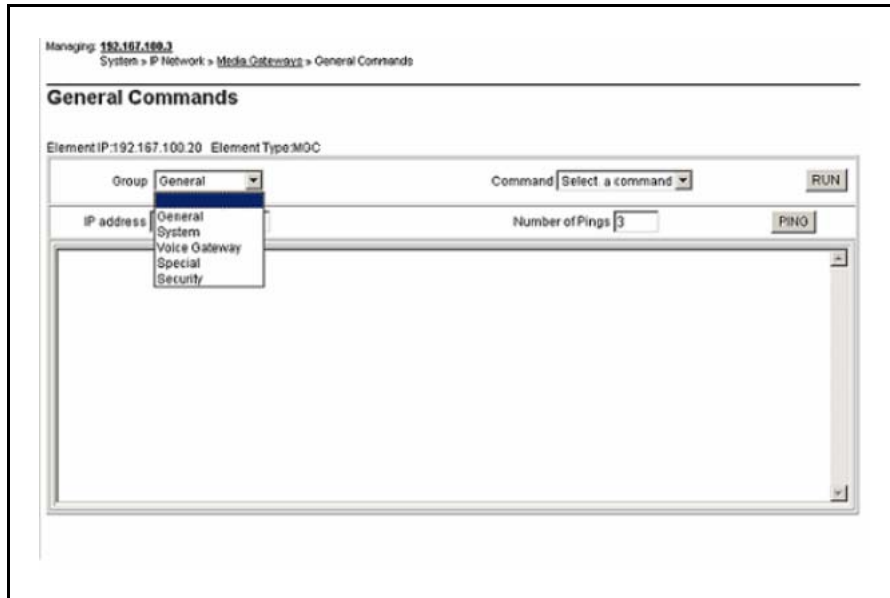
Procedure 90 Running MGC commands

Step	Action
1	Choose an MGC and select General Commands from the More Actions drop-down list. The General Commands Web page appears. See, Figure 89 "General Commands" (page 171) .
2	Select the MGC CLI command group that you want to access from the Group drop-down list.
3	Choose a command from the Command drop-down list.

- 4 Click **Run** to execute the command.

--End--

Figure 89
General Commands



For a list of available MGC commands that can be run using Element Manager, refer to *Software Input Output Reference — Maintenance* (NN43001-711).

Adding VGW channels

To open the VGW channel from Element Manager, select the **Media Gateways** link in the IP Network branch of Element Manager navigator. The **Media Gateways** Web page appears.

Step	Action
1	Choose an IPMG and select VGW Channels from the More Actions drop-down list. The VGW Channels Web page appears.

Managing: 192.167.100.3
System > IP Network > Media Gateways > VGW Channels - IPMG 004 00

VGW Channels - IPMG 004 00

	Terminal No	Description	Customer	Zone
	004 0 11 00	MGC_VGW	0	000
	004 0 11 01	MGC_VGW	0	000
	004 0 11 02	MGC_VGW	0	000
	004 0 11 03	MGC_VGW	0	000
	004 0 11 04	MGC_VGW	0	000
	004 0 11 05	MGC_VGW	0	000
	004 0 11 06	MGC_VGW	0	000
	004 0 11 07	MGC_VGW	0	000
	004 0 11 08	MGC_VGW	0	000
	004 0 11 09	MGC_VGW	0	000

2 Click **Add** to add a VGW channel.

Managing: 192.168.209.105 Username: admin2
System > IP Network > Media Gateways > VGW Channels - IPMG 020 00 > Add VGW channels

Add VGW channels

Number of VGW Channels:
 Trunk data block:
 Terminal Number:
 Designator field for trunk:
 Extended Trunk:
 Customer number: *

- 3 Select the number of required channels from the **Number of VGW Channels** drop-down list.
- 4 Enter the **Terminal Number** (the superloop and shelf numbers of the IPMG, the card number, and the unit).
- 5 Enter the appropriate values in all the fields and click **Save**.
The VGW Channels IPMG Web page appears. The MGC has been added to the list.

--End--

Editing VGW channels

To open the VGW channel, select the **Media Gateways** link in the IP Network branch of Element Manager navigator. The **Media Gateways** Web page appears.

- | Step | Action |
|------|--|
| 1 | Choose an IPMG and select VGW Channels from the More Actions drop-down list. The VGW Channels Web page appears. |
| 2 | Select the VGW channel to edit from the list. The Edit VGW Channels Web page appears as shown in the figure below. |

Managing: 172.16.100.30 Username: admin
System » IP Network » Media Gateways » VGW Channels - IPMG 004 00 » Edit VGW channel

Edit VGW channel

Trunk data block:

Terminal number:

Designator field for trunk:

Extended trunk:

Customer number:

Zone number:

* Required value.

- | | |
|---|--|
| 3 | Make the necessary changes and click Save . |
|---|--|

--End--

Deleting VGW channels

To open the VGW channel from Element Manager, select the **Media Gateways** link in the IP Network branch of Element Manager navigator. The **Media Gateways** Web page appears as shown in the following figure.

- | Step | Action |
|------|--|
| 1 | Choose an IPMG and select VGW Channels from the More Actions drop-down list. The VGW Channels Web page appears. |

Managing: [192.168.209.105](#) Username: admin2
System » IP Network » [Media Gateways](#) » VGW Channels - IPMG 020 00

VGW Channels - IPMG 020 00

	Terminal No	Description	Customer	Zone
☐	020 0 11 00		0	000
☐	020 0 11 01		0	000
☐	020 0 11 02		0	000
☐	020 0 11 03		0	000
☐	020 0 11 04		0	000
☐	020 0 11 05		0	000
☐	020 0 11 06		0	000
☐	020 0 11 07		0	000
☐	020 0 11 08		0	000
☐	020 0 11 09		0	000
☐	020 0 11 10		0	000

2 Select the number of required channels to delete from the list.

3 Click **Delete** to delete an VGW channel.

or click **Multi-Delete** to delete multiple channels as shown in the following figure.

--End--

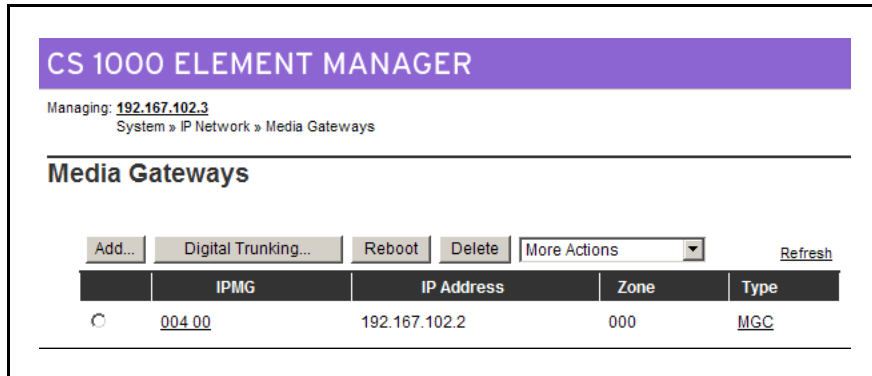
Digital Trunking for IPMG

Perform the following procedure for digital trunking in media gateways.

Procedure 91 Configuring conference TDS

Step	Action
1	In the Element Manager screen, select IP Network, Media Gateways . The Media Gateway Web page appears.

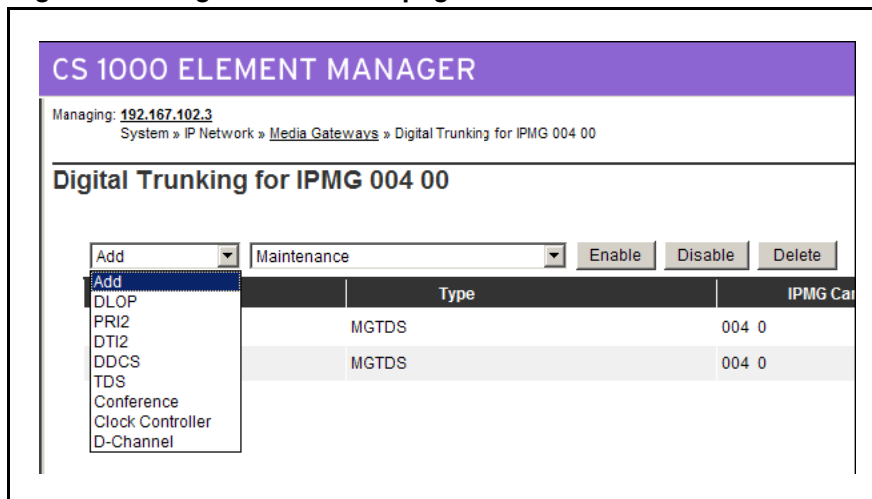
Figure 90
Media Gateways Web page



2 Select the IPMG superloop and click the **Digital Trunking** button.

The Digital Trunking Web page appears as shown in the following figure.

Figure 91
Digital Trunking for IPMG Web page



3 From the Add drop down menu, select DLOP to add a DLOP loop.

The IPMG DLOP Web page appears as shown in the following figure.

Figure 92
IPMG DLOP Web page

Managing: 192.168.209.105 Username: admin2
System » IP Network » Media Gateways » Digital Trunking for IPMG 020 00 » IPMG 020 00 DLOP

IPMG 020 00 DLOP

Digital Trunk Interface Loop Number: (0 - 255)

Media Gateway Card: (supl# sh# card#)

Number of voice or data calls:

Frame format:

Mode of operation:

TMDI Card: ☒

T1 transmit Equalization:

Line Coding Method:

Yellow Alarm Method:

Threshold:

- 4 Enter the **Digital Trunk Interface Loop Number** (0 — 255).
- 5 Enter appropriate values in all the fields.
- 6 Click **Save**. It does not become available until a loop number has been entered and TAB has been used to move the cursor.
A confirmation box appears.
- 7 Click **OK** to complete the configuration.
- 8 The updated loop configuration page appears and the new Conference loop is displayed.

--End--

MGC Report logs

To generate MGC report logs from Element Manager, select the **Media Gateways** link in the IP Network branch of Element Manager navigator. The **Media Gateways** Web page appears. Choose an MGC and select **Report Log** from the **More Actions** drop-down list. The **MGC Report Log** Web page appears, as shown in [Figure 93 "MGC Report Logs Web page" \(page 177\)](#).

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

- RDSCONVERT — Convert a report log file to text
- RDPREV — Open the previous log file
- RDNEXT — Open the next log file
- RDOPEN — Open the latest report file

- RDSHOW — Show a summary of the report file
- RDTAIL — Show x records up to the newest record in the report file (where x is the configured display size).
- RDHEAD — Show 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.

Figure 93
MGC Report Logs Web page

For more information about Media Gateway commands see, *Software Input Output Reference — Maintenance* (NN43001-711).

32 Channel Secure Media Card (MC32S) commands

Element Manager provides support for executing MC32S command line interface (CLI) maintenance commands.

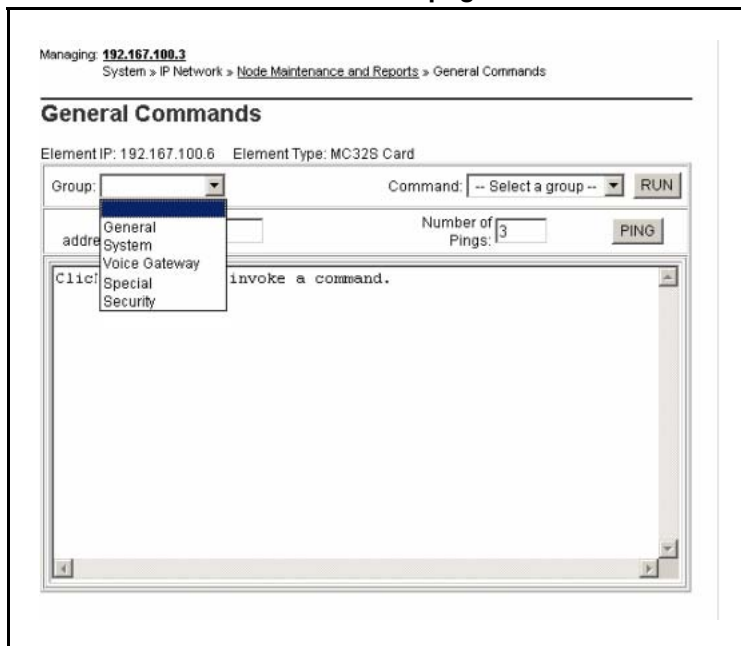
The following MC32S CLI command groups are supported from Element Manager:

- General — General purpose commands
- System — System commands
- Voice Gateway — Voice Gateway application administration and maintenance commands
- Special — Special purpose (PDT commands)
- Security — Intra-system and cryptographic key support commands

Note: Not all MC32S commands are supported from Element Manager as they affect basic system configuration parameters and are used by the system administrator to closely monitor the system using serial connection.

To run MC32S commands from Element Manager, select the **Maintenance and Reports** link in the IP Network branch of Element Manager navigator. The **Node Maintenance and Reports** Web page appears. Click **GEN CMD** for the MC32S card from the list. The **General Commands** Web page appears for the MC32S card, as shown in [Figure 94 "MC32S General Commands Web page" \(page 178\)](#).

Figure 94
MC32S General Commands Web page



Procedure 92
Running MC32S commands

Step	Action
1	Select the MC32S CLI command group that you want to access from the Group drop-down list.
2	Choose a command from the Command drop-down list.
3	Click Run to execute the command.
--End--	

For a list of available MC32S commands that can be run using Element Manager, refer to *Software Input Output Reference — Maintenance* (NN43001-711).

Report logs

To generate MC32S report logs from Element Manager, select the **Maintenance and Reports** link in the IP Network branch of Element Manager navigator. The **Node Maintenance and Reports** Web page appears. Choose an MC32S card and click **RPT Log**. The **Node Report Logs** Web page appears, as shown in [Figure 95 "MC32S Node Report Logs Web page" \(page 180\)](#).

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

- RDSCONVERT — Convert a report log file to text
- RDPREV — Open the previous log file
- RDNEXT — Open the next log file
- RDOPEN — Open the latest report file
- RDSHOW — Show a summary of the report file
- RDTAIL — Show x records up to the newest record in the report file (where x is the configured display size).
- RDHEAD — Show 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.

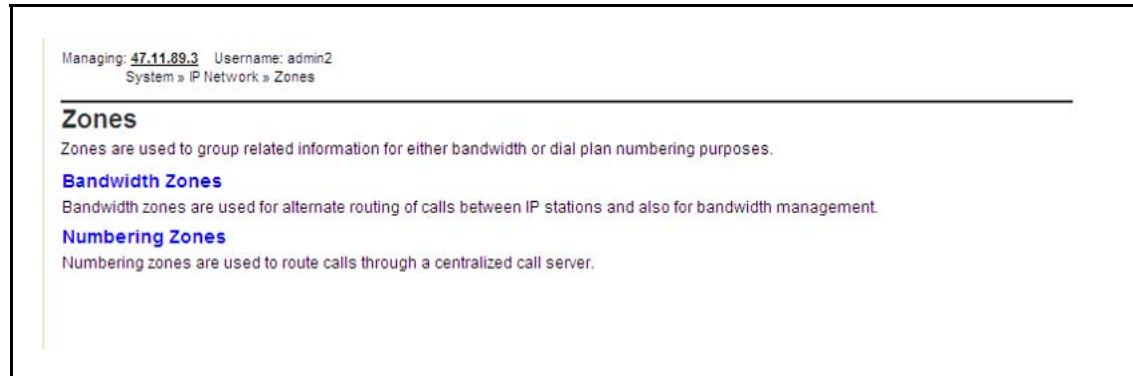
Figure 95
MC32S Node Report Logs Web page

For more information about MC32S commands see, *Software Input Output Reference - Maintenance* (NN43001-711).

Zones

To configure or edit Bandwidth Zone information or Numbering Zone information, click the **Zones** link in the **IP Network** branch of the Element Manager navigator. The **Zones** Web page appears as shown in [Figure 96 "Zones web page" \(page 181\)](#).

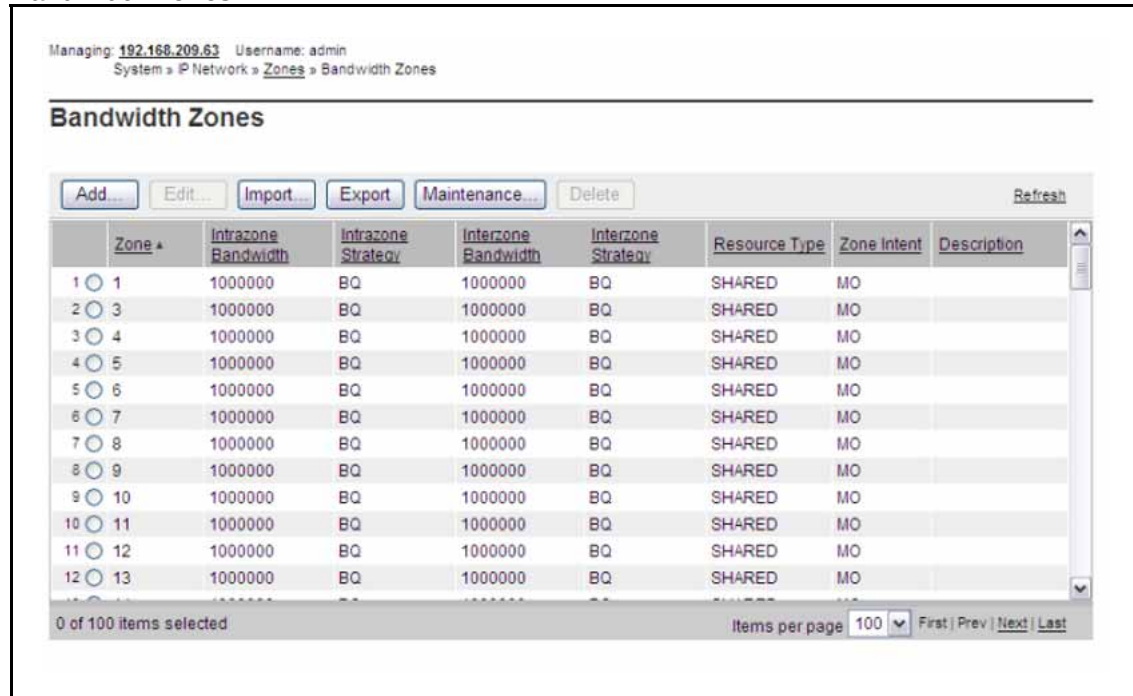
Figure 96
Zones web page



Bandwidth Zones are used for alternate call routing between IP stations and for Bandwidth management. Numbering Zones are used to route calls through a centralized call server.

To view, configure, or edit Bandwidth Zones click on the Bandwidth Zones link of **Zones** Web page. The **Bandwidth Zones** Web page appears as shown in the following figure.

Figure 97
Bandwidth Zones



To add zones on the **Zones** Web page, click **Add**.

The **Zone Basic Property and Bandwidth Management** Web page appears. See [Figure 98 "Zone Basic Property and Bandwidth Management Web page" \(page 182\)](#).



CAUTION

Beginning in Release 7.0, Adaptive Network Bandwidth Management provides bandwidth zone numbers in the range 0–8000. If you are interoperating with an earlier release you must use bandwidth zone numbers in the range 0–255; call processing issues occur if you use bandwidth zone numbers greater than 255.

Figure 98
Zone Basic Property and Bandwidth Management Web page

Input Description	Input Value
Zone Number (ZONE):	1 (0 - 8000)
Intrazone Bandwidth (INTRA_BW):	1000000 (0 - 1000000)
Intrazone Strategy (INTRA_STGY):	Best Quality (BQ)
Interzone Bandwidth (INTER_BW):	1000000 (0 - 1000000)
Interzone Strategy (INTER_STGY):	Best Quality (BQ)
Resource Type (RES_TYPE):	Shared (SHARED)
Zone Intent (ZBRN):	MO (MO)
Description (ZDES):	

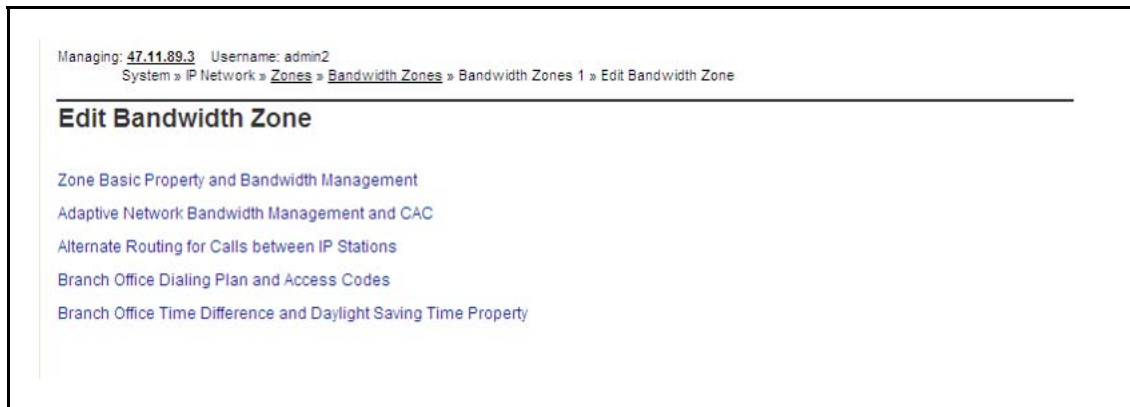
Submit Refresh Cancel

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.

Click **Edit** in the Zones web page. The Edit Bandwidth Zone web page appears.



This Web page contains links to the following six categories of Zone configuration data for each Zone configured.

- 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 Time Difference and Daylight Saving Time Property
- Media Services Zone properties

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

To configure the Adaptive Network Bandwidth Management feature, click the **Adaptive Network Bandwidth Management and CAC** link in the **Edit Bandwidth Zone** web page. The **Adaptive Network Bandwidth Management and CAC** Web page appears, as shown in [Figure 99 "Adaptive Network Bandwidth Management and CAC Web page"](#) (page 184).

Note: Do not configure ANBWM for Zone 0 or Virtual Trunk zones. ANBWM is not supported in Zone 0 or VTRK zone.

Figure 99
Adaptive Network Bandwidth Management and CAC Web page

Managing: 47.11.89.3 Username: admin2
 System » IP Network » Zones » Bandwidth Zones » Bandwidth Zones 1 » Edit Bandwidth Zone » Adaptive Network Bandwidth Management and CAC

Adaptive Network Bandwidth Management and CAC

Input Description	Input Value
Zone number (ZONE):	1
Enable call admission control feature (STATE):	☐
QoS response time increase (ZQRT):	10 (1 - 100 %)
QoS response time interval (ZQRTI):	5 (1 - 120 min)
Warning alarm threshold (ZQWAT):	85 (1 - 99 %)
Unacceptable alarm threshold (ZQUAT):	75 (1 - 99 %)
R alarm coefficient (CR):	50 (1 - 100)
Packet loss alarm coefficient (CPL):	50 (1 - 100)
Delay alarm coefficient (CD):	50 (1 - 100)
Jitter alarm coefficient (CJ):	50 (1 - 100)
Coefficient for QoS (CQoS):	50 (1 - 100)
Record validity time interval (CACVT):	48 (1 - 255 hours)

Submit Refresh Cancel

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.
- Unacceptable 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.
- Reord Validity Time Interval (CACVT): Amount of time (in hours) for zone-to-zone record validity. When 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 in the **Edit Bandwidth Zone** web page. The **Alternate Routing for Calls between IP Stations** Web page appears, as shown in [Figure 100 "Alternate Routing for Calls between IP Stations" \(page 185\)](#).

Figure 100
Alternate Routing for Calls between IP Stations

Managing: 47.11.89.3 Username: admin2
System » IP Network » Zones » Bandwidth Zones » Bandwidth Zones 1 » Edit Bandwidth Zone » Alternate Routing for Calls between IP Stations (Zone1)

Alternate Routing for Calls between IP Stations (Zone1)

Alternate routing prefix digits: (0 - 9999999)

Alarm suppression time period: (0 - 3600 seconds)

Re-route for all calls: ☐

Enable alternate routing feature: ☐

Alternate call routing for unregistered devices: ☐

Note: Alternate Routing (ALT), in combination with Adaptive Network Bandwidth Management (CAC) allows maintenance of QoS by re-routing interzone calls through alternate paths. Independently, Alternate Routing is based on bandwidth exhaustion.

- Enter a maximum of 7 digits in **Alternate Routing Prefix Digits**.
- Enter an Alarm suppression time period.
- Select the **Re-route for All Calls** check box to enable the feature for all calls.
- Select the **Enable Alternate Routing feature** check box to enable the Alternative Call Routing for NBWM feature.
- Select the **Alternate call routing for unregistered devices** check box to enable the Alternative Call Routing for unregistered devices.
- Click **Save** 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 in the **Edit Bandwidth Zones** Web page. The **Zone Dialing Plan and Access Codes** Web page appears. See [Figure 101 "Zone Dialing Plan and Access Codes Web page"](#) (page 186).

Figure 101
Zone Dialing Plan and Access Codes Web page

Input Description	Input Value
Zone Number (ZONE):	1
Prefix (ACB_DC1):	
Country Code/Trunk Code (ACB_DC2):	
Destination Network Code (ACB_DC3):	
Dialed Access Code (ACB_LOC_AC):	No Access Code (NONE) ▼
New Access Code (ACB_LD_AC):	No Access Code (NONE) ▼

Submit Refresh Cancel

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 **Edit Bandwidth Zones** Web page. The **Time Difference and Daylight Saving Time Property** Web page appears (see [Figure 102 "Time Difference and Daylight Saving Time Property Web page"](#) (page 187)).

Figure 102
Time Difference and Daylight Saving Time Property Web page

Managing: 47.11.89.3 Username: admin2
 System » IP Network » [Zones](#) » [Bandwidth Zones](#) » Bandwidth Zones 1 » [Edit Bandwidth Zone](#) » 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):	☐
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.

Select Media Services Zone Properties link in the link in the **Edit Bandwidth Zone** web page. The **Media Services Zone Properties** web page appears.

CS 1000 ELEMENT MANAGER Help | Logout

Managing: 192.168.55.143 Username: admin
 System » IP Network » [Zones](#) » [Bandwidth Zones](#) » Bandwidth Zones 263 » [Edit Bandwidth Zone](#) » Media Services Zone Properties (Zone 263)

Media Services Zone Properties (Zone 263)

There are no Media Service Routing Number configured.

To add media services zone properties, click **Add** in the Media Services web page. The Add Media Services Zone Properties web page appears.

CS 1000 ELEMENT MANAGER Help | Logout

Managing: 192.168.55.143 Username: admin
System » IP Network » Zones » Bandwidth Zones » Bandwidth Zones 263 » Edit Bandwidth Zone » Media Services Zone Properties (Zone 263) » Add Media Services Zone Properties (Zone 263)

Add Media Services Zone Properties (Zone 263)

Customer number: *

Media services routing DN: *

IP conference service DN:

IP music service DN:

IP recorded announcement service DN:

IP tone service DN:

IP attendant service DN:

* Required value.

Enter all the fields and click **Save** to add the media services.

To delete any zone, select the zone in the Zones web page and then click **Delete** in the Bandwidth zones web page. The Message from web page appears asking for the confirmation to delete. If you click **OK**, then the selected zone is deleted.

CS 1000 ELEMENT MANAGER Help | Logout

Managing: 192.168.55.143 Username: admin
System » IP Network » Zones » Bandwidth Zones

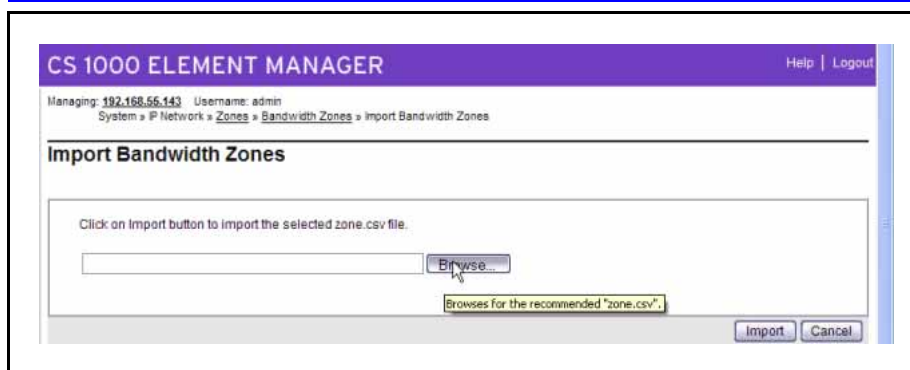
Bandwidth Zones

Message from webpage

Are you sure you want to delete the selected bandwidth zone?

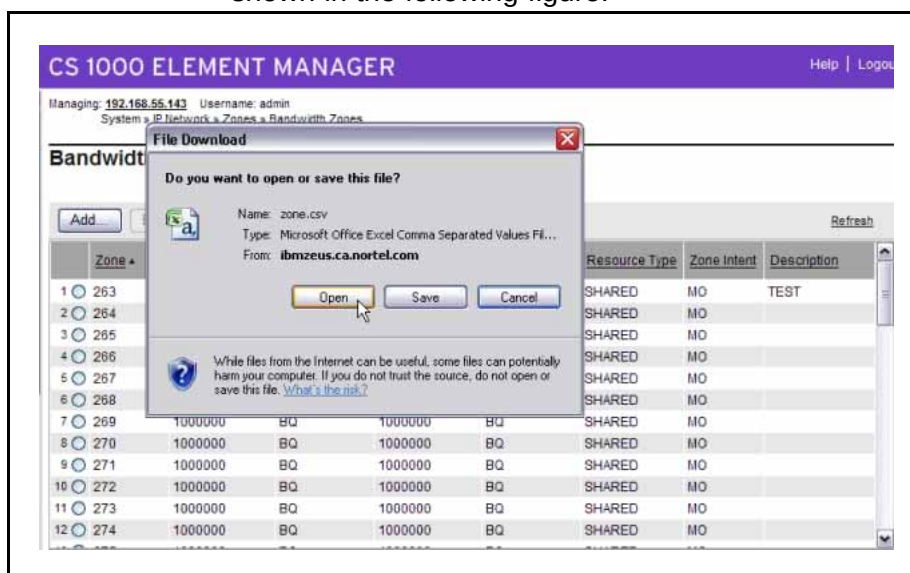
Zone	Resource Type	Zone Intent	Description
1 1	SHARED	BMG	TEST
2 263	SHARED	MO	test
3 264	SHARED	MO	
4 265	SHARED	MO	
5 266	1000000	BQ	1000000 BQ SHARED MO
6 267	1000000	BQ	1000000 BQ SHARED MO
7 268	1000000	BQ	1000000 BQ SHARED MO
8 269	1000000	BQ	1000000 BQ SHARED MO
9 270	1000000	BQ	1000000 BQ SHARED MO
10 271	1000000	BQ	1000000 BQ SHARED MO
11 272	1000000	BQ	1000000 BQ SHARED MO
12 273	1000000	BQ	1000000 BQ SHARED MO

If you want to import any zone from the server, click on **Import**. The Import Bandwidth Zones web page appears.



Click on **Browse** to search for the zone.csv file from the server desktop. Select the file and then click Import to import the bandwidth zone.

If you want to export any zone to your local server, select the required zone and click on **Export**. The zone.csv file is downloaded to your local as shown in the following figure.



To add the maintenance commands, click on **Maintenance**. The following Maintenance Commands for Zones web page appears.

CS 1000 ELEMENT MANAGER

Managing: 192.168.55.143 Username: admin
System » IP Network » Zones » Bandwidth Zones » Maintenance Commands for Zones

Maintenance Commands for Zones

Action: Print Intrazone Statistics per Local Zone (PRT INTRAZONE) ▼

Zone Number: 25 ▼

Zone Number	State	Resource Type	Intrazone Strategy	Zone Intent	Bandwidth(Kbps)	Usage(Kbps)	Peak(%)
1	ENABLED	SHARED	BQ	MO	1000000	0	0
2	ENABLED	SHARED	BQ	MO	1000000	0	0
3	ENABLED	SHARED	BQ	MO	1000000	0	0
4	ENABLED	SHARED	BQ	MO	1000000	0	0
5	ENABLED	SHARED	BQ	MO	1000000	0	0
6	ENABLED	SHARED	BQ	MO	1000000	0	0
7	ENABLED	SHARED	BQ	MO	1000000	0	0
11	ENABLED	SHARED	BQ	MO	1000000	0	0
12	ENABLED	SHARED	BQ	MO	1000000	0	0
13	ENABLED	SHARED	BQ	MO	1000000	0	0
14	ENABLED	SHARED	BQ	MO	1000000	0	0

Select the required Action and Zone number from the drop-down lists and click **Submit**.

Numbering Zones

Numbering Zones provides you with an interface to configure various parameters for Zones-based Parameters, Flexible Dial Plan, and Direct Inward Dial number and provides an option for every customer to enable the Zone Based Dialing (ZBD) feature.

Element Manager provides the following capabilities to configure NUMZONE for the ZBD feature:

- adding a new Numbering Zone
- deleting a Numbering Zone
- editing the Zone Based Parameters
- flexible Dial Plan and Direct Inward Dial Number Configurations
- config.ini changes in Nodes page
- enabling Numbering Zones for every customer in Feature Options

To view, configure, or edit Numbering Zones click on the Numbering Zones link of **Zones** Web page. The **Numbering Zones** Web page appears as shown in the following figure.

Figure 103
Numbering Zones Web page

System > IP Network > Zones > Numbering Zones

Numbering Zones

Numbering zones are used to route calls through a centralised call server.

[Add...](#)
[Dialing Configuration...](#)
[Delete](#)
[Refresh](#)

Zones	Site prefix	Country code	Area code	E164 code	Location code	National code	International code	Phone display	Tone table	Description
1	☒ Q							0	0	Default nu...

For information about configuring of ZBD in the **IP Telephony Nodes** Web page and configuration of a Numbering Zone, see *Dialing Plans Reference* (NN43001-283).

Host and Route Tables

Host and Route tables are located on the Ethernet LAN configuration page, that is used to configure and list the Ethernet LAN settings of the Call Server.

A host name can be up to 16 characters in length. The first character of a host name must be a letter of the alphabet. A character may be a letter, number or underscore (_). A period is used as a delimiter between domain names. Spaces and tabs are not permitted. No distinction is made between upper and lower case.

To access the Host and Route Tables click Host and Route Tables link of the IP Network branch of the Element Manager navigator. The **Host and Route Tables** Web page appears as shown in the following figure.

For more information refer to *Signaling Server IP Line Applications Fundamentals* (NN43001-125).

Figure 104
Host and Route Tables Web page

Host and Route Tables

Configure Ethernet LAN IP address for the Ethernet interface

Status

SUBNET MASK : 255.255.255.0

Host

Host IP address configuration

	Host Identifier *	Host Name	Host IP Address	Ethernet Link Status	Status	Media Gateway
1	☐ 1	SECONDARY_ENET	137.135.128.254	Inactive	Enabled	0
2	☐ 2	LOCAL_PPP_IF	137.135.192.4	--	Enabled	0
3	☐ 3	REMOTE_PPP_IF	100.1.1.1	--	Enabled	0
4	☐ 4	CPPM_CS	172.16.100.2	Active	Enabled	0
5	☐ NIL	localhost	127.0.0.1	--	--	0

Route

Configure and manage routing entries

	Route Identifier	Network IP Address	Gateway IP Address	Status *	Media Gateway
1	☐ NIL	127.0.0.1	127.0.0.1	--	0
2	☐ NIL	172.16.100.0	172.16.100.2	--	0
3	☐ NIL	127.0.0.0	127.2.0.1	--	0
4	☐ 1	0.0.0.0	172.16.100.1	Enabled	0

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 appears, as shown in [Figure 105 "Network Address Translation \(NAT\) Web page"](#) (page 193).

Figure 105
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	0.0.0.0	
Echo Server 1 Port	10000	Range: 1000 to 65535
Echo Server 2 IP Address	0.0.0.0	
Echo Server 2 Port	10000	Range: 1000 to 65535
NAT Session Timeout Value (seconds)	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 *Signaling Server IP Line Application Fundamentals (NN43001-125)*.

Quality of Service Thresholds (QoS)

The threshold values chosen provide accurate statistics without unnecessary network loading. If you increase your sample rate or your sample duration you will utilize/consume more of the bandwidth.

Nortel recommends that you use the default values. You can change thresholds depending on the voice quality level you want to have without alarms reported. For example, Call Packet Loss Unacceptable Threshold (UPKL) - default is 7 percent (entered as 70).

The zone basis threshold parameters allow for an overall level of alerts based on aggregated data for the zone. QoS samples are collected from active sets in the zone periodically by polling or received asynchronously, depending on the set firmware. The statistics received are compared to the call basis thresholds and violations are counted. The zone basis threshold parameters define the level at which alarms are sent out. These indicate the percentage of the samples that may exceed the defined per call thresholds for the different QoS metrics. For example, if the zone threshold for a particular metric is set to 2 percent, then zone alarms are issued if over 2 percent of the samples for that metric exceed the per call unacceptable threshold set for that metric.

The zone defaults for the warning items are higher than those for the unacceptable items (20 percent compared to 2 percent). The assumption is that the per call warnings thresholds are set at levels such that several warning alarms are normally issued. However, an overall problem with the zone should only be indicated if there are a significant number of such violations. On the other hand, there should be almost no unacceptable alarms and it is appropriate that these be set to a far lower zone percentage threshold.

The per call thresholds should be first adjusted to a level appropriate for the installation. After that the zone thresholds should be set, taking into consideration the per call threshold settings. If the per call thresholds are set low then more violations are to be expected, and the zone thresholds should be set higher to compensate. The converse is true for high per call threshold settings.

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 appears (see [Figure 106 "Quality of Service \(QoS\) Thresholds Web page" \(page 195\)](#)).

Figure 106
Quality of Service (QoS) Thresholds Web page

Quality Of Service (QoS) Thresholds		
QoS Zone Basis Threshold Parameters		
Input Description	Input Value	
Zone Latency Warning Threshold (ZLWT):	20	Range: 1 to 100 %
Zone Jitter Warning Threshold (ZJW):	20	Range: 1 to 100 %
Zone Packet Loss Warning Threshold (ZWP):	20	Range: 1 to 100 %
Zone R Factor Warning Threshold (ZWR):	20	Range: 1 to 100 %
Zone Latency Unacceptable Threshold (ZLAT):	2	Range: 1 to 100 %
Zone Jitter Unacceptable Threshold (ZJIT):	2	Range: 1 to 100 %
Zone Packet Loss Unacceptable Threshold (ZUP):	2	Range: 1 to 100 %
Zone R Factor Unacceptable Threshold (ZUR):	2	Range: 1 to 100 %
Sample Rate Window (ZARW):	300	Range: 60 to 3600 s
Minimum Sample Count (MSZW):	100	Range: 50 to 1000
QoS Call Basis Threshold Parameters		
Input Description	Input Value	
Call Latency Warning Threshold (CLAT):	40	Range: 5 to 100 ms
Call Jitter Warning Threshold (CJW):	20	Range: 5 to 200 ms
Call Packet Loss Warning Threshold (CWP):	20	Range: 5 to 100 %
Call R Factor Warning Threshold (CWR):	65	Range: 20 to 94
Call Latency Unacceptable Threshold (CLAT):	100	Range: 5 to 500 ms
Call Jitter Unacceptable Threshold (CJIT):	40	Range: 5 to 500 ms
Call Packet Loss Unacceptable Threshold (CUP):	70	Range: 5 to 250 %
Call R Factor Unacceptable Threshold (CUR):	60	Range: 20 to 94
Sampling Period (SAMP):	30	Range: 5 to 60 s
Submit Refresh Cancel		

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

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.

For more information, see *Software Input Output Reference - Maintenance (NN43001-711)*.

ATTENTION

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

Personal Directories

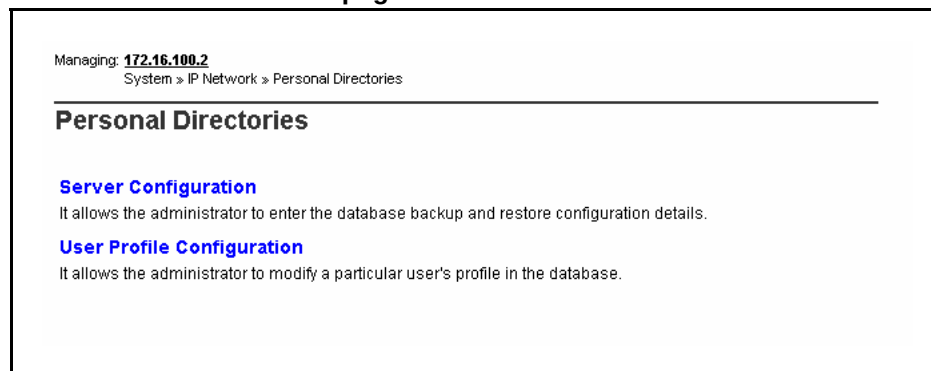
The Personal Directories Web page provides access to two links:

- **Server Configuration:** allows the administrator to enter the database backup and restore configuration details
- **User Profile Configuration:** allows the administrator to modify a user profile in the database

To access the **Personal Directories** Web Page click the IP Network > Personal Directories link in the System branch of the Element Manager navigator.

Figure 107

Personal Directories Web page



For more information about Personal Directories, Redial List, and Callers List, see *Signaling Server IP Line Application Fundamentals (NN43001-125)*.

User Profile Configuration

To configure a particular user's profile in the database, click the **User Profile Configuration** link of the Personal Directories Web page. The User Profile Configuration Web page appears, as shown in the following figure.

Managing: **172.16.100.30** Username: admin
System » IP Network » Personal Directories » User Profile Configuration

User Profile Configuration

Customer Number Directory Number (DN)

User ID

You can perform the following:

- Reset Station Control Password
- Unlock Station Control Password
- Copy Personal Directories
- Move Personal Directories
- Delete Personal Directories

Procedure 93 Resetting Station Control Password

Step	Action
1	To reset Station Control Password select Reset Station Control Password from the menu.
2	Enter the User ID and Directory Number.
3	Click Save .

--End--

Procedure 94 Unlocking Station Control Password

Step	Action
1	To unlock Station Control Password select Unlock Station Control Password from the menu.
2	Enter the User ID and Directory Number.
3	Click Save .

--End--

Procedure 95
Copying Personal Directories

Step	Action
1	To copy a personal directory, select Copy Personal Directories from the menu.
2	Enter the User ID and Directory Number to copy.
3	Enter the destination User ID and Directory Number.
4	Click Save .

--End--

Procedure 96
Moving Personal Directories

Step	Action
1	To move a personal directory, select Move Personal Directories from the menu.
2	Enter the User ID and Directory Number to move.
3	Enter the destination User ID and Directory Number.
4	Click Save .

--End--

Procedure 97
Deleting Personal Directories

Step	Action
1	To delete any or all of the following, select Delete Personal Directories : • Personal directory • Redial List • Callers List • User Preferences
2	Enter the User ID and Directory Number to delete.
3	Select the items to delete.
4	Click Save .

--End--

Unicode Name Directory

The Unicode Name Directory feature enables the displaying of called or caller party name in Unicode format and use languages other than English for name displaying. It enhances the functionality of Unicode display capable Unistim terminals

The Unicode Name Directory System Management Solution (SMS) provides a solution to provision localized names (up to seven different languages) on subscriber base and generate subscriber telephony account's calling line IDs/URIs (CLID/URI) in network level to serve Unicode Name Directory server.

To successfully configure Unicode Name Directory on the Call Server side, enable the Name Directory Application and configure Lightweight Directory Access Protocol (LDAP) synchronization parameters. Name Directory Application is enabled in the Call Server only if Personal Directory Application Server is configured.

Management of Unicode Name Directory is an integral part of Subscriber Manager, for more information on Unicode Name Directory and the role of Subscriber Manager refer to *Subscriber Manager Fundamentals* (NN43001-120).

For information about Unicode Name Directory and its configuration, see *Signaling Server IP Line Application Fundamentals* (NN43001-125).

Interfaces

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

Application Module Link

To access Application Module Link click Interfaces > Application Module Link in the System branch of the Element Manager navigator. The **Application Module Link** Web page appears as shown in [Figure 108 "Application Module Link Web page" \(page 200\)](#).

Figure 108
Application Module Link Web page

Managing: **192.168.209.115**
 System » Interfaces » Application Module Link

Application Module Link

An application module link (AML) path is required to provide access to the call server telephony functions. This allows internal applications to communicate with the call server by exchanging messages. The AML communication can be configured over a dedicated MSDL card or over the ELAN

[Add...](#) [Delete](#) [Refresh](#)

Port number	Maximum octets	Description
1 25	512	
2 43	512	

To view or edit an Application Module Link click a port number. The **Application Module Link Details** Web page appears as shown in [Figure 109 "Application Module Link Details Web page" \(page 200\)](#).

Figure 109
Application Module Link Details Web page

Managing: **172.16.100.2**
 System » Interfaces » Application Module Link » Application Module Link Details 16

Application Module Link Details 16

Link Type: ELAN

Description:

Maximum octets: (per HDLC frame)

[Save](#) [Cancel](#)

To edit the information, enter the appropriate values and click **Save**.

To Add a new Application Module Link click the Add button in the **Application Module Link** Web page. The **New Application Module Link** Web page appears as shown in [Figure 110 "New Application Module Link Web page" \(page 201\)](#).

Figure 110
New Application Module Link Web page

Managing: **172.16.100.2**
 System > Interfaces > Application Module Link > New Application Module Link

New Application Module Link

Port number: * (16 - 127)

AML over ELAN ☐

Description:

☐ Link control system parameters

Maximum octets : (per HDLC frame)

To create a new Application Module Link, enter the appropriate information and click Save.

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 appears as shown in [Figure 111 "Value Added Server Web page" \(page 201\)](#).

Figure 111
Value Added Server Web page

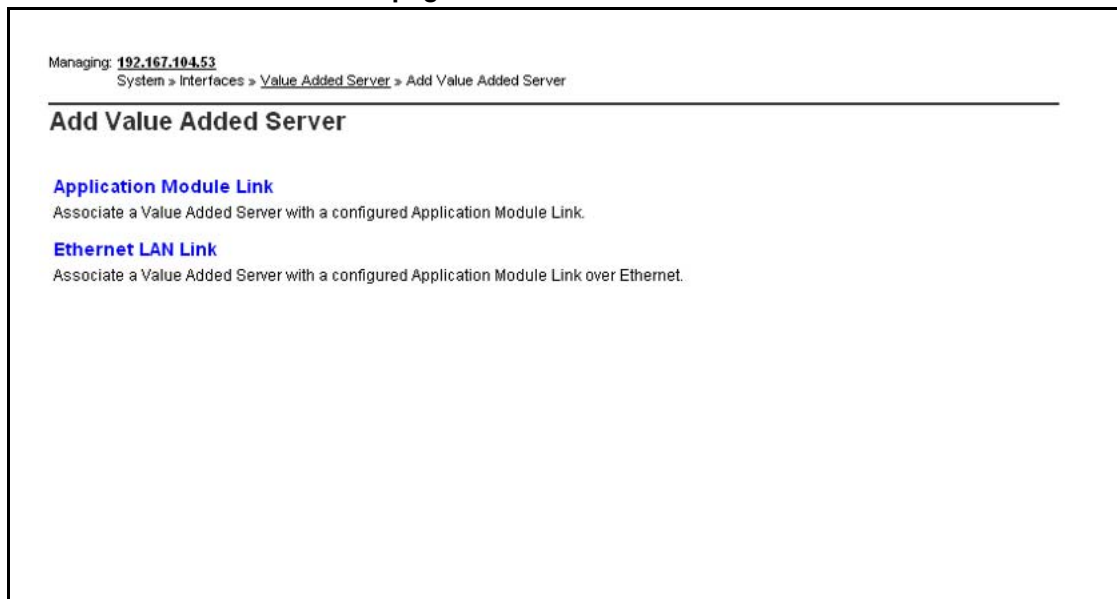
Managing: **192.167.104.53**
 System > Interfaces > Value Added Server

Value Added Server

	Identifier *	Port number	Port Type
1	☐ 016	016	Ethernet Link
2	☐ 017	017	Ethernet Link
3	☐ 032	032	Ethernet Link

To add a Value Added Server, click **Add**. The **Add Value Added Server** Web page appears, as shown in [Figure 112 "Add Value Added Server Web page" \(page 202\)](#).

Figure 112
Add Value Added Server Web page



Managing: **192.167.104.53**
 System > Interfaces > Value Added Server > Add Value Added Server

Add Value Added Server

Application Module Link
 Associate a Value Added Server with a configured Application Module Link.

Ethernet LAN Link
 Associate a Value Added Server with a configured Application Module Link over Ethernet.

To associate a Value Added Server with a configured Application Module Link, click **Application Module Link**. The **Application Module Link Web page** appears, as shown in [Figure 113 "Application Module Link Web page"](#) (page 202).

Figure 113
Application Module Link Web page



Managing: **192.168.55.143** Username: admin2
 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)

* Required value.

Save Cancel

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 appears, as shown in [Figure 114 "Ethernet Link Web page" \(page 203\)](#).

Figure 114
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: * (16 - 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 appears, as shown in [Figure 115 "Property Management System Web page" \(page 204\)](#).

Figure 115
Property Management System Web page

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 116 "Engineered Values Web page" \(page 204\)](#).

Figure 116
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 117 "Buffer and Queue Management Web page" \(page 205\)](#).

Figure 117
Buffer and Queue Management Web page

Managing: **192.168.55.143** Username: admin2
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)
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)

* Required value.

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 118 "Call Register Web page" \(page 206\)](#).

Figure 118
Call Register Web page

CS 1000 ELEMENT MANAGER Help | Logout

Managing: 192.168.55.143 Username: admin2
System » Engineered Values » Call Register

Call Register

Number of call registers: (80 - 65000)

Maximum number of call registers for :

Auxiliary messaging: (0 - 65000)

Command status link input queues: (20 - 16250)

Command status link/AML output queues: (20 - 16250)

Double message processing speed on AML: ☐

* Required value.

Save Cancel

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 119 "Idle Set Display Web page" \(page 206\)](#).

Figure 119
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)

Save Cancel

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 120 "Call Detail Recording Web page" \(page 207\)](#).

Figure 120
Call Detail Recording Web page

Managing: 192.167.102.3
System > Engineered Values > Call Detail Recording

Call Detail Recording

Format: OLD ▼

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: Message Registration ▼

Save Cancel

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 121 "Miscellaneous Parameters Web page" \(page 208\)](#).

Figure 121
Miscellaneous Parameters Web page

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

Miscellaneous Parameters

Number of CPU: 1

Pulse Code Modulation Companding Law: MU Law

Minor Alarm on Attendant consoles: ☒

Error Messages

Monitor Hardware: ☒

Monitor Software: ☒

Software Audit: ☒

Digitone Burst Time: 100 (milliseconds)

Call Forward Saved on Sysload: ☐

16 button Dual Tone Multi-Frequency Operation: ☐

Cadence increments: 128 (milliseconds)

Multiple Loop Directory Number: ☐

Incoming Calls by Fully Restricted Station: Denied

Automatic Call Distribution - Auxiliary Data System Customers: 0

Speed Call Lists: 0 * (0 - 8191)

Display Messages for Background Terminal: 20 * (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 122 "Service Parameters Web page" \(page 209\)](#).

Figure 122
Service Parameters Web page

Managing 192.167.166.3
 System > Emergency Services > Service Parameters

Service Parameters

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**.
- Check **Reuse oldest ELIN during overflow**, if necessary.
- 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 123 "Access Numbers and Routing Web page"](#) (page 210).

Figure 123
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 Customer 0 Edit...

Default Calling Number : 9674444

On-Site Notification Station DN :

Emergency Services Directory Numbers

Add... Delete Refresh

	Entry#	Directory Number	Routing Method	Route Value	Directing Digits	Misdial Prevention	Misdial Delay	Last ESDN Digit Repetition
☐	1	911	ESRT	1	4444	NO		
☐	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 appears, as shown in Figure 124 "Add Emergency Services Directory Number Web page" (page 211).

Figure 124
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: 3

Directory Number: *

Directing Digits: *

Routing Method:

☒ Route Number: 1

☐ Route List Index:

Misdial Prevention: ☐

Misdial Delay: 2 (seconds)

Last ESDN Digit Repetition: ☒

Save Cancel

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 appears, as shown in [Figure 125 "Edit Emergency Services Directory Number Web page" \(page 212\)](#).

Figure 125
Edit Emergency Services Directory Number Web page

Edit Emergency Services Directory Number Entry 1

Directory Number : 20

Directing Digits : 10

Routing Method :

☒ Route Number : 1

☐ Route List Index : Not Configured

Misdial Prevention : ☐

Misdial Delay : 2 (seconds)

Last ESDN Digit Repetition : ☒

Save

To edit the CLID configuration for a Customer, select a Customer from the **Choose a customer** drop-down list and click **Edit**. The **Edit Access Numbers and Routing** Web page appears, as shown in [Figure 126 "Edit Access Numbers and Routing Web page" \(page 212\)](#).

Figure 126
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):	

Submit Refresh Cancel

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 appears, as shown in [Figure 127 "Add Access Numbers and Routing Web page" \(page 213\)](#).

Figure 127
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 > Emergency Response Locations** link in the **System** branch of the Element Manager navigator to open the **Emergency Response Location** Web page, as shown in [Figure 128 "Emergency Response Location Web page" \(page 214\)](#).

Figure 128
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
☐ 256	DIS								
☐ 257	DIS		ZONE1						
☐ 258	DIS		ZONE2						

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

Items per page

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

To add an ERL, click the radio button for the ERL and click **Add**.

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 appears, as shown in [Figure 129 "Edit Emergency Response Location Web page"](#) (page 215).

Figure 129
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):	256
Site Name (SITENAME):	
Location Description (LOCDESC):	
Routing Method (ROUTING):	Route Number (RT)
Access Code (AC):	Null (NULL)
Prepend Digits (PREPEND):	
Locator (LOCATOR):	
On-Site Notification DN (OSDN):	

To add an ERL, from the **Emergency Response Location** Web page click **Add**. The **Add Emergency Response Location** Web page appears, as shown in [Figure 130 "Add Emergency Response Location Web page" \(page 216\)](#).

Figure 130
Add Emergency Response Location Web page

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

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 131 "Subnet Location Information Service Web page" \(page 217\)](#).

Figure 131
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
☐	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
[First](#) | [Prev](#) | [Next](#) | [Last](#)

The Maintenance section contains a link to the **Emergency Services Diagnostics** Web page. See "[Emergency Services Diagnostics](#)" (page 80).

The Configuration section lists the configured subnet entries. To delete a configured Subnet Location, select the appropriate radio button beside an IP Address and click **Delete**.

To edit a configured Subnet Location, click the Subnet Location **IP Address**. The **Edit Subnet Location Information** Web page appears, as shown in [Figure 132 "Edit Subnet Location Information Web page"](#) (page 218).

Figure 132
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):	192.167.102.3 *
Mask bits (MASKBITS):	32 * (1 - 32)
Emergency Response Location (ERL):	256 * (1 - 65535)
Emergency Caller Location (ECL):	4444 * (0 - 65535)
Location Description (LOCATIONDESCRIPTION):	

To add a Subnet Location, from the **Subnet Location Information Service** Web page click **Add**. The **Add Subnet Location Information** Web page appears, as shown in [Figure 133 "Add Subnet Location Information Web page"](#) (page 218).

Figure 133
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):	0.0.0.0
Mask bits (MASKBITS):	(1 - 32)
Emergency Response Locator (ERL):	(1 - 65535)
Emergency Caller Locator (ECL):	(0 - 65535)
Location Description (LOCATIONDESCRIPTION):	

Enter the information for the new Subnet Location and click **Submit**.

Dynamic ELIN

The Dynamic Identification Web pages allow users to modify Dynamic Emergency Location information.

Click the **Emergency Services > Dynamic ELIN** link in the **System** branch of the Element Manager navigator to open the **Dynamic ELIN** Web page, as shown in [Figure 134 "Dynamic ELIN Web page"](#) (page 219).

Figure 134
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 appears, as shown in [Figure 135 "Add Dynamic Location Identification Number Web page"](#) (page 219).

Figure 135
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):	(1 - 65535)
Terminal Number (TN):	

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 136 "Virtual Office Phone Web page"](#) (page 220).

Figure 136
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 ☐ 0	911	1	096 0 00 00	20

Virtual Office TNs In Use

[Trace](#) [Refresh](#)

Virtual Office TN ▲	Virtual Office DN	TN	Timer	Signalling IP

To delete a Mapped Virtual Office TN, click the radio button for the Customer and click **Delete**.

To Add a Mapped Virtual Office TN, click **Add**, enter the information for the new Virtual Office TN, and click **Save**.

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 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 appears as shown in [Figure 137](#) "Database Replication Control Web page" (page 221).

Figure 137
Database Replication Control Web page

Managing: 172.16.100.2
System » Geographic Redundancy » Database Replication Control

Database Replication Control

☐ Database replication control
Unchecking the check box and clicking on Save will delete the database replication control block

Rule number for backup and restore:

Automatic replication backup:

Automatic replication restore: ☒

Automatic sysload: ☒

Secret string

The secret string is used for encryption and decryption of zipped database for database replication. It needs to be always configured

Revert to default: ☐

Secret password:

On the **Database Replication Control** Web page, you can configure the following information:

- Rule Number for backup and Restore
- Automatic Replication Backup (ABKUP)
- Automatic Replication restore
- Automatic Sysload

Note: You must configure one SCS backup rule before **Database Replication Control** Web page can be configured.

You can also create a Secret string. You create a mandatory Secret string for encryption and decryption of a zipped database and database replication.

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 appears as shown in [Figure 138 "State Control Web page"](#) (page 222).

Figure 138
State Control Web page

Input Description	Input Value
Geographic Redundancy Threshold (GRTHR):	1
Short Term Failure Timeout in minutes (STFTO):	5
Fault Clearance Timeout in minutes (FCTO):	5
Secondary CS Deactivation Mode (SDAM):	Automatic (AUTO)

Submit Refresh Delete Cancel

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.

To have access to the patching feature, you must enter the administration password configured in LD 17 and have PDT access. Patches can be downloaded from the Nortel web site using any web browser.

For MGC and VGMC loadware distribution and functionality instructions, refer to the "Enterprise Voice Solutions Patch Reference and Best Practice Guidelines" located on the Enterprise Solutions PATCH Library (ESPL) page at www.nortel.com/espl. Authorized users can log in to the ESPL using their e-mail address as Login ID, SAM ID or Norpass password. If the user does not have access to the ESPL page, it will show as "Not available". Users who do not have access can contact Nortel ESPL support for assistance, or can follow the New User Registration link from the main ESPL Login page.

Loadware PEPs

Perform Loadware PEPs patching by clicking **Software > Loadware PEPs** link in the **System** branch of the Element Manager navigator as shown in figure Figure 139 "Loadware PEPs" (page 223).

Figure 139
Loadware PEPs

From the Loadware PEPs Web page, user can

- load and activate a new Product Enhancement Package (PEP)
- get the status of a single PEP or all PEPs (PSTAT)
- view the details of Loadware on a PEP

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 appears, as shown in [Figure 140 "Call Server Web page" \(page 224\)](#).

Figure 140
Call Server Web page

Managing: 192.167.102.3
System > Software > Call Server

Call Server

☒ User PEPs ☐ Dependency lists

PEP Setting		PEP Bin (Total: 0; Limit: 15)
PEP File Name <input <="" td="" type="button" value="Browse..."/> <td></td> <td rowspan="4"> -->> <<-- Load and Activate </td>		-->> <<-- Load and Activate
Days PEP vulnerable to sysload 3		
In service initialize threshold 5		
In service days to monitor inits 7		

Select Command	PEP ID	Apply to All	
PEP Status (PSTAT) v		☐	Submit

```

System has no loaded patches.
Total number of in service patches      = [0]
Total number of out-of-service patches = [0]
Protected heap allocated = [ 208KB ]
Protected heap free      = [ 3887KB ] { 94% }
  
```

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 141 "Call Server Web page - Dependency Lists"](#) (page 225).

Figure 141
Call Server Web page - Dependency Lists

Managing: 192.167.102.3
System » Software » Call Server

Call Server

☐ User PEPs ☒ Dependency lists

Dependency list Setting

Dependency list File Name

Select Command	DepList Name	
DEPLIST Load (DLOAD) v Days PEP vulnerable to sysload 3 In service initialize threshold 5 In service days to monitor inits 7	All v	Submit

Call Server:

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.

Loading and Activating PEP Settings on the Call Server

Step	Action
1	Select the User PEPs radio button on the Call Server page.
2	Click Browse . The Choose file window appears.
3	Choose a file to be downloaded and click Open .
4	Enter the number of Days PEP vulnerable to sysload .
5	Enter the In service initialize threshold .
6	Enter the In service days to monitor inits .
7	Click the --> (right arrow) button to move the PEP files into the PEP Bin section.
8	Click Load and Activate to submit the selected PEPs to the call server. Results are displayed at the bottom of the screen.
--End--	

Additional Commands

From the **Select Command** list select one of the following:

- **PEP Status (PSTAT)** - Shows the status of the PEP
- **PEP In-Service (PINS)** - Places the PEP in service
- **PEP Out-Of-Service (POOS)** - Takes the PEP out of service

- **PEP Out (POUT)** - Unloads the PEP
- **PEP List (PLIS)** - Lists information about the PEP

Once the appropriate command has been selected, select either **PEP ID** and enter the PEP ID that you want to execute the command on or select **Apply to All** to execute the selected command on all of the PEPs. Once this has been completed, select **Submit**.

Loading and Activating Dependency lists on the Call Server

Step	Action
1	Select the Dependency lists radio button on the Call Server page.
2	Click Browse . The Choose file window appears.
3	Choose a file to be downloaded and click Open .
4	Click Load and Activate to submit the selected Deplist to the call server.
--End--	

Additional Commands

From the **Select Command** box select one of the following:

- **DEPLIST Load (DLOAD)** - Loads the Deplist
- **DEPLIST Status (DSTAT)** - Shows the status of the Deplist
- **DEPLIST In-Service (DINS)** - Places the Deplist in service
- **DEPLIST Out-Of-Service (DOOS)** - Takes the Deplist out of service
- **DEPLIST Out (DOUT)** - Unloads the Deplist
- **DEPLIST List (DLIS)** - Lists information about the Deplist

Once the appropriate command has been selected, select the **Deplist Name** that you would like to execute the command on. Once this has been completed, select **Submit**.

The following other changes can be executed when loading a Deplist:

- Enter the number of **Days PEP vulnerable to sysload**
- Enter the **In service initialize threshold**
- Enter the **In service days to monitor inits**

**WARNING**

Service updates that contain many PEPs can take time to install.

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.

Centralized 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 network elements, using the functions available under the **Software > File Upload** link in the **System** branch of the navigator. The **Centralized File Upload** Web page appears as shown in

Figure 142
Centralized File Upload Web page

Delete	File Name	Type	Create Time
☐	IPL59018.sa	Voice Gateway Media Card workfile	October 1, 2008 4:17:32 AM ADT
☐	IPL59018.mc32s	MC32S workfile	October 1, 2008 4:17:32 AM ADT
☐	0602B76.bin	IP Phone 2004 Phase 0/1	October 1, 2008 4:17:30 AM ADT
☐	0603B76.bin	IP Phone 2002 Phase 1	October 1, 2008 4:17:31 AM ADT
☐	0604DBL.bin	IP Phone 2004 Phase 2, IP Phone 2002 Phase 2, IP Phone 2001 Phase 2	October 1, 2008 4:17:31 AM ADT
☐	0621C4P.bin	IP Phone 2007 Phase 2	October 1, 2008 4:17:31 AM ADT
☐	0623C4L.bin	IP Phone 1110	October 1, 2008 4:17:31 AM ADT
☐	0624C4L.bin	IP Phone 1120E	October 1, 2008 4:17:31 AM ADT
☐	0625C4L.bin	IP Phone 1140E	October 1, 2008 4:17:31 AM ADT
☐	0627C4L.bin	IP Phone 1150E	October 1, 2008 4:17:31 AM ADT
☐	062AC5L.bin	IP Phone 1210, IP Phone 1220, IP Phone 1230	October 1, 2008 4:17:31 AM ADT
☐	2310S74.bin	IP Audio Conference Phone 2033	October 1, 2008 4:17:31 AM ADT

LWFW file name

For more information about the file upload function, see *Signaling Server IP Line Application Fundamentals (NN43001-125)*.

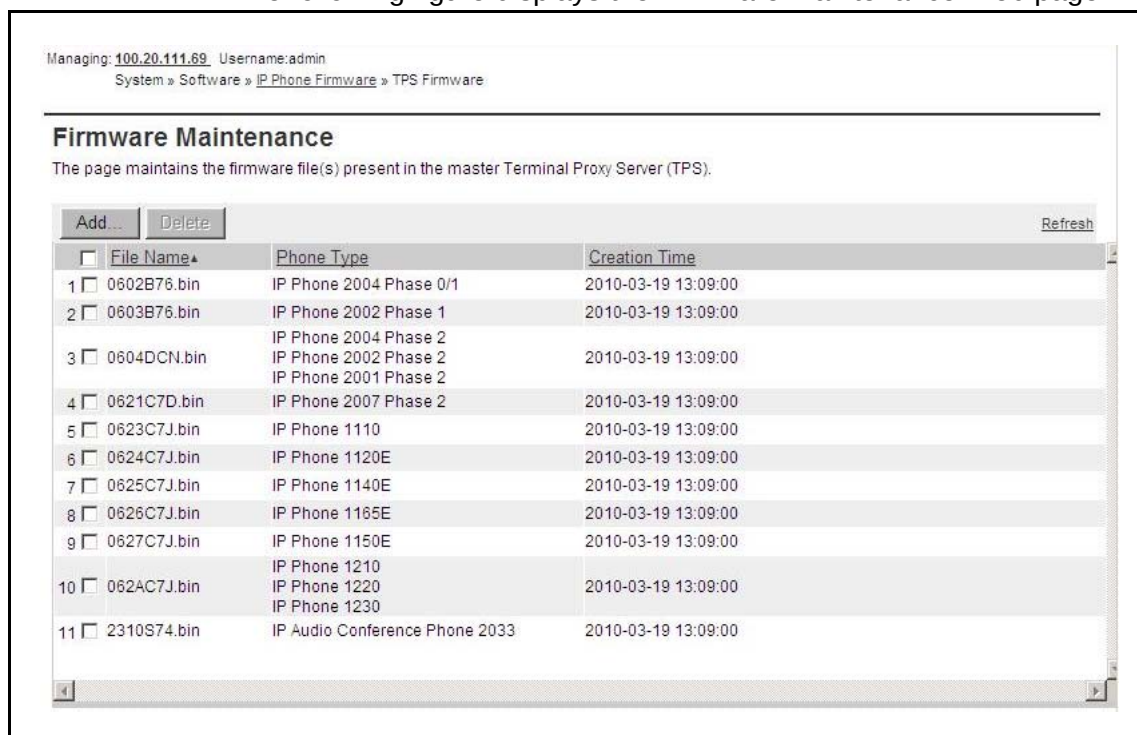
IP Phone Firmware

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 *Signaling Server IP Line Application Fundamentals (NN43001-125)*.

TPS Firmware

The TPS firmware feature enables the users to view, add, and delete firmware files present in the master TPS (Terminal Proxy Server). You can navigate to the feature from **Software > IP Phone Firmware > TPS Firmware**. TPS Firmware is presented as a link in the IP Phone Firmware web page. When you click the link, the Firmware Maintenance Web page opens.

The following figure displays the Firmware Maintenance Web page.



To add a new firmware file to the master TPS, perform the following procedure

Procedure 98

Adding new TPS firmware file

Step	Action
1	In the Firmware Maintenance Web page, click Add . The Firmware Upload Web page appears.

- 2 Click **Browse** to select the file to upload.
The **Choose File** dialog box appears.
- 3 Select the file to upload.
- 4 Click **Open**.
The path where the file is stored appears in the **File name** field.
- 5 Click **Upload**.
A dialog box asks for confirmation on uploading the file.
- 6 Click **OK**.
The page refreshes to display the TPS Firmware Web page with the new file.

--End--

To delete a firmware file from the master TPS, perform the following procedure.

Procedure 99 Deleting a firmware file

Step	Action
1	Select the check box corresponding to the firmware file to be deleted. If you want to delete multiple files, select the check boxes corresponding to the required files. To delete all the files, select the check box corresponding to the File Name field.
2	Click Delete to delete the files. The system asks for a confirmation on deleting the files.
3	Click Delete to confirm the deletion.

The Firmware Maintenance Web page refreshes.

--End--

Voice gateway media card loadware

The **Software > Voice Gateway Media Card** link in the **System** branch of the Element Manager navigator allows users to upgrade VGMC loadware as shown in the following figure. For more information, see *Signaling Server IP Line Application Fundamentals (NN43001-125)*.

Figure 143
VGMC Loadware Upgrade

Managing: 192.168.209.111 Username: admin2
System » Software » Voice Gateway Media Card (VGMC) Loadware Upgrade

Voice Gateway Media Card (VGMC) Loadware Upgrade

Select Card(s)

Open all nodes Close all nodes Clear all Show: ☐ IPv6 address

- Node ID: 19	Node IP: 64.12.55.1	Total elements: 0
- Node ID: 121	Node IP: 192.168.55.176	Total elements: 0
+ Node ID: 999	Node IP: 1.2.3.4	Total elements: 1

Click on a button to invoke a command.

Loadware

Add... Upgrade Delete Refresh

File Name *	Type	Creation Time

Media Cards

Click the **Software > Media Cards PEPs** link in the **System** branch of the Element Manager navigator to open the **Media Cards** Web page as shown in [Figure 144 "Media Cards Web page" \(page 232\)](#).

Figure 144
Media Cards Web page

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 100 Loading and Activating PEP Settings to the Signaling Server

Step	Action
1	Select the correct Element type and then Platform type.
2	Click Browse . The Choose file window appears.

- 3 Choose a file to be downloaded and click **Open**.
- 4 Enter the number of **Days PEP vulnerable to sysload**.
- 5 Enter the **In service initialize threshold**.
- 6 Enter the **In service days to monitor inits**.
- 7 Click the -->> (right arrow) button to move the PEP files into the PEP Bin section.
- 8 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.

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.

Additional Commands:

Plug-ins

The Plug-ins feature displays the status and details of all the plug-ins in the Call Server. Using this feature you can enable or disable a particular plug-in or set of plug-ins. You can view this link only if you have PDT2 user rights.

You can access the Plugins web page through the path **Software > Plug-ins** in the **System** branch of the Element Manager.

The following figure displays the Plugins Web page.

Managing: 192.168.209.111 Username: admin2
System » Software » Plugins

Plugins

[Print](#) | [Refresh](#)

☐	Number	Description	MPLR Number	Status
☐	0	PI: Wrong special dial tone with NT8D17CA CONF/TDS pack	MPLR02330	Enabled
☐	1	PI: BRI B-channels not marked MBSY when D-channel drops	MPLR12002	Enabled
☐	2	PI: Automatic Wake Up is turned off if INI occurs	MPLR02860	Enabled
☐	3	PI: Hotline feature enhancement for BASF	MPLR11506	Enabled
☐	4	PI: After dialing LSC followed by DSC, user gets overflow tone	MPLR02871	Enabled
☐	5	PI: NRGAs is not working with tandem node & digit manipulation	MPLR06084	Enabled
☐	6	PI: BCS set cannot release from call transfer to attendant	MPLR02056	Enabled
☐	7	PI: DID with DNIS and IDC cannot call PLDN using SCLU	MPLR06413	Disabled
☐	8	PI: Not possible to CFW a set to PLDN using SCLU	MPLR06450	Disabled
☐	9	PI: Wrong display if ATTN extends call with announcement	MPLR07136	Disabled
☐	10	PI: CFW call to NAS is intercepted to NITE DN	MPLR07615	Disabled
☐	11	PI: RAN cannot be accessed via route ACOD over network	MPLR11339	Enabled
☐	12	PI: Maintenance messages flooding TTY -> TTY unusable	MPLR08777	Enabled
☐	13	PI: MCT should be output on answer from 500 sets	MPLR07477	Disabled
☐	14	PI: MCDN - ORIG DN display is preceded with a "H"	MPLR09806	Disabled
☐	15	PI: No CCNR if CLID in Id 15 is configured as AC1 + HLOC	MPLR12767	Disabled

From the Plugins Web page you can perform the following actions:

- Enable a plug-in or set of plug-ins
- Disable a plug-in or set of plug-ins
- Print the details of the page
- Refresh the page to map all plug-ins with the Call Server

Use the following procedure to enable plug-ins on the Call Server.

Procedure 101 Enabling plug-ins on the Call Server

Step	Action
1	Select the check box corresponding to the plug-in you want to enable. To enable multiple plug-ins simultaneously, select the check boxes corresponding to the required plug-ins.
2	Click Enable . The page refreshes and displays the status of the plug-in as Enabled .
--End--	

Use the following procedure to disable plug-ins on the Call Server.

Procedure 102
Disabling plug-ins on the Call Server

Step	Action
1	Select the check box corresponding to the plug-in you want to disable. To disable multiple plug-ins simultaneously, select the check boxes corresponding to the required plug-ins.
2	Click Disable . The page refreshes and displays the status of the plug-in as Disabled.
--End--	

Customers, Routes and Trunks

Contents

This section contains information about the following topics:

["Introduction" \(page 237\)](#)

["Customers" \(page 237\)](#)

["Route and Trunk Configuration" \(page 266\)](#)

["Routes and Trunks" \(page 266\)](#)

["D-channels" \(page 276\)](#)

["Digital Trunk Interface" \(page 280\)](#)

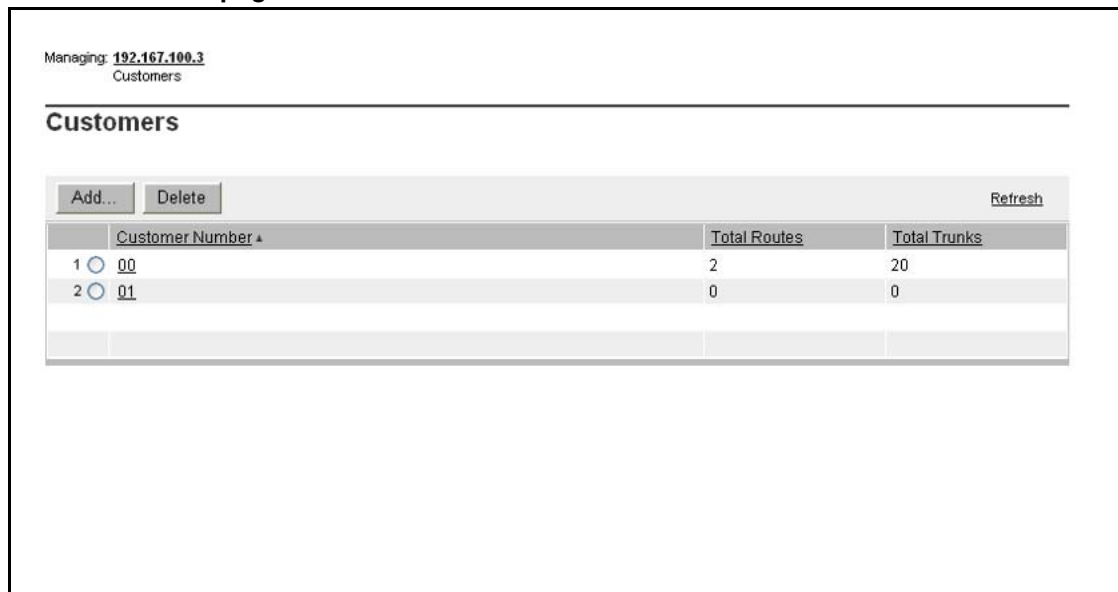
Introduction

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 appears, as shown in [Figure 145 "Customers Web page" \(page 238\)](#). To configure customer data, click the **Customer Number**.

Figure 145
Customers Web page



Managing: [192.167.100.3](#)
Customers

Customers

Add... Delete Refresh

	Customer Number	Total Routes	Total Trunks
1	00	2	20
2	01	0	0

Note: To create a new customer, you must create a new role in Unified Communications Management (UCM) and modify the permissions for that role so that Customer Tenant Mappings reflect permissions for all customers to be added. For information about creating a new roll in UCM, refer to *Unified Communications Management Common Services Fundamentals* (NN43001-116).

To add a new customer, click **Add**.

The **Basic Configuration** Web page appears, as shown in [Figure 146 "Basic Configuration Web page" \(page 239\)](#).

Figure 146
Basic Configuration Web page

Managing: 192.167.100.3
Customers > Add Customer > Basic Configuration

Basic Configuration

Customer number: * (0 - 99)

ANI Attendant Billing number: *

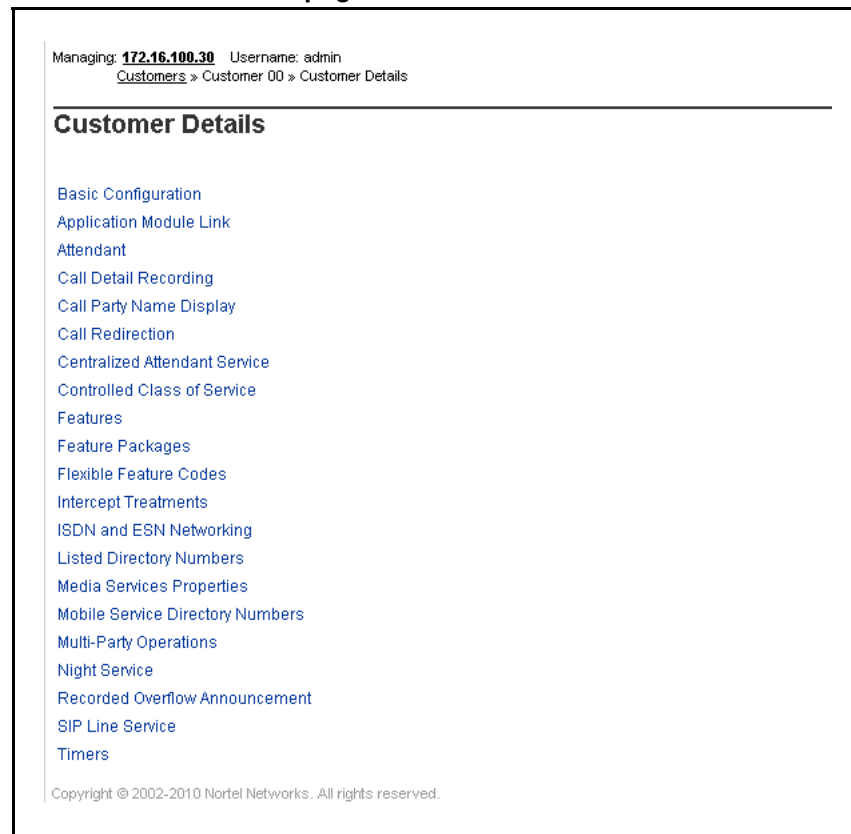
ANI Listed Directory Number: *

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 **Customer Details** Web page appears, as shown in [Figure 147 "Customer Details Web page"](#) (page 240).

Figure 147
Customer Details Web page



This Web page contains links to web pages where users can configure additional parameters for each route data 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 148 "Application Module Link Web page" \(page 241\)](#).

Figure 148
Application Module Link Web page

Managing: 192.168.209.116 Username: admin2
Customers » Customer 00 » Customer Details » Application Module Link

Application Module Link

Value Added Server Identifier:

Select the empty option to remove the configured Value Added Server Identifier

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:

Option: ☒ ACD dialed number identification

Enter the **Value Added Service Identifier** and Group status events information and click **Save**.

Attendant

The **Attendant** web page allows users to enable different options for a customer. Click **Attendant** in the Customers web page..

Managing: 192.168.209.63 Username: admin2
Customers » Customer 00 » Customer Details » Attendant

Attendant

Options: ☒ Attendant busy display
☒ Autohold on loop key
☒ Attendant through dialing
☐ ACD dialed number identification
☐ ACD threshold percentage
☒ Break-in to external call
☒ Break-in to line lockout set
☐ Busy Lamp Field array
☐ Digit display
☐ Enhanced busy lamp field
☐ Flexible attendant call waiting thresholds
☒ Forward key
☐ Key/lamp expansion module
☐ Lockout
☐ Malicious call trace signal
☐ Message waiting unconditional

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Select the appropriate check boxes in the Attendant Web page 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 149 "Call Detail Recording Web page"](#) (page 242).

Figure 149
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 150 "Call Party Name Display Web page"](#) (page 243).

Figure 150
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 151 "Call Redirection Web page" \(page 244\)](#).

Figure 151
Call Redirection Web page

Managing: 192.168.209.63 Username: admin2
 Customers » Customer 00 » Customer Details » Call Redirection

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:

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: ☐

Total redirection count limit:

Options:

- ☒ Call forward reminder tone for 500/2500 sets
- ☐ CFNA treatment for call waiting calls on a DN
- ☐ DID call to second degree busy treatment
- ☐ Message center
- ☒ Prevention of reciprocal call forward

Call forward: ☒ Originating ☐ Forwarding

Number of normal ringing cycles for CFNA

Option 0:

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Enter the appropriate information, select appropriate options and click **Save**.

Click **Redirection Holidays** to open the **Redirection Holidays** Web page, as shown in [Figure 152 "Redirection Holidays Web page" \(page 245\)](#).

This Web page displays holiday redirections for existing dates and allows users to add, edit, or delete holidays.

Figure 152
Redirection Holidays Web page

Managing: [192.167.100.3](#)
[Customers](#) » [Customer 00](#) » [Edit](#) » [Call Redirection](#) » [Redirection Holidays](#)

Redirection Holidays

[Add...](#) [Delete](#) [Refresh](#)

☐ Date	Holiday Redirection 0	Holiday Redirection 1	Holiday Redirection 2	Holiday Redirection 3
1 ☐ Jan 01 2006	YES	NO	NO	NO
2 ☐ Dec 25 2006	NO	YES	YES	NO

To add a holiday, click **Add**. The **Add Date of Holiday** Web page appears, as shown in [Figure 153 "Add Date of Holiday Web page" \(page 245\)](#).

Figure 153
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: ☐

[Save](#) [Cancel](#)

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 154 "Centralized Attendant Service Web page" \(page 246\)](#).

Figure 154
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 appears, as shown in [Figure 155 "Edit Attendant ICI Web page" \(page 247\)](#).

Figure 155
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 156 "Controlled Class of Service Web page" \(page 248\)](#).

Figure 156
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

Network wide 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 (FFC) data block for a customer. To access the **Flexible Feature Codes** Web page for a customer, click the **Flexible Feature Codes** link of the **Edit** Web page to open the Web page shown in [Figure 157 "Flexible Feature Codes Web page" \(page 248\)](#).

Figure 157
Flexible Feature Codes Web page

Managing: 192.168.200.31 Username: sownib
Customers » Customer 00 » Customer Details » 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

Station control password: ☒ Use for set based administration user level access
☐ Use default station control password for IP phones

Mobile extension activation code:

Mobile extension interface: ☐ Simplified

Indicator: ☐ Provide end of dialing indicator

End of dial indicator string length:

End of dial indicating string: (0-0,*)

Auto dial delay: (Seconds)

Tone: ☐ Provide confirmation tone

CEPT: ☐ Conference europeenne des administrations des postes et des telecommunications (CEPT)

Replacement for the * in the CEPT default codes:

[Flexible Feature Code Entries](#)

To configure Change Flexible Feature Code end-of-dialing indicator, select the **Change Flexible Feature Code end-of-dialing indicator** checkbox.

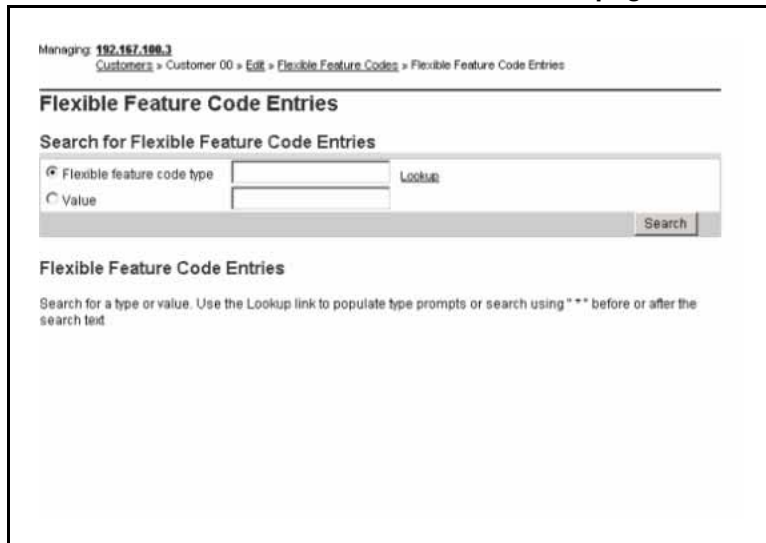
Enter the appropriate information and click **Save**.

Flexible Feature Code Entries

To access Flexible Feature Code Entries click on the **Flexible Feature Code Entries** hyperlink. The **Search for Flexible Feature Code Entries** Web page appears as shown in [Figure 158 "Search for Flexible Feature Code Entries Web page" \(page 249\)](#).

Note: To access **Flexible Feature Code Entries** Web page for a Customer the FCC data block must be configured, see [Procedure 106 "Configuring Flexible Feature Codes" \(page 251\)](#). If you click the Flexible Feature Code Entries hyperlink before configuring the FCC data block, the message *"FCC Block is not configured. Click on [OK] to configure the FCC block for the customer."* appears. Click **OK** to automatically configure the FCC data block and open the **Flexible Feature Code Entries** Web page.

Figure 158
Search for Flexible Feature Code Entries Web page



Managing: 192.167.100.3
Customers > Customer 00 > Edit > Flexible Feature Codes > Flexible Feature Code Entries

Flexible Feature Code Entries

Search for Flexible Feature Code Entries

☒ Flexible feature code type [Lookup](#)

☐ Value

Flexible Feature Code Entries

Search for a type or value. Use the Lookup link to populate type prompts or search using "*" before or after the search text.

To search for specific Flexible Feature Codes, follow the steps in [Procedure 103 "Searching for Flexible Feature Codes" \(page 250\)](#).

Procedure 103
Searching for Flexible Feature Codes

Step	Action
1	Click the Flexible feature code type radio button to activate search for Flexible Feature Codes.
2	Click the Look up hyperlink. The Flexible Feature Code Lookup pop up window appears.
3	Click the check box of the required features and click Assign . The selected feature prompt names are displayed in the Specific Feature Code type input box.
4	Click Search . The datagrid lists only the codes for the selected feature.
--End--	

To search for Flexible Feature Codes by Value, follow the steps in [Procedure 104 "Searching for Flexible Feature Codes by Value" \(page 250\)](#).

Procedure 104
Searching for Flexible Feature Codes by Value

Step	Action
1	Enter the configured Flexible Feature Code value in the Value input box.
2	Check the Value radio button, the Search button is enabled.
3	Click the Search button. The flexible feature code, type, and the value are listed in the datagrid.
--End--	

To search for Flexible Feature Codes using Advanced Search, follow the steps in [Procedure 105 "Searching for Flexible Feature Codes \(Advanced\)" \(page 250\)](#).

Procedure 105
Searching for Flexible Feature Codes (Advanced)

Step	Action
1	Enter the wildcard character * before or after the search text in the 'Flexible feature code type' input box.

- 2 Check the **Flexible feature code type** radio button, the **Search** button is enabled.
- 3 Click the **Search** button. All the flexible feature code type with the configured values that match the given search text are listed in the datagrid.

--End--

To configure Flexible Feature Codes for a customer, follow the steps in [Procedure 106 "Configuring Flexible Feature Codes" \(page 251\)](#).

Procedure 106
Configuring Flexible Feature Codes

Step	Action
1	In the Flexible Feature Codes Web page, check the box Flexible Feature Confirmation Tone and Conference European Des Postes Tel (CEPT) defaults . The Replacement for * in CEPT default codes appears as a sub prompt for Conference European Des Postes Tel (CEPT) defaults prompt and should be enabled only when Conference European Des Postes Tel (CEPT) defaults prompt is checked.
2	To complete the configuration, click Save .
3	Click Cancel to cancel the action. The Edit Web page is displayed.
--End--	

To add Flexible Feature Codes to the Customer, follow the steps in [Procedure 107 "Adding Flexible Feature Codes" \(page 251\)](#).

Procedure 107
Adding Flexible Feature Codes

Step	Action
1	Click on the Flexible Feature Code Entries hyperlink on the Flexible Feature Code Web page. The Flexible Feature Code Entries Web page appears.
2	Click Add in the Flexible Feature Code Entries Web page. The Add Flexible Feature Code Web page appears.
3	Click the Look up hyperlink adjacent to the Flexible feature code type input box. The Flexible Feature Code Lookup popup window appears and lists all the Flexible Feature Codes.

- 4 Click on a **Flexible Feature Code** to add to the **Flexible feature code type** input box.
- 5 Enter a value in the **Value** box.
- 6 Click **Save**, to add the Flexible Feature Code. The new Flexible Feature Code is displayed in the **Flexible Feature Code Entries** Web page.

--End--

Features

The **Features** Web page allows users to configure the Features data block for a customer. Click **Features** to open this Web page, as shown in [Figure 159 "Features Web page"](#) (page 252).

Figure 159
Features Web page

Managing: [192.168.209.63](#) Username: admin2
[Customers](#) » [Customer 00](#) » [Customer Details](#) » [Features](#)

Features

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: ☐

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 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:

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Figure 160
Feature options

Options:

- ☒ Attendant busy display
- ☒ Autohold on loop key
- ☐ Attendant monitor
- ☒ Attendant through dialing
- ☒ ACD dialed number identification
- ☒ ACD threshold percentage
- ☒ Attendant monitor tone
- ☒ Break-In to external call
- ☒ Break-In to line lockout set
- ☐ Break-In warning tone
- ☐ Collect call blocking
- ☒ Call forward reminder tone for 500/2500 sets
- ☐ Charge display at end of call
- ☐ Camp-On tone
- ☒ CFNA treatment for call waiting calls on a DN
- ☒ Coordinated dialing plan routing
- ☐ Data services or server
- ☒ DID call to second degree busy treatment
- ☐ Digit display
- ☐ Enhanced busy lamp field

Figure 161
Feature options (Contd)

CS 1000 ELEMENT MANAGER Help | Logout

- ☐ Group call pickup
- ☒ Hot line access
- ☐ Hands-free voice call
- ☐ Individual hold lamp option
- ☐ Individual hold release option
- ☐ Individual hold
- ☒ Key ringing sequence
- ☐ Key/lamp expansion module
- ☐ Lockout
- ☐ Last number redial
- ☐ Malicious call trace signal
- ☐ Message center
- ☐ Message waiting unconditional
- ☐ Network-Wide LDN
- ☐ Override of call forward external
- ☐ Position busy with calls on hold
- ☐ Presentation status selection on attendant consoles
- ☐ Queue thermometer REST
- ☐ Redirect of attendant calls when ACD is in night service
- ☒ Release on exclusion

For Communication Server 1000 Release 7.0, the Key ringing sequence field is added in the Features web page.

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, select appropriate options and then click **Save**.

Media Services Properties

The Media Services Properties Web page displays the Media Services Properties for a customer.

Figure 162
Media Services Properties Web page

Zone	MSRN	IP Conference DN	IP Music DN	IP RAN DN	IP Tone DN	IP Attendant DN
1	1234					

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 163 "Listed Directory Numbers Web page"](#) (page 255).

Figure 163
Listed Directory Numbers Web page

Managing: 192.168.209.63 Username: admin2
 Customers » Customer 00 » Customer Details » 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

Option: ☐ Network-wide LDN

To configure attendant consoles associated with Listed Directory Numbers, select the **Departmental listed directory number** checkbox.

Enter the appropriate information and click **Save**.

Mobile Service Directory Number

The **Mobile Service Directory Numbers** Web page allows users to view, edit, add, and delete Mobile Service Directory Numbers. Click **Mobile Service Directory Numbers** to open this Web page, as shown in [Figure 164 "Mobile Service Directory Numbers Web page" \(page 256\)](#). For more information about Mobile Directory Service Numbers and Mobile Extension, refer to *Features and Services Fundamentals - Book 4 of 6* (NN43001-106-B6).

Figure 164
Mobile Service Directory Numbers Web page

Managing: **192.167.100.3**
 Customers > Customer 00 > Edit > Mobile Service DNs

Mobile Service Directory Numbers
 Mobile Service DN can be dialed by a mobile user in a mobile network to gain access to the enterprise network

Add... Delete Refresh

	DN *	Security Code	Authorization Code	Collect Call Blocking
1	☐ 4445555	98765432	YES	YES
2	☐ 5556666	87654321	YES	YES

ISDN and ESN Networking

The **ISDN and ESN Networking** Web page allows users to configure the Integrated Services Digital Network (ISDN) and ESN Networking data block for a customer. The user can access the ISDN and ESN Networking Web page by clicking **Customers** , **Customer 00** , **Customer Details** , **ISDN and ESN Networking**. The page appears as shown in [Figure 165](#) "ISDN and ESDN Networking Web page" (page 256).

Figure 165
ISDN and ESDN Networking Web page

Managing: **192.168.55.152** Username: admin2
 Customers > Customer 00 > Customer Details > ISDN and ESN Networking

ISDN and ESN Networking

General Properties

Flexible trunk to trunk connection option:

Flexible orbiting prevention timer:

Country code:

Code for processing the called number

National access code:

International access code:

Options: ☐ Transfer on ringing of supervised external trunks
☐ Connection of supervised external trunks

Network option: ☐ Coordinated dialing plan routing

Integrated services digital network: ☐

Microsoft converged office dialing plan:

Private dialing plan for non-CID users: ☐ Coordinated dialing plan
☐ Uniform dialing plan

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Enter the appropriate information and click **Save**.

When ISDN is enabled in ISDN and ESN Networking page, the Microsoft converged office dialing plan fields become active and editable as shown in the following figure.

Figure 166
ISDN and ESN Networking Web page with ISDN enabled

Managing: 192.168.55.152 Username: admin2
Customers > Customer 00 > Customer Details > ISDN and ESN Networking

ISDN and ESN Networking

General Properties

Flexible trunk to trunk connection option:

Flexible orbiting prevention timer:

Country code: (0 - 9999)

Code for processing the called number:

National access code:

International access code:

Options: ☐ Transfer on ringing of supervised external trunks
☐ Connection of supervised external trunks

Network option: ☐ Coordinated dialing plan routing

Integrated services digital network: ☒

Microsoft converged office dialing plan:

Private dialing plan for non-DID users: ☐ Coordinated dialing plan
☐ Uniform dialing plan

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When ISDN is enabled and the Microsoft converged office dialing plan is in Mixed Mode, private dialing plan fields are become active and editable as shown in the following figure.

Figure 167
Private dialing plan

Customers > Customer 00 > Customer Details > ISDN and ESN Networking

ISDN and ESN Networking

General Properties

Flexible trunk to trunk connection option:

Flexible orbiting prevention timer:

Country code: (0 - 9999)

Code for processing the called number:

National access code:

International access code:

Options: ☐ Transfer on ringing of supervised external trunks
☐ Connection of supervised external trunks

Network option: ☐ Coordinated dialing plan routing

Integrated services digital network: ☒

Microsoft converged office dialing plan:

Private dialing plan for non-DID users: ☐ Coordinated dialing plan
☒ Uniform dialing plan

Calling Line Identification

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To configure Calling Line Identification (CLID) parameters, click **Calling Line Identification Entries**. The **Calling Line Identification Entries** Web page appears, as shown in [Figure 168 "Calling Line Identification Entries Web page"](#) (page 258).

Figure 168
Calling Line Identification Entries Web page

Managing: **192.167.100.3**
[Customers](#) > [Customer 00](#) > [Edit](#) > [ISDN and ESN Networking](#) > [Calling Line Identification Entries](#)

Calling Line Identification Entries

Search for CLID

Criteria:

CLID Range:

Calling Line Identification Entries

To search for a CLID, enter the **CLID Range** and click **Search**.

To add a CLID, click **Add**. The **New Calling Line Identification** Web page appears, as shown in [Figure 169 "New Calling Line Identification Web page" \(page 258\)](#).

Figure 169
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: ▼

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 170 "Night Service Web page" \(page 259\)](#).

Figure 170
Night Service Web page

The screenshot shows a web interface for managing Night Service. At the top, it indicates the user is managing IP 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 four sets of input fields, each for a night service. Each set consists of a field for "First night service DN by time of day" and a field for "Hour and minute for first night service DN". The same pattern repeats for the second, third, and fourth night services. At the bottom right, there are "Save" and "Cancel" buttons.

Service	First night service DN by time of day	Hour and minute for first night service DN
First		
Second		
Third		
Fourth		

Save 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 171 "Feature Packages Web page" \(page 260\)](#).

Figure 171
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

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Figure 172
Feature Packages Web page (Contd)

The screenshot displays a web interface for managing feature packages. It includes a list of feature packages with their respective package numbers. Below the list, there are input fields for 'Media services routing number', 'Numbering plan identifier (NPI)', and 'Type of number (TON)'. The 'Type of number (TON)' dropdown menu is open, showing options: ESN_CDP, ESN_FOP, ESN_LWC, ESN_SPN, International, Local, National, and Unknown. At the bottom right, there are 'Save' and 'Cancel' buttons. A copyright notice is visible at the bottom left: 'Copyright © 2002-2010 Nortel Networks. All rights reserved.'

Feature Package	Package Number
+ International Supplementary Features	Package: 131
+ Enhanced Night Service	Package: 133
+ Integrated Services Digital Network	Package: 145
+ Flexible Services	Package: 152
+ Network Attendant Service	Package: 159
+ Flexible Numbering Plan	Package: 160
+ Trunk Failure Monitor	Package: 182
+ Radio Paging	Package: 187
+ DPNSS Network Services	Package: 231
+ M911 Enhancement Display	Package: 249
+ Called Party Control on Internal Calls	Package: 310
+ DPNSS Message Waiting Indication	Package: 325
+ M3900 Product Enhancement	Package: 386
+ IP Media Services	Package: 422

Media services routing number: 2345
 Numbering plan identifier (NPI): Private
 Type of number (TON): ESN_CDP

Save Cancel

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Enter the Media services routing number. Choose the Numbering plan identifier and Type of number from the respective drop-down lists and then click **Save**.

Note: The only feature packages whose parameters can be viewed and edited are those that have been enabled on the 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

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 173 "Intercept Treatments Web page"](#) (page 262).

Figure 173
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 appears, as shown in [Figure 174 "Intercept Treatments Options Web page"](#) (page 263).

Figure 174
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
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	

[Refresh](#)

To edit an Intercept Treatment for a customer, click the **Condition**. The **Edit** Web page for that Condition is displayed, as shown in [Figure 175](#) "Edit Condition Web page" (page 263).

Figure 175
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 176 "Multi Party Operations Web page"](#) (page 264).

Figure 176
Multi Party Operations Web page

Multi-Party Operations

Flexible Misoperation Options

Ringing No Answer treatment: Standard Operation Standard Operation

All Other Cases: Disconnect Forward

Rings before forwarding/disconnecting: 6

Rings before forwarding to transferring station: 4

Mandatory Recall required prior to dialing control digits: ☐

Control digit Timeout: 14

Ignore Switchhook Flash signal from 500/2500 sets: ☐

Manual Hold after enquiry: ☐

Programming of Control Digits

Conference: 1

Toggle: 2

Disconnect: 3

Consultation Connection Disconnect Option alternative: ☐

Manual forced camp on: ☐

Attendant Clearing during Night Service: No Automatic Treatment

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 177 "Recorded Overflow Announcement Web page"](#) (page 265).

Figure 177
Recorded Overflow Announcement Web page

Managing: 192.168.209.115 Username: admin2
 Customers > Customer 00 > Customer Details > Recorded Overflow Announcement

Recorded Overflow Announcement

First RAN Route: (0 - 511)

Time Delay: 20 (0 - 2044 seconds)

Second RAN Route: (0 - 511)

Time Delay: 40 (0 - 2044 seconds)

Treatment during waiting time: Ring Back

Music Route: (0 - 511)

ICI key numbers that may receive ROA:

ICI key numbers separated by space

Option: ☐ Recorded overflow announcement

Enter the appropriate information and click **Save**.

SIP Line Service

The SIP Line Service package 417 must be equipped in order to enable SIP Line Service on CS 1000 system.

The **SIP Service** Web page allows users to configure SIP Line Service parameters.

You can enable or disable SIP Line Service by clicking the check box. Once the service is enabled, the rest of the SIP Line service parameters are displayed. The SIP root domain is a mandatory field when SIP Line service is enabled. The User Agent DN is an optional field but when this DN prefix is configured in the customer page, it is used to build the HOT U key information on the **Phones** Web page for SIPL Phones.

For more information, see *SIP Line Fundamentals* (NN43001-508).

Figure 178
SIP Service Web page

Managing: 192.168.209.115 Username: admin2
 Customers > Customer 00 > SIP Service

SIP Service

☒ SIP Line Service

Root domain: NORTEL.COM

User agent DN prefix:

Optional features: ☐ SIP Line Service

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 179 "Timers Web page" \(page 266\)](#).

Figure 179
Timers Web page

Managing: **192.167.100.3**
Customers > Customer 00 > Edit > Timers

Timers

Switch hook flash timing : 45 896

Permanent hold timer : 30 (1 - 63)

Dial tone and interdigit timeout for non-DTMF sets : 30 32 30

Dial tone and interdigit timeout for DTMF sets : 14 16 14

Line disconnect tone timer for 500/2500 telephones : 6 (seconds)

Delayed answer timer : 0 (0 - 120 seconds)

Busy tone/overflow tone timeout : 14 (2 - 60 seconds)

Duration between reminder cadences : 60 (2 - 120 seconds)

Attendant queue timing threshold : 30 (0 - 255 seconds)

Auto dial delay : 0 (seconds)

Attendant forward no answer timer : 0 (0 - 126 seconds)

Attendant forward buzz tone : 0 (seconds)

Night forward no answer or ring cycles : 0 (0 - 63)

Attendant delay on hold timer : 0 (seconds)

Length of Howler tone : 300 (0 - 600 seconds)

Network alternate route selection interdigit timer : 8

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 180 "Routes and Trunks Web page" \(page 267\)](#). From this Web page, users can view information about existing customers, routes, and trunks.

Figure 180
Routes and Trunks Web page

Managing: 192.168.55.143 Username: admin2 Routes and Trunks > Routes and Trunks				
Routes and Trunks				
- Customer: 0	Total routes: 6	Total trunks: 111	Add route	
- Route: 1	Type: ADM	Description: NONE	Edit	Add trunk
+ Route: 2	Type: AWR	Description: AWR	Edit	Add trunk
+ Route: 3	Type: AWR	Description: AWY	Edit	Add trunk
+ Route: 4	Type: TIE	Description: TEST	Edit	Add trunk
+ Route: 5	Type: AWR	Description: AWU	Edit	Add trunk
+ Route: 13	Type: TIE	Description: MANUA	Edit	Add trunk
+ Customer: 1	Total routes: 1	Total trunks: 1	Add route	
- Customer: 4	Total routes: 0	Total trunks: 0	Add route	
- Customer: 20	Total routes: 0	Total trunks: 0	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 181 "Route Property Configuration Web page" \(page 268\)](#).

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 about configuring routes, see *IP Peer Networking Installation and Commissioning (NN43001-313)*.

Figure 181
Route Property Configuration Web page

Managing: 192.168.200.81 Username: sownth
Routes and Trunks > Routes and Trunks > Customer 0, Route 1 Property Configuration

Customer 0, Route 1 Property Configuration

- Basic Configuration

Route data block (RDB) (TYPE):

Customer number (CUST):

Route number (ROUT):

Designator field for trunk (DES):

Trunk type (TKTP):

Incoming and outgoing trunk (ICOG):

Access code for the trunk route (ACOD):

Trunk type M911P (M911P): ☐

The route is for a virtual trunk route (VTRH): ☐

Digital trunk route (DTRH): ☐

Integrated services digital network option (ISDN): ☒

Mode of operation (MODE):

Interface type for route (IFC):

Private network identifier (PNI): (0 - 32700)

Network calling name allowed (NCNA): ☒

Network call redirection (NCRD): ☐

Channel type (CHTY):

Call type for outgoing direct dialed TIE route (CTYP):

Insert ESN access code (INAC): ☐

Integrated service access route (ISAR): ☐

Display of access prefix on CLID (DAPC): ☐

Mobile extension route (MBXR): ☐

Mobile extension outgoing type (MBXOT):

Mobile extension timer (MBXT): (0 - 8000 milliseconds)

Calling number dialing plan (CHNP):

- Basic Route Options

- Network Options

- General Options

- Advanced Configurations

Basic Configuration

In the **Basic Configuration** section of this Web page (see [Figure 182 "Basic Configuration for routes" \(page 269\)](#)), 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 182
Basic Configuration for routes

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 183 "Basic Route Options configuration" \(page 270\)](#)), 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 183 "Basic Route Options configuration" \(page 270\)](#).

Figure 183
Basic Route Options configuration

- Basic Route Options

Attendant announcement (ATAN)
No Attendant Announcement. (NO)

Billing number required (BILN)
☒

- Billing number length (BLEN)
10

- Billing number (BNUM)

- Billing number displayed (BDSP)
☒

Call detail recording (CDR)
☒

- CDR records generated on incoming calls (INC)
☐

- CDR record printing content option for redirected calls (LAST)
☐

- Time to answer output in CDR (TTA)
☐

- CDR ACD Q initial connection records to be generated (QREC)
☐

- CDR on outgoing calls (OAL)
☐

North American toll scheme (NATL)
☒

Controls or timers (CNTL)
☐

Conventional (Tie trunk only) (CNVT)
☐

Incoming DID digit conversion on this route (IDC)
☐

Multifrequency compelled or MFC signaling (MFC)
No MFC (NO)

Process notification networked calls (PNNC)
☐

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration** Web page.

Network Options

Figure 184 "Network Options for routes" (page 270) provides an example of the input requested in the **Network Options** section for the route shown in Figure 181 "Route Property Configuration Web page" (page 268). The actual input that Element Manager requests varies depending on the type of route and the responses to earlier input requests.

Figure 184
Network Options for routes

- Network Options

Input Description	Input Value
Electronic Switched Network pad control (ESN)	☐
Signaling arrangement (SIGO)	Standard (STD)
Route Class (RCLS)	Route Class marked as external (EXT)
Off-Hook Queuing (OHQ)	☐
Off-Hook Queue Threshold (OHQT)	0
Call back queuing (CBQ)	☐
Number of Digits (NDIG)	2
Authcode (AUTH)	☐

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration** Web page.

General Options

Figure 185 "General Options for routes" (page 271) provides an example of the input requested in the **General Options** section for the route shown in Figure 181 "Route Property Configuration Web page" (page 268). The actual input that Element Manager requests varies depending on the type of route and the responses to earlier input requests.

Figure 185
General Options for routes

The screenshot shows the 'General Options' section of a configuration page. It includes the following settings:

- M1 is the only controlling party on incoming calls (CPDC)**: ☐
- Dial tone on originating calls (DLTN)**: ☐
- Hold failure threshold (HOLD)**:
- Trunk access restriction group (TARG)**:
- Search method for outgoing trunk member (SRCH)**: (dropdown menu)
- Alternate trunk route for outgoing trunks (STEP)**: (Range: 0 - 511)
- Actual outgoing toll digits to be ignored for code restriction (OABS)**:
- Display IDC name (DNAM)**: ☐
- Enable equal access restrictions (EQAR)**: ☐
- ACD DNIS route (DNIS)**: ☐

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration Web** page.

Advanced Configurations

Figure 186 "Advanced Configurations for routes" (page 272) provides an example of the input requested in the **Advanced Configurations** section for the route shown in Figure 181 "Route Property Configuration Web page" (page 268). The actual input that Element Manager requests varies depending on the type of route and the responses to earlier input requests.

Figure 186
Advanced Configurations for routes

- Advanced Configurations

Malicious call trace alarm is allowed for external calls (ALRM) : ☐

Allow last re-directing number (ARDN) : ARDN (NO)

Collect call blocking allowed (CCBA) : ☐

Call forward restriction (CFWR) : ☐

Maximum number of CNI digits (CLEN) : 10

Identify originating party (IDOP) : ☐

Manual outgoing trunk route (MANO) : ☐

Malicious call trace delay time in seconds (MCDT) : 0

Outgoing identifier send (OGIS) : ☒

Off-hook timer delay (OHTD) : ☐

Pseudo answer (PANS) : ☒

Protocol selection (PSEL) : DM-DM Protocol Selection (DMDM)

Preference trunk usage threshold (PTUT) : (0 - 510)

Ring failure threshold (RGFL) :

Scheduled access restriction group (SGRP) : 0 (0 - 999)

Trunk identity (TIDY) :

Tone table number (TTBL) : 0

Incoming CLID Table (CTBL) :

* Required value.

Save Cancel

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 187 "New Trunk Configuration Web page"](#) (page 273).

Figure 187
New Trunk Configuration Web page

Input Description	Input Value
Multiple trunk input number (MTINPUT)	v
Trunk data block (TYPE)	ADM
Terminal Number (TN)	*
Designator field for trunk (DES)	
Customer number (CUST)	0
Route number, Member number (RTMB)	*
Card Density (CDEN)	v
Trunk Group Access Restriction (TGAR)	
Channel ID for this trunk. (CHID)	
Increase or decrease the member numbers (INC)	v Increase channel and member number (YES)

+ 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 187 "New Trunk Configuration Web page" \(page 273\)](#)), 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 188 "Class of Service Configuration Web page"](#) (page 274).

Figure 188
Class of Service Configuration Web page

Input Description	Input Value
- ACD Priority (CLS)	
- Analog Semi-Permanent Connections (CLS)	
- ARF Supervised COT (CLS)	
- Barring (CLS)	
- Battery Supervised COT (CLS)	
- Busy Tone Supervised COT (CLS)	
- Calling Line Identification (CLS)	
- Calling party (CLS)	
- Central Office Ringback (CLS)	
- Centrex Switchhook Flash (CLS)	
- Dial Pulse (CLS)	
- DTR PAD value (CLS)	
- Echo Canceling (CLS)	
- Hong Kong DTI (CLS)	
- Loop Break Supervised COT (CLS)	
- Make-break ratio for dial pulse (CLS)	
- Manual Incoming (CLS)	
- Media Security (CLS)	
- Network Hook Flash Over M911P (CLS)	

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 189 "Advanced Configurations for trunks"](#) (page 275) provides an example of the input requested in the **Advanced Trunk Configurations** section for the TIE Trunk shown in [Figure 187 "New Trunk Configuration Web page"](#) (page 273).

Figure 189
Advanced Configurations for trunks

- Advanced Trunk Configurations

Music conference loop: (0 - 159)

Call modification features restriction: ☐

Digit collection ready: ☐

Multifrequency digit level: 0

Multifrequency PAD: ☐

Night service group number: 0

Night service directory number:

Pulse code modulation law:

Pad category table number for digital trunks: 1

Private line directory number:

Signaling category table number: 1

Answer and disconnect supervision required: ☐

Step-by-step CO trunk: ☐

Trunk identifier:

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 190 "Delete multiple trunk members page" \(page 276\)](#). On this Web page, the information for the Parent Route is read-only.

Figure 190
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

Delete

Cancel

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 191 "D-Channels Web page" \(page 277\)](#).

Figure 191
D-Channels Web page

Managing: **192.167.102.3**
Routes and Trunks » D-Channels

D-Channels

Maintenance

[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 \(LD 48\)](#)

Configuration

Choose a D-Channel Number: and type:

- Channel: 10	Type: DCH	Card Type: DCIP	Description: PIV_VDCH	Edit
---------------	-----------	-----------------	-----------------------	-------------------------------------

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 about these commands, see [“System” \(page 39\)](#).

Configuration

From the **D-Channels** Web page users can view basic information about 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 about 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 192 "D-Channels Property Configuration Web page" \(page 278\)](#).

Note: H.323 and SIP can use the same D-channel.

Figure 192
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)	v
Group number (GRP)	v
Device number (DNUM)	v
Port number (PORT)	v
Designator (DES)	
Recovery to Primary (RCVP)	☐
User (USR)	v
Interface type for D-channel (IFC)	Meridian DMS-100 (D100) v
Country (CNTY)	ETS 300 =102 basic protocol (ETSI) v
D-Channel PRI loop number (DCHL)	
Primary Rate Interface (PRI)	more PRI
Secondary PRI2 loops (PRI2)	
Release ID of the switch at the far end (RLS)	25 v
Central Office switch type (CO_TYPE)	100% compatible with Bellcore standard (STD) v
Integrated Services Signaling Link Maximum (ISLM)	200 Range: 1 - 4000

In the **D-Channels Property Configuration** Web page, users can:

- Enter information about 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 193 "Basic and Advanced D-Channel options" \(page 279\)](#).

Figure 193
Basic and Advanced D-Channel options

- Basic options (BSCOPT)

- Primary D-channel for a backup DCH (PDCH)
- PINX customer number (PINX_CUST)
- Progress signal (PROG)
- Calling Line Identification (CLID)
- Output request Buffers (OTBF)
- D-channel transmission Rate (DRAT)
- Channel Negotiation option (CNEG)
- Remote Capabilities (RCAP)

+ - 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) Range: 60 - 350
- Number of Status Enquiry Messages sent within 128 ms (SEMT)
- Map channel number to timeslots on a PRI2 loop (OCHID) ☒

+ H323 Overlap Signaling Settings (H323)

- Overlap Timer (OVLTI)
- Multilocation Business Group Allowed (MBGA) ☐
- Network Attendant Service Allowed (NASA) ☐

+ - Link Access Protocol for D-channel (LAPD)

+ Feature Packages

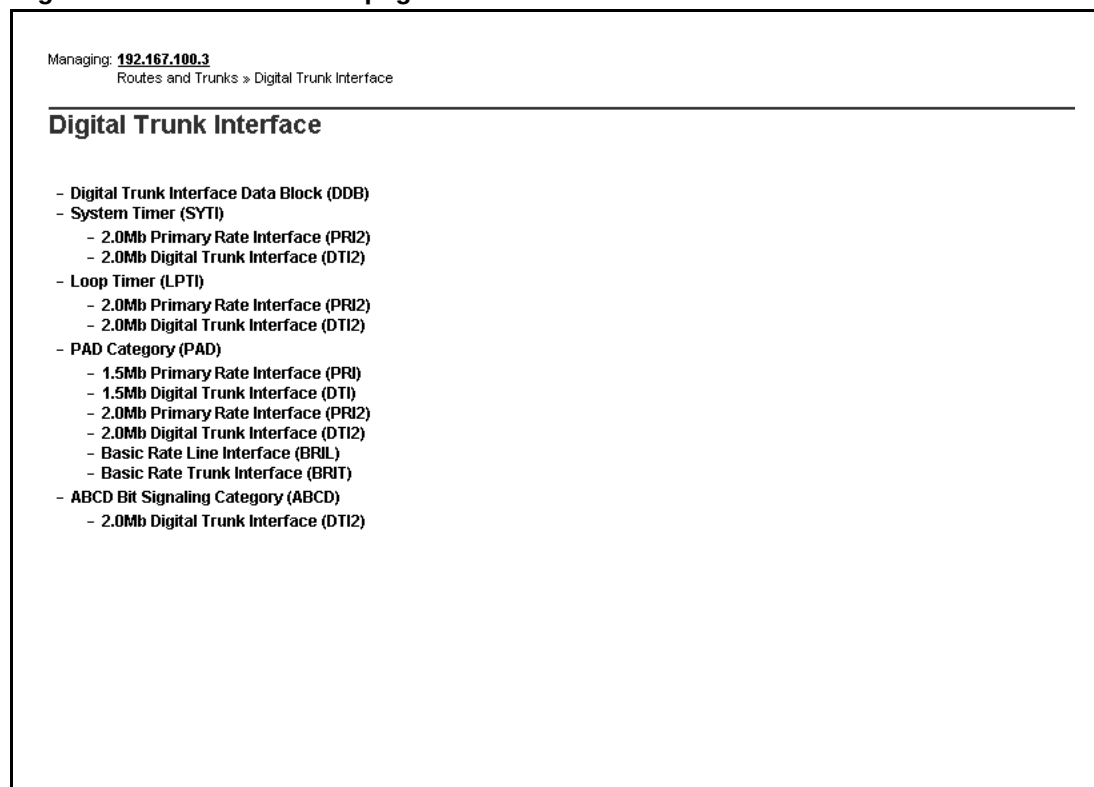
- Configure information about the **Feature Packages** Web page.
 - Digital Private Networking Signaling System 1 (Package 123)
 - Virtual Network Services (Package 183)

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 appears, as shown in [Figure 194 "Digital Trunk Interface Web page" \(page 280\)](#). This Web page allows the user to configure or edit Digital Trunk Interface information.

Figure 194
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 appears. See [Figure 195 "Threshold Set List Web page" \(page 281\)](#).

Figure 195
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 1

- **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 appears, as shown in [Figure 196 "Clock Controller Basic Properties Web page" \(page 282\)](#).

Figure 196
Clock Controller Basic Properties Web page

Managing: 47.11.63.20

Routes and Trunks » Digital Trunk Interface » Threshold Set List » Clock Controller Basic Properties

Clock Controller Basic Properties

Input Description	Input Value
Clock Controller Card Number (MGCLK):	(supl# sh# card#)
- Primary Reference (PREF):	(card#)
- Secondary Reference (SREF):	(card#)
Multi Purpose Serial Data Link Idle Code Selection (ICS):	

Users can then enter the required information in the text boxes.

To add or edit a Threshold Set Index, follow the steps in [Procedure 108](#) "Adding or editing a Threshold Set Index" (page 282).

Procedure 108
Adding or editing a Threshold Set Index

Step	Action
<i>To add a Threshold Set Index</i>	
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 195 "Threshold Set List Web page" \(page 281\)](#), the **Threshold Set Block** Web page for that index appears, as shown in [Figure 197 "Threshold Set Block Web page" \(page 283\)](#).

Figure 197
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):	1
Remote (yellow) Alarm clear threshold (RALM):	3
Bipolar violation Count threshold (BIPC):	2
Loss of Frame Alignment Counter (LFAC):	3
Bipolar Violation maintenance and out-of-service threshold (BIPV):	3 2
Slip Rate Tracking mode maintenance (SRTK):	5 30
Slip Rate Non-Tracking (SRNT):	5 3
Loss of Frame Alignment maintenance and out-of-service thresholds (LFAL):	17 511
Slip Rate Improvement Monitoring time in minutes (SRIM):	2
Slip Rate Maintenance Maximum (SRMM):	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 about the following topics:

[“Introduction” \(page 285\)](#)

[“Electronic Switched Network” \(page 285\)](#)

[“Flexible Code Restriction” \(page 296\)](#)

[“Incoming Digit Translation” \(page 299\)](#)

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 about the overlays referred to in this chapter, see *Software Input Output Administration (NN43001-611)* and *Software Input Output Reference - Maintenance (NN43001-711)*.

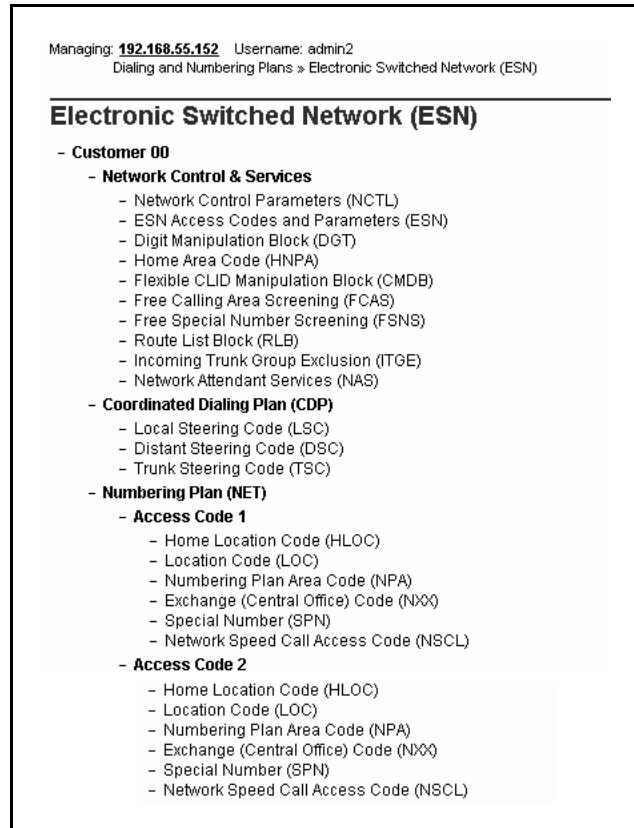
Electronic Switched Network

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 198 “Electronic Switched Network \(ESN\) Web page” \(page 286\)](#). 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 198
Electronic Switched Network (ESN) Web page



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)
- Home Area Code (HNPA)
- Flexible CLID Manipulation Block (CMDDB)
- Free Calling Area Screening (FCAS)

- Free Special Number Screening (FSNS)
- 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. Free Calling Area Screening (FCAS) and Free Special Number Screening (FSNS) are also LD 87 features. The Home Area Code (HNPA) can be configured using the prompts and responses in LD 90. 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 199 "ESN Access Codes and Basic Parameters Web page"](#) (page 288).

Figure 199
ESN Access Codes and Basic Parameters Web page

Managing: **192.168.55.152** Username: admin2
Dialing and Numbering Plans » Electronic Switched Network (ESN) » Customer 00 » Network Control & Services » ESN Access Codes and Basic Parameters

ESN Access Codes and Basic Parameters

General Properties

NARS/BARS Access Code 1:

NARS Access Code 2:

NARS/BARS Dial Tone after dialing AC1 or AC2 access codes: ☒

Expensive Route Warning Tone: ☒

- Expensive Route Delay Time: (0 - 10)

Coordinated Dialing Plan feature for this customer: ☒

- Maximum number of Steering Codes: (1 - 32000)

- Number of digits in CDP DN (DSC + DN or LSC + DN): (3 - 10)

Routing Controls: ☐

Check for Trunk Group Access Restrictions: ☐

Limits

Maximum number of Digit Manipulation tables: (0 - 2000)

Maximum number of Route Lists: (0 - 2000)

Maximum number of CLID manipulation tables: (1 - 256)

Maximum number of Supplemental Digit restriction blocks: (0 - 1500)

Maximum number of Incoming Trunk Group exclusion tables: (0 - 255)

Maximum number of Free Calling area screening tables: (0 - 255)

Maximum number of Free Special number screening tables: (0 - 255)

Maximum number of LOC codes (NARS only): (0 - 16000)

Maximum number of Special Common Carrier entries: (0 - 7)

TOD Schedules

Time of Day Schedules:

(Items separated by a space)

Extended Time of Day schedule:

Network Class of Service Map

NCOS Map:

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

(Items separated by a space)

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.

Route List Block

In the ESN Web page, under the **Network Control & Services** tab, click **Route List Block (RLB)**. The Route List Blocks Web page appears.

Figure 200
Route List Blocks

In the **Please enter a route list index**, enter the route list index and then click **to Add**. The Route List Block properties page appears.

Figure 201
Route List Block properties

Figure 202
Route List Block properties (Continued)

In the options pane, if you uncheck or disable the **Local Termination entry**, then the **Route Number** field is enabled. If **Local Termination Entry** (LTER) is checked, then the **Continuation Allowed** (CONA) field is enabled.

CONA feature allows the next entry of the Route List Block if local termination fails for a NARS call. This operation cannot be used for Trunk Steering Code (TSC) or Distant Steering Code (DSC) configurations. To configure CONA, enable **Local Termination Entry** and enable **Continuation Allowed** and click **Submit**.

Figure 203
Route List Block properties (Continued1)

Enable the required options and click **Submit**. The Route List Block with all the properties appears as shown below.

Figure 204
Route List Block Properties

Click on **Edit** next to Data Entry Index. The Data Entry of a Route List Block Web page appears as shown below.

Figure 205
Data Entry of Route List Block

Flexible CLID Manipulation Block

In the ESN Web page, under the **Network Control & Services** tab, click **Flexible CLID Manipulation Block (CMDB)**. The Flexible CLID Manipulation Block Web page appears.

Managing: **192.168.55.152** Username: admin2
Dialing and Numbering Plans » Electronic Switched Network (ESN) » Customer 00 » Network Control & Services » Flexible CLID Manipulation Block

Flexible CLID Manipulation Block (Customer 00)

CLID table number *	Number of rules
1 4	1

Use the following procedure, to add a CLID manipulation table.

Adding a CLID manipulation table

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

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

The Add flexible CLID manipulation table Web page appears.

Managing: **192.168.55.152** Username: admin2
Dialing and Numbering Plans » Electronic Switched Network (ESN) » Customer 00 » Network Control & Services » Flexible CLID Manipulation Block » Add Flexible CLID Manipulation Table

Add Flexible CLID Manipulation Table (Customer 00)

CLID table number: * (1 - 55)

Rule number: *

* Required value.

2	In the CLID table number field, enter the required value.
---	--

3	In the Rule number field, select the required value.
---	---

4	Click Save .
---	---------------------

The page refreshes to display the Flexible CLID Manipulation Block Web page appears displaying the configured CLID manipulation table.

--End--

To view the details of a CLID manipulation table, click the table number in the Flexible CLID Manipulation Block Web page. The Flexible CLID Manipulation Rule Web page appears.

Managing: **192.168.55.152** Username: admin2
 Dialing and Numbering Plans » [Electronic Switched Network \(ESN\)](#) » Customer 00 » Network Control & Services » [Flexible CLID Manipulation Block](#) » Flexible CLID Manipulation Rule

Flexible CLID Manipulation Rule (CLID table 4)

Add... Delete Refresh

☐	Rule number *	Matching number type	Matching NPI	Matching TON	Matching digit relation	Replacement NPI	Replacement TON
1	0	DC	DC	DC	DC	NCHG	NCHG

NPI = Numbering Plan Indication, TON = Type of number

Adding a CLID manipulation rule to a table

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

- | | |
|---|--|
| 1 | In the Flexible CLID Manipulation Rule Web page, click Add .
The Add Flexible CLID Manipulation Rule Web page appears. |
|---|--|

Managing: **192.168.55.152** Username: admin2
 Dialing and Numbering Plans » [Electronic Switched Network \(ESN\)](#) » Customer 00 » Network Control & Services » [Flexible CLID Manipulation Block](#) » [Flexible CLID Manipulation Rule](#) » Add Flexible CLID manipulation Rule

Add Flexible CLID manipulation Rule (CLID table 4)

Rule number: *

Matching rule

Number type:

Initial digits:

Numbering plan identifier:

Type of number:

Digit relation:

Number of digits:

Replacement rule

Delete initial digits:

Insert initial digits:

Numbering plan identifier:

Type of number:

* Required value.

Save Cancel

- | | |
|---|--|
| 2 | Enter the required values in the fields. |
|---|--|

- 3 Click **Save**. The page refreshes to display the Flexible CLID Manipulation Rule Web page with the new rule added.

--End--

You can delete a manipulation table or rule by selecting the corresponding check box and clicking **Delete**. To delete multiple values, you must select the corresponding check boxes.

ATTENTION

Manipulation tables can be deleted one at a time. Multiple deletion is not allowed for the tables.

To edit or view the details of a manipulation rule, click on the rule number in the Flexible CLID Manipulation Rule Web page.

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 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.

Figure 206
Electronic Switched Network (ESN)

- **Numbering Plan (NET)**
 - **Access Code 1**
 - 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)
 - **Access Code 2**
 - 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)

In the ESN web page, click **Special Number (SPN)** in the Numbering Plan part as shown in the above figure. The Special Number List web page appears.

Figure 207
Special Number List

Managing: 192.168.209.91 Username: sowdmb
 Dialing and Numbering Plans » [Electronic Switched Network \(ESN\)](#) » Customer 00 » Numbering Plan (NET) » Access Code 1 » Special Number List

Special Number List

Please enter a Special Number

+ Special Number -- 12

+ Special Number -- 13

In the Special Number list web page, enter the special number and click **to Add**. The Special Number web page appears.

Figure 208
Special Number (Continued1)

Managing: 192.168.209.91 Username: sowdhb
 Dialing and Numbering Plans » Electronic Switched Network (ESN) » Customer 00 » Numbering Plan (NET) » Access Code 1 » [Special Number](#)
[List](#) » [Special Number](#)

Special Number

Special number translation:

Flexible length: (0 - 24)

International dialing plan: ☐

Inhibit time-out handler: ☐

Route list index:

Type of call that is defined by the special number:

Number to be denied:

(Items separated by a space)

Digit manipulation index for LDID numbers:

Figure 209
Special Number (Continued2)

Mobile extension prefix digits:

(Items separated by a space)

Allowed codes for ADIMMDM:

(Items separated by a space)

Allowed codes:

(Items separated by a space)

Incoming trunk group exclusion index:

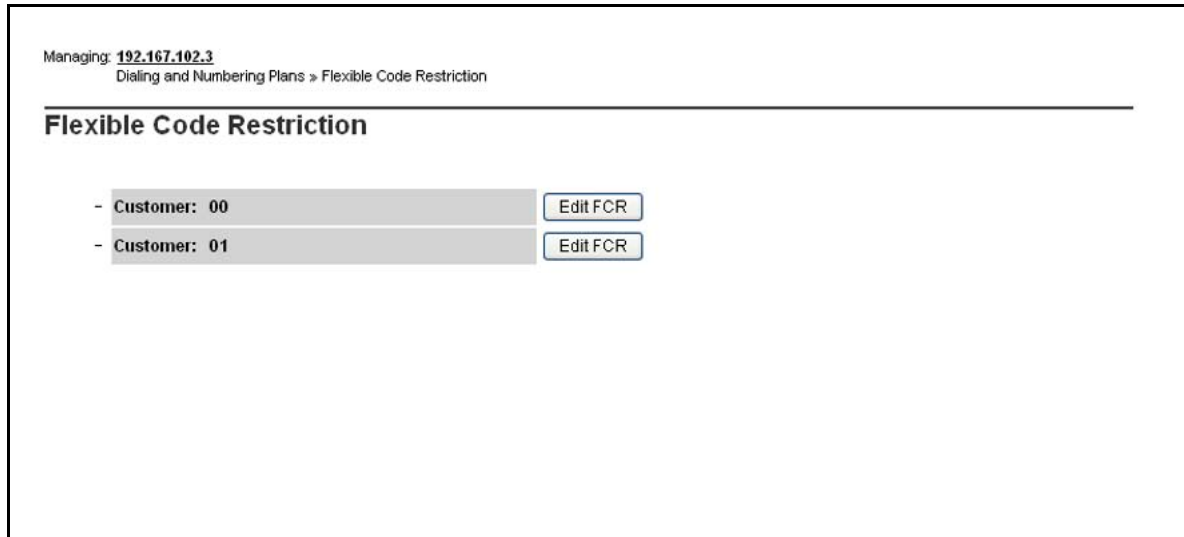
Configure alternate routing remote number and alternate route list index:

Enter Mobile extension prefix digits and other required fields and then click **Save**.

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 appears, as shown in [Figure 210 "Flexible Code Restriction Web page"](#) (page 297).

Figure 210
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 211 "Flexible Code Restriction Property Web page" \(page 298\)](#)).

Figure 211
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 212 "Code Restriction Tree Configuration Web page" \(page 299\)](#).

Figure 212
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)	0
Initial - Allow or deny all codes. (INIT)	ALLOW

Digit sequence to be denied. (DENY)

1

Create new DENY 1 Starting from Add New

Digit sequence to be allowed. (ALLOW)

Create new ALLOW 1 Starting from Add New

Digit sequence to be bypassed. (BYP)

Create new BYPS 1 Starting from Add New

Submit Delete Cancel

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

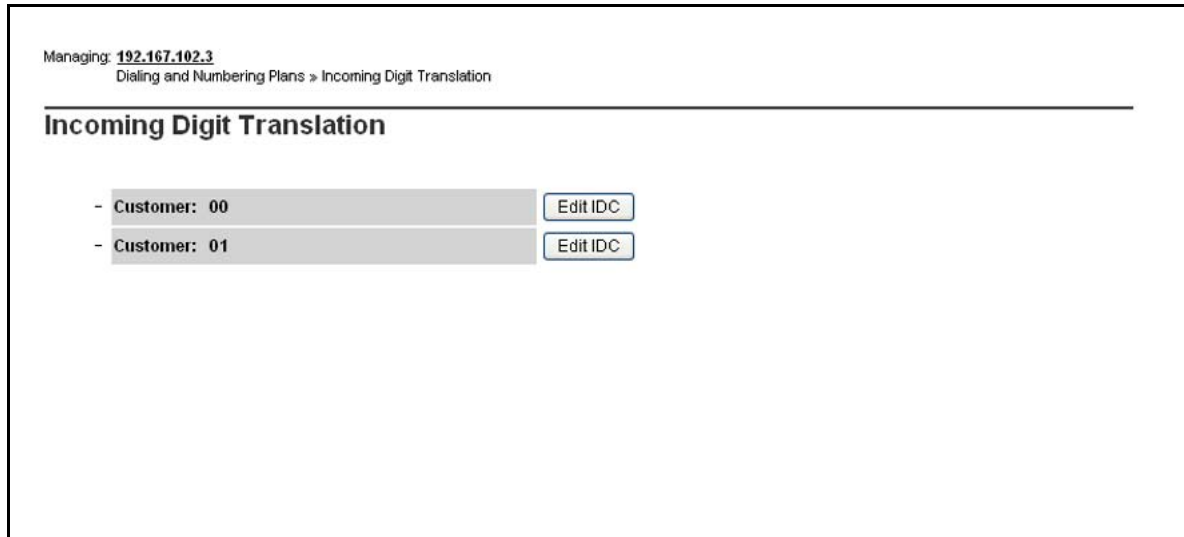
The information entered in this section corresponds to data traditionally configured using LD 49 - Flexible Code Restriction and Incoming Digit Conversion.

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** appears, as shown in [Figure 213 "Incoming Digit Translation Web page" \(page 300\)](#).

Figure 213
Incoming Digit Translation Web page



Managing: 192.167.102.3
Dialing and Numbering Plans » Incoming Digit Translation

Incoming Digit Translation

- Customer: 00	Edit IDC
- Customer: 01	Edit IDC

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 appears. See [Figure 214 "Incoming Digit Conversion Property Web page" \(page 301\)](#).

Figure 214
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 215
Digit Conversion Tree Configuration Web page

Managing: 47.11.221.212
Dialing and Numbering Plans > Incoming Digit Translation > Customer 00 > Digit Conversion Tree 0 Configuration

Digit Conversion Tree 0 Configuration

Regular IDC tree
Send calling party DID disabled

Add... Delete IDC Delete IDC tree Refresh

	Incoming Digits *	Converted Digits	CPND Name	CPND language
1	122	6600	abcd	Katakana characters
2	0600	6600	abcd	Roman characters

The information entered in this section corresponds to data traditionally configured using LD 49 - Flexible Code Restriction and Incoming Digit Conversion.

Phones

Contents

This section contains the following topics:

- [“Introduction” \(page 304\)](#)
- [“IP Attendant” \(page 305\)](#)
- [“System Properties Update” \(page 307\)](#)
- [“Station Fast Sync feature” \(page 313\)](#)
- [“Templates” \(page 313\)](#)
- [“Search Phones” \(page 324\)](#)
- [“Add Phones” \(page 327\)](#)
- [“Program Phone Keys” \(page 334\)](#)
- [“Edit Phones” \(page 336\)](#)
- [“Employee reference field support when exporting and import phone database” \(page 340\)](#)
- [“Export and Import of employee reference field” \(page 341\)](#)
- [“Import Telephones” \(page 345\)](#)
- [“Move Phones” \(page 351\)](#)
- [“Retrieve Phones” \(page 353\)](#)
- [“Delete Phones” \(page 354\)](#)
- [“Swap Phones” \(page 354\)](#)
- [“Reports” \(page 355\)](#)
- [“Canned Reports” \(page 356\)](#)
- [“Custom Views” \(page 369\)](#)

[“Virtual Office Search and Logout” \(page 374\)](#)

[“Lists” \(page 376\)](#)

[“Migration” \(page 386\)](#)

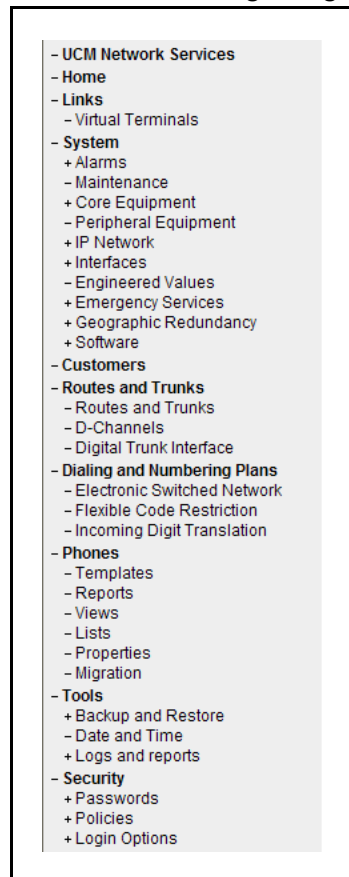
[“High Scalability” \(page 388\)](#)

Introduction

EM Phone Provisioning functionality provides an interface to provision phones on CS 1000 systems.

You access Phone Provisioning through the Phones link of the Element Manager navigator as shown in the following figure.

Figure 216
Phone Provisioning navigation



Use Element Manager to configure phones for the Call Server. The configuration information described in this chapter corresponds to the Command Line Interface (CLI) prompts and responses for Telephone Administration traditionally configured in LD 10, LD 11, and LD 12.

Additional information is retrieved from the Call Server for validation purposes corresponds to Print Routines traditionally performed in LD 20, LD 21, LD 22, and LD 117.

For more information about the overlays described in this chapter, see *Software Input Output Administration* (NN43001-611) and *Software Input Output Reference - Maintenance* (NN43001-711).

IP Attendant

The IP Attendant feature supports phone provisioning of type 3260 using the EM Phone Provisioning. The system supports a maximum of 63 attendant consoles.

Before you can manage IP Attendant consoles using the Phones page, the application must be enabled and configured using the IP Media Services configuration page. For information about configuring IP Media Services, see *Signaling Server IP Line Applications Fundamentals* (NN43001-125).

Limitations of deploying multiple Element Managers to manage a single Call Server

You can deploy more than one Element Manager to manage a single Call Server using Deployment Manager, but the EM Phone provisioning application (**Phones**) does not support this. The issues with duplicate Element Managers are as follows:

- Changes made in **Phones** in one Element Manager are not synchronized with other Element Managers. You should perform a "Retrieve and Reconcile All" operation on other Element Managers to synchronize with Call Server. However, the non PBX fields (Subscriber and Template links) of a telephone are not updated even with this retrieval.
- Subscriber Manager considers these duplicate Element Manager applications as different Service Providers even though they are pointing to the same Call Server. As a result, in some work flows you can have duplicate telephony accounts for the same telephone.

Feature Operation during Upgrade

When Element Manager is upgraded to CS 1000 Release 7.0 the phone data is not automatically upgraded. Complete the steps below to perform the upgrade.

Perform the following operations to upgrade from CS 1000 Release 6.0 to CS 1000 Release 7.0 network for a system without Subscriber Manager.

Procedure 109
Upgrading to CS 1000 Release 7.0 without Subscriber Manager

Step	Action
1	Upgrade to CS 1000 Release 7.0.
2	Launch Element Manager.
3	Follow the step in procedure Procedure 130 "Retrieve Phones" (page 353) to populate the phone database.
--End--	

Perform the following operations to upgrade from CS 1000 Release 6.0 to CS 1000 Release 7.0 network for a system with Subscriber Manager.

Procedure 110
Upgrading to CS 1000 Release 7.0 with Subscriber Manager

Step	Action
1	Upgrade to CS 1000 Release 7.0.
2	Launch Element Manager.
3	Perform the Database Update operation under the Properties Update link to synchronize the system properties.
4	Follow the step in procedure Procedure 130 "Retrieve Phones" (page 353) to populate the phone database.
5	Run Account synchronization from Subscriber Manager. Accounts created in Release 6.0 are automatically removed from Subscriber Manager.
6	Run the Migration utility to re-create accounts based on CPND names (See, "Migration" (page 386)).
ATTENTION You must select the check box corresponding to the Create New Subscribers field.	

--End--

You can follow the manual work around steps to bring back template information and link them to the corresponding phones.

Create templates from existing phones. (See, ["Create a Template from an existing phone" \(page 316\)](#).) This allows you to create templates quickly rather than creating them from scratch.

Use the Bulk Phone Edit procedure to link the selected phones with the template. (See, [“Update phones using the phone Templates” \(page 338\).](#))

System Properties Update

Database Update

When you click Phones for the first time, the application automatically updates the database in the background. You must perform the update before you manage telephones to retrieve configuration changes in packages, customer data blocks, and CPND customer blocks. You can configure telephones when the update finishes.

To manually update the database, click on the Properties link of the Phones branch of the Element Manager navigator and click Update in the Database Update section of the **Properties** Web page.

The **Properties** Web page appears, as shown in [Figure 217 "Properties Web page" \(page 308\)](#)

Figure 217
Properties Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»Properties](#)

Properties

Database Update Update

Clicking the update button will initiate retrieval of system, customers and CPND customer properties from the Call Server.

Last Updated: **Mon Mar 29 13:26:14 IST 2010**

Courtesy Change Enable Disable

When courtesy change is enabled, changes are transmitted to the call server only if the phone is not busy.

Current Status: **Disabled**

User Defined Field Names Configure...

Click on the Configure... button to define custom user field labels.

User field 01: India	User field 06: User field 06
User field 02: State	User field 07: User field 07
User field 03: Country	User field 08: User field 08
User field 04: User field 04	User field 09: User field 09
User field 05: User field 05	User field 10: User field 10

Virtual Office Setting Retrieve Configure...

Clicking the Retrieve button will retrieve the Virtual Office Setting from the Call Server.

Click on the Configure... button to configure the automatic logout settings of Inactive Idle DVLA sets.

Last Retrieved Date: **Mon Mar 29 13:26:17 IST 2010**

Inactive DVLA sets logout settings:

Idle time to logout:	Disabled
Idle time at midnight to logout:	100 minutes

The Last Updated field displays the timestamp of the last update performed.

Courtesy Change

The Courtesy Change feature checks the telephone busy/idle status before transmitting changes to the Call Server. If the telephone is busy, the change is not transmitted; the active call is disconnected, and the following error message appears: Telephone is busy. Changes are not transmitted.

Before a telephone call is transmitted to the Call Server, the LD 32 STAT command is used to check the idle/busy status of the telephone. If the telephone is busy, then the changes are not committed to the Call Server and you must perform the operation again.

Nortel recommends that you turn off this feature before doing a bulk import operation.

Enabling and disabling the Courtesy Change feature

You can turn on or off the Courtesy Change feature from the existing Properties Web page.

To enable or disable the Courtesy Change feature, select the **Properties** link of the Phones branch of the Element Manager navigator, and select either **Enable** or **Disable**.

The [Figure 218 "Properties Web page" \(page 309\)](#) shows Courtesy Change on the Properties Web page.

Figure 218
Properties Web page

The screenshot displays the 'Properties' web page with three main sections:

- Database Update:** Includes an 'Update' button and a message: 'Clicking the update button will initiate retrieval of system, customers and CPND customer properties from the Call Server'. The last update is noted as 'Tue Oct 20 15:47:27 IST 2009'.
- Courtesy Change:** Features 'Enable' and 'Disable' buttons. A message states: 'When courtesy change is enabled, changes are transmitted to the call server only if the phone is not busy.' The current status is 'Disabled'.
- User Defined Field Names:** Includes a 'Configure...' button and a message: 'Click on the Configure... button to define custom user field labels.' Below this is a table of 10 user fields.

User field 01:	User field 01	User field 06:	User field 06
User field 02:	User field 02	User field 07:	User field 07
User field 03:	User field 03	User field 08:	User field 08
User field 04:	User field 04	User field 09:	User field 09
User field 05:	User field 05	User field 10:	User field 10

ATTENTION

Turning on the Courtesy Change feature significantly affects the performance of bulk add, delete, or import operations. Nortel recommends that you turn off the Courtesy Change feature before such operations.

Configuring user-defined field names

The user fields with default values User field 01, User field 02, User field 03, and User field 10 can be configured to a meaningful name, which can be a maximum of 30 alphanumeric characters. The customized user field names are displayed in the Telephone Details Web page and the default user field names are displayed in the Telephone Details Web page. The values for the user fields have a maximum of 256 alphanumeric characters.

Procedure 111**Configure user-defined field names**

Step	Action
1	On the Properties Web page, click Configure . The Edit User Defined Field Names Web page appears.
2	Enter names for the default user-defined fields.
3	Click Save .

ATTENTION

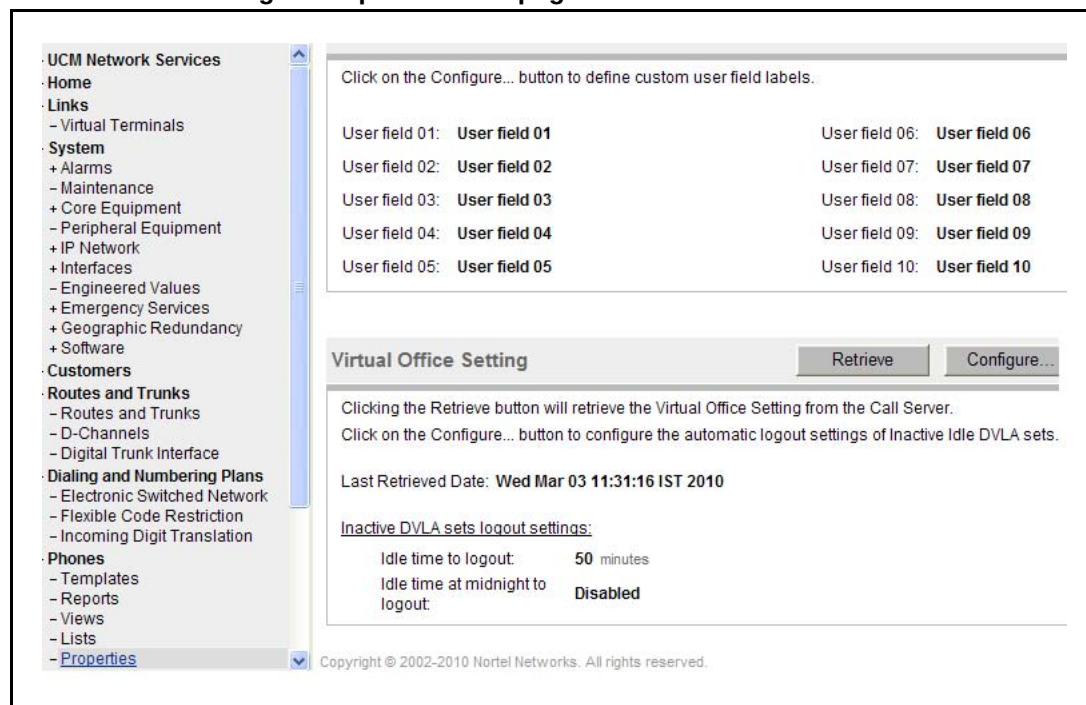
The default user field names are saved if no value is given. The maximum size of a field name is 30 alphanumeric characters.

--End--

The Virtual Office Setting section in the Properties Web page contains details of the current virtual office settings for idle DVLA sets.

The following figure shows the Properties Web page.

Figure 219
Virtual Office Setting in Properties Web page



The system supports the following two types of auto logout settings.

- Logout a DVLA Set after the specified idle time has elapsed.
- Logout a DVLA Set at midnight if the specified midnight idle time has elapsed.

ATTENTION

The user can set the idle time in the range of 1 to 1440 minutes.

The system supports the following operations for Virtual Office Setting.

- Retrieve Virtual Office Setting
- Configure Virtual Office Setting

ATTENTION

Only users with LD 117 permissions can perform the preceding operations.

To retrieve the Virtual Office Setting, use the following procedure.

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

- | | |
|---|---|
| 1 | In the Properties Web page, click Retrieve button. |
|---|---|

The system retrieves the virtual office settings for idle DVLA sets from the Call Server and the details in the Virtual Office Setting section get updated.

--End--

Configure Virtual Office

To configure Virtual Office Setting, use the following procedure.

Step	Action
1	In the Properties Web page, click Configure button. The Edit Virtual Office Setting Web page appears displaying the current configuration.

Figure 220

Edit Virtual Office Setting Web page

- 2 Select the check box corresponding to the options as required.
The **Idle Time** field appears.

Figure 221

Edit Virtual Office Setting Web page

- 3 Enter the idle time in the **Idle Time** field.

ATTENTION

The idle time must be a value between 1 and 1440.

- 4 To save the configuration , click **Save**.
The page refreshes to display the Properties Web page.

--End--

Station Fast Sync feature

The Station Fast Sync feature keeps the Phones Database synchronized with the PBX. The 3260 phone type does not support this feature.

When a phone is modified on call server using CLI, then SNMP trap is sent from the Call Server to Element Manager. When Element Manager receives the notification, it retrieves changes or deletes the TN/DN as required. This functionality is enabled by configuring the Element Manager IP address as an SNMP trap destination in LD 117. The EM IP address is configured automatically when EM Phones is launched for the first time. However, if changes from the CLI are not being reflected in EM Phones, it is recommended to verify that the management trap destination is correct using LD 117 See *Communication Server 1000 Fault Management - SNMP* (NN43001-719).

A log entry is created for each Fast Sync notification received.

ATTENTION

This feature is not applicable for LD 12.

ATTENTION

A manual Retrieve and Reconcile All must be performed periodically to ensure data consistency with the Call Server. The automatic fast synchronization update relies on SNMP traps and overlay access to maintain the data. Blocked or dropped SNMP traps and overlay conflicts can result in a data mismatch between the Call Server and EM.

Templates

Use Element Manager to access Templates that contain attributes common to a CS1000 phone type. After you create a template, use it to apply common attributes to a group of telephones, without having to repetitively define the same value for each telephone. In general, using a template is a more efficient method of adding large number of telephones than individually maintaining each telephone. Template support for 3260 set type (IP Attendant Console) but Subscriber Manager blocks the usage of this template.

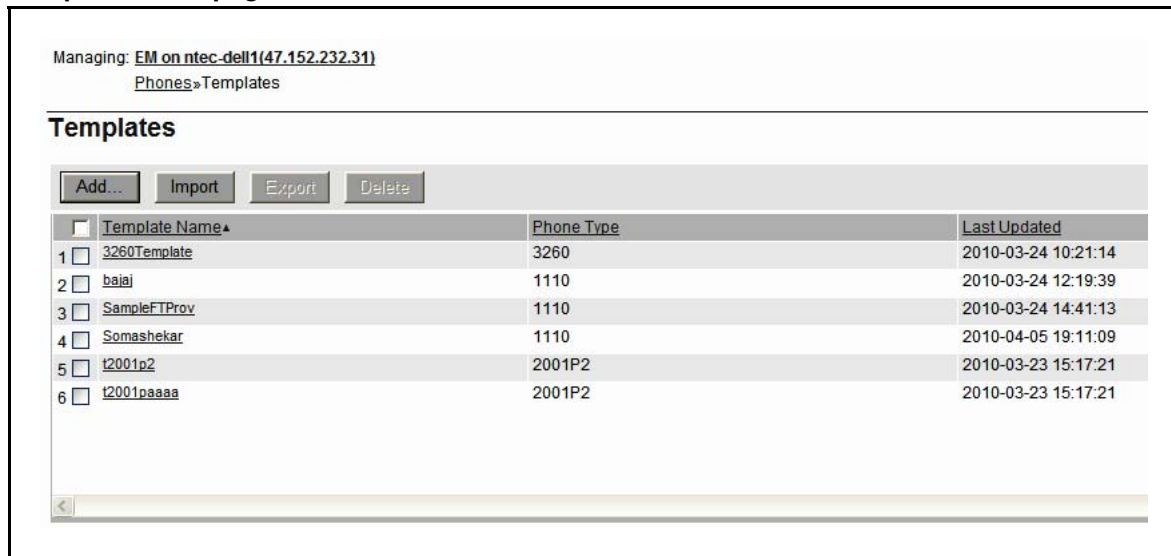
The administration pages for Templates are organized as a link named Templates inside the Phones section of EM navigator.

Click the Templates link to open the Templates Web page as shown in [Figure 222 "Templates Web page" \(page 314\)](#). The Templates Web page lists all available templates by name, the telephone type to which they apply, and the time and date of the last update. The action bar has buttons to add, export, import, and delete templates.

ATTENTION

Due to performance considerations, the recommended maximum number of templates supported by the system is 1000.

Figure 222
Templates Web page



Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»Templates](#)

Templates

	Template Name▲	Phone Type	Last Updated
1	☐ 3260Template	3260	2010-03-24 10:21:14
2	☐ baja	1110	2010-03-24 12:19:39
3	☐ SampleFTPProv	1110	2010-03-24 14:41:13
4	☐ Somashekar	1110	2010-04-05 19:11:09
5	☐ t2001p2	2001P2	2010-03-23 15:17:21
6	☐ t2001paaaa	2001P2	2010-03-23 15:17:21

Create a Template

To add a template, click **Add** on the Templates Web page. The Template Details Web page appears as shown in [Figure 223 "Template Details Web page" \(page 315\)](#). Select the telephone type to use for the Template.

Figure 223
Template Details Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»Templates»Template Details](#)

Template Details

[General Properties](#) | [Features](#) | [Single Line Features](#) | [User Fields](#) |

General Properties

Template name: * (1-24 characters)
TelephoneType: *
Designation: * (1-6 characters)
Numbering Zone:
Directory Number: *
CLID entry:
ANIE entry:

Features

Feature	Description	
AACD	Meridian Link Associated ACD Agent	No
ABDA	CDR on Abandoned Calls	Denied
ADAY	Alternate Redirection by Day Option	
AGRA	Agent Greeting	Denied

Single Line Features

Feature	Value
FTR CFW	NUL - Unassigned

The fields marked with an asterisk (*) are mandatory.

The Template name identifies the template. If a template exists with the same name as specified, then an error message, "Template name already in use. Please specify another Template name." appears when you try to save the new template.

The templates are not system-specific; therefore, all the phone features and keys applicable to the selected phone type are available for configuration in the Template Details Web page. The available features and key features change based on the selected phone type.

ATTENTION

Enter a partial DN as part of the key configuration parameter to enable a phone configured with this template to pick up a DN according to the partial DN.

Configure all required parameters, and click **Save** to save the template and return to the Templates Web page. The view refreshes to display the newly-added template.

ATTENTION

The status of the Validation appears, listing validation errors that occur. If validation errors occur, repeat the relevant sections of this procedure to correct the errors.

After you create a template, you can use it to add telephones to the system. When you use a template to add a telephone, only those keys and features that are valid for the system in context appear in the Phone Details Web page.

Create a Template from an existing phone

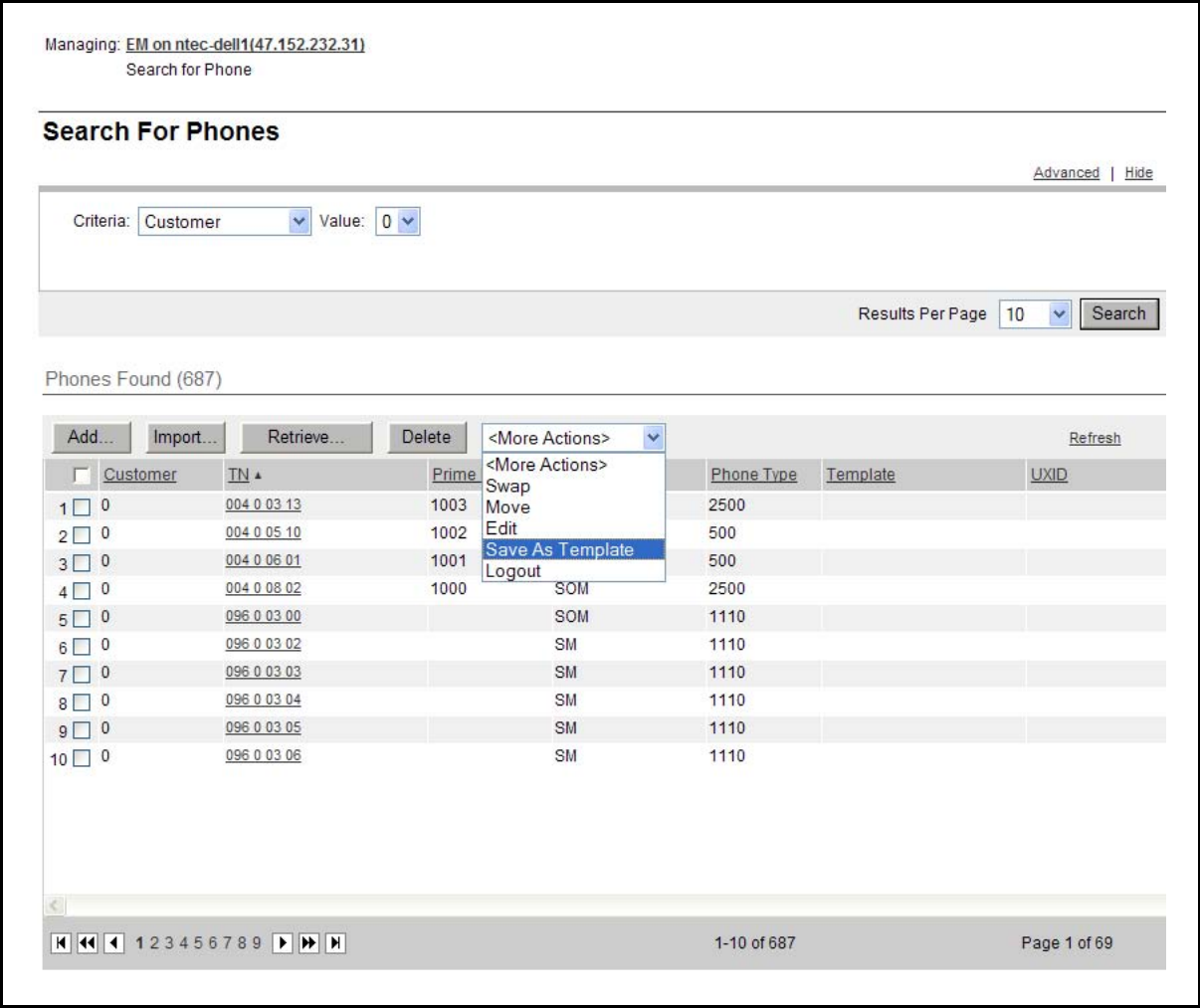
You can define a new template from an existing telephone configuration.

Select a telephone to convert to a phone template and view the new template in the Template Details Web page.

Procedure 112**Save a phone as template**

Step	Action
1	To open the Search for Phones Web page, click the Phones branch of the Element Manager navigator.
2	To save as a template, select the telephone from the Search Result section of the Search for Phones Web page. Note: You can create a template only from one telephone. An error message appears if you select multiple phones for creating a template.
3	From the More Actions list, select Save As Template as shown in Figure 224 "Search For Phones Web page with option to save a phone as template" (page 317) .

Figure 224
Search For Phones Web page with option to save a phone as template



The Template Details Web page appears as shown in [Figure 225 "Template Details Web page with the select phone converted into a template" \(page 318\)](#) .

Figure 225

Template Details Web page with the select phone converted into a template

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»Templates»Template Details](#)

Template Details

[General Properties](#) | [Features](#) | [Single Line Features](#) | [User Fields](#) |

General Properties

Template name: * (1-24 characters)
 TelephoneType: *
 Designation: * (1-6 characters)
 Numbering Zone:
 Directory Number: *
 CLID entry:
 ANIE entry:

[Top](#)

Features

Feature	Description	Value
AACD	Meridian Link Associated ACD Agent	No
ABDA	CDR on Abandoned Calls	Denied
ADAY	Alternate Redirection by Day Option	

4 Click **Save As**.

The page refreshes to display the Save Template Details Web page.

5 In the **Template name** field, enter a template name.

Note: The Template name must be unique. If you enter an existing template name then an error message appears.

6 To save the template, click **Save**.

The Search for Phones Web page appears. The information of the selected phone is converted into a telephone template.

--End--

View a Template

To view template details, click the template name link in the Templates Web page. The Template Details Web page appears displaying the selected template. You can make changes to the template and save the

changes. To save the template with a different name click **Save As**. The **Save Template Details** Web page appears, as shown in the following figure. Enter a unique name and click **Save**.

Figure 226
Save Template Details Web page

Managing: [EM on co-res-cppm\(172.16.100.30\)](#)
[Phones](#) > [Templates](#) > [Template Details](#) > Save Template Details

Save Template Details

Please enter a unique template name.

Template name: * (1-24 characters)

* Required value

Save Cancel

Update a Template

To update a template, click the template name link in the Templates Web page. The Template Details Web page appears displaying the selected template.

Make the required modifications to the template and save the changes.

Note: When you update a Template, the telephones associated with this Template are not automatically updated. See, [“Update phones using the phone Templates” \(page 338\)](#).

Delete a Template

Select any template from the Templates Web page and click Delete to remove the template.

You must confirm the deletion. When you click OK, the selected template is deleted immediately. If you click Cancel, the deletion is cancelled and the **Templates** Web page appears.

ATTENTION

When you delete a template, its association with telephones is removed, but the telephones are not deleted.

Export and Import Templates

You can export and import templates in CSV format.

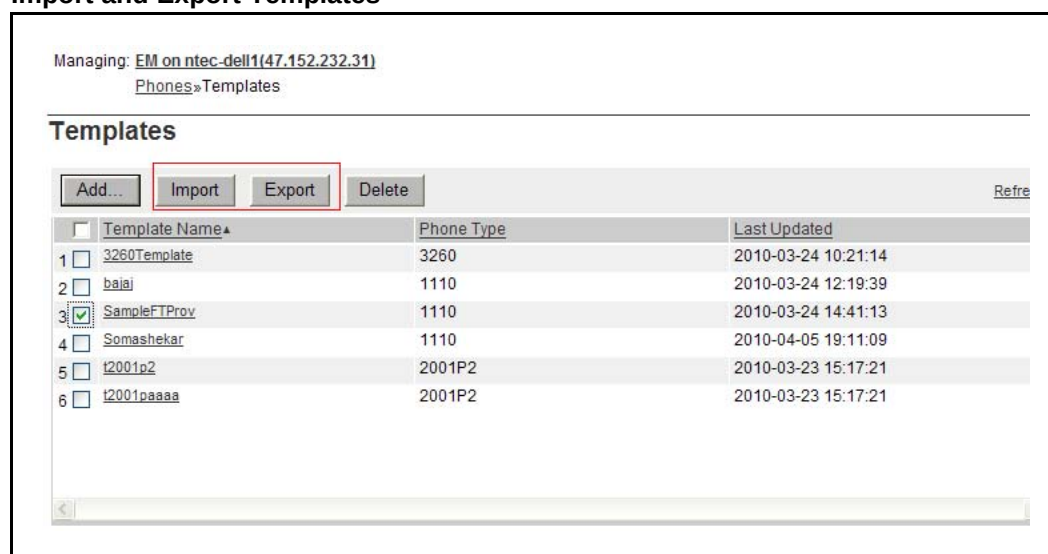
Template data configured at one EM is not available for every EM in the UCM Common Services framework. You must perform a manual export and import procedure to share this data between various Element Managers.

You import and export Templates from the Templates Web page as shown in [Figure 227 "Import and Export Templates" \(page 320\)](#).

ATTENTION

No data validation occurs when you import a template. You must ensure that proper values are present under all fields in the CSV file that you import.

Figure 227
Import and Export Templates



You can use a comma-delimited ASCII text file, with a file extension of CSV as the data file. The first line or record of the file must contain the names of the fields that you import. You must enclose each field in the record in quotation marks. The first field in the data record is template name and is used as the key during the import. Existing templates are updated if a template with the same name exists. If the template name does not exist, a new template is created.

The following are the mandatory fields required for a template import:

- TEMPLATE_NAME
- PHONE
- DES

Depending on the imported telephone type, other mandatory fields are required. For example, in the case of an IP Phone, **Zone** is a mandatory field. If any of the mandatory fields are missing in a data record, the import

process ignores that data record. The other data requirements for import of templates, as well as the list of field names used for import of templates, are similar to Import Telephones. See, [“Import Telephones” \(page 345\)](#).

ATTENTION

You cannot import CPND because templates do not support them.

You can import Admin fields or the user fields also as Templates support these. The following is a sample of data in CSV format.

```
"TEMPLATE_NAME","PHONE","DES","ZONE","KEY0",
"USERFIELD1","USERFIELD2","USERFIELD3","USERFIELD4","USERFIELD5",
"USERFIELD6","USERFIELD7","USERFIELD8","USERFIELD9","USERFIELD10"
"1110 for HR dept","1110","Test","000","SCR 2",
"Johnny","Jimmy","Tony","Clinton","Obama","Bush","Keny","Kitty","Tina","Ken"
```

In the above sample data, Key0 is configured with partial DN.

The UI reports errors encountered during the import operation. You can modify the CSV file and try the import again.

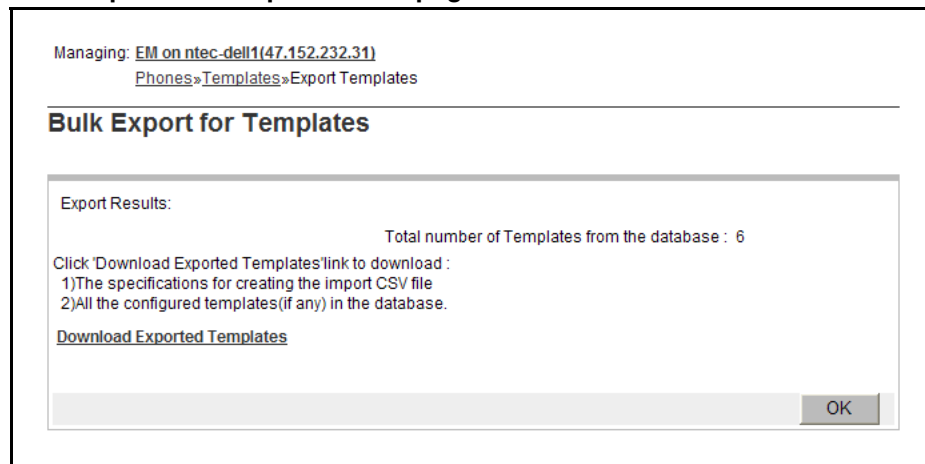
The template import is shorter than the telephone import operation so no log file is written.

[Procedure 113 “Export Templates” \(page 321\)](#) describes the step you complete to export one or more templates.

Procedure 113 Export Templates

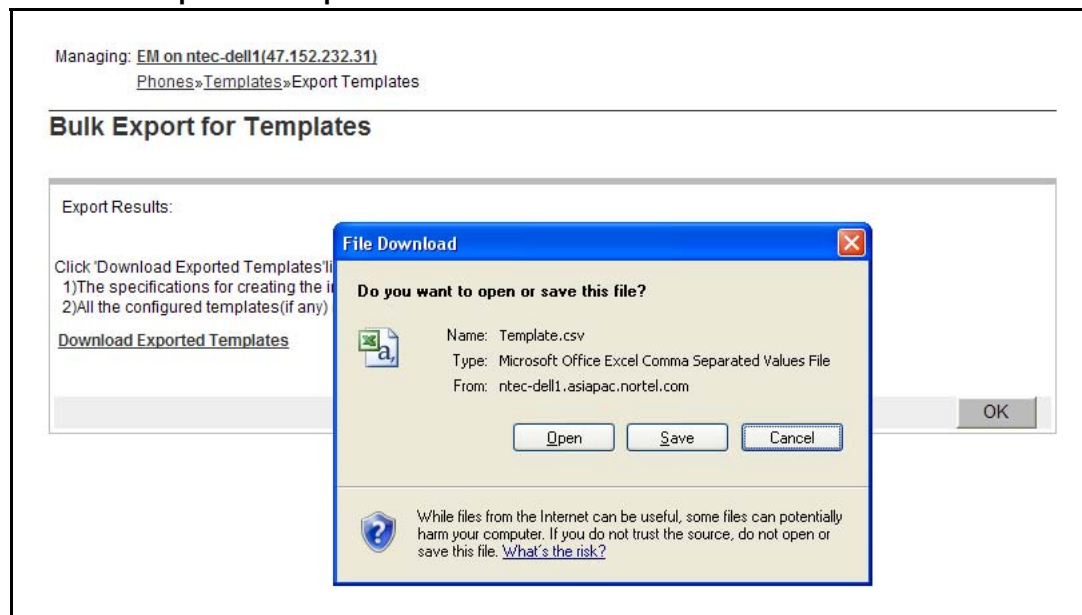
Step	Action
1	On the EM navigator, click the Templates link . The Templates Web page appears.
2	Select the list of templates to export.
3	Click Export . The Bulk Export for Templates Web page appears as shown in Figure 228 “Bulk Export for Templates Web page” (page 322) .

Figure 228
Bulk Export for Templates Web page



- 4 To download and save the exported data to your computer as shown in [Figure 229 "Download Exported Template"](#) (page 322), click the **Download Exported Templates** link .

Figure 229
Download Exported Template



--End--

Import Templates

[Procedure 114 "Import Templates"](#) (page 323) describes the steps to import one or more templates.

Procedure 114
Import Templates

Step	Action
1	On the EM navigator, click the Templates link . The Templates Web page appears.
2	Click Import . The Import Templates Web page appears as shown in Figure 230 "Import Templates Web page" (page 323) .

Figure 230
Import Templates Web page

- 3 Specify the source file name by performing one of the following steps:
 - Type the path and file name of the source file in the CSV file name box.
 - Click **Browse** to locate and select the file.
- 4 To perform the Import operation, click **Import** .

--End--

Search Phones

You access the Phones functions in Element Manager from the Search for Phones Web page. Search for phones based on the following criteria:

- Prime DN
- Phone Type
- Terminal Number
- Designation
- Customer
- Template
- UXID
- Idle Time

For example, to search for a telephone type, select **Phone Type** as the criteria and a telephone type from the Value list. [Procedure 115 "Search for phones" \(page 324\)](#) describes searching for telephones using **Template** as the criteria.

Procedure 115 Search for phones

Step	Action
1	To open Search for Phones Web page, as shown in Figure 231 "Search for Phones Web page" (page 324) , click the Phones branch of the Element Manager navigator .

Figure 231
Search for Phones Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
Search for Phone

Search For Phones

[Advanced](#) | [Hide](#)

Criteria: Prime DN Value:

Prime DN
Phone Type
Terminal Number
Designation
Customer
Template
UXID
Idle Time (>=)

Results Per Page 10 Search

Add... Import... Retrieve... Delete <More Actions> Refresh

Select the search criteria, enter or select the desired value and click Search.

New Phones may also be added or retrieved.

- 2 Select **Template** as the criteria from the **Criteria** list.

ATTENTION

If you select **No template** as the criteria then the search returns all phones not associated to a template.

- 3 Enter a **Value** for the template to search for.
- 4 Click **Search**. The Search for Phones Web page displays the telephones that match the specified Template as shown in [Figure 232 "Search for Phones Web page" \(page 325\)](#).

Figure 232
Search for Phones Web page

Search For Phones Advanced

Criteria: Template Value: No Template

Results Per Page 10 Search

Phones Found (688)

	Customer	TN	Prime DN	Designation	Phone Type	Template	UXID
1	☐ 0	004 0 03 13	1003	SOM	2500		
2	☐ 0	004 0 05 10	1002	som	500		
3	☐ 0	004 0 06 01	1001	SOM	500		
4	☐ 0	004 0 08 02	1000	SOM	2500		
5	☐ 0	096 0 00 01		Sss	1110		
6	☐ 0	096 0 03 00		SOMA	1110		
7	☐ 0	096 0 03 02		SM	1110		

--End--

To search for a phone, based on the Idle Time criteria, use the following procedure.

ATTENTION

Search operation based on the Idle Time criteria can be performed only for sets which belong to the DVLA class of service.

Step	Action
1	In the Search For Phones Web page, select Idle Time (>=) from the drop down available corresponding to the Criteria field.
2	Type the required value in the Value field.

The following figure shows the Search For Phones Web page.

Figure 233
Search For Phones Web page

Managing: [EM on ntec-dell5\(47.152.232.3\)](#)
Search for Phone

Search For Phones

[Advanced](#)

Criteria: Idle Time (>=) Value:

Results Per Page: 10 [Search](#)

Phones

[Add...](#) [Import...](#) [Retrieve...](#) [Delete](#) [<More Actions>](#) [Refre](#)

Select your search criteria, enter or select the desired value and click Search.

New Phones may also be added or retrieved.

ATTENTION

You must enter a value between 1 and 1440 as the idle time. If you enter an invalid value, a validation error occurs.

3

Click **Search**.

The page refreshes to display the results matching the search criteria.

ATTENTION

If the phone data is not synchronized with the Call Server, then the search returns partial results. Click the log file link to view the list of phones not present in the database.

The following figure shows the partial result returned.

Search For Phones

[Advanced](#)

Search returned partial results. Refer to the highlighted explanation below.

The phone data is not synchronized with the Call Server data. Please perform Retrieve and Reconcile All operation and then use Search to get the correct results.

The summary of terminal numbers which needs to be synchronized with the Call Server can be found in the [log file](#).

Criteria: Idle Time (>=) Value:

Results Per Page: 10 [Search](#)

--End--

To search using additional criteria, click **Advanced** on the top right corner. The Advanced Search for Phones Web page appears, as shown in [Figure 234 "Advanced Search for Phones Web page" \(page 327\)](#).

Enter the criteria for the advanced search and click **Search**.

Figure 234
Advanced Search for Phones Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
Search for Phone

Advanced Search For Phones

Basic | Hide

Logic	Field	Comparison	Value
1 (	ABDA/CDR on Abandoned Calls	=	Denied
2 AND			
3 AND			
4 AND			
5 AND			

Add Criteria

Results Per Page: 10 Search

Phones Found (687)

	Customer	TN	Prime DN	Designation	Phone Type	Template	LXXID
1	0	004.0.03.13	1003	SOM	2500		
2	0	004.0.05.10	1002	som	500		
3	0	004.0.08.01	1001	SOM	500		
4	0	004.0.08.02	1000	SOM	2500		
5	0	096.0.03.00		SOM	1110		
6	0	096.0.03.02		SM	1110		
7	0	096.0.03.03		SM	1110		
8	0	096.0.03.04		SM	1110		
9	0	096.0.03.05		SM	1110		
10	0	096.0.03.06		SM	1110		

ATTENTION

If you select LIKE or NOT LIKE operator under the **Logic** column and enter a value (for example, ABC) without the % wild card, then % is appended for this value during the search (for example, %ABC%). This option behaves like the CONTAINS operator.

Add Phones

To add telephones, use the following methods.

- Add single or multiple telephones
- Add phones using a template
- Add phones using copy from TN option

To add a single telephone, perform the steps in [Procedure 116 "Add Single Phone" \(page 328\)](#).

Procedure 116 Add Single Phone

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

- | | |
|---|--|
| 1 | In the Search for Phones Web page, click Add .
The New Phones Web page appears, as shown in Figure 235 "New Phones Web page" (page 328). |
|---|--|

Figure 235
New Phones Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»New Phones](#)

New Phones

Number of phones : * (1-100).
Maximum value for Attendant consoles is 63.

Customer :

Phone Type :

Type : ☐ Template ☐ Copy From TN

Options :

- ☐ Default value for DES * (1-6 characters)
- ☐ Default value for ZONE
- ☐ Default value for Node Id
Only applicable to UEXT-SIPL phone types
- ☐ Default value for Numbering Zone
- ☐ Automatically assign TN starting TN *
- ☐ Automatically assign DN starting DN *

* Required value

- | | |
|---|--|
| 2 | Enter 1 in the Number of phones box. |
| 3 | From the Customer list, select the number with which this telephone is associated. |
| 4 | Select the Phone Type from the list. |
| 5 | Select the check box corresponding to Default value for DES . |
| 6 | Type the value in the corresponding field. |
| 7 | Select Automatically assign TN to automatically assign the next available TN from the starting TN value.
Click the Magnifying Glass to look up a TN. |
| 8 | If the telephone type is analog, select Automatically assign DN to automatically assign the next DN from the starting DN value. |

Note 1: Click the Magnifying Glass to look up a DN.

Note 2: You can select **Automatically assign DN** for analog (500/2500-type) telephone types and while creating telephones and templates having a partial DN.

9 Click **Preview**.

The **Phone Details** Web page appears, as shown in [Figure 236](#) "Phone Details Web page" (page 329).

Figure 236
Phone Details Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»New Phones»Phone Details](#)

Phone Details



System: EM on ntec-dell1
 Phone Type: 1110
 Sync Status: NEW

General Properties | Features | Keys | User Fields Custom View: All ▼

General Properties

Customer Number: 0 ▼ *

Terminal Number: * 🔍

Designation: * (1-6 characters)

Zone: *

Numbering Zone: *

[Top](#)

Features

Feature	Description	Value
AACS	Application Acquire Request	NO
ABDA	CDR on Abandoned Calls	Denied ▼
ADAY	Alternate Redirection by Day Option	
ADV	Data Port Verification	Denied ▼

[Top](#)

Keys

Key No.	Key Type	Key Value
0	NUL - Unassigned ▼	
16	NUL - Unassigned ▼	
17	TRN - Call Transfer ▼	
18	AO6 - 6-Party Conference ▼	

- 10 If necessary, you can change the **Customer Number** from the default number you selected in the **New Phones** Web page.
- 11 If **Terminal Number** is empty, click the magnifying glass icon and select an available TN.
- 12 Enter or update the DES value in the **Designation** field.
- 13 Choose the desired features in the **Features** section.
- 14 Choose the desired keys in the **Keys** section. To program keys using the telephone GUI (graphical user interface), see ["Program Phone Keys" \(page 334\)](#).

Note 1: If the telephone type is analog, the **Keys** section is not available.

Note 2: Match DN Web page is applicable only for Single Call Ringing (SCR). Search **Match DN** by clicking the Phone icon. When you search Match DN in the context of Digital and IP Phones, all UEXT telephones with same DN appear. If the context is UEXT, all the Digital and IP Phones are displayed in the Match DN page. When you select Single Call Ringing (SCR) for Key 0, the telephone icon (Match DN) appears. If you select any telephone and click **Assign**, then FDN, HUNT, NCOS, TGAR, and CLS features are copied to the telephone that you are configuring or for which you are editing information.

- 15 To add user-defined fields, click **User Fields** .
- 16 To validate the new telephone, click **Validate** .

The status of the Validation appears, listing validation errors that occur. If validation errors occur, repeat the relevant sections of this procedure to correct the errors.

ATTENTION

To cancel the current operation and redirect to the Phone Search Web page, click **Cancel** .

- 17 To add the new telephone to the database, click **Save** .

--End--

In the New Phones Web page, if you select **Copy from TN** as the **Phone Type**, the new telephone uses 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.

In the New Phones Web page, if you select **Template** as the **Phone Type**, the new Phone uses the properties of the specified template, with the following exceptions.

- The Default value for DES, if specified, takes precedence.
- The Automatically assign DN, if enabled, takes precedence.

The Template field displays all templates. To add a telephone, select a template from the list.

When Auto Assign DN is on and you specify a starting DN, the starting DN overwrites the existing partial DN specified in the template. The message "The current DN is the specified starting DN. It is not the partial DN specified in the template" is displayed indicating that the starting DN overwrites the partial DN specified in the template.

When Auto Assign DN is switched off, a Partial DN specified in the template becomes the DN. The Add Phones fails unless the user corrects the DN. The message "The current DN is the partial DN specified in the template. The DN must be modified in order to successfully add the phone." appears.

To add multiple telephones, perform the steps in [Procedure 117 "Add Multiple Phones" \(page 331\)](#).

Procedure 117
Add Multiple Phones

Step	Action
1	From the Search for Phones Web page, click Add . The New Phones Web page appears, as shown in Figure 237 "New Phones Web page" (page 332) .

Figure 237
New Phones Web page

Managing: [EM on ntec-dell\(47.152.232.31\)](#)
[Phones»New Phones](#)

New Phones

Number of phones : * (1-100).
Maximum value for Attendant consoles is 63.

Customer :

Phone Type : ☒ Phone Type
 Type : ☐ Template
☐ Copy From TN *

Options :

- ☐ Default value for DES * (1-6 characters)
- ☐ Default value for ZONE
Only applicable to IP phone types
- ☐ Default value for Node Id
Only applicable to UEXT-SIPL phone types
- ☐ Default value for Numbering Zone
- ☐ Automatically assign TN starting TN *
- ☐ Automatically assign DN starting DN *

* Required value

Preview Cancel

- 2 In the **Number of phones** field, enter the number of telephones to add .

You can add up to 100 phones at a time.

ATTENTION

If the Phone Type is **IP Attendant 3260**, then you can add a maximum of 63 phones.

- 3 In the **Customer** list, select the customer to which these telephones are associated.
- 4 Select the **Default value for DES** option, and type the value in the text box.
- 5 Select **Default value for Zone**, and type the value in the text box.
- 6 Select **Automatically assign DN** to automatically assign the next available DN.
- 7 Select **Automatically assign TN** and type the value in the starting TN box; or, you can leave the value blank and the system assigns the next available TN (Loop, Shelf, Card, Port or Unit) to the specified telephones as defined in the Hardware database for the system.

8 Click **Preview**.

The Preview Phones Web page appears, as shown in [Figure 238 "Preview Phones Web page" \(page 333\)](#).

Figure 238

Preview Phones Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»New Phones»Preview Phones](#)

Preview Phones(5)
 Number of phones being added: 5

Customer	Designation	ZONE	NUMZONE	Terminal Number
0-Customer0	test	1	1	100 0 11 05
0-Customer0	test	1	1	100 0 01 25
0-Customer0	test	1	1	100 0 07 25
0-Customer0	test	1	1	100 0 08 18
0-Customer0	test	1	1	100 0 11 17

Back Finish

This Web page lists the attributes of each new telephone based on the selections entered in the **New Phones** Web page in previous steps.

The **Preview Phones** page lists the desired number of telephones with automatically assigned TN to each telephone either from the starting value entered or from the automatically assigned values.

- 9 If the **Customer** number is incorrect, select the correct value from the list.
- 10 If the **DES** field is empty or incorrect, type the correct value.
- 11 For an analog telephone, If the **DN** field is missing or incorrect, type the correct value.
- 12 If the **TN** field is missing or incorrect, type the correct value.
- 13 Click **Finish** to add the telephones to the database.

--End--

You can select a template to add multiple telephones.

To add multiple analog phones when Auto Assign DN is on and when the starting DN is specified, the DNs are used from the unused DN list of the call server. For example, if the starting DN is 100 and the user adds three phones then 105, 115, 116 could be the DNs if they are the next available free DNs for the given starting DN. The DNs appear in the **Preview Phones** Web page and you can edit it.

To add multiple analog telephones when Auto Assign DN is switched off, the Partial DN specified in the template becomes the DN. Adding multiple telephones fails unless you correct the DN. The message "The current DN is the partial DN specified in the template. The DN must be modified in order to successfully add the phone." appears.

To add multiple digital or virtual telephones when Auto Assign DN is switched on and when starting DN is specified, the starting DN is incremented and used. For example, if the starting DN is 100 and you try to add three telephones, then 100, 101, and 102 are the DNs. The DNs do not appear in the **Preview Phones** Web page so you cannot modify the DNs.

To add multiple digital or virtual telephones when Auto Assign DN is switched off, you cannot use the template with partial DN for adding multiple digital or virtual telephones. The error message "Multiple phone addition is not allowed since the template selected has a partial DN" appears indicating that this scenario is not allowed. However, no restriction is placed on adding telephones if the template does not contain a partial DN.

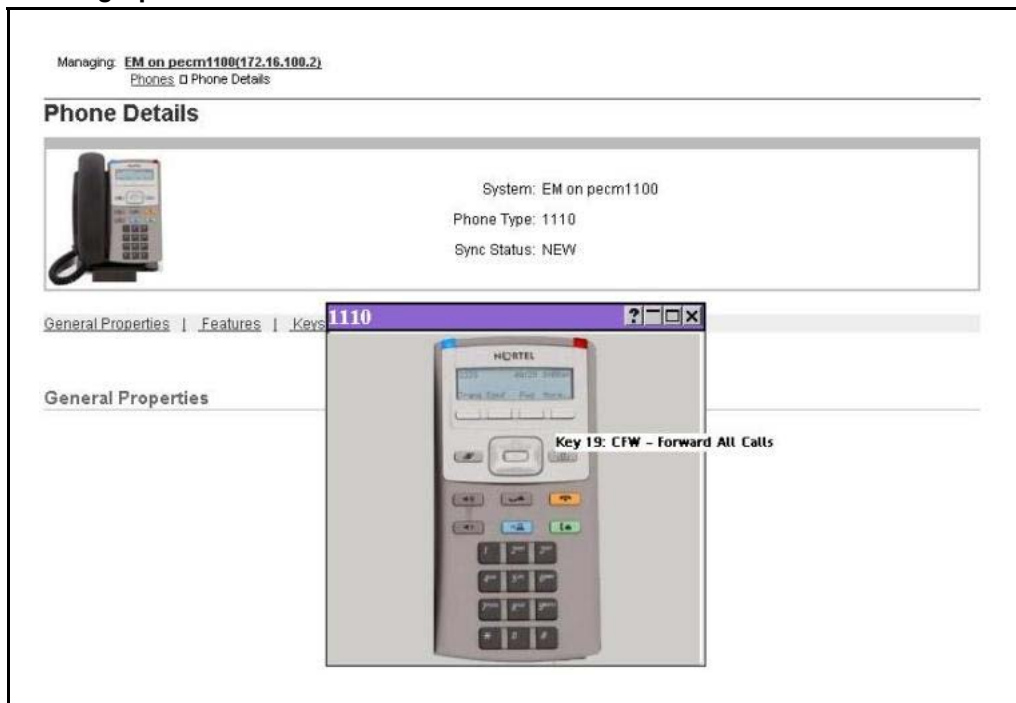
The maximum available list of DNs and TNs are displayed. If the user selects Auto Assign DN and TN, and the system cannot obtain the list, then the system displays an error message. The error message is displayed for those phones for which no free TN or DN could be obtained.

Program Phone Keys

You can program telephone keys by using a graphical image of the telephone.

You can program telephone keys from the Phone Details Web page by using the graphical image of the telephone, which appears when you click on the telephone image at the top left of the page as shown in [Figure 239 "Phone graphical interface" \(page 335\)](#).

Figure 239
Phone graphical interface



Procedure 118
Programing phone keys using phone graphical interface

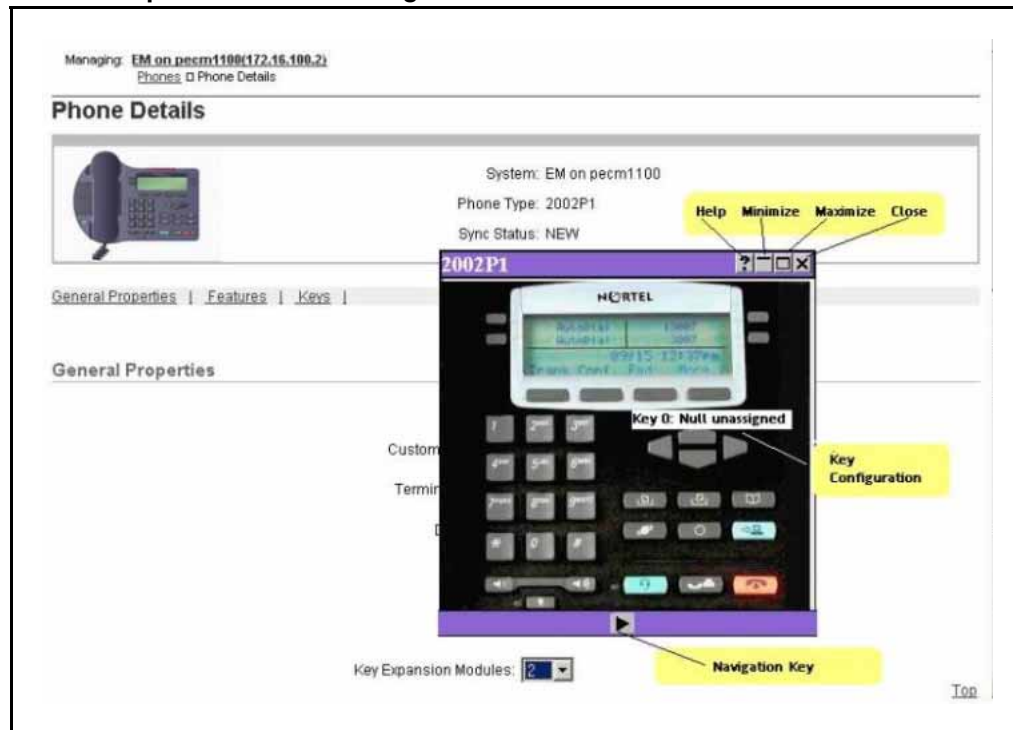
Step	Action
1	From the Search Result section of the Search for Phones Web page, click the telephone to be updated. The Phone Details Web page appears.
2	Click on the telephone image at the top left of the page. The graphical interface for the selected telephone appears.
3	Click the key button of the telephone you want to program. The select box for the selected key of the Keys section of the Phone Details Web page appears highlighted.
4	Change the key configuration as required.
5	Click Finish to add the telephone. The window closes and the Search for Phones Web page appears.

--End--

There are help, minimize, maximize, and close buttons on the title bar of the Phone Graphical Interface window. Click the question mark, to open the corresponding help page for the telephone displayed, .

Use the minimize and maximize buttons to hide and display the graphical image window. Hover the mouse over the key buttons on the image to display a tool tip with the key number and the current configured value. See [Figure 240 "Phone Graphical Interface navigation" \(page 336\)](#).

Figure 240
Phone Graphical Interface navigation



When minimized, the Phone Graphical interface title bar remains visible. You can move the title bar so it does not obscure your view of the **Phone Details** Web page. However, you cannot drag and place the title bar on top of the navigation pane of the browser.

You can configure telephones with a key-based add-on module. Use the navigation button at the bottom to navigate to the extended keys for the telephone.

Edit Phones

Use the Edit feature to edit a single telephone or multiple telephones.

Edit single or multiple phones

Click the Phones branch of the Element Manager navigator to open the **Search for Phones** Web page.

To edit a single telephone or multiple telephones, perform the following procedure.

Procedure 119 Editing single or multiple phones

Step	Action
1	Select a search criteria from the Criteria list, to search for telephones to edit.
2	Sort the telephone list by telephone type.
3	Click the box beside the telephones to be updated.
4	Select Edit from the <more actions> list. The Bulk Phone Edit Web page appears.
5	In the Field list, select a mnemonic or field to update.
6	Click Add . The Bulk Edit Details Web page appears with the Field or mnemonic displayed in the header.
7	Enter the old value in the Old Value text box or select it from the Old Value list. If you update a Key field, enter the old value of any parameter to change in the corresponding box on the left side.
8	Enter the new value in the New Value text box or select it from the New Value list. If you update a Key field, enter the new value of any parameter to change in the corresponding box on the right side.
9	Click Save to complete the edit. OR Click Cancel to undo changes and return to the Bulk Phone Edit Web page.
10	Click Update Phones to update all the selected phones with the selected fields in the list. A confirmation message appears "Are you sure you want to update the phones with the selected values?"
11	Click OK .
--End--	

ATTENTION

UXTY cannot be changed using Bulk Phone Edit for UEXT types. Bulk Phone Edit of UEXT types from one UXTY to another UXTY is not supported.

Update phones using the phone Templates

The association of telephones to a template simplifies the bulk change procedure. Use this association to enable a change to the template content to be applied to all telephones that use the template.

The Bulk Phone Edit Web page allows the user to update the telephone from templates. The value **Template** of the edit **Field** list, enables the user to update the telephone based on the value in the template.

In the edit **Field**, if you select **Template** and click **Add**, then the **Old Value** field displays an asterisk (*). The **New Value** field displays all Templates configured for the selected telephone type as seen in [Figure 241 "Bulk Phone Edit Web page"](#) (page 338).

Figure 241
Bulk Phone Edit Web page

Managing: [EM on ntec-dell1\(47.152.232.31\)](#)
[Phones»Bulk Phone Edit»Bulk Edit Details](#)

Bulk Edit Details (TEMPLATE-Template associated to a phone)

Old Value: * ▼

New Value: test ▼

Save Cancel

The template is considered the master during this update. All configured telephone attributes are overwritten with the attributes in the selected template. The CPND name configured in the telephone is retained during the update.

If the telephones selected for updating are of different telephone types, then the **Template** field is not available in the edit **Field** list. You cannot change the following telephone properties when you update using Templates. These properties are different for every telephone and updating it from template is not supported.

- Designator (DES): This property is part of the General Properties section of the telephone details page.
- Station Control Password (SCPW): This property is part of the Features section of the telephone details page.
- Directory number parameter of any key feature.

In addition, certain properties are not part of the template and can be changed in the telephone.

- Terminal Number (TN): This property is part of the General Properties section of the telephone details page.
- Call Party Name Display (CPND): This property is part of the Keys section of the telephone details page.
- Voice Mail Box (VMB): This property is part of the Keys section of the telephone details page.

If a template has a partial DN configured, you cannot update a telephone with the Template by using the Edit function. The error message "Editing phones is not allowed since the template selected has a partial DN" appears. However, no restriction is placed on editing if the template does not contain partial DN.

Perform this procedure to associate a template with telephones that are not associated with a template.

Procedure 120 Associating a Template to Phones

Step	Action
1	From the Procedure 115 "Search for phones" (page 324) Web page, search for telephones that are not associated with a template.
2	Sort the telephone list by telephone type.
3	Select telephones to update.
4	Select Edit from the <more actions> list. The Bulk Phone Edit Web page appears.
5	In the edit Field , specify the value to update as Template and click Add . The Bulk Edit Details Web page appears.
6	In the Old Value field, select Asterisk (*) .
7	In the New Value field, select the Template associate with the telephone.

- 8 Click **Save** to complete the edit.

Or

Click **Cancel** to undo changes and return to the Bulk Phone Edit Web page.

--End--

ATTENTION

When you update the telephone, Element Manager may send an update to the account in Subscriber Manager depending on the attributes you updated.

Phone properties that can change without breaking the Template association

Certain properties differ for various telephones; therefore, changing these properties does not break the telephone-to-template association. The following is a list of properties:

- Designator (DES): This property is part of the General Properties section of the phone details page.
- Station Control Password (SCPW): This property is part of the Features section of the phone details page.
- Directory number parameter of any key feature.

In addition, certain properties are not part of the template, and can be changed in the phone.

- Terminal Number (TN): This property is part of the General Properties section of the phone details page
- Call Party Name Display (CPND): This property is part of the Keys section of the phone details page.
- Voice Mail Box (VMB): This property is part of the Keys section of the phone details page.

Employee reference field support when exporting and import phone database

Including this attribute in the export and import tools enables you to retain important data that is not persisted on the call server such as the employee reference and template ID. You can export and the import employee reference fields along with other supported telephone fields. The employee reference field stores the ID of the subscriber associated with the telephone. This field is the link between a telephone in EM Phone Provisioning and a subscriber in Subscriber Manager.

When you need to retain this offline data, perform [Procedure 121](#) “Retaining offline data” (page 341).

Procedure 121
Retaining offline data

Step	Action
1	Export the Phones database as a CSV file with the mandatory fields (TN, CUSTOMER, PHONE, DES), Template ID, and Employee Reference field.
2	Perform the Retrieve and Reconcile procedure to populate the phone database.
3	Import phones from the CSV file generated in step 1 to re-establish the link from telephone to template and telephone to subscriber.
--End--	

Export and Import of employee reference field

Certain limitations apply while importing the EMPLOYEEREFERENCE field. In the import CSV file, if you update the EMPLOYEEREFERENCE field of an existing telephone, the following work flow occurs:

- EM Phone Provisioning updates the employee reference field in the telephone database.
- An update account notification is sent to Subscriber Manager. Because the notification is not an update to an existing account, Subscriber Manager ignores this notification.
- Run the Account Synchronization operation to synchronize the account differences between EM phone provisioning and Subscriber Manager. Account synchronization resynchronize the accounts as follows:
 - Account Synchronization finds that the older account exists in Subscriber Manager but not in EM phone provisioning. This account is automatically removed from Subscriber Manager.
 - Account Synchronization identifies a newer account in EM phone provisioning but not in Subscriber Manager, but the account has a subscriber ID in the directory. The newer account is automatically created in Subscriber Manager.

Procedure 122
Generating a report and exporting phones with employee reference in the selected report field

Step	Action
1	Select Report from the Phones branch of the EM navigator.
2	Click Add to add a Report profile.
3	In the Field Selection section, select the fields to include in the report. Include EMPLOYEEREFERENCE field as well.
4	In the Custom Criteria section, select the criteria to determine which telephones are included in the report.
5	Select CSV as the report format from the Report Format list.
6	Click Generate Report . The Download Generated Report Web page appears.
7	Download the report. • EMPLOYEEREFERENCE field is included in the generated report. • All telephones linked to a subscriber have a value for the EMPLOYEEREFERENCE field. • All telephones not linked to a subscriber do not have a value for the EMPLOYEEREFERENCE field.
For more information, see “Reports” (page 355)	
--End--	

Procedure 123

Generating a report and exporting phones with employee reference field as the criteria.

Step	Action
1	Select Report from the Phones branch of the EM navigator.
2	Click Add to add a Report profile.
3	Select the fields to include in the report.
4	In the Custom Criteria section, select the EMPLOYEEREFERENCE field. • The corresponding Value field changes to a text box. • The corresponding Comparison list contains only the equal to (=) operator.
5	Enter a value in the Value field.
6	Select CSV as the report format from the Report Format list.
7	Click Generate Report .

The **Download Generated Report** Web page appears.

- 8 Download the report.
- EMPLOYEEREFERENCE field is in the generated report.
 - All telephones linked to a subscriber have a value for the EMPLOYEEREFERENCE field.

For more information, see [“Reports” \(page 355\)](#)

--End--

Procedure 124
Importing a new phone with employee reference field

Step	Action
1	Modify the generated CSV, and add a new telephone with a valid employee reference field.
2	Click Import on the Search for Phones Web page. The Import Phones Web page appears.
3	Specify the name of the source file by performing one of the following steps: • Type the path and name of the file in the import source file text box • Click Browse to locate and select the file.
4	Click OK to import the file. The Import Status Web page appears indicating the success or failure of the import.
5	Click Common Manager to go to UCM home page.
6	Click the Subscribers link in UCM. The Search for Subscribers Web page appears.
7	Enter the subscriber's last name in the Name field of the search criteria, and click Search . Use the name of the subscriber whose ID you used in step 1. The Search for Subscriber Web page appears with search results that match the search criteria.
8	Click the name of the subscriber. The Subscriber Details Web page appears with a new account added to the account list.

--End--

Procedure 125**Importing an existing phone with no update to employee reference field**

Step	Action
1	Modify the generated CSV to update an existing telephone. Update the DN of Key 0 so that the change is visible in Subscriber Manager.
2	Click Import on the Search for Phones Web page. The Import Phones Web page appears.
3	Specify the name of the source file by performing one of the following steps: - Type the path and name of the file in the import source file text box - Click Browse to locate and select the file.
4	Click OK to import the file. The Import Status Web page appears indicating the success or failure of the import operation.
5	Click Common Manager to go to UCM home page.
6	Click the Subscribers link in UCM. The Search for Subscribers Web page appears.
7	Enter the subscriber's last name in the Name field of the search criteria and click Search . Use the subscriber name that you used in step 1. The Search for Subscriber Web page appears with search results that match the search criteria.
8	Click the name of the subscriber. The Subscriber Details Web page appears with the DN changes made to the account in the account list.
--End--	

Procedure 126**Importing an existing phone with updated employee reference field**

Step	Action
1	Modify the generated CSV to update an existing telephone. Update the employee reference field to another valid subscriber.
2	Click Import on the Search for Phones Web page. The Import Phones Web page appears.

- 3 Specify the name of the source file by performing one of the following steps:
 - Type the path and name of the file in the import source file text box
 - Click **Browse** to locate and select the file.
- 4 Click **OK** to import the file.

The **Import Status** Web page appears indicating the success or failure of the import.
- 5 Click **Common Manager** to go to UCM home page.
- 6 Click the **Subscribers** link in UCM.

The **Search for Subscribers** Web page appears.
- 7 Enter the subscriber's last name in the **Name** field of the search criteria, and click **Search**. Use the subscriber name that you used in step 1.

The **Search for Subscriber** Web page appears with search results that match the search criteria.
- 8 Click the name of the subscriber.

The **Subscriber Details** Web page appears with no changes made to the account in the account list. No changes are made to the account list of the subscriber whose employee reference field you used in step 1.

--End--

Import Telephones

You can import telephones into the telephone database by using the import function. Use the Import Telephones feature to import telephone data into the database from a comma-separated value (CSV) file. The Import Telephones Web page as shown in [Figure 242 "Search for Phones Web page" \(page 346\)](#) appears when you click the **Phones** link in EM navigator and then click **Import** in the Search for Phones Web page.

The Import Template feature accepts phone features, phone keys, and ten user defined attributes (USERFIELD1, USERFIELD2, USERFIELD3, and USERFIELD10) in the CSV format for adding and updating a template.

ATTENTION

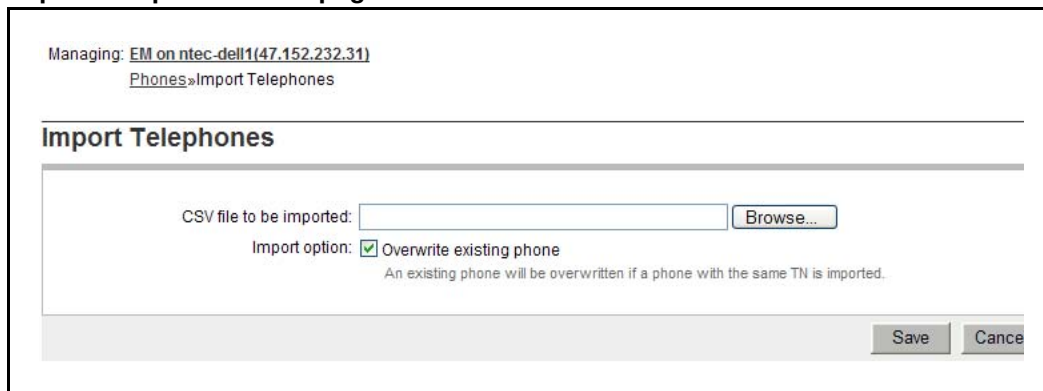
While entering values in the Userfields, ensure that the values are within double quotes (") and the userfield value itself does not contain any double quote (").

Figure 242
Search for Phones Web page



The Import Telephones Web page appears, as shown in [Figure 243](#) "Import Telephones Web page" (page 346).

Figure 243
Import Telephones Web page



Specifications for CSV file

- The data file must be in CSV format.
- The first line in the CSV file must contain a list of fields to import.
- Subsequent lines in the CSV file must contain data values for each field being imported and are in the same order as the corresponding field names appear in the first line.

Figure 244
Example Contents of CSV file

	A	B	C	D	E	F	G	H	I	J	K
1	TN	PHONE	DES	CUSTOMER	USERFIELD1	USERFIELD2	USERFIELD3	USERFIELD4	USERFIELD5	USERFIELD6	USERFIELD7
2	000 0 05 01	2500	MTHU	0	Hoang	Le	Nhat	Thong	Tri	Hanh	Phuc
3	000 0 05 02	2500	MTHU	0	Mua	Xuan	Thuy	Ha	Dong	Phong	Phuong
4	000 0 05 03	2500	MTHU	0	Khanh	Duyen	Thuy	Thu	Thuy	Thach	Thuy
5	000 0 05 04	2500	MTHU	0	Toan	Thang	Thuy	Thu	Thuy	Thach	Thuy
6	000 0 05 05	2500	MTHU	0	Dung	Thang	Thuy	Thu	Thuy	Thach	Thuy
7	000 0 05 06	2500	MTHU	0	Tam	Thang	Thuy	Thu	Thuy	Thach	Thuy
8	000 0 05 07	2500	MTHU	0	Hung	Hieu	Huong	Hang	Ha	Hoa	Han
9											
10											
11											
12											

The valid field names to be used while importing data into the database are in the **Available fields** list in the **Fields selection** section of the Reports UI. Click the **Reports** link in the **Phones** branch of the Element Manager navigator and then click **Add** to access the Report UI. See [“Reports” \(page 355\)](#). For more information, see *Software Input/Output - Administration* (NN43001-611).

Mandatory Fields

The first column of the import file must be either TN or PRIMEDN. The first column is used as a key to identify the telephones update.

Table 1
Mandatory Fields

Operation	Mandatory Fields
Update an existing telephone record	TN (Terminal Number) or PRIMEDN (Prime Directory Number)
Add a new telephone record	TN (Terminal Number), PHONE (Phone type), CUST (Customer Number), and DES (Designation)
Add a IP Phone record	TN (Terminal Number), PHONE (Phone type), CUST (Customer Number), DES (Designation), and ZONE (Zone)
Add DCS	TN (Terminal Number), PHONE (Phone type), DES (Designation), CUST (Customer Number), PRIMEDN (Prime Directory Number), FTR_CFW (Forward All Calls), DMC (DECT Mobility Controller), and IDNX (Index on DMC)

If PRIMEDN is the first column, you can import only to update telephones.

If TN is the first column, you can import to add or update a telephone.

For a TN, if a matching telephone is found, then the configuration is updated using data from the import file. If no matching telephones are found for a TN, then a new telephone is added to database if all the mandatory parameters for telephone configuration are specified in the import file.

ATTENTION

When you add DCS telephones, you cannot assign a TN to the telephone; the Call Server automatically assigns the TN after the telephone is added. Therefore, for DCS telephones, the telephone is imported if the TN field remains blank. If a TN is assigned to a DCS telephone, the import ignores the user-specified TN.

Data requirements for importing Keys, CPND names and VMB

To import keys, the field name used in CSV file uses the format *Key <number>* where *<number>* is the key number. For example, to import Key 10, the field name is **Key10**. The value for the key is specified in the following format:

```
<mnemonic> [<parameters>] [MARF] [ANIE(<value>)] [CPND_FIRS  
T_NAME (<value>) CPND_LAST_NAME(value) CPND_LANG(value)  
CPND_DISPLAY_FORMAT(value) [VMB_CLASS_OF_SERVICE(value)  
VMB_SECOND_DN(value) VMB_THIRD_DN(value) VMB_KEEP_MES  
SAGES(value)]
```

The entries in square brackets ([]) are optional and are based on key mnemonic and import requirements:

- *<mnemonic>*: Represents the key feature mnemonic to be assigned to the key.
- *<parameters>*: Represents the key parameters. The values described in this section depend on the key feature mnemonic.
- MARF: Indicates that the DN specified in the *<parameters>* section should use MARF on the key.
- ANIE(<value>): Specifies the value for ANIE entry. The *<value>* represents the ANIE entry value.

You can use the sections with names starting with *CPND_* to import the CPND name for the DN specified in the *<parameters>* section. To import new CPND names, specify a nonblank value for at least one of the two name fields:

- CPND_FIRST_NAME and CPND_LAST_NAME: Use this section to update existing CPND names using import, specify values for only

those fields that need to be updated. It is not mandatory to specify a value for all fields.

- **CPND_FIRST_NAME:** Use this section to specify the CPND first name for the DN specified in <parameters> section.
- **CPND_LAST_NAME:** Use this section to specify the CPND last name for the DN specified in <parameters> section.
- **CPND_LANG:** Use this section to specify the CPND language for the CPND name.
- **CPND_DISPLAY_FORMAT:** Use this section to specify the CPND display format for the CPND name.

You can use the sections with names starting with **VMB__** to import VMB configuration data for the DN specified in the <parameters> section. It is not mandatory to specify values for all fields; specify a value only for those fields that need to be updated:

- **VMB_CLASS_OF_SERVICE:** Use this section to specify the class of service value for the VMB.
- **VMB_SECOND_DN:** Use this section to specify a second DN for the VMB.
- **VMB_THIRD_DN:** Use this section to specify the third DN for the VMB.
- **VMB_KEEP_MESSAGES:** Use this section to specify the preference for keep messages field of the VMB.

The valid values are the same as those accepted by PBX overlays.

Figure 245 "Example of a CSV file to import" (page 349) is an example of a CSV file to import.

Figure 245
Example of a CSV file to import

	A	B	C	D	E
1	TN	CUSTOMER	PHONE	DES	KEY0
2	1080000	0	2004P1	I2004	SCRD000000 MARP CPND_FIRST_NAME(CPND_LAST_NAME(CPND_LANG(ROND)CPND_DISPLAY_FORMAT
3					

Data requirements for importing Single Line Features

You can import Single line features (FTR) by specifying the field name in the format FTR_<mnemonic>, where <mnemonic> is the mnemonic for a single line feature, and by specifying the value in the format <mnemonic> <parameters>.

Figure 246

Example of a CSV file of FTR data to import for a DCS phone

1	2	3	4	5	6	7	8	9	10
TN	PHONE	DES	CUSTOMER	DN	DMC	INDX	FTR_CFW	FTR_SCU	
076 0 00 08	DCS	TEST	0 DN 2413 MARP		004 0 00		21 CFW 6	SCU 1	

Figure 247

Example of a CSV file of FTR data to import for an analog telephone

1	2	3	4	5	6	7	8
TN	PHONE	DES	CUSTOMER	DN	FTR_CFW	FTR_SCU	
004 0 10 02	500	PH4	0 DN 2415 MARP		CFW 6	SCU 1	

Data requirements for importing DN for analog telephones

The DN field for analog telephones can have MARP and ANIE settings and, CPND and VMB configuration. You can import the DN field for analog telephones by specifying the field name as DN and by specifying the value in the following format:

DN<DNvalue> [MARP] [ANIE(<value>)] [CPND_FIRST_NAME (<value>) CPND_LAST_NAME(value) CPND_LANG(value) CPND_DISPLAY_FORMAT(value)] [VMB_CLASS_OF_SERVICE(value) VMB_SECOND_DN(value) VMB_THIRD_DN(value) VMB_KEEP_MES SAGES(value)]

To Import telephones, perform the steps in [Procedure 127 "Import Telephones" \(page 351\)](#).

Procedure 127
Import Telephones

Step	Action
1	Click the Phones link in EM navigator. The Search for Phones Web page appears.
2	Click Import to open the Import Telephones Web page.
3	Specify the name of the file from which the telephone details are to be imported by using the browse button or by entering the file name. The file must be a CSV file.
4	Click Save .
--End--	

The status of the import is displayed. Obtain an initial format of the CSV file by generating a Report in CSV format using the **Reports** link of the **Phones** branch of the Element Manager navigation page.

ATTENTION

The maximum session time in UCM is 2 hours by default. You need to change the maximum session time for the import operation that exceeds 2 hours in the UCM Session Properties section. To change the maximum session time, refer to *Unified Communication Management (NN43001-116)*.

Move Phones

You can move a telephone to another TN with the same property values. To do this, perform the steps in [Procedure 128 "Move Phones" \(page 351\)](#).

Procedure 128
Move Phones

Step	Action
1	From the Search Results section of the Search for Phones Web page, select Move from the <more actions> list. The Move TN Web page appears, as shown in Figure 248 "Move TN Web page" (page 352) .

Figure 248
Move TN Web page

For Attendant consoles/phones, the Move TN Web page displays two prompts for *Terminal Number* and *Secondary Terminal Number*.

- 2 Enter the TN to move the telephone, and click **Submit**.

--End--

Procedure 129 Moving an IP Attendant 3260 Phone

- | Step | Action |
|------|---|
| 1 | In the Search For Phones Web page, select the check box corresponding to the 3260 phone to be moved. |
| 2 | Select the value Move from the More Actions drop-down list.
The Move TN Web page appears as shown in the following figure. |

The current Primary and Secondary TNs are displayed in the **From** fields.

- 3 Fill in the required values in the **To** fields corresponding to the **Terminal Number** and **Second Terminal Number** fields.
- 4 Click **Submit** to move the phone to the specified TNs.

The page refreshes to display the Search For Phones Web page.

--End--

Retrieve Phones

The Retrieve Phones function synchronizes data from the Call Server to the Phones database. Perform the steps in [Procedure 130 "Retrieve Phones" \(page 353\)](#).

Procedure 130 Retrieve Phones

Step	Action
1	From the Search for Phones Web page, click Retrieve .
2	The Retrieve Options Web page appears, as shown in Figure 249 "Retrieve Options Web page" (page 353) .

Figure 249
Retrieve Options Web page

- 3 Select one of the Retrieve Options, as follows:
- Select **Phones selected** to retrieve the telephones in the phone **Search Results** section.
 - Select **All phones and reconcile** to retrieve the telephones.
 - Select **Custom** and enter any combination of search criteria to retrieve telephones that meet those criteria.

4 Click **Submit**.

--End--

ATTENTION

The maximum session time in UCM is 2 hours by default. You need to change the maximum session time for import operation that exceeds 2 hours in the UCM Session Properties section. To change the maximum session time refer to *Unified Communication Management* (NN43001-116).

ATTENTION

It is recommended that only one user at a time perform a retrieve and reconcile operation. EM Phone Provisioning does not support concurrent users for a retrieve and reconcile operation.

Delete Phones

To delete telephones, perform the steps in [Procedure 131 “Delete Phones” \(page 354\)](#).

Procedure 131
Delete Phones

Step	Action
1	From the Search for Phones Web page, search for telephones based on a search criteria.
2	Click the boxes beside all the telephones to delete.
3	Click Delete .
4	Click OK to confirm the deletion of the telephones selected, or click Cancel to stop the operation.
--End--	

Swap Phones

When you swap telephones, two telephones exchange TNs. The following limitations apply to a swap:

- You 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, you 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 synchronization 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 telephone in the acquired state.
- Swapping is not supported for telephones with a branch office link.

Procedure 132 Swap Phones

Step	Action
1	From the Search for Phones Web page, search for telephones based on a search criteria.
2	From the list of telephones, select the two telephones to swap.
3	Select Swap from the <more actions> list. The changes are submitted to the database.
--End--	

Reports

Element Manager provides the ability to construct complex queries against the Phones database in the form of reports. The results can be in either HTML or CSV format. If you choose HTML format, only a maximum of 1000 records appear.

Click the **Reports** link of the **Phones** branch of the Element Manager navigator. The Edit a Report Web page appears, as shown in [Figure 250 "Edit a Report Web page" \(page 356\)](#).

Figure 250
Edit a Report Web page

Enter the desired criteria and report format. Click **Generate Report** to generate the report.

Canned Reports

The Element Manager provides the ability to create, copy, edit, import, export, and delete report definitions. You can generate a telephones report, which can be saved in HTML or CSV format. The CSV file can be used to import phones.

ATTENTION

The maximum number of Report definitions supported by the system is 100.

Report definition

A report definition consists of the following:

1. Report name and description — These are required only if the definition is going to be saved; otherwise, they are optional.
2. Report schema — This is the set of parameters defining the report format and its contents. The following parameters are defined in the schema:
 - **Report fields:** telephone properties required in the report.
 - **Set of report criteria:** conditions based on which telephone records are filtered.

- **Sort fields:** telephone properties based on which the report is sorted.
- **Report format:** the format of the report and options for displaying the report.

Default Reports

Pre-defined reports are part of the Report List Web page and they appear in the Report profile Name list. See [Figure 251 "Report List" \(page 360\)](#).

The predefined report is generated by clicking **Generate Report** on the Report List Web page. You cannot delete or rename default reports. All default reports are identified by the prefix: Default_, followed by the report name. The Reports and descriptions table lists the reports that appear in EMPP, along with a brief description.

Table 2
Reports and descriptions

Report Name	Description
Default_HuntPatterns Report	Displays all telephones that have HUNT configured. The following fields are displayed: • HUNT • EmployeeReference* • PrimeDN
Default_KeyAssignments Report	Displays all telephones. The following fields are displayed: • TN • PrimeDN • Location • Keys Assigned (Key Number, Key Mnemonic and Key Value) • EmployeeReference* • Instrument (Phone Type) - CLS (Trunk/Call Access Restriction)

Default_MessageCenters Report	Displays all telephones that have keys assigned to Message Waiting. The following fields are displayed: • Message Center DN (Keys Assigned to message waiting - PHONE(phone)) • Instrument (Phone Type) • TN
Default_Phones Report	Displays all telephones that have an EmployeeReference. The following fields are displayed: • EmployeeReference • PrimeDN • TN
Default_PrivateLine Report	Displays all telephones that have Ringing Number Pick-up Group configured. The following fields are displayed: • RNPG (Ringing Number Pick-up Group) • PrimeDN • Instrument (Phone Type) • EmployeeReference** • PHONE(phone)
Default_AccessRestriction Report	Displays all telephones. The following fields are displayed: • PrimeDN • CLS (Trunk/Call Access Restriction) • NCOS (Network Class of Service) • Location • TN • EmployeeReference*

Default_AutomaticCallDistributionPhones Report	Displays all telephones that have Automatic Call Distribution Phones configured. The following fields are displayed: • ACDS (Automatic Call Distribution Stations) • CLS (Trunk/Call Access Restriction) • SPID (Supervisor Position ID) • Location • TN • EmployeeLastName
Default_DialIntercomGroups Report	Displays all telephones that have a Dial Intercom Group configured. The following fields are displayed: • DIG (Dial Intercom Group) • PrimeDN • Instrument (Phone Type) • Location • Department • EmployeeLastName

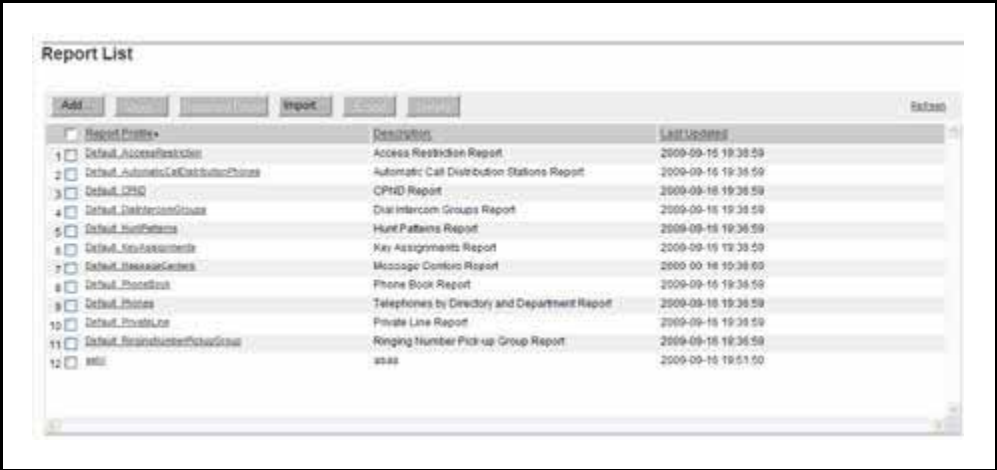
Generating a report

Reports are generated based on report definitions. If an existing report definition is not suitable, you must create a new definition.

Procedure 133 Generate a report

Step	Action
1	From the navigation tree, click Phones and then Report. The Report List Web page appears as shown in the figure Figure 251 "Report List" (page 360).

Figure 251
Report List



- 2 From the **Report List**, select a report by clicking the check box.
- 3 Click **Generate report**.

The report is displayed in HTML table format as shown in the figure [Figure 252 "Phone Report" \(page 361\)](#).

Figure 252
Phone Report

Phone Report

Report Details

Title: test2

Criteria: SYNCSTATUS = Transmitted

Report Date: Tue Oct 13 11:57:46 IST 2009

View As CSV

2051 Rows Fetched

TN	PHONE	DES	CUSTOMER	KEY0
096 0 00 01	1110	TEST	0	
096 0 00 05	1110	SOM	0	
096 0 00 12	1110	PRANIT	0	
SCR 76144 0 MARP CPND				
176 0 00 00	2004P2	HURJAB	0	First Name Last Name Language Display format SB_05_16144 ROM FIRST, LAST
SCR 76145 0 MARP CPND				
176 0 00 01	2004P2	HURJAB	0	First Name Last Name Language Display format SB_05_16145 ROM FIRST, LAST
SCR 76146 0 MARP CPND				
176 0 00 02	2004P2	HURJAB	0	First Name Last Name Language Display format SB_05_16146 ROM FIRST, LAST
SCR 76147 0 MARP CPND				
176 0 00 03	2004P2	HURJAB	0	First Name Last Name Language Display format SB_05_16147 ROM FIRST, LAST
SCR 76148 0 MARP CPND				
176 0 00 04	2004P2	HURJAB	0	First Name Last Name Language Display format SB_05_16148 ROM FIRST, LAST

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4 To view the report in CSV format, click **View as CSV**.

The report is displayed in Microsoft Excel. If you save the report in CSV format, the report must be downloaded to your PC.

--End--

Creating a new report definition

You can create a new report profile definition in one of the following ways:

- Create a new report definition
- Modify or customize an existing definition

When you create a new report definition, you can generate the report immediately, or save the report definition and use it later to generate a report.

Adding a new report profile

You can define each component of the new report definition using the report definition option.

Procedure 134 Add a new report profile

Step	Action
1	From the navigation tree, click Phones and then Report . The Report List Web page appears, as shown in the figure Figure 251 "Report List" (page 360) .
2	Click Add . The Report Details Web page appears, as shown in the figure Figure 253 "Report Details" (page 362) .

Figure 253
Report Details

Report Details(test)

Save Report Definition

Report Name: * (1-80 characters)

Description: * (1-100 characters)

Note: The name and description fields are only mandatory when saving the report details.

Field Selection

Available Fields (436):

- AAA(Automatic Answer Back)
- AACD(Meridian Link Associated ACD Agent)
- AACS(Application Acquire Request)
- ABDA(CDR on Abandoned Calls)
- ACDS(Keys assigned to Automatic Call Distribution)
- ACQ(Acquired AS)
- 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)

Selected Fields (5):

- TN(Terminal Number)
- PHONE(Phone)
- DES(1-6 Character Designator)
- CUSTOMER(Customer Number)
- KEY(KEY Number 0)

Clear Form

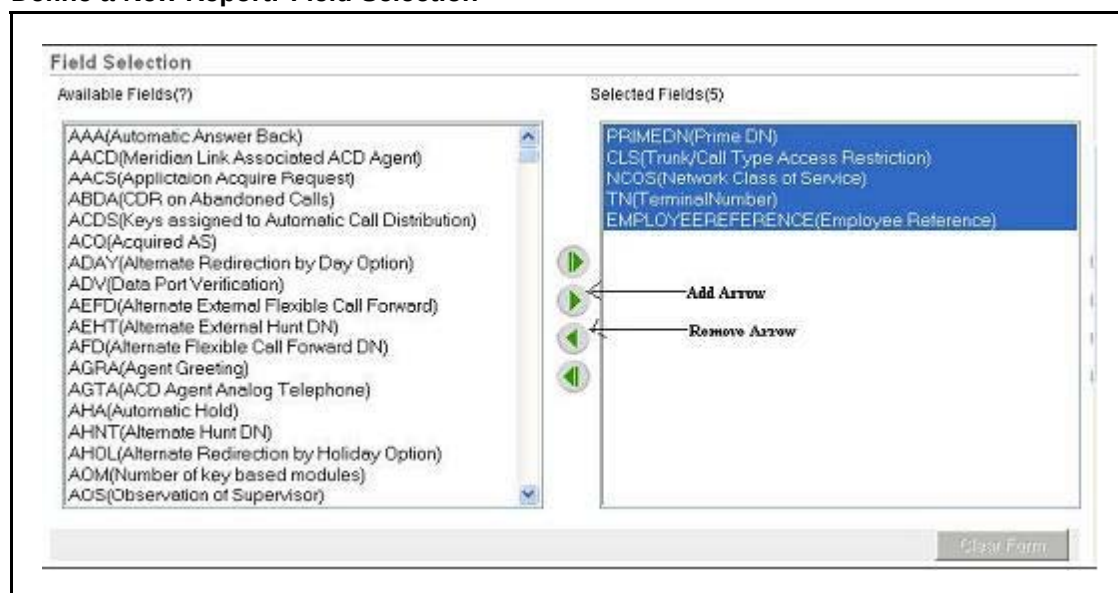
Custom Criteria

Logic (	Field	Comparison	Value	)
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- 3 In the **Field Selection** section, select the fields to include in the report:
- Hold down the CTRL key, and click on each required field in the **Available Fields** list.
 - Click the **Add** arrow. The selected fields appear in the **Selected Fields** list.
To remove a field from the Selected Fields list, click on the field and click the **Remove** arrow.
 - Click the Top, Up one, Down one, or Bottom arrows as required to move the fields into the order in which you want them to appear in the report.

Figure 254

Define a New Report: Field Selection



- 4 In the **Custom Criteria** section, as shown in the figure [Figure 255 "Define a New Report: Custom Criteria, Sorting, Report Format, and Format Options"](#) (page 364), select the criteria for the records to report:
1. From the **Field** list, select a field.
The corresponding Value field changes to a text box or a list, depending on the field selected.
 2. From the **Comparison** list, select the appropriate comparison operator.
 3. Enter a value in the **Value** field by selecting from the **Value** list, or typing values in the Value box.
 4. (Optional) To extend the expression to another row, click **Add Criteria**. Select AND or OR from the Logic list and enter the next expression.

5. (Optional) Click **Delete Criteria** to remove the corresponding row.
6. (Optional) Click **Clear Criteria** to clear the row and reenter the expression.
7. Select the appropriate number of parentheses from the opening, (, and closing,), parentheses. Parentheses set the precedence of evaluation of each expression in the search criteria.

Figure 255

Define a New Report: Custom Criteria, Sorting, Report Format, and Format Options

5

If there are fields listed in the **Sortable Fields** list box in the Sorting section shown in the figure [Figure 255 "Define a New Report: Custom Criteria, Sorting, Report Format, and Format Options"](#) (page 364), select the sorting order of the records, if required:

1. From the **Sortable Fields** list, select a field by which the data is to be sorted. Select the field to be the primary sort key; that is, the first field selected always determines the order of the records. The next field selected determines the order of those records where the values in the first field are identical

and cannot be sorted. This sort precedence continues through all selected fields.

2. Click **Add** to move the field to the **Sorting By** list box. If required, click **Up One** and **Down One** to reorder the sort fields.
 3. Click **Ascending** or **Descending** to sort the records in ascending or descending order.
 4. Repeat steps 1 through step 4 for each field to be selected as a sort key. Note that the sortable fields have only predefined Nortel values:
 - a. CUSTOMER
 - b. DES
 - c. TN
 - d. PRIMEDN
 - e. PHONE
 - f. LASTUPDATEDBY
 - g. LASTUPDATEDON
- 6 From the **Report Format** list, select **HTML Table** or **CSV** as the report format. If the report is in HTML Table format, the report is displayed in a Web page. If the report is in CSV format, the report is generated as a CSV file and you are prompted to download the file.
- 7 In the **Format Options** section, define additional format options as required:
- Enter a title for the report in the **Title** box.
 - Select the report style from the **Style** list.
The two options are Default and Print. The Default style formats the report for viewing in a Web page. The Print style formats the report for printing.
 - Select **Hide Criteria** to hide the criteria in the report.
 - Select **Show Report Date** to include the generation date in the generated report.
 - Select **Disable Page Header** to hide the report header.
 - Select **Disable Page Footer** to hide the report footer.
- 8 Enter a name for the report definition in the **Report Name** box.
- 9 Enter a description for the report definition in the **Description** box.

- 10 Click **Save**.

--End--

Creating a new report definition from an existing definition

This method consists of modifying an existing report definition and saving it as a new definition.

Procedure 135

Create a new report definition from an existing definition

Step	Action
1	From the navigation tree, click Phones , and then Report . The Report List Web page appears, as shown in the figure Figure 251 "Report List" (page 360) .
2	Select the check box corresponding to the report to copy.
3	Click Copy . The Report Details Web page appears as shown in the figure Figure 253 "Report Details" (page 362) .
4	Make the necessary modifications to the report, following step 3 to step 7 of "Adding a new report profile" (page 362) .
5	Enter a name for the definition in the Report Name box.
6	Enter a description for the definition in the Description box.
7	Click Save .
--End--	

Deleting a report definition

Step	Action
1	From the navigation tree, click Phones , and then Report . The Report List Web page appears, as shown in the figure Figure 251 "Report List" (page 360) .
2	Select a report profile from the list.
3	Click Delete .
--End--	

Exporting a report definition

Step	Action
1	From the navigation tree, click Phones , and then Report . The Report List Web page appears, as shown in the figure Figure 251 "Report List" (page 360) .
2	Select a report profile from the list.
3	Click Export . The Bulk Export for Report Profiles Web page appears.
4	Click Download Exported Report Profiles to save it in CSV format.
--End--	

Importing a report definition

Procedure 136

Import a report definition

Step	Action
1	From the navigation tree, click Phones , and then Report . The Report List Web page appears, as shown in the figure Figure 251 "Report List" (page 360) .
2	Click Import . The Import Report Profiles Web page appears, as shown in the figure Figure 256 "Import Report Profiles" (page 367) .

Figure 256

Import Report Profiles



The file to be imported should be in csv format as shown in the figure [Figure 257 "ImportReportProfile.csv" \(page 368\)](#).

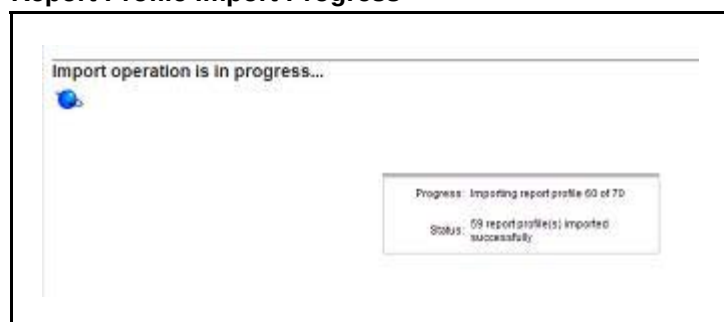
Figure 257
ImportReportProfile.csv

	A	B	C	D	E	F
	REPORT_PROFILE_NAME	DESCRIPTION	FIELDS LIST	SORT_FIELDS LIST	CRITERIA LIST	REPORT TITLE
1	General_Properties	General Properties of IP phone	TR,PHONE,DES,CUSTOMER	TR (Ascending),DES (Ascending)	<tr> <tr>SYNSTATUS<tr> <tr>TR<tr>	General Properties
2						
3						
4						
5						
6						
7						
8						
9						

- 3** Browse for the file to be imported and click **Save** to save it in CSV format.

Import progress page is displayed, including information on the number of report profiles imported successfully. For more information, see [Figure 258 "Report Profile Import Progress" \(page 368\)](#).

Figure 258
Report Profile Import Progress



When the import is complete, the Profile Import Summary Report Web page is displayed, as shown in the figure [Figure 259 "Report Profile Import Summary" \(page 368\)](#).

Figure 259
Report Profile Import Summary



- 4** Click the **log file** link as shown in the figure [Figure 259 "Report Profile Import Summary" \(page 368\)](#).

The **File Download** dialog box appears with Open and Save options.

- 5** Click **Open**.

The log file appears with the details of the errors for the failed report profiles.

--End--

Custom Views

The Custom Views feature allows the user to specify the telephone fields to be displayed on the Telephone Details Web page. Each field is validated based on the telephone type and system configuration, before displaying it on the Web page. This applicability checking allows the view to be independent of telephone type at the time of view configuration.

The Views Web page displays a list of configured views, the name, description, and last updated date and time. The maximum number of custom views supported by the system is 100. You can perform the following actions on the views.

- Add a view.
- Edit an existing view.
- Copy an existing view.
- Delete a view.
- Apply view to the Telephone Details Web page.

To open the Views Web page on the Element Manager navigator, expand the **Phones** branch and then click **Views**.

The following figure shows the Views Web page.

Figure 260
Views Web page



Adding a custom view

To add a custom view, use the following procedure.

Step	Action
1	Select Phones, Views .
2	In the Views Web page click Add .

ATTENTION

The **Add** button is disabled when the maximum custom views limit is reached.

The View Details Web page appears.

Figure 261
View Details Web page

Managing: [EM on ntec-ibm3\(47.152.232.2\)](#)
[Phones > Views > View Details](#)

View Details

View name: * (1-24 characters)

Description: * (1-128 characters)

Field Selection

General Properties **Features** Keys Single Line Features User Fields

Available Fields (23) Selected Fields (0)

ANUM(Attendant Number)
AOM(Number of key based modules)
CLID_ENTRY(CLID Entry)
CUST(Customer Number)
CUSTOMER(Customer Number)
DBA(Display Based Add-On Support)
DES(1-6 Character Designator)
DN(Station Directory Number)
FMCL(FMCL)
KBA(Number of key based modules)
KEM(Key Expansion Modules)
MCCL(Max Client Count)
NDID(Node Id)
NUMZONE(Numbing Zone)
SETN(Second Terminal Number)

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- 3 Enter the name of the view in the **View name** field.
The name can have a maximum of 24 characters.
- 4 Enter a description of the view in the **Description** field.
The description can be a maximum of 128 characters.
In the Field Selection section of the Web page, the following five tabs are available:
 - General Properties
 - Features
 - Keys

- Single Line Features
- User Fields

The Available Fields list under each tab contains all fields applicable to the particular tab.

- 5 Move the required fields from the Available Fields list on the left side to the Selected Fields list on the right side.

You can move selected fields, or all fields together, to and from the lists.

ATTENTION

You must select at least one field under any of the five tabs.

- 6 Click **Save** to save the configuration.
The Views Web page appears with the newly added view.

--End--

Editing a custom view

To edit a custom view, use the following procedure.

Step	Action
1	Select Phones, Views .
2	In the Views Web page, click the link of the custom view to be edited. The View Details Web page appears displaying the details of the selected custom view.
3	Edit the description in the Description field. ATTENTION You cannot edit the name of the custom view.
4	Add or remove the fields under the tabs as required.
5	Click Save . The page refreshes to display the Views Web page.
--End--	

Copying from an existing custom view

To create a copy of an existing custom view, use the following procedure.

Step	Action
1	Select Phones, Views .
2	Select the check box corresponding to the custom view to be copied from the Views Web page.
3	Click Copy . ATTENTION The Copy button is enabled only when at least one custom view is selected. The page refreshes to display the View Details Web page with the details of the selected custom view except the name and description.
4	Type the name for the new custom view in the View name field.
5	Type the description for the new custom view in the Description field.
6	Click Save .
--End--	

Deleting a custom view

To delete a custom view, use the following procedure.

Step	Action
1	Select Phones, Views .
2	Select the check box corresponding to the custom view to be deleted. To delete multiple custom views, select the check boxes corresponding to the custom views to be deleted.
3	Click Delete . ATTENTION The Delete button is enabled only when at least one custom view is selected. The system displays a dialog box asking for confirmation to delete the custom view.
4	Click OK to delete the selected custom view.
--End--	

Applying custom view to Telephone Details

To apply custom view to Telephone Details, use the following procedure.

Step	Action
1	Select Phones, Search For Phones, Add. The New Phones Web page appears.
2	Fill the following fields as required. • Number of phones • Customer • Type • Default value for DES • Default value for Zone • Automatically assign TN starting TN • Automatically assign DN starting DN
3	Click Preview. The Phone Details Web page appears. The Custom View box is listed with the available views.

Figure 262
Phone Details Web page

Managing: [EM on ntec-ibm1\(47.152.232.3\)](#)
[Phones»New Phones»Phone Details](#)

Phone Details



System: EM on ntec-ibm1

Phone Type: 1110

Sync Status: NEW

Custom view: All

[General Properties](#) | [Features](#) | [Keys](#) | [User Fields](#)

General Properties

Customer Number: 0 *

Terminal Number: 096 0 00 12 * 

Designation: as * (1-6 characters)

Zone: 1 *

Features

Feature	Description	Value:
AACS	Application Acquire Request	NO

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4

Select the required view from the values available in the **Custom View** drop-down box.

All views applicable to the selected telephone type is displayed in the list.

If you select the value **All** in the **Custom View** list, all fields applicable to the selected telephone type gets listed.

--End--

Virtual Office Search and Logout

The user can search for virtually logged in sets, based on idle time criteria and then logout, based on the duration for which the set is idle. Only those users with LD 117 permission can perform these operations.

To access the Search For Phones Web page, click **Phones** in the navigation tree. The user can search for those virtually logged in sets which are idle for greater than or equal to a specified time, based on the Idle Time criteria.

For more information on searching for phones, see [Procedure 115 “Search for phones” \(page 324\)](#).

The Logout option enables the user to select phones from the searched phones list, based on idle time criteria, and log out. This option also is available in the Search For Phones Web page. The default time out for an idle set is 30 minutes.

For more information on the Virtual Office logged in sets, see *Features and Services Fundamentals - Book 6 of 6* (NN43001-106).

Logout a phone

To logout a phone, use the following procedure.

Step	Action
1	From Search For Phones Web page, search for a phone.
2	Select the check box corresponding to the phone to logout. You can logout from multiple phones by selecting the corresponding check boxes.
3	Select Logout from the More actions drop down.

Figure 263
Search For Phones Web page

Search For Phones Advanced

Criteria: Phone Type Value: 1110 - IP Phone 1110

Results Per Page: 10 Search

Phones Found (50)

	Customer	TN	Prime DN	Design	Template	UXID
1	☐	0	096 0 00 00	E		
2	☐	0	096 0 00 01	DEEP		
3	☐	0	096 0 00 03	IPTEST		
4	☐	0	096 0 00 04	IPTEST	1110	
5	☐	0	096 0 00 10	IP	1110	
6	☐	0	096 0 00 12	IPTEST	1110	

Buttons: Add... Import... Retrieve... Delete <More Actions>

Dropdown menu options: <More Actions>, Swap, Move, Edit, Save As Template, Logout

The system asks for a confirmation to logout from the selected phone.

4 Click **OK**.

The page refreshes to display the Search for Phones Web page with the selected phones removed from the search result list.

--End--

Lists

The Lists feature enables you create, view, edit, and delete lists in the Element Manager. You can also add and modify lists through a CSV or a web detailed interface. You can import new lists into the system in the CSV format. To access the list feature you can click the **Lists** link of the **Phones** branch of the Element Manager navigator. The **Lists** Web page appears, as shown in the following figure.

Figure 264
Lists Web page

	List Number	Type	Number of Entries	Customer Number
1	0	Speed Call	2	
2	1	Speed Call	4	
3	2	Speed Call	2	
4	3	Speed Call	1	
5	4	Speed Call	4	
6	5	Speed Call	4	
7	7	Speed Call	3	
8	8	Group Call	0	0
9	9	Speed Call	4	
10	11	Group Hunt	4	0
11	19	System Speed Call	16	
12	20	System Speed Call	8	
13	31	System Speed Call	14	
14	41	Group Hunt	11	0
15	42	System Speed Call	8	

Using the Lists web page, you can perform the following actions:

- view the lists
- import new lists in CSV format
- export the lists
- add lists

- delete lists
- edit lists

The different types of Lists supported in Element Manager are as follows:

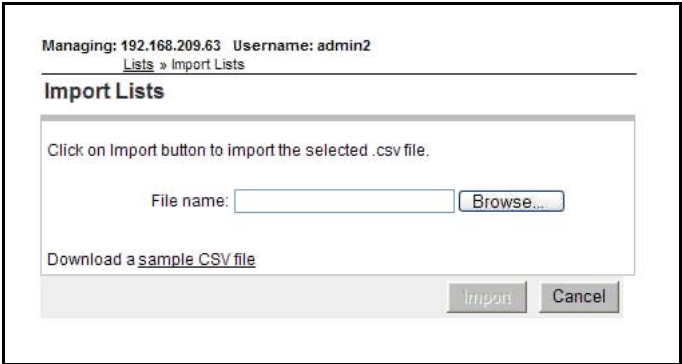
- Speed Call
- System Speed Call
- Group Call
- Group Hunt

In the Lists web page, you get a view of the lists available. To see the details of a particular list, you can click on the required list number. The corresponding details Web page appears.

If you add, modify, or delete lists information directly from the CLI of the Call Server or from another Element Manager web page, click the Refresh link on the Lists Web page to see the updated information about lists.

Use the following procedure to import a list into the Element Manager:

Procedure 137
Importing a List

Step	Action
1	Click Import on the Lists Web page. The Import Lists Web page appears. 
2	Click Browse. The Choose File dialog box appears.
3	Select the file to be imported.
4	Click Open. The dialog box closes and the path of the selected file appears in the File name field.

- 5 Click **Download a sample CSV file** if you want to view a valid format of a CSV file.
- 6 Click **Import**.
The processing status of the import appears. When the file is imported, the Lists web page appears and the details of the new list are displayed with the pre existing lists.

--End--

ATTENTION

If you try to import a list with an existing number in the Call Server and if the list type in the csv file is the same as the one configured in the Call Server, the list is updated with the new values from the csv file.

If you try to import a list with the same list number as that of an existing list but the list type in the csv file is not the same as on the one configured in the Call Server, the import fails and Element Manager displays a message that the List number already exists.

The following table is a sample of a CSV file format:

Table 3
Sample CSV file format

List Type	No. of Columns	Column1	Column2	Column3	Column 4	Column5	Column6
Group call	5	List Number	GroupCtrl	CustomerNo	EntryNo	DN	
Group hunt	6	List Number	MaxDnSize	CustomerNo	ListSize	EntryNo	DN
Speed call	5	List Number	MaxDnSize	ListSize	EntryNo	DN	
System speed call	6	List Number	NetworkCOS	MaxDnSize	ListSize	EntryNo	DN

To export a list from the Element Manager, you can click on the **Export** button. The files are exported in the CSV format.

Use the following procedure to add a Speed Call list.

Procedure 138

Adding a Speed Call List

Step	Action
1	Select Speed Call from the drop-down list on the Lists Web page.

The **Add** button is enabled.

2 Click **Add**.

The List Details (Speed Call) Web page appears.

Managing: 192.168.209.63 Username: admin2
[Lists](#) » List Details

List Details (Speed Call)

Properties

List number: * (0-8090)

Number of lists:

Multiple identical lists are created with the list number incremented by 1 for each new list

Maximum DN size:

List Entries

Click Add to add an entry to the list.

Note: Maximum of 1000 list entries can be configured.

* Required value.

3 Type the number of the list in the **List number** field.

You can give a value between 0 and 8090.

4 Select the number of Speed Calls lists to be created from the drop-down list in the **Number of lists** field.

Default value of the field is **1**.

If you select a value more than one, the system creates the specified number of identical lists. The list number of each list gets incremented by one from the previous list number.

5 Select the maximum DN size of the Speed Calls lists to be created from the drop-down list in the **Maximum DN size** field.

Default value of the field is **16**.

6 Click **Add**.

A row for the **Entry Number** and **DN** fields appear in the **List Entries** block.

7 Type the first number for the list entry in the **Entry Number** field.

8 Type the first DN number for the list entry in the **DN** field.

To add more rows, you can use the **Add** button.

You can add up to 1000 list entries for a Speed Call.

9 To remove a list entry perform the following steps:

- Select the check box corresponding the entry to be removed.

The **Remove** button gets enabled.

- Click **Remove**.
The selected list entry is removed from the block.

10 Click **Save**.

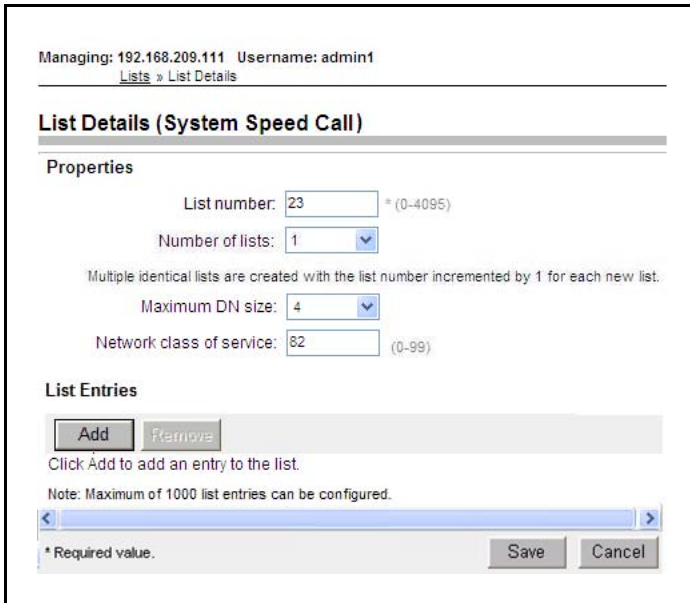
The processing status appears. When the list is added successfully, the Lists web page appears and the details of the new list are displayed with the existing lists.

When the list is added to the Element Manager, the Lists Web page appears and the new list appears with the existing lists.

--End--

Use the following procedure to add a System Speed Call list.

Procedure 139
Adding a System Speed Call List

Step	Action
1	Select System Speed Call from the list on the Lists Web page. The Add button is enabled.
2	Click Add . The List Details (System Speed Call) web page appears.
	 The screenshot shows the 'List Details (System Speed Call)' web page. At the top, it says 'Managing: 192.168.209.111 Username: admin1' and 'Lists > List Details'. The main title is 'List Details (System Speed Call)'. Under 'Properties', there are four fields: 'List number' with value 23 and a range of 0-4095, 'Number of lists' with a dropdown set to 1, 'Maximum DN size' with a dropdown set to 4, and 'Network class of service' with value 82 and a range of 0-99. Below these is a note: 'Multiple identical lists are created with the list number incremented by 1 for each new list.' Under 'List Entries', there are 'Add' and 'Remove' buttons, a note 'Click Add to add an entry to the list.', and another note 'Note: Maximum of 1000 list entries can be configured.' At the bottom, there is a text input field, a '* Required value.' label, and 'Save' and 'Cancel' buttons.
3	Type the number of the list in the List number field. You can give a value between 0 and 4095.

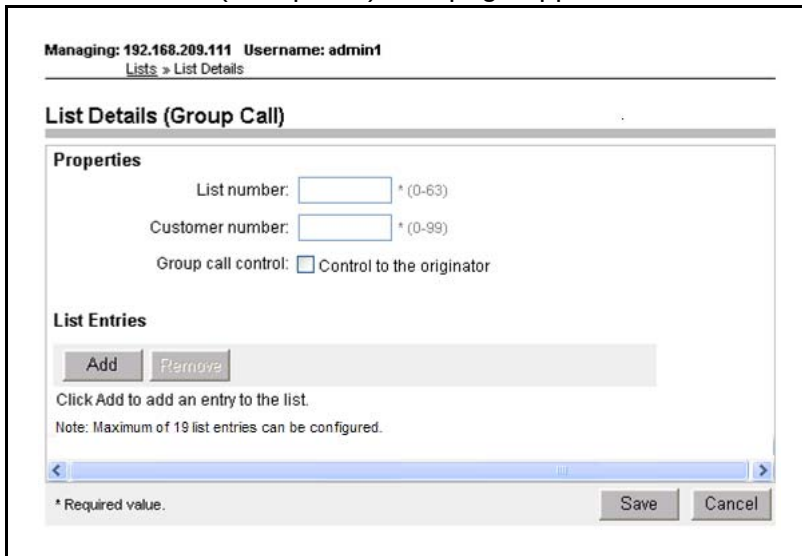
- 4 Select the number of Speed Calls lists to be created from the drop-down list in the **Number of lists** field.
Default value of the field is **1**.
If you select a value more than one, the system creates the specified number of identical lists. The list number of each list gets incremented by one from the previous list number.
- 5 Select the maximum DN size of the Speed Calls lists to be created from the drop-down list in the **Maximum DN size** field.
Default value of the field is **16**.
- 6 Type the required value in the **Network class of service** field.
You can give a value between 0 and 99.
- 7 Click **Add**.
A row for the **Entry Number** and **DN** fields appear in the **List Entries** block.
- 8 Type the first number for the list entry in the **Entry Number** field.
- 9 Type the first DN number for the list entry in the **DN** field.
To add more rows, you can use the **Add** button.
You can add up to 1000 list entries for a System Speed Call.
- 10 To remove a list entry perform the following steps:
 - Select the check box corresponding the entry to be removed. The **Remove** button gets enabled.
 - Click **Remove**.
The selected list entry is removed from the block.
- 11 Click **Save**.
The page refreshes to show the status of the process. The page displays the following information:
 - Status
 - Total call list(s)
 - List(s) processed
 - Successfully configured
 - Failed to configure
 - List(s) pending to be processed.

When the list is added to the Element Manager, the Lists Web page appears and the new list appears with the existing lists.

--End--

Use the following procedure to add a Group Call list.

Procedure 140
Adding a Group Call List

Step	Action
1	Select Group Call from the drop-down list on the Lists Web page. The Add button is enabled.
2	Click Add. The List Details (Group Call) web page appears.
	
3	Type the number of the list in the List number field. You can give a value between 0 and 63.
4	Type the customer number for the list in the Customer number field. You can give a value between 0 and 99.
5	Select the check box corresponding to the field Group Call control if you want to give control of the list to the originator.
6	Click Add. A row for the Entry Number and DN fields appear in the List Entries block. You can add a maximum of 19 list entries.
7	Type the first number for the list entry in the Entry Number field.
8	Type the first DN number for the list entry in the DN field. To add more rows, you can use the Add button.

- 9 To remove a list entry perform the following steps:
- Select the check box corresponding the entry to be removed. The **Remove** button gets enabled.
 - Click **Remove**.
The selected list entry is removed from the block.
- 10 Click **Save**.
- The page refreshes to show the status of the process. The page displays the following information:
- Status
 - Total call list(s)
 - List(s) processed
 - Successfully configured
 - Failed to configure
 - List(s) pending to be processed.

When the list is added to the Element Manager, the Lists Web page appears and the new list appears with the existing lists.

--End--

Use the following procedure to add a Group Hunt list.

Procedure 141
Adding a Group Hunt List

Step	Action
1	Select Group Hunt from the drop-down list on the Lists Web page. The Add button is enabled.
2	Click Add . The List Details (Group Hunt) web page appears.

Managing: 192.168.209.111 Username: admin1
Lists > List Details

List Details (Group Hunt)

Properties

List number: * (0-8090)

Maximum DN size: 16 ▼

Customer number: * (0-99)

List Entries

Click Add to add an entry to the list.
Note: Maximum of 96 list entries can be configured.

* Required value.

- 3 Type the number of the list in the **List number** field.
You can give a value between 0 and 8090.
- 4 Select the maximum DN size of the Speed Calls lists to be created from the drop-down list in the **Maximum DN size** field.
Default value of the field is **16**.
- 5 Type the customer number for the list in the **Customer number** field.
You can give a value between 0 and 99.
- 6 Click **Add**.
A row for the **Entry Number** and **DN** fields appear in the **List Entries** block.
- 7 Type the first number for the list entry in the **Entry Number** field.
- 8 Type the first DN number for the list entry in the **DN** field.
To add more rows, you can use the **Add** button.
You can add up to 96 list entries for a Group Hunt list.
- 9 To remove a list entry perform the following steps:
 - Select the check box corresponding the entry to be removed.
The **Remove** button gets enabled.
 - Click **Remove**.
The selected list entry is removed from the block.
- 10 Click **Save**.
The page refreshes to show the status of the process. The page displays the following information:
 - Status
 - Total call list(s)

- List(s) processed
- Successfully configured
- Failed to configure
- List(s) pending to be processed.

When the list is added to the Element Manager, the Lists Web page appears and the new list appears with the existing lists.

--End--

Perform the following procedure to edit a list.

Procedure 142
Editing a List

Step	Action
1	Click the required list from the Lists Web page. The details page of the particular list appears
2	Edit the values as required. You can update the values for List types, Group call, Group hunt, Speed call, and System speed call. For more information about List types, refer Table 4 "Editing List Types" (page 385) .
3	Click Add to add list entries.
4	To remove any list entries, select the entry and click Remove .
5	Click Save to save the changes made to the list.
--End--	

Table 4
Editing List Types

List Types	Fields
Group call	Group call control list entries
Group hunt	Maximum DN size list entries
Speed call	Maximum DN size list entries
System speed call	Maximum DN size network class of service list entries

Procedure 143
Deleting a List

Step	Action
1	Select the check box of the list you want to delete.

If you want to delete more than one list, select the check boxes against each list. If you want to delete all the lists, select the check box corresponding to the **List Number** field.

The **Delete** button gets enabled.

- 2** Click **Delete**.

A dialog box appears asking confirmation to delete the list.

- 3** Click **Yes** to delete the selected lists.

Status of deleting is displayed as Completed and the Lists Web page is updated with current information about lists.

--End--

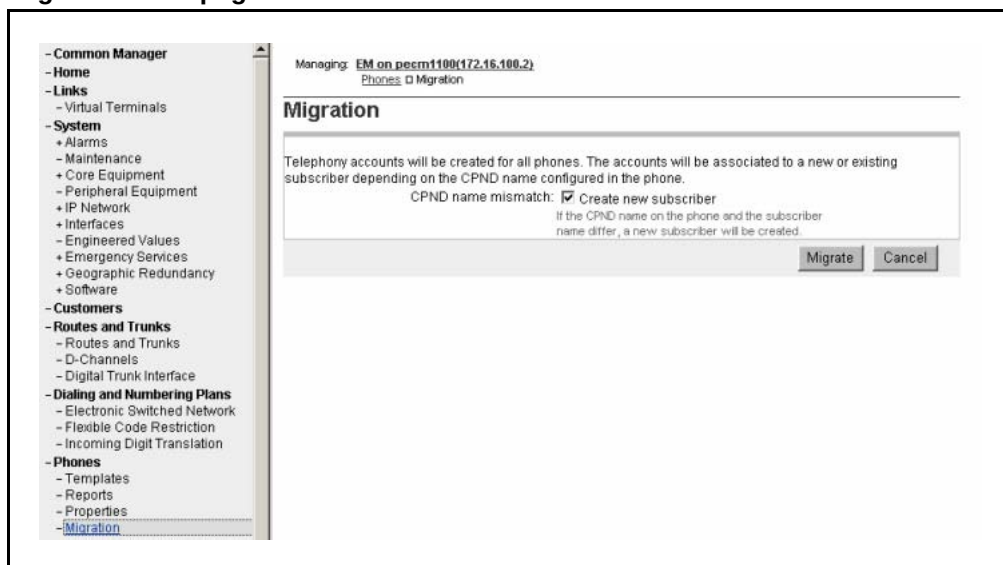
Migration

Use the Migration Web page to migrate telephone data from Element Manager to Subscriber Manager. This feature associates the telephone with existing subscribers, or adds a subscriber and then adds accounts to them.

You can migrate only telephones that have a CPND name configured. During migration, the system checks with the Subscriber Manager for a subscriber with the same name as the CPND name in the telephone. Based on the search result, it either adds an account under the existing subscriber, or creates a new subscriber and then adds an account under it.

To start the Migration, select on the **Migration** link on the **Phones** branch of the Element Manager navigator. The **Migration** Web page appears as shown in [Figure 265 "Migration Web page" \(page 387\)](#).

Figure 265
Migration Web page



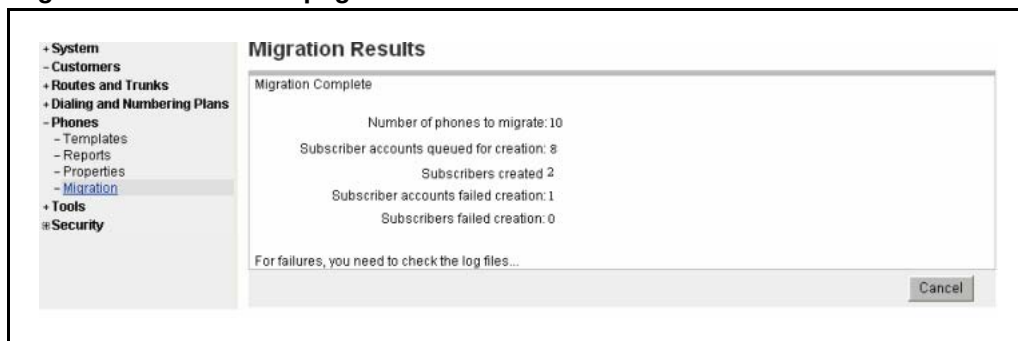
To create a new subscriber when a CPND name mismatch occurs, ensure the **Create new subscriber** box is selected.

When you click **Migrate**, a confirmation message box appears before the migration starts.

While the migration is in progress, the system displays a status page that provides the current status of the migration. The page is refreshed every 5 seconds with the latest status.

After the migration is complete, the page shows the summary as shown in [Figure 266 "Migration Results Web page" \(page 387\)](#).

Figure 266
Migration Results Web page



High Scalability

The High Scalability feature centralizes and simplifies the phone configuration processes of the individual CS 1000 systems that constitute a CS 1000E HS system. This reduces the administrative effort and ensures data consistency. The user can use the HS-EM to perform phone operations like add, modify, and delete on different CS1000 HA Systems, also known as cores, with the High Scalability feature.

When you launch the System Overview Web page, **Common Data** is the selected core in the **View** drop down . The core Common Data includes all the configurable values that can be applied commonly across the cores. When Common Data is the selected value, only **Template** link is available under **Phones** in the navigation tree.

The following figure shows the System Overview Web page when **Common Data** is the selected core.

Figure 267
System Overview Web page

Managing: CS1000 High Scalability

View: Common Data

System Overview

Installed Components

Index	Name	Last Updated	IP Address	Replication Status	System Overview
1	Common Data	Not available	Common Data		Version: 4021, Release: 634 M
2	47.152.232.2*	Not available	47.152.232.2	No replicated Data	Version: 4021, Release: 634 M
3	47.152.232.14	Not available	47.152.232.14	Not available	Version: 4021, Release: 634 M

* Reference Core

If you select any other core, other links under **Phones** appear in the navigation tree.

Procedure 144

Launching EM by using reference core in HS EM

Step	Action
1	In the System Overview Web page, select a value from the box corresponding to the View field.

The page refreshes to display the other links under **Phones** in the navigation tree.

Figure 268
System Overview Web page

Managing: CS1000 High Scalability

View: 47.152.232.120*

System Overview

Installed Components

Set Reference... Bulk Provision...

Index	Name	Last Updated	IP Address	Replication Status	System Overview
1	Common Data	Not available	Common Data		Version: 4021, Release: 634
2	47.152.232.14	Not available	47.152.232.14	No replicated Data	Version: 4021, Release: 634
3	47.152.232.120*	Not available	47.152.232.120	Not available	Version: 4021, Release: 634

* Reference Core

- UCM Network Services
 - Home
 - Links
 - Virtual Terminals
 - System
 - + Alarms
 - Maintenance
 - Peripheral Equipment
 - + IP Network
 - + Geographic Redundancy
 - + Software
 - Phones (highlighted)
 - Templates
 - Reports
 - Views
 - Lists
 - Properties
 - Migration
 - Tools
 - + Backup and Restore
 - Call Server Initialization
 - Date and Time
 - + Logs and reports
 - Security
 - + Passwords
 - + Policies
 - + Login Options
 - HS System
 - Common Data Specification
 - Common Data Replication Report
 - Auditing Service

2 Click **Phones**.

The Search For Phones Web page appears.

3 To change the core information, select the required value from the **View** drop down box.

The page refreshes to display the System Overview Web page with the selected value in the **View** drop down box.

--End--

Tools

Contents

This section contains the following topics:

[“Introduction” \(page 391\)](#)

[“Backup and Restore” \(page 391\)](#)

[“Call Server Initialization” \(page 401\)](#)

[“Date and Time” \(page 404\)](#)

[“Logs and Reports” \(page 418\)](#)

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

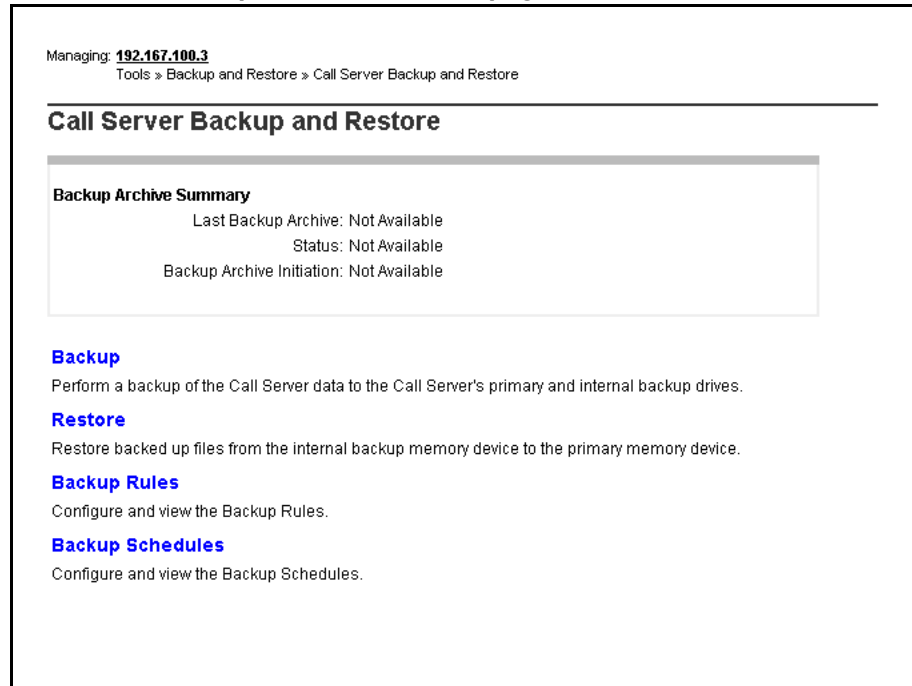
The **Backup and Restore** link of the **Tools** branch of the Element Manager navigator provides access to Call Server Backup and Restore functions, as well as Personal Directories Backup and Restore functions.

The User Admin Fields is backed and restored up as part of the sysbackup/sysrestore command or Backup/Restore Option from Deployment Manager. This is same for any other data (keys and features) in Element Manager. Backing up the data is important as the userfields are not stored on the Call Server.

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 269 "Call Server Backup and Restore Web page" \(page 392\)](#)).

Figure 269
Call Server Backup and Restore Web page

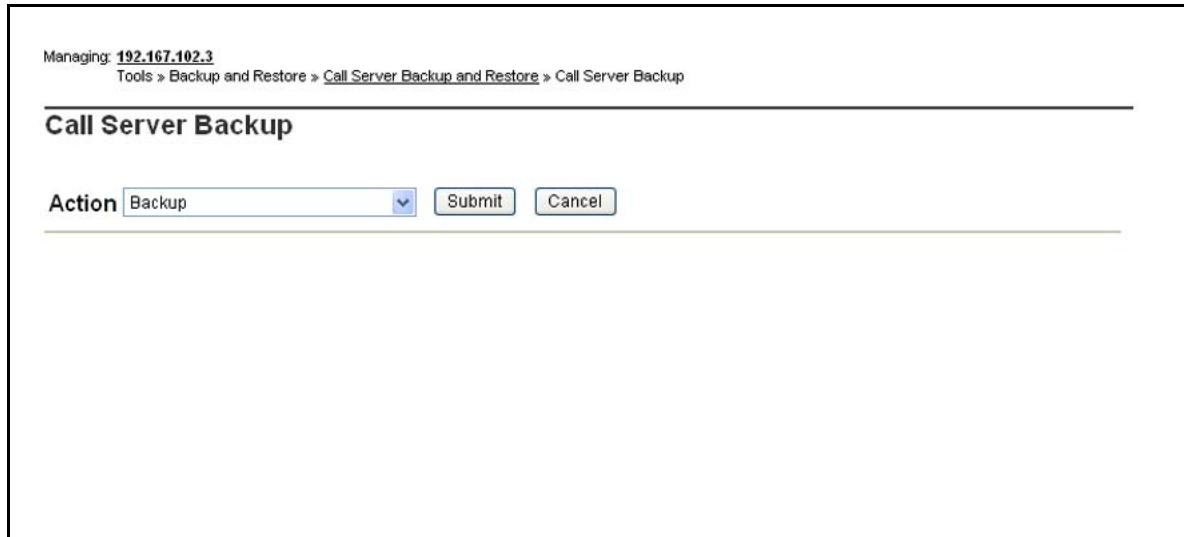


Note: Backup Rules and Backup Schedules are available only on CPP IV and CP PM systems.

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 270 "Call Server Backup Web page" \(page 393\)](#).

Figure 270
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, 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 271 "Call Server Restore Web page" \(page 394\)](#)).

Figure 271
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 272 "Backup Rules Web page" \(page 395\)](#).

Figure 272
Backup Rules Web page

Managing: [192.167.100.3](#)
Tools > Backup and Restore > [Call Server Backup and Restore](#) > Backup Rules

Backup Rules

[Add](#)
[History](#)
[Schedules](#)
[Delete](#)
[Refresh](#)

	Rule Number	Rule Type	Rule Name	SCS IP Address	Versions
☐	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 273 "Edit Backup Rule Web page" \(page 396\)](#).

Figure 273
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:

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 274 "Backup Schedules Web page" \(page 397\)](#)

Figure 274
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
☐	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 275 "Edit Backup Schedule Web page"](#) (page 398).

Figure 275
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 276 "Update Backup Schedules Web page"](#) (page 399).

Figure 276
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:

Day:

Hour:

Minute:

Delay:

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**.

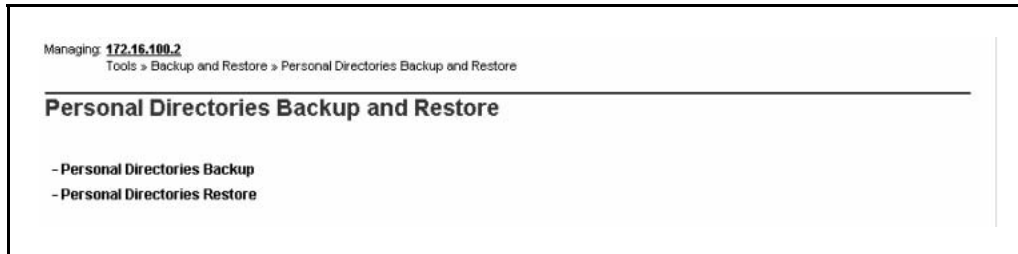
Personal Directories Backup and Restore

To backup or restore Personal Directories click the **Backup and Restore > Personal Directories** link of the Tools branch or the Element Manager Navigator.

The **Personal Directories Backup and Restore** Web page opens and shown in the following figure.

Figure 277

Personal Directories Backup and Restore Web page



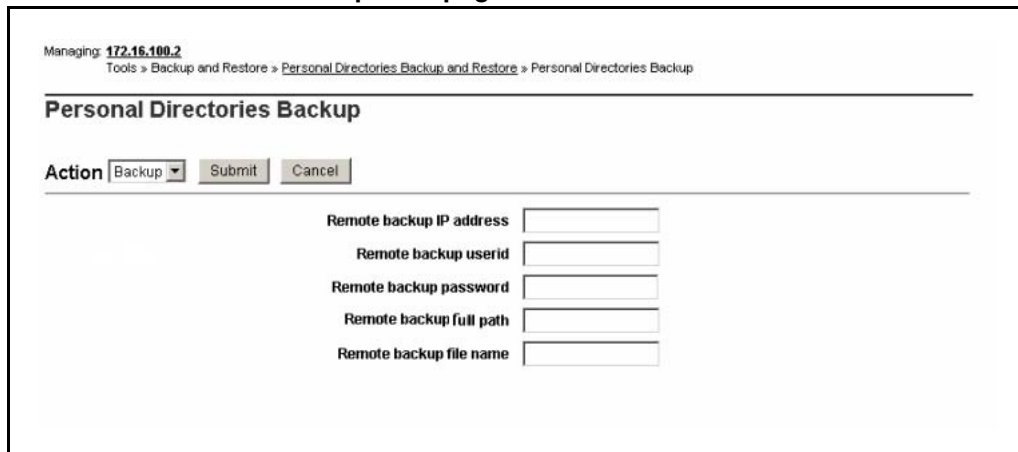
The screenshot shows a web interface for managing a server. At the top, it says 'Managing: 172.16.100.2' and 'Tools > Backup and Restore > Personal Directories Backup and Restore'. Below this is a header 'Personal Directories Backup and Restore'. Under the header, there are two links: '- Personal Directories Backup' and '- Personal Directories Restore'.

To backup Personal Directories click the Personal Directories Backup link of the **Personal Directories Backup and Restore** Web page.

The **Personal Directories Backup** Web page opens as shown in the following figure.

Figure 278

Personal Directories Backup Web page



The screenshot shows a web interface for backing up personal directories. At the top, it says 'Managing: 172.16.100.2' and 'Tools > Backup and Restore > Personal Directories Backup and Restore > Personal Directories Backup'. Below this is a header 'Personal Directories Backup'. Under the header, there is an 'Action' section with a dropdown menu set to 'Backup', and 'Submit' and 'Cancel' buttons. Below this are five input fields: 'Remote backup IP address', 'Remote backup userid', 'Remote backup password', 'Remote backup full path', and 'Remote backup file name'.

To backup Personal Directories, enter the backup information and click **Submit**.

To restore Personal Directories click the Personal Directories Restore link of the **Personal Directories Backup and Restore** Web page.

The **Personal Directories Restore** Web page opens as shown in the following figure.

Figure 279
Personal Directories Restore Web page

To restore Personal Directories, enter the backup information to restore and click **Submit**.

For information on Backup and Restore functions of Personal Directories, [“Personal Directories” \(page 196\)](#).

Call Server Initialization

The Call Server Initialization page is used to invoke Call Server INI & Call Server SYSLOAD commands.

Click the **Call Server Initialization** link in the **Tools** branch of the Element Manager navigator. The **Call Server Initialization** Web page opens, as shown in [Figure 280 "Call Server Initialization Web page" \(page 401\)](#).

Figure 280
Call Server Initialization Web page

To check for the message displayed, roll the mouse over buttons displayed on the page.

If there is an INI command on the button, then the following message is displayed, "Restarts the Application Server".

If it is a SYSLOAD command, then another message is displayed, "Restarts the Application Server as well as the Operating System".

Call Server INI ACTIVE Command

The Call server is a Redundant System or a Split System on the Active side.

Procedure 145 Initializing the INI ACTIVE command

Step	Action
1	Click INI ACTIVE . A confirmation message is displayed.
2	Click OK . The Call Server is rebooted and the Element Manager user is logged out.
--End--	

Call Server INI INACTIVE Command

The Call server is Redundant System on the Inactive side.

Procedure 146 Initializing the INI INACTIVE command

Step	Action
1	Click INI INACTIVE . A confirmation message is displayed.
2	Click OK . The inactive core is rebooted.
--End--	

Call Server INI BOTH Command

The Call Server is a CPP Redundant System.

Procedure 147
Initializing the INI BOTH command

Step	Action
1	Click INI BOTH . A confirmation message is displayed.
2	Click OK . The Call Server is rebooted and the Element Manager user is logged out.
--End--	

Call Server SYSLOAD ACTIVE

The Call server is a Redundant System or a Split System on the Active side.

Procedure 148
Initializing the SYSLOAD ACTIVE command

Step	Action
1	Click SYSLOAD ACTIVE . A confirmation message is displayed.
2	Click OK . The Call Server is rebooted and the Element Manager user is logged out.
--End--	

Call Server SYSLOAD INACTIVE Command

The Call server is Redundant System on the Inactive side.

Procedure 149
Initializing the SYSLOAD INACTIVE command

Step	Action
1	Click SYSLOAD INACTIVE . A confirmation message is displayed.
2	Click OK .

The inactive core goes for sysload.

--End--

Call Server SYSLOAD BOTH Command

The Call Server has a Redundant System.

Procedure 150

Initializing the SYSLOAD BOTH command

Step	Action
1	Click SYSLOAD BOTH . A confirmation message is displayed.
2	Click OK . The Call Server is rebooted and the Element Manager user is logged out.
--End--	

Note: If the selected command is not executed successfully for any reason, such as an overlay conflict for example, the following error message is displayed, "The command was not executed successfully. Try again."

Date and Time

The date and time management covers the configuration of time synchronization options, as well as the setting of the actual date and time, and time zone related settings. An important concept is that there is a recommended configuration for any elements that are part of a CS 1000 system (these are running CS 1000 applications, such as CS, SS, SIPL, PD).

Timezone offsets for distributed phone subscribers is separately configurable through the Element Manager Branch Office zone configuration. In order to ensure that the configuration for a CS 1000 system is consistent, the configuration must be done using Element Manager.

The purpose of system-level coordination of the operating system date and time configuration for all elements of a single CS 1000 system is to facilitate the interpretation of system event and error messages generated by different elements.

The CS 1000 system level date and time management in Element Manager allows the configuration of Network Time Protocol (NTP) and Network Time Synchronization (NTS). The NTS client and NTP usage are mutually exclusive options for the CS 1000 system. A Call Server may be designated as the NTS master and utilize NTP to synchronize its own time.

In Element Manager, the configuration setting of NTP requires the `systemadmin` permissions, whereas setting of the actual date/time clock requires either `systemadmin` or `timeadmin` permissions.

For any other Linux servers that are not part of a CS 1000 system, configuration is done using Base Manager of UCM. See, *Linux Platform Base and Applications Installation and Commissioning* (NN43001-315).

Configuration of time synchronization options performed from Element Manager overrides those previously performed by CLI, Base Manager, or the install tool on all system elements. Conversely, if changes are attempted later on at the individual element level that may interfere with the system time synchronization options chosen at the system level using Element Manager.

Nortel recommends that you use the ELAN interface for all NTP communication within a system. This would be to communicate to CS 1000 NTP primary and secondary servers. The CS 1000 NTP primary and secondary servers would normally communicate with external NTP clock sources using their TLAN connections. If TLAN is not available, then ELAN would be used. In all cases, it is necessary to ensure that appropriate routing is in place for communication between devices. This applies for communication to external sources and also for communication with CS 1000 NTP primary and secondary servers if the ELAN network interfaces of devices are on different subnets.

System time synchronization options

The following are the time synchronization options offered. Only one such option may be chosen. All configuration for these options is done solely by Element Manager and conveyed to all system elements.

- NTS client (Call Server as NTS client) can be configured to allow the Call Server to be synchronized from a ISDN digital trunk D-channel. The Call Server then pushes time directly to all system elements. An exception is standalone Element Manager, where Element Manager is not running on an element with any of the Call Server, SS, SIPL, or PD applications. In such as case, Base Manager must be used to set appropriate time synchronization, if required, on that element
- NTS Master (Call Server as NTS master) can be configured to allow the Call Server to act as the NTS Master. This Call Server provides time synchronization to other Call Servers set up as NTS slaves across

MCDN. The system with Call Server as NTS master may use NTP configuration to maintain time from external time sources or internal hardware clock of the CS 1000 Primary NTP server.

- CS 1000 system level primary and, optionally, secondary NTP servers are configured on Linux system elements that are part of this CS1000 system. The secondary NTP server would act as a backup for the primary NTP server, and normally synchronize time with the primary NTP server and then try with other external sources. The default is that the element on which Element Manager is running is set as the CS 1000 primary NTP server, but that can be altered. All other Linux system elements (including EM if applicable) will synchronize to these CS 1000 NTP servers. Configuration is done by EM and pushed to all Linux elements.

The CS 1000 primary and secondary NTP servers can source their time in two ways:

- The CS 1000 primary and secondary NTP servers use their internal hardware clocks. The date/time has to be set using Base Manager on the primary (assuming that the secondary NTP server will sync time from the primary NTP server in normal operation).
- External NTP clock sources are used. The internal system primary and secondary NTP servers are synchronized from external clock sources, up to 10, with optional single key security. The secondary NTP server would normally synchronize with the primary NTP server, and only synchronized with the external sources if the primary is not available.

If you use NTP security, all the clock source servers need to have the same private key. This means that an internal primary NTP server can not use a different key to access an external server than that which is used for servicing requests from internal clients. The implication is that if the external connection is to be secured, the internal connections would also have to be secured using the same single key as the external connections. Also, all the external servers need to have the same private key to service the requests from the internal servers or other Linux NTP clients.

Note: In previous releases, the Call Server supported configuration of two external clock sources with different private keys for each, but only a single private key is supported in Communication Server 1000 from Release 6.0.

When NTP configuration is done using EM, the ELAN IP addresses of system elements are obtained from UCM element information and used for the configuration of such elements as primary or secondary NTP servers.

When NTP is utilized, you must configure each element with time zone and daylight saving adjustments. Element Manager supports Windows-style selection of time zones. The time zone you select determines the time zone regions and subregions to be used on Linux system elements. The configuration associated with the time zone you select is applied to all system elements

System Date and Time

The **System Date and Time** Web page offers configuration of the following:

- The ability to configure the Date and Time for the system
- The ability to configure the Time Zone
- The option to configure Network Time Protocol for the system
- The option to configure Network Time Synchronization for the system

Note: If there are no time synchronization options currently chosen (i.e., neither NTP nor NTS are configured) then a warning appears.

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 281 "System Date and Time Web page" \(page 407\)](#).

Figure 281
System Date and Time Web page

The screenshot displays the 'System Date and Time' configuration page. At the top, it shows 'Managing: 172.16.100.2' and 'Software Version: 6.0'. The main heading is 'System Date and Time' with a sub-note: 'The system clock may be set manually, or synchronized with a network time server.' Below this, there are four main sections, each with an 'Edit...' button:

- Current System Date and Time:** Includes 'Sync Now' and 'Edit...' buttons. The current date is '13 February 2009' and the time is '15:56:49'.
- Time Zone:** Includes an 'Edit...' button. The selected zone is '(GMT-04:00) Atlantic Time (Canada) (with Daylight Saving adjustments)'.
- NetworkTimeProtocol:** Includes 'Sync Now' and 'Edit...' buttons. It shows 'Key ID: 1234', a masked 'Private Key', 'Primary NTP server IP: 192.168.55.45', and 'Secondary NTP server IP: 192.168.55.41'.
- Network Time Synchronization:** Includes an 'Edit...' button. The 'Node role' is set to 'NTS Master'.

The **System Date and Time** Web page summarizes the following sections:

- Current System Date and Time: The time displayed is always the Call Server time.
- Time zone: The time zone configured for the CS 1000 system is displayed
- Network Time Protocol: The NTP server (Primary/Secondary) details are displayed. If security is configured then the key id and private key are shown (masked), otherwise a message is displayed with "Not configured".
- NTS configuration is displayed (NTS Master/NTS Slave/NTS Stand-alone).

Current System Date and Time

The Current System Date and Time section displayed on the **System Date and Time** Web page displays the current date and time on the CS 1000 Call Server. When you select Edit, you can manually set the date and time on the Call Server or NTP server. Manually setting the date and time is not an operation that you would normally perform in the cases where either NTP or NTS were configured because manual adjustments would be overwritten.

The Sync Now button initiates re-application of the date and time configuration to all elements. If NTP is in use on the system this results in an immediate synchronization with external NTP sources and/or the CS 1000 primary NTP server.

If the NTP is in use, then you are redirected to Base Manager to set the date and time on the internal Primary NTP server and if NTS is in use then you configure the date and time on the Call Server and in the case of a Linux based Call Server it is done through redirection to the Base Manager.

Use the Edit button in the following scenarios:

- If the system is running as NTS slave then time is set on the Call Server. For a VxWorks Call Server clicking Edit brings up a new page to set the time. For the CP PM Co-Resident CS & SS on Linux, the Base Manager of the CS server is opened in a new window.
- If the system is using NTP, then clicking Edit opens the Base Manager time page of the Primary NTP server in a new window.
- In the case of NTS master or NTS stand-alone (i.e., NTS disabled), then if NTP is in use clicking Edit opens the Base Manager time page.
- If time synchronization is not configured, a warning is normally given when accessing the page. Clicking Edit allows the time on the Call

Server to be set. For a VxWorks Call Server clicking Edit brings up a new page to set the time. For the CP PM Co-Resident CS & SS on Linux, the Base Manager of the CS server is opened in a new window.

If NTP is being used on the system, then after setting the time, click Sync Now, to immediately start time synchronization to all elements.

For more information about configuring Date and Time using Base Manager, refer to *Linux Platform Base and Applications Installation and Commissioning* (NN43001-315).

Procedure 151
Editing date and time on a VxWorks Call Server

Step	Action
1	Click Edit in the Current System Date and Time section of the System Date and Time Web page. The Edit Date and Time Web page opens, as shown in Figure 282 "Edit Date and Time Web page" (page 410)
2	Enter the Date and Time in the appropriate fields.
3	If necessary enter the value for the Daily Time Adjustment to compensate for a fast or slow system clock.
4	Click Save . The System Date and Time Web page opens with the new time settings.
5	If NTP is being used on the system, click Sync Now to immediately start time synchronization to all elements.
--End--	

Figure 282
Edit Date and Time Web page

Tools » [System Date and Time](#) » Edit Date and Time

Edit Date and Time

Date

Day: 15 Month: October Year: 2008 *

Time

Hours: 11 * Minutes: 10 * Seconds: 18 *

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

Time Zone

The **Time Zone** Web page displays the time zones and lists all the supported zones and UTC values. The time zone selected is used to set the time on the Call Server and Linux elements. For the case of a VxWorks Call Server internal mapping is also done of the offset from UTC and Daylight Saving time start and end dates. For a VxWorks Call Server, the Daylight Saving time start and end dates will be configured on the Call Server using the internally mapped values. For Linux devices, the Linux time region Daylight Saving time information is used.

If the time zone selected has automatic Daylight Saving adjustments built in, the text on the screen indicates that as "(with Daylight Saving adjustments)", otherwise the text indicates "(no Daylight Saving adjustments)". Some time zones (e.g., currently those associated with Jerusalem and Tehran) have Daylight Saving dates that vary each year. These are not handled and you must manually change the time zones for these regions upon entering or leaving the Daylight Saving calendar period. When such time zones are selected, the text on the screen indicates "(manual time zone change required when entering or leaving Daylight Saving period)".

Procedure 152 Editing the Time Zone

Step	Action
1	Click Edit in the Time Zone section of the System Date and Time Web page. The Time Zone Web page opens as shown in the following figure.
2	Select the Time Zone from the list.
3	Click Save . The System Date and Time Web page opens with the new time zone setting.
--End--	

Figure 283
Time Zone Web page

Managing: 192.168.209.122 Username: admin2
Tools » Date and Time » System Date and Time » Time Zone

Time Zone

Warning: Altering the time zone may have an impact on system operation. Scheduled tasks may not run when expected, and other time-dependent application behavior may be affected. Larger time differences may result in system stability issues and security certificate expiry. Your current management session may be terminated and then it will be necessary to log in again.

Time Zone:

These settings will be propagated to all servers associated with CS1000 system.

Region: (GMT-02:00) Mid-Atlantic

*Required value.

Save Cancel

Network Time Protocol

Prior to CS 1000 Release 6.0, Element Manager used overlay configuration of the Call Server (CS) on VxWorks to support system level NTP configuration. The NTP configuration only applied to the CS and all of the VxWorks based Communication Server 1000 system elements derived their time from the CS through a pbxLink.

You must use Element Manager to configure time synchronization settings that are used on the Call Server as well as all other system elements. Some settings for polling interval, query offset, and alarms which were applicable for VxWorks based CS are not offered now, since the Call Server now synchronizes only with internal system primary or secondary

NTP servers, and not with external clock sources. These settings will be hardcoded now and ten minutes for polling will be the mid-range of Linux NTP clients.

If this is the first time that NTP is being configured, once the **Synchronize System Clock with NTP** check-box is checked, the UI is loaded with a default configuration. The default configuration has the server running Element Manager selected as the internal Primary NTP server, and internal clock sources (hardware clock on this server) is used. If NTP had been previously configured on the system, but subsequently disabled then the previous configuration is displayed.

The default selection for transfer mode is "Secure". This selection requires the operator to enter the Key ID and Private key. Only a single key is supported to be applied for NTP protocol security between external clock sources as well as between internal system NTP servers and other system Linux elements. Only MD5 authentication is supported for NTP security. Selecting insecure transfer mode disables the fields for Key ID and Private key and the key data is not removed.

When you click the Sync Now button in the Network Time Protocol section, a ntpconfig command is sent to the Linux element with the pre-configured NTP details.

CS1000 Linux System Elements

The NTP Configurations propagate into all Linux elements associated with the CS1000 system. Default configuration shows the list of Linux elements registered with the CS1000 system. Linux elements that are not associated with the CS1000 system can be added and removed manually and updates the same for CS1000 system-level NTP servers.

CS1000 system-level NTP server(s)

The selection of a primary internal NTP server is mandatory, whereas a secondary internal NTP server is optional, but recommended when there are two or more Linux based elements configured in the CS 1000 system.

The secondary internal NTP server's NTP client normally gets its time source from the primary internal NTP Server. If the Primary internal NTP server does not respond to the Secondary, then the Secondary gets its time source from the first external NTP server which responds to polling by the Secondary.

NTP clients running on Linux base elements which are "Not a clock server", as well as on the VxWorks-based Call Server, get their time source from the Primary internal NTP server, or from the Secondary internal NTP server, if the Primary does not respond to polling by the other NTP clients in the CS 1000 system.

If NTP has not already been configured for the CS1000 system, the default value for is the ELAN address Element Manager for the system. The drop down boxes for primary and secondary server IP addresses provide the choice of any Linux server associated with the given CS1000 system. ELAN IP's are always shown even if the hostname is on TLAN.

Note: The Primary and Secondary IP addresses must be different and the system validates the IP addresses before they are accepted.

External Servers

The selection of External server(s) enables the additional fields labeled "NTP server IP" thereby allowing the operator to enter the IP addresses of one to ten external clock sources. The internal system primary and secondary NTP servers are Synchronized with these servers. The list is an ordered list, such that the first external source listed is contacted first, and if that fails then move on down the list. If the list is not in correct order then it may be necessary to delete sources and re-add in desired order. A newly added external server IPs is added to the end of the list.

If necessary to reach external servers then IP routing configuration may have to be performed on devices. This would not normally be required for devices that reach external sources by the TLAN, since the default route for most devices uses the TLAN. An IP route is required if the ELAN has to be used to reach an external source. The IP routes would have to be performed on the primary and secondary servers if required, and Base Manager can be used for this configuration. If external servers are not provided, the primary NTP server will derive its system clock from its internal hardware clock.

Note: The maximum number of Network Time Protocol server IP addresses is ten entries and these are validated for uniqueness.

Network Time Protocol for High Scalability systems

Note: The information in this section applies only to Communication Server 1000 Release 7.0 systems using Element Manager for High Scalability.

High Availability systems are managed by one instance of Element Manager for High Scalability. When you select a High Availability system, the navigation menu displays the option to configure the time synchronization parameters for that system. These parameters include the time zone, Network Time Protocol configuration, and Network Time Synchronization configuration.

You must configure Network Time Protocol separately for each core as the configuration settings are not included with common data. Redundant systems with Element Manager for High Scalability and High Availability systems with local Element Manager both support Network Time Protocol configuration.

Note: During Communication Server 1000 software upgrades, NTP configuration settings are retained only for Element Manager to Element Manager upgrades and not for Element Manager to Element Manager for High Scalability upgrades.

By default, the Network Time Protocol status for the Primary and Secondary NTP Servers is not configured. You must choose the Primary and Secondary NTP servers from the list of automatically generated system elements or the list of elements that have been added manually. The Element Manager for High Scalability system is not selected by default. If required, you must add it to the list manually.

For each High Availability system of High Scalability, you must configure the external NTP clock sources and any security keys separately.

If you use the local Element Manager to configure a core belonging to a High Availability system, the configuration is consistent with CS 1000 Network Time Protocol configuration, as described in [“Network Time Protocol configuration” \(page 414\)](#).

Network Time Protocol configuration

To configure Network Time Protocol, click the **Date and Time** link in the **Tools** branch of the Element Manager navigator. The **System Date and Time** Web page opens.

Procedure 153 Configuring Network Time Protocol

Step	Action
1	Click Edit in the Network Time Protocol section of the System Date and Time Web page. The Network Time Protocol Web page opens as shown in Figure 284 “Network Time Protocol Web page” (page 416) .
2	Click the Synchronize System Clock with NTP box. Note: Clicking this box enables Network Time Protocol configuration otherwise only synchronization is available.
3	Select Secure . Secure is the default setting.

- 4 Enter the Key ID and Private Key.
- 5 Select Primary and Secondary IP addresses from the list.
- The drop down boxes for primary and secondary server IP addresses provide the choice of any Linux server associated with the given CS 1000 system.

Note: If NTP has not been configured for the CS 1000 system, the default value for the primary server IP address is the ELAN address of the server hosting Element Manager for the system.

- 6 To select an external server as a clock source click the **External server(s)** box.

Selecting **External server(s)** enables the additional fields labeled "NTP server IP" which allows you to enter the IP addresses of one to ten external clock sources.

Note: Specifying an external NTP clock sources are optional, and if configured, are used by the local Primary and Secondary NTP servers. If external servers are not configured then the internal hardware clocks are used on the primary and secondary NTP servers.

- 7 Enter an external clock source and click **Add**. You can add up to ten external clock sources. The list is an ordered list, such that the first external source listed is contacted first, and if that fails then the next on the list is used.

Note: You may have to perform IP routing configuration to reach external servers. This would not normally be required for devices that reach external sources by the TLAN, since the default route for most devices uses the TLAN. Base Manager can be used for IP route configuration.

- 8 Click **Save**.

The parameters are transferred to all system Linux elements.

--End--

Figure 284
Network Time Protocol Web page

Managing: 192.168.55.143 Username: admin2
 Tools » Date and Time » System Date and Time » Network Time Protocol

Network Time Protocol

Synchronize System Clock with NTP: ☒

Transfer Mode: ☒ Secure
☐ Insecure

Key ID: 666 *(1-65535)
 Private Key: (1-16 alpha numeric chars)
 The length of the private key should be at most 16 characters where #, single quotes and spaces are not accepted.

CS 1000 Linux system elements
 The NTP configuration will be propagated to all Linux elements associated with this CS 1000 system. The ELAN IP addresses of all these elements must be listed below for proper configuration. Add any missing IP addresses to those automatically discovered.

Linux element IP: Add
 System Linux element IP addresses: 192.168.55.140 Remove
 192.168.209.122
 192.168.209.91
 Items without a trailing "*" were manually added and only these may be removed.

CS1000 system NTP server(s)
 CS1000 system NTP server(s) may be your only clock source or may take their time from external servers defined below.

Primary NTP server IP address: 192.168.209.92
 Secondary NTP server IP address: 192.168.209.101
 ELAN IPs are always shown even if hostname is on TLAN.

Clock Source: ☒ External server(s)
 External NTP clock sources are optional and if configured are used by the local Primary and Secondary NTP servers.
 Add up to ten external clock sources in order of priority. The first item in the list will be used first. Enter an IP Address below and click Add to add it to the bottom of the list.

NTP server IP: Add
 External NTP Servers in use: 2.2.2.2 Remove

*Required value.

Save Cancel

Network Time Synchronization

The clock synchronization feature is designed to work on ISDN networks, using D channel messages. NTS helps to synchronize time across different zones with different time zones for each. The Call Server is configured in master/stand-alone/slave modes for these zones. The stand-alone Call Server doesn't sync up with the master but the slave does sync up with the master. NTS enables the CS 1000 Call Server to derive its system clock from a Digital Trunk Signaling Link (DTRL). All of the other Signaling Servers, Media Gateway Controllers, and Voice Gateway Media Cards associated with the CS 1000 system derive their system clock from the Call Server by signaling over the PBXLink. protocol.

Support for NTS has been included in the deployment of Linux based servers. If the CS 1000 Call Server NTS Node Role is set as NTS slave then NTP and NTS configurations are mutually exclusive. For roles like stand-alone and master user can configure NTP for the elements to get time synced from the NTP servers. The Time Delta time adjustment factor keeps the Call Server at a difference with the master Call Server. This allows the slave Call Server to keep CS 1000 system time for its local timezone. If there are DST differences between the master NTS and slave NTS then manual adjustments may be required of the offset as the DST starts/ends.

You set the customer of the node and Local Virtual DN in charge of synchronizing the switch (that customer makes and receives the calls to and from the Master/Backup switch). That customer must already exist, prior to referencing it

If NTS is disabled and NTP is not in effect, then an warning message is shown to the user.

The Network Time Synchronization feature ensures that all time stamps in a network are synchronized from one source.

Procedure 154 Configuring Network Time Synchronization

Step	Action
1	Click Edit in the Network Time Synchronization section of the System Date and Time Web page. The Network Time Synchronization Web page opens, as shown in Figure 285 "Network Time Synchronization Web page" (page 418) .
2	Select the Node Role from the list.
3	Select the Customer from the list.
4	Enter the Local Virtual DN .
5	Enter the Master/Backup Time Synchronization Number .
6	Choose the mode: Background (BKGD) or Daily Services Routine (DVCS) .
7	If there are Daylight Saving Time (DST) differences between the master NTS and slave NTS then manual adjustments may be required of the offset as the DST starts or ends. Enter the Time Adjustment factor with clock on Master values

8 Click **Save**.

--End--

Figure 285
Network Time Synchronization Web page

Tools >> Date and Time >> Network Time Synchronization

Network Time Synchronization

Node Role: STDA (Stand-Alone) ▼

Customer: 1 ▼

Local Virtual DN:

Master/Backup Time Synchronization Number:

Mode: ☒ Background (BKGD) ☐ Daily Services Routine (DVSC)

Time Delta

Time Adjustment factor with clock on Master

Sign: + ▼ Hour: 1 ▼ Minute: 1 ▼

* Required value

Save Cancel

Logs and Reports

To access IP Telephony Node Maintenance Reports click the **Logs and Reports > IP Telephony Nodes** link in the **Tools** branch of the Element Manager navigator. The **Node Maintenance and Reports** Web page appears.

For information on IP Telephony Node Maintenance and Reports, see [“Nodes: Servers, Media Cards” \(page 153\)](#).

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 286 "IP Phone Location Web page" \(page 419\)](#).

Figure 286
IP Phone Location Web page

Managing: **192.167.102.3**
Tools > Logs and reports > IP Phone Location

Search for IP Phone Location Hide

Criteria: All IP Phones Search

Results per page 100

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	18001365ff682a6625	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.

Call Server Report

To access the **Call Server Report** Web page, 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 the following figure.

Figure 287
Call Server Report Web page

The following buttons provide one-click access to the following functions:

- RDSCONVERT — Convert a report log file to text
- RDPREV — Open the previous log file
- RDNEXT — Open the next log file
- RDOPEN — Open the latest report file
- RDSHOW — Show a summary of the report file
- RDTAIL — Show x records up to the newest record in the report file (where x is the configured display size).
- RDHEAD — Show 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.

Equipped Feature Packages

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 288 "Equipped Feature Packages List Web page"](#) (page 421).

Figure 288
Equipped Feature Packages List Web page

Managing: **192.168.209.115**
Tools > Logs and reports > Equipped Feature Packages

Equipped Feature Packages

	Package Description	Package Name	Package Number ▲
1	Optional Features	OPTF	1
2	Multi-Customer Operation	CUST	2
3	Call Detail Recording, Teletype Terminal	CDR	4
4	Call Detail Recording, Teletype Terminal	CTY	5
5	Recorded Announcement	RAN	7
6	Time and Date	TAD	8
7	Do Not Disturb Individual	DNDI	9
8	End-to-End Signaling	EES	10
9	Intercept Treatment	INTR	11
10	Automatic Number Identification	ANI	12
11	Automatic Number Identification, Route Selection	ANIR	13
12	Basic Routing	BRTE	14
13	Do Not Disturb Group	DNDG	16
14	Make Set Busy	MSB	17
15	Special Service for 2500 Sets	SS25	18

Items per page: 100 First | Prev | Next | Last

Peripheral Software Version Data

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 289 "Peripheral Software Version Data Web page"](#) (page 422).

Figure 289
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

System License Parameters

To view a list of System License Parameters, click the **Logs and Reports > System License Parameters** link in the **Tools** branch of the Element Manager navigator. The **System License Parameters** Web page opens as shown in the following figure.

Figure 290
System License 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	32767	32765	2
DESKTOPS	32767	32767	0
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		

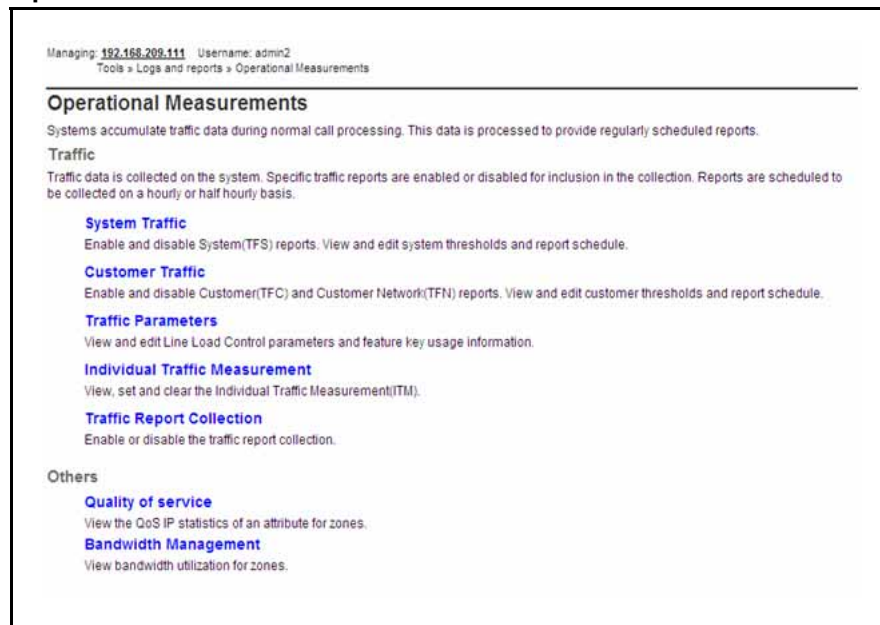
Operational Measurements

Element Manager provides users with regularly scheduled reports on system traffic. Perform this procedure to access reports.

Procedure steps

Step	Action
1	In the Element Manager navigator tree, open the following folders: Tools, Logs and Reports, Operational Measurements. The Figure 291 "Operational Measurements" (page 424) web page appears.

Figure 291
Operational Measurements



--End--

System Traffic

Perform this procedure to enable or disable system traffic (TFS) reports. You can also view and edit system thresholds and reports schedule.

Procedure steps

Step	Action
1	Click System Traffic . The Figure 292 "System Traffic" (page 425) web page appears.

Figure 292
System Traffic

Managing: 192.168.209.111 Username: admin2
Tools » Logs and reports » Operational Measurements » System Traffic

System Traffic

☐ Report Title ▾	Report Number	Report Status
1 Command status links and application module links	TFS008	Enabled
2 D-Channel	TFS009	Enabled
3 Dial tone delay	TFS003	Enabled
4 ISDN BRI trunk DSL system report	TFS014	Enabled
5 ISDN GF transport	TFS010	Enabled
6 Junction group	TFS007	Enabled
7 Meridian packet handler	TFS015	Enabled
8 Multi-purpose ISDN signaling processor DCH management	TFS012	Enabled
9 Multi-purpose ISDN signaling processor messages	TFS013	Enabled
10 Multi-purpose ISDN signaling processor traffic	TFS011	Enabled
11 Network	TFS001	Enabled
12 Processor load	TFS004	Enabled
13 QoS IP statistics	TFS016	Enabled
14 Selected terminals	TFS005	Enabled
15 Service loops	TFS002	Enabled

- 2 To view the report, click **Report Title**. The report window appears.
- 3 To enable a report, select a report.
- 4 Click **Enable**. The report is enabled.
- 5 To disable a report, select the report.
- 6 Click **Disable**. The report is disabled.
- 7 To configure Threshold information, click **Thresholds**. The Thresholds screen appears.
- 8 To configure report schedules, click **Schedules**. The Report Schedule screen appears.

For more information about report schedules, see [“Call Server Traffic Collection Schedule”](#) (page 430).

--End--

Customer Traffic

Perform this procedure to enable and disable customer (TFC) and customer network (TFN) reports. You can also view and edit customer thresholds and display details of the traffic reports for each customer configured in the system.

Procedure steps

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

1	Click Customer Traffic .
---	---------------------------------

The [Figure 293 "Customer Traffic" \(page 426\)](#) web page appears.

Figure 293
Customer Traffic

Managing: 192.168.209.111 Username: admin2
Tools » Logs and reports » [Operational Measurements](#) » Customer Traffic

Customer Traffic

Reports For Customer: 0

Enable Disable Thresholds Schedule Refresh

☐ Report Title	Report Number	Report Status
1 ☐ Call blocking due to lack of DSP resource	TFC012	Disabled
2 ☐ Call park	TFC007	Enabled
3 ☐ Customer console measurements	TFC003	Enabled
4 ☐ Feature key usage	TFC005	Enabled
5 ☐ Incoming trunk group measurements	TFN003	Enabled
6 ☐ Individual console measurement	TFC004	Enabled
7 ☐ ISPC links establishment	TFC105	Enabled
8 ☐ Messaging and auxiliary processor links	TFC008	Enabled
9 ☐ Network attendant service	TFC009	Enabled
10 ☐ Network class of service measurements	TFN002	Disabled
11 ☐ Networks	TFC001	Enabled
12 ☐ Radio paging	TFC006	Enabled
13 ☐ Route list measurements	TFN001	Disabled
14 ☐ Trunks	TFC002	Enabled
15 ☐ Use of broadcasting routes set	TFC111	Enabled

2 To display traffic reports for a customer, select a customer from the **Reports For Customer** list.

3 To enable a report for the selected customer, select the report.

4 Click **Enable**.

5 To disable a report for the selected customer, select the report.

6 Click **Disable**.

7 To configure threshold information for the selected customer, click **Thresholds**.
The Thresholds screen appears.

8 To configure report schedules for the selected customer, click **Schedules**. The Report Schedule screen appears.

For more information about report schedules, see ["Call Server Traffic Collection Schedule" \(page 430\)](#).

--End--

Traffic Parameters

Perform this procedure to view and edit line board control parameters and key feature usage information for a system.

Procedure steps

Step	Action
1	Click Traffic Parameters . The Figure 294 "Edit Traffic Parameters" (page 427) web page appears.

Figure 294

Edit Traffic Parameters

- 2 Select a **Line Load Control Level** from the list.
- 3 Enter the **Blocking Probabilities**.
- 4 Choose a customer from the **Feature Key Customer** list.

ATTENTION

If the line load control level is set to off, the blocking probabilities are disabled.

- 5 Click **Save**.

--End--

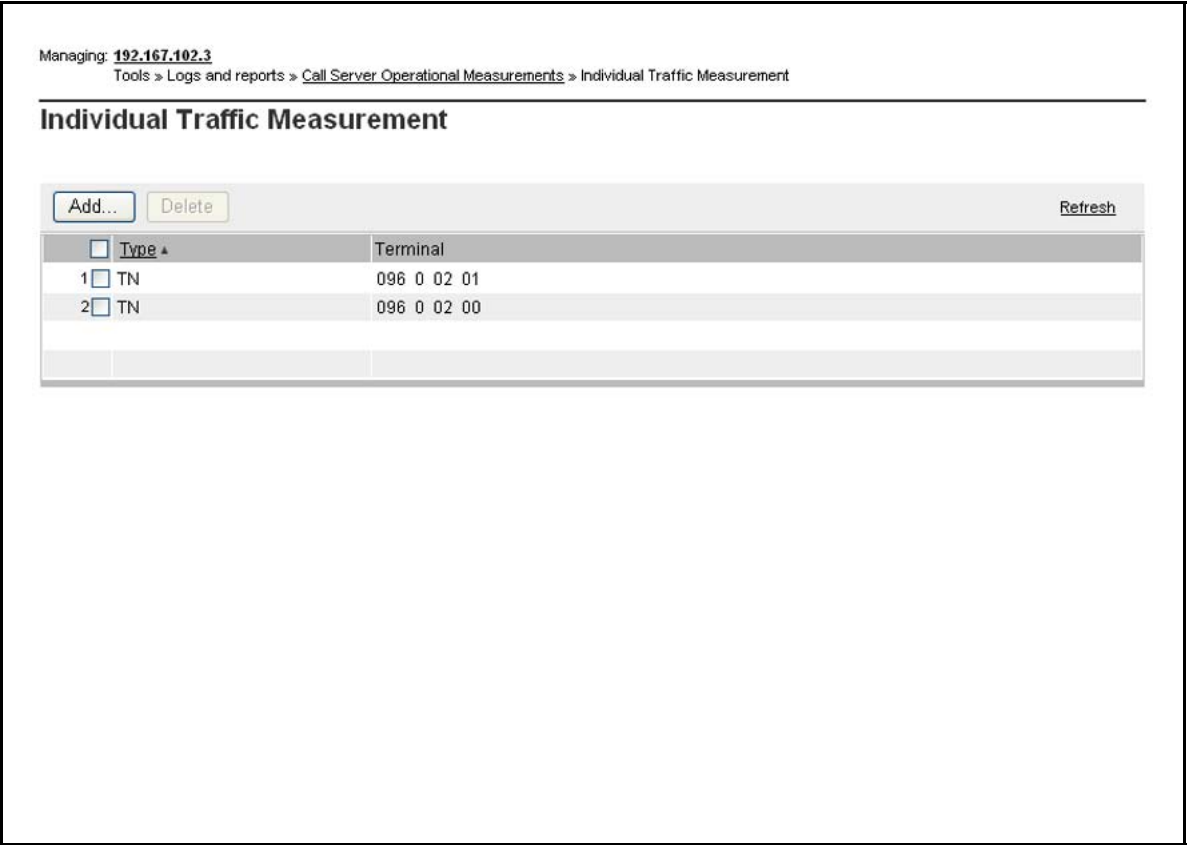
Individual Traffic Measurement

Perform this procedure to view and edit the individual traffic measurement (ITM).

Procedure steps

Step	Action
1	To configure lines and trunks for Individual Traffic Measurement, click Individual Traffic Measurement . The Figure 295 "Individual Traffic Measurement " (page 428) web page opens.

Figure 295
Individual Traffic Measurement



2	To add a terminal for individual traffic measurement, click Add . The Figure 296 "Add TN " (page 429) web page appears.
---	---

Figure 296
Add TN

Managing: [192.167.102.3](#)
Tools > Logs and reports > Call Server Operational Measurements > Individual Traffic Measurement > Add Terminal

Add TN

TN: *

Terminals with ITM set are included in the groups for which Line Traffic Measurements are recorded.

- 3 To add TNs, type the TN in the **TN** field.

ATTENTION

You can enter up to five TNs and must be separated by a comma.

- 4 Click **Save**.

--End--

Traffic Report Collection

Perform this procedure to enable or disable the traffic report collection.

ATTENTION

By default, traffic reports are collected every 30 minutes and are stored locally. Each traffic report table in the database can hold a maximum of 3 000 records. Once this limit is reached, old data is deleted so that new reports may be added.

Step	Action
1	Click Traffic Report Collection . The Figure 297 "Traffic Report Collection" (page 430) web page appears.

Figure 297
Traffic Report Collection

Managing: 192.168.209.111 Username: admin2
 Tools > Logs and Reports > Operational Measurements > Traffic Report Collection

Traffic Report Collection

When this option is enabled, the traffic reports from the call server are collected every 30 minutes and stored locally.

Traffic report collection: ☒

Save Cancel

- 2 To enable traffic report collection, select the **Traffic Report Collection** check box.
The traffic report collection is enabled.
- 3 To disable traffic report collection, clear the **Traffic Report Collection** check box.
The traffic report collection is disabled.
- 4 Click **Save** to save the changes.

--End--

Call Server Traffic Collection Schedule

Perform this procedure to configure report schedules for a selected system or a customer.

Procedure steps

Step	Action
1	Click Schedule . The Figure 298 "Report Schedule" (page 431) web page appears.

Figure 298
Report Schedule

Managing: **192.168.205.43** Username: admin2
Tools > Logs and reports > Operational Measurements > System Traffic > Report Schedule

Report Schedule

Traffic will be collected each year from January 1 to December 31

Every: ☒ Sunday
☒ Monday
☒ Tuesday
☒ Wednesday
☒ Thursday
☒ Friday
☒ Saturday

From 0:00 until 23:00 hours

Reporting Every half hour

Save Cancel

- 2 Select the report collection duration in year.
- 3 Select the days check boxes.
- 4 From the **From** and **until** lists, select the hours for report collection.
- 5 From the **Reporting** list, select the time.
- 6 Click **Save**.

--End--

Viewing historic and current traffic reports for system traffic

Perform this procedure to view the historic and current traffic reports of each system or network, configured in the system.

Procedure steps

Step	Action
1	To view the system report, click System . The Figure 299 " System Traffic" (page 432) web page appears.

Figure 299
System Traffic

Managing: 192.168.209.111 Username: admin2
Tools » Logs and reports » Operational Measurements » System Traffic

System Traffic

☐ Report Title *	Report Number	Report Status
1 Command status links and application module links	TFS008	Enabled
2 D-Channel	TFS009	Enabled
3 Dial tone delay	TFS003	Enabled
4 ISDN BRI trunk DSL system report	TFS014	Enabled
5 ISDN GF transport	TFS010	Enabled
6 Junction group	TFS007	Enabled
7 Meridian packet handler	TFS015	Enabled
8 Multi-purpose ISDN signaling processor DCH management	TFS012	Enabled
9 Multi-purpose ISDN signaling processor messages	TFS013	Enabled
10 Multi-purpose ISDN signaling processor traffic	TFS011	Enabled
11 Network	TFS001	Enabled
12 Processor load	TFS004	Enabled
13 QoS IP statistics	TFS016	Enabled
14 Selected terminals	TFS005	Enabled
15 Service loops	TFS002	Enabled

2

Click a **Report Title**.

The [Figure 300 "System Networks Report"](#) (page 432) window appears displaying the current data with the current date and time.

Figure 300
System Networks Report

Managing: 192.168.209.111 Username: admin2
Tools » Logs and reports » Operational Measurements » System Traffic » Networks Report

System 0 Networks Report

The Networks Report (TFS001) measures intraloop and loop data on Terminal equipment, Tone and Digit Switch, Multifrequency Sender and Conference Service loops.

Date: 2010-02-03 Time: 2:20 PM

☐ Loop Number *	Loop Type	Intraloop FTM	Intraloop CCS	Intraloop Peg Count	Total Loop FTM	Total Loop CCS	Total Loop Peg Count
1 0	TDMF	0	0	0	0	0	0
2 1	CONF	0	0	0	0	0	0
3 4	SUPL	0	0	0	0	0	0 V
4 12	SUPL	0	0	0	0	0	0 V
5 16	TDMF	0	0	0	0	0	0
6 17	CONF	0	0	0	0	0	0
7 20	SUPL	0	0	0	0	0	0 V
8 48	SUPL	0	0	0	0	0	0 V
9 96	SUPL	0	0	0	0	0	0 V
10 108	SUPL	0	0	0	0	0	0 V

3

Click **Previous**, to view the historic data of a particular report type.

4

Click **Next**, to traverse between the records.

Figure 301
System Networks Report

Managing: 192.168.209.111 Username: admin2
Tools » Logs and reports » Operational Measurements » System Traffic » Networks Report

System 0 Networks Report
The Networks Report ("FS001") measures intraloop and loop data on Terminal equipment, Tone and Digit Switch, Multifrequency Sender and Conference Service loops.

Date: 2010-03-15 Time: 3:30 PM

< Previous Next > [View current data](#)

Loop Number	Loop Type	Intraloop FTM	Intraloop CCS	Intraloop Peg Count	Total Loop FTM	Total Loop CCS	Total Loop Peg Count
1 0	TDMF	0	0	0	0	0	0
2 1	CONF	0	0	0	0	0	0
3 4	SUPL	0	0	0	0	0	0
4 12	SUPL	0	0	0	0	0	0
5 16	TDMF	0	0	0	0	0	0
6 17	CONF	0	0	0	0	0	0
7 20	SUPL	0	0	0	0	0	0
8 48	SUPL	0	0	0	0	0	0
9 80	SUPL	0	0	0	0	0	0
10 96	SUPL	0	0	0	0	0	0
11 108	SUPL	0	0	0	0	0	0
12 112	SUPL	0	0	0	0	0	0
13 128	CONF	0	0	0	0	0	0

ATTENTION

The date and time displays the report generated by the call server, which is stored and retrieved from the database.

- 5 To view the current data, click **View current data**.

--End--

Viewing historic and current traffic reports for customer traffic

Perform this procedure to view the historic and current traffic reports of a customer, configured in the system.

Procedure steps

Step	Action
1	To view the customer report, click Customer Traffic . The Figure 302 "Customer Traffic" (page 434) web page appears.

Figure 302
Customer Traffic

Managing: 192.168.209.111 Username: admin2
Tools » Logs and reports » Operational Measurements » Customer Traffic

Customer Traffic

Reports For Customer: 0

Enable Disable Thresholds Schedule Refresh

☐ Report Title *	Report Number	Report Status
1 Call blocking due to lack of DSP resource	TFC012	Disabled
2 Call park	TFC007	Enabled
3 Customer console measurements	TFC003	Enabled
4 Feature key usage	TFC005	Enabled
5 Incoming trunk group measurements	TFN003	Enabled
6 Individual console measurement	TFC004	Enabled
7 ISPC links establishment	TFC105	Enabled
8 Messaging and auxiliary processor links	TFC008	Enabled
9 Network attendant service	TFC009	Enabled
10 Network class of service measurements	TFN002	Disabled
11 Networks	TFC001	Enabled
12 Radio paging	TFC006	Enabled
13 Route list measurements	TFN001	Disabled
14 Trunks	TFC002	Enabled
15 Use of broadcasting routes set	TFC111	Enabled

- 2 Click a **Report Title** in one of the reports.
The [Figure 303 "System Customer Feature Key Usage Report"](#) (page 434) window appears displaying the current data with the current date and time.

Figure 303
System Customer Feature Key Usage Report

Managing: 192.168.209.111 Username: admin2
Tools » Logs and reports » Operational Measurements » Customer Traffic » Feature Key Usage Report

System 0 Customer 0 Feature Key Usage Report

Feature Key Usage Report (TFC005) looks at patterns of customer usage.

Date: 2010-02-15 Time: 12:22 PM

< Previous Refresh

Feature Number *	Peq Count
1 0	0
2 1	0
3 2	0
4 3	0
5 4	0
6 5	0
7 6	0
8 7	0
9 8	0
10 9	0
11 10	0
12 11	0
13 12	0
14 13	0
15 14	0

- 3 Click **Previous**, to view the historic data of a particular report type.
- 4 Click **Next**, to traverse between the records.

Figure 304
System Customer Feature Key Usage Report

Managing: 192.168.209.111 Username: admin2
 Tools » Logs and reports » Operational Measurements » Customer Traffic » Feature Key Usage Report

System 0 Customer 0 Feature Key Usage Report
 Feature Key Usage Report (TFC005) looks at patterns of customer usage.

Date: 2010-03-15 Time: 2:30 PM

Feature Number	Peg Count
1 0	0
2 1	0
3 2	0
4 3	0
5 4	0
6 5	0
7 6	0
8 7	0
9 8	0
10 10	0
11 11	0
12 12	0
13 13	0
14 14	0
15 15	0

ATTENTION

The date and time displays the report generated by the call server, which is stored and retrieved from the database.

- 5 To view the current data, click **View current data**.

--End--

Quality of Service

Perform this procedure to view the QoS IP statistics of an attribute for a zone.

Procedure steps

Step	Action
1	To view the Ethernet Quality of Service Diagnostics web page, click Quality of service . For more information, see "Ethernet Quality of Service Diagnostics" (page 87).
--End--	

Bandwidth Management

Perform this procedure to view bandwidth utilization for zones.

Procedure steps

Step	Action
1	To open the Maintenance Commands for Zones web page, click Bandwidth Management. For more information, see “Zone Diagnostics” (page 116).
--End--	

Security

The following links are provided under the Security branch of Element Manager:

- Passwords
 - System Passwords
 - Customer Passwords
- Policies
 - Media
 - System Keys
 - File Transfer
 - Port Access Restrictions
- Login Options
 - Shell Login
 - Access Warning

All information about the Security features available in Element Manager is covered and maintained in *Security Management Fundamentals* (NN43001-604).

Support

Contents

This section contains information about the following topics:

[“Introduction” \(page 439\)](#)

[“Help” \(page 439\)](#)

[“Release Notes” \(page 440\)](#)

Introduction

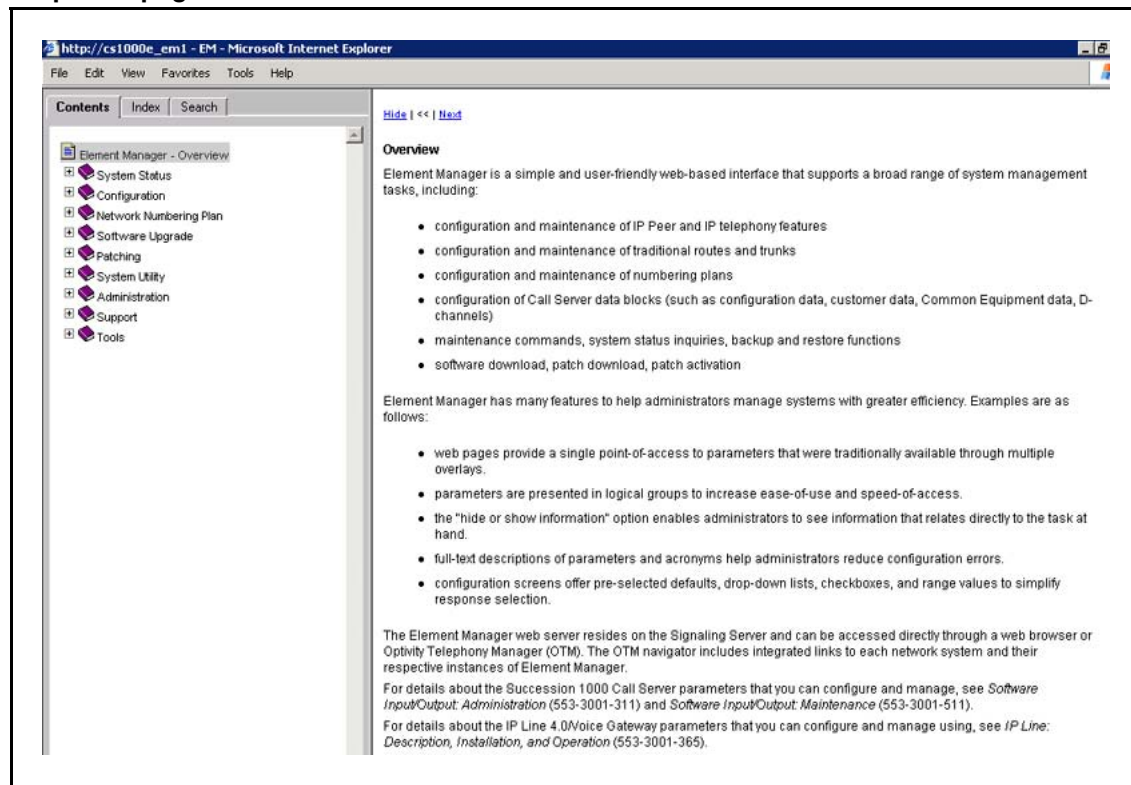
The following Support features can be accessed through Element Manager:

- [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 305 “Help Web page” \(page 440\)](#) appears.

Figure 305
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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