Succession 1000
Succession 1000M
Succession 3.0 Software

Succession 1000 Element Manager

System Administration

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Revision history

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).

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About this document

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

Subject

This Nortel Networks Technical Publication (NTP) is a reference tool for Element Manager, a web-based interface that enables configuration, maintenance, upgrade, and patching functions from a PC. This document describes the interface and its related functionality.

Note on legacy products and releases

This NTP contains information about systems, components, and features that are compatible with Succession 3.0 Software. For more information on legacy products and releases, click the **Technical Documentation** link under **Support** on the Nortel Networks home page:

http://www.nortelnetworks.com/

Applicable systems

This document applies to the following systems:

- Succession 1000
- Succession 1000M Cabinet
- Succession 1000M Chassis
- Succession 1000M Half Group

- Succession 1000M Single Group
- Succession 1000M Multi Group

System migration

When particular Meridian 1 systems are upgraded to run Succession 3.0 Software and configured to include a Succession Signaling Server, they become Succession 1000M systems. Table 1 lists each Meridian 1 system that supports an upgrade path to a Succession 1000M system.

Table 1
Meridian 1 systems to Succession 1000M systems

This Meridian 1 system...	Maps to this Succession 1000M system
Meridian 1 Option 11C Chassis	Succession 1000M Chassis
Meridian 1 Option 11C Cabinet	Succession 1000M Cabinet
Meridian 1 Option 51C	Succession 1000M Half Group
Meridian 1 Option 61	Succession 1000M Single Group
Meridian 1 Option 61C	Succession 1000M Single Group
Meridian 1 Option 61C CP PII	Succession 1000M Single Group
Meridian 1 Option 81	Succession 1000M Multi Group
Meridian 1 Option 81C	Succession 1000M Multi Group
Meridian 1 Option 81C CP PII	Succession 1000M Multi Group

Note the following:

- When an Option 11C system is upgraded to run Succession 3.0 Software, that system becomes a Meridian 1 Option 11C Cabinet.
- When an Option 11C Mini system is upgraded to run Succession 3.0 Software, that system becomes a Meridian 1 Option 11C Chassis.

For more information, see one or more of the following NTPs:

- *Small System: Upgrade Procedures* (553-3011-258)
- *Large System: Upgrade Procedures* (553-3021-258)
- *Succession 1000 System: Upgrade Procedures* (553-3031-258)

Intended audience

This document is intended for individuals responsible for system administration using web-based Element Manager.

Conventions

Terminology

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

- Succession 1000
- Succession 1000M

The following systems are referred to generically as "Small System":

- Succession 1000M Chassis
- Succession 1000M Cabinet

The following systems are referred to generically as "Large System":

- Succession 1000M Half Group
- Succession 1000M Single Group
- Succession 1000M Multi Group

The call processor in Succession 1000 and Succession 1000M systems is referred to as the "Succession Call Server".

Typographic conventions

Within this document, commands are indicated with bold font. Cross-references to other documents, and specific file names, are italicized.

Related information

This section lists information sources that relate to this document.

NTPs

The following NTPs are referenced in this document:

- *IP Peer Networking* (553-3001-213)
- *Branch Office* (553-3001-214)
- *Succession 1000 Element Manager: Installation and Configuration* (553-3001-232)
- *Software Input/Output: Administration* (553-3001-311)
- *IP Line: Description, Installation, and Operation* (553-3001-365)
- *Software Input/Output: Maintenance* (553-3001-511)
- *Succession 1000 System: Overview* (553-3031-010)
- *Succession 1000 System: Upgrade Procedures* (553-3031-258)

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Introduction

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Element Manager functional overview

The Succession Signaling Server hosts a new web server that supports a web interface. This web interface, which is called Succession 1000 Element Manager, enables an administrator to use a browser to configure and maintain system components, or data blocks. Element Manager also supports application management on the Succession Signaling Server.

Element Manager increases the speed, efficiency, and accuracy of the configuration process. Configuration parameters are now organized into logical groups with the following advantages:

- no need to print information in overlays (LDs 20, 21, 22) before loading a different overlay to edit the configuration

- no need to enter several carriage returns to change a single prompt
- can access data from multiple overlays on a single web page

Element Manager supports “hide and show” capabilities. This facilitates focus on information of interest, without the distraction of multiple parameters.

Element Manager provides full text descriptions as well as acronyms for each parameter. This benefits end users by:

- presenting a friendly interface for new administrators
- keeping existing acronyms for experienced administrators

Element Manager simplifies parameter value selection by:

- pre-selecting default values
- providing a drop-down list of allowed values
- displaying a range of values for numeric entries
- using Yes/No check boxes

Administrators can use Element Manager to configure and maintain the following components of Succession 3.0 software:

- Succession Signaling Server
- Succession Call Server
- Media and Branch Office Gateways
- IP Line 3.1 / Voice Gateway
- IP telephony
- Gatekeeper

In Succession 3.0, administrators can use Element Manager to perform the following management tasks:

- **Get System Status.** Perform maintenance activities on IP Telephony and Succession Call Server components:
  - D-channel
  - MSDL
  - TMDI
  - Digital trunk
  - Clock controller
  - Network and Peripheral Equipment
  - Trunk diagnostic
  - Zone Diagnostic
  - IP Telephony Service Management
  - Core Common Equipment Diagnostic
  - Call Server Report Log
  - System Incremental Software Management (ISM) Parameters
  - Equipped Feature Packages List
  - Peripheral Software Version Data
- **Configuration.**
  - Customer data, routes, and trunks (traditionally done in LDs 15, 16, and 14)
  - D-channel and Common Equipment data (LD 17)
  - Digital Trunk Interface (LD 73)
  - Flexible Code Restriction and Incoming Digit Conversion (LD 49)
  - IP telephony
- **Network Numbering Plan**. Configure all ESN data blocks for the Call Server as well as the Gatekeeper.

- **Software Upgrade**. Upgrade IP telephony firmware and loadware. It is also used to upload firmware and loadware files for storage on the Signaling Server.
- **Patching.** Download, activate, and deactivate patches for:
  - Call Server
  - Media Gateways
  - IP telephony
- **System Utilities**. Backup and restore Call Server data, as well as set the system date and time.

Succession Signaling Server

After software installation and basic configuration of the Succession Signaling Server, components can be configured using the web-based interface. The web server is installed on each Succession Signaling Server within a Succession 1000 system. All HTML web pages and data files required for web-based Element Manager of the Succession Call Server, Succession Signaling Server, and IP Line 3.1 / Voice Gateway Media Cards are installed on the Succession Signaling Server.

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

- Reset.
- Access the maintenance window.
- Download new firmware.
- View report log.
- Run Operational Measurements (OM) reports.
- Telnet.

Succession Call Server, Media Gateway, and Branch Office H.323 WAN Gateway

For Call Servers, Media Gateways, and Succession Branch Office Gateways, Element Manager enables administrators to configure and manage the following data:

- Configuration Record
  - — Supports ADAN, CEQU, and PWD data blocks
- Customer Data Block
  - — Supports ANI, FCR, FTR, LDN, NET, and NIT data blocks
- Route Data Blocks
- Trunks
- ESN Data Block

To learn more about parameters that can be configured and managed in Element Manager, see "Customer Explorer" on page 65.

IP Line 3.1 / Voice Gateway

Element Manager enables administrators to perform the following activities on the IP Line 3.1 / Voice Gateway:

- View and configure SNMP parameters and add IP addresses for forwarding SNMP traps.
- View and configure VGW profile data.
- View and edit Quality of Service (QoS) parameters.
- Use LAN configuration to configure the ELAN, TLAN, and Routes.
- View and edit SNTP Server and Client information.
- View and configure file server access for downloading firmware for Internet Telephones.
- View and select the Loss and Level Plan for your country.

- Add, remove, view, and edit card properties of Voice Gateway Media Cards.
- Add, remove, view, and edit Signaling Server information.

To learn more about IP Line 3.1 and Voice Gateway parameters that can be configured and managed in Element Manager, see *IP Line: Description, Installation, and Operation* (553-3001-365).

The following maintenance activities are supported using Element Manager for IP Line 3.1 and Voice Gateway:

- 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.
- Run Operational Measurement (OM) reports.
- Telnet to the card.

To learn more about IP Line 3.1 and Voice Gateway maintenance activities that are supported by Element Manager, see "IP Telephony" on page 54.

Note: Configuration data for nodes is stored on the Call Server where it is backed up and restored along with the Call Server configuration data.

Changes specific to Succession 3.0

Element Manager is available for all Succession 3.0 systems equipped with a Signaling Server. Since the Signaling Server is optional in a Succession 3.0 system, Element Manager cannot be the only administrative interface. Once the IP Line Media Cards are upgraded to Succession 3.0 software, subsequent loadware and firmware upgrades can be performed through Element Manager web pages.

For Large Systems, superloop configurations must be performed using the TTY.

The Element Manager interface was originally introduced with the deployment of Succession CSE 1000 Release 2. Systems equipped with a Signaling Server that are ported to Succession 3.0 can support the following features and enhancements:

- **Large system support**.
  - — Display different system types in the System Information page.
  - — TN formats used by Large Systems.
  - — Increased capacity (different ranges of values for large systems).
  - — Backup and restore on Large Systems.
- **D-channel configuration.** Displays the current RCAP selection and all valid inputs for the RCAP prompt. In the previous D-channel configuration web page, users had to type in RCAP values without knowing which values were currently selected and what inputs were valid.
- **Subnet mask entry validation**. Validate subnet mask entries on IP Telephony web pages.
- **Ability to download more than one patch at a time.**
  - — Enable selection of more than one patch to download and activate on the switch for the Succession Call Server, Signaling Server, and IP Line Cards.

- **Context-sensitive field values in LD 16**.

  — The implementation of context-sensitive prompts was introduced in Succession CSE 1000 Release 2, but individual field selections were not context-sensitive. This enhancement introduces implementation of context-sensitive fields for LD 16 web pages.

- **LD 135 Maintenance commands support**.

  This enhancement provides a web page interface for the following diagnostic and maintenance commands in LD 135:

  DIS CNI c s p

  DSPL <ALL>

  ENL CNI c s p

  IDC CNI s, IDC CPU

  JOIN

  SCPU

  SPLIT

  STAT CNI, STAT CPU, STAT SUTL

  TEST CNI, TEST CPU, TEST SUTL

  The Element Manager System Information page displays the dual CPU redundancy information and the Health state.

- **IP Telephony Operation.** A summary page indicates which IP Telephony nodes have changed and must be transferred. The system provides meaningful information about the telephony SUBMIT/ TRANSFER operation of config and bootp node files. The following areas are enhanced:

  — The SUBMIT button has been renamed to "**Save and Transfer**". Clicking it saves node configuration files on the Call Server side and also transfers files to every VGMC within the system. Previously there were two separate buttons required to SUBMIT and TRANSFER.

— On the IP Node Summary page, a new button called **TRANSFER/ STATUS** replaces the TRANSFER button. If any element within the Node fails to transfer either bootp or config files, the button will be highlighted in RED. A click on this button will redirect the administrator to a page where:

– the previous status of the node will display, and

– the failure reason will be displayed for elements in nodes that failed to get configuration files (*bootp.tab* and *config.ini*) from the Call Server side.

The **TRANSFER/STATUS** button will be highlighted in YELLOW if the transfer status of the node elements is unavailable. When the administrator edits the Node and clicks the "**Save and Transfer**" button, transfer status information will be updated and displayed.

— Node elements that failed to get configuration files will continue to display on the transfer progress status page when the IP Telephony node configuration file is submitted and transferred.

— The Transfer status page displays two buttons:

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

– **Transfer to Failed Elements**. Only transfers node configuration files to elements in a "Transfer Failed" state.

Note: This button will display only when at least one element on the Node failed to transfer either a *bootp.tab* or *config.ini* in the previous operation.

- **Software version display in Peripheral Equipment cards.** Enables the administrator to see the versions of all downloaded software in the Peripheral Equipment cards (for example, MSDL and others). This is very useful on large systems. Information from LD 96 and LD 48 will be used to display information along with the LD 22 PSWV command, which shows what is stored on the Call Server.

Affected software components

Existing software

The Element Manager interface interacts with data residing on the call server and traditionally configured in the following overlays:

- LD 2 - Time/Date Set
- LD 14 - Trunk Data Block
- LD 15 - Customer Data Block
- LD 16 - Route Data Block
- LD 17 - Configuration Record
- LDs 20, 21, and 22 - Print Reports
- LD 32 - Network and Peripheral Equipment Diagnostic
- LD 36 - Trunk Diagnostic
- LD 43 - Equipment Datadump
- LD 49 - New Flexible Code Restriction and Incoming Digit Conversion
- LD 60 - Digital Trunk Interface and Primary Rate Interface
- LD 73 - Digital Trunk Interface
- LDs 86, 87, and 90 - Electronic Switched Network
- LD 96 - D-channel diagnostic
- LD 117 - Zone Configuration and Diagnostic
- LD 135 - Core Common Equipment Diagnostic

For detailed information on these overlays, or to view the entire prompt and response sequence, refer to *Software Input/Output: Administration* (553-3001-311) and *Software Input/Output: Maintenance* (553-3001-511).

New software

LD 21 has been modified to enhance Print routines.

LD 21 – Print Routine 2.

Prompt	Response	Description
REQ:	LCS LRT CUST n	List configured customers List routes associated with customer n

This feature introduces two new STAT commands to obtain status of a virtual trunk.

LD 32 commands

Command	Description
IDU <TN>	Includes MAC address of the polled set, Model Vendor, software version, Set IP address, etc.
STVT <cust no> <route no> <start member> <end member>	
	Displays the vtrunk status, specified by customer, route, start and end member number

This feature introduces two new STAT commands for LINK and server information.

LD 117 commands (Part 1 of 5)

Command	Description
STAT LINK APP <application type>	
	Where: application type = LPTS, VGW, H323, GK, etc.
STAT LINK IP <ip address>	

LD 117 commands (Part 2 of 5)

Command	Description
	Displays the link information status of the server for the specified IP address, or contained in the specified sub-net. Where: IP address is the ELAN IP address of the VGMC / Signaling Server. IP address can be in full or partial IP address format. For example, “10.11.12.13”, or “10.11”.
STAT LINK NAME <hostName>	
	Displays the link information status of the servers based on the supplied host name. Where: hostName = MAINSERVER
STAT LINK NODE <node id>	
	Displays the link information status of the specified node. Where: node id is a number from 0 - 9999. It identifies the node number you have assigned to a group of VGMC and Signaling Server equipment.
STAT LINK SRV <server type>	
	Displays the link information status of the servers for the specified server type. serverType = ITGP (ITG Pentium) serverType = SMC (Succession Media Card) serverType = SS (Signalling Server)
STAT SERV APP <application type>	

LD 117 commands (Part 3 of 5)

Command	Description
	Displays the link information status of the servers running the specified applications. applicationType = LTPS (Line TPS) applicationType = VGW (Voice Gateway) applicationType = H323 (H323 Virtual Trunk) applicationType = GK (GateKeeper)
STAT SERV IP <ip address>	
	Displays the link information status of the server for the specified IP address or contained in the specified sub-net. Where: IP address is the ELAN IP address of the VGMC / Signaling Server. IP address can be in full or partial IP address format. For example, “10.11.12.13”, or “10.11”.
STAT SERV NAME <host name>	
	Displays the link information status of the servers based on the supplied host name. Where host name = MAINSERVER
STAT SERV NODE <node id>	
	Displays the link information status of the specified node. Where: node id is a number from 0 - 9999. It identifies the node number you have assigned to a group of VGMC and Signaling Server equipment.
STIP HOSTIP <ip address>	

LD 117 commands (Part 4 of 5)

Command	Description
	Displays information contained in the rlm table corresponding to the specified HOSTIP address, or HOSTIP addresses contained in the specified sub-net. Where: IP address is the ELAN IP address of the VGMC / Signaling Server. IP address can be in full or partial IP address format. For example, “10.11.12.13”, or “10.11”.
STIP NODE <node id>	Displays information contained in the rlm table corresponding to the specified node id. Where: node id is a number from 0 - 9999. It identifies the node number you have assigned to a group of VGMC and Signaling Server equipment.
STIP TERMIP <ip address>	
	Displays information contained in the rlm table corresponding to the specified TERMIP address, or TERMIP addresses contained in the specified sub-net. Where: IP address is the TLAN IP address of the set / vgw. IP address can be in full or partial IP address format. For example, “10.11.12.13”, or “10.11”.
STIP TN l s c u	Displays the rlm information for the specified TN or group of TNs as denoted by the l s c u parameters for large systems, and the c u parameters for small systems.

LD 117 commands (Part 5 of 5)

Command	Description
STIP TYPE <aaa>	Displays the rlm information for the specified TN type, where up to 3 types can be specified. Valid types are: i2002 - i2002 sets i2004 - i2004 sets i2050 - i2050 sets ISET - all IP sets VGW - Voice gateway resources IPTI- Virtual trunk and ITG trunks
STIP ZONE <zone>	Displays the rlm information for the specified zone number / range of zones. Where: the zone is any valid zone number (0 - 255) in the system.

This feature introduces new commands for supporting Graceful Disable CLI commands.

Graceful Disable services

Command	Description
disGK	The local Gatekeeper is gracefully put out of service, and the alternative Gatekeeper (if available) is put in service
disServices	The server gracefully switches registered resources to other services in the same node
disTPS	The TPS gracefully switches the registered line TPS and TN to other cards in the same node
disVTRK	The VTRK gracefully switches the registered virtual trunks to another SIgnaling Server in the same node

Force Disable services

Command	Description
forcedisGK	The local gatekeeper is forced out of service
forcedisServices	The server is forced to switch registered resources to other services in the same node
forcedisTPS	The registered line TPS and TN are forced to unregister from the local server
forcedisVTRK	The registered virtual trunks are forced to unregister from the local server

EnableServices

Command	Description
enlGK	The local gatekeeper is forced into service
enlServices	The services are forced to accept registration of resources
enlTPS	The TPS application is enabled and forced to accept set registrations
enlVTRK	The signaling server is forced to accept virtual trunk registrations

Load Balance CLI

Command	Description
loadBalance	The service will attempt to balance the load of sets between itself and other node components

Status CLI

Command	Description
servicesStatusShow	The services (iset/vtrk/gk) display their status

Online Help has been improved for configuring the Call Server, Media Gateways, Branch Office Gateways, Signaling Server, and IP Line 3.1 / Voice Gateway Media Cards.

System Status

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This section contains information on the following topics:

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Introduction

System Status provides access to diagnostic tools that enable you to issue a variety of commands to the components of the Succession 1000 system.

The following buttons are found on some or all of the System Status screens:

- **Submit** — Transmits changes to the Call Server.
- **Refresh**— Refreshes data from the Call Server. Refresh will overwrite any changes that you have not yet submitted.
- **Cancel** — Discards the changes and returns to the appropriate configuration page.

  Note: All screen captures in this chapter are applicable to Succession 1000 and Succession 1000M systems, unless otherwise indicated.

The diagnostic tools and system status information available through this branch of the navigation tree are divided into two major categories: Call Server and IP Telephony.

Call Server

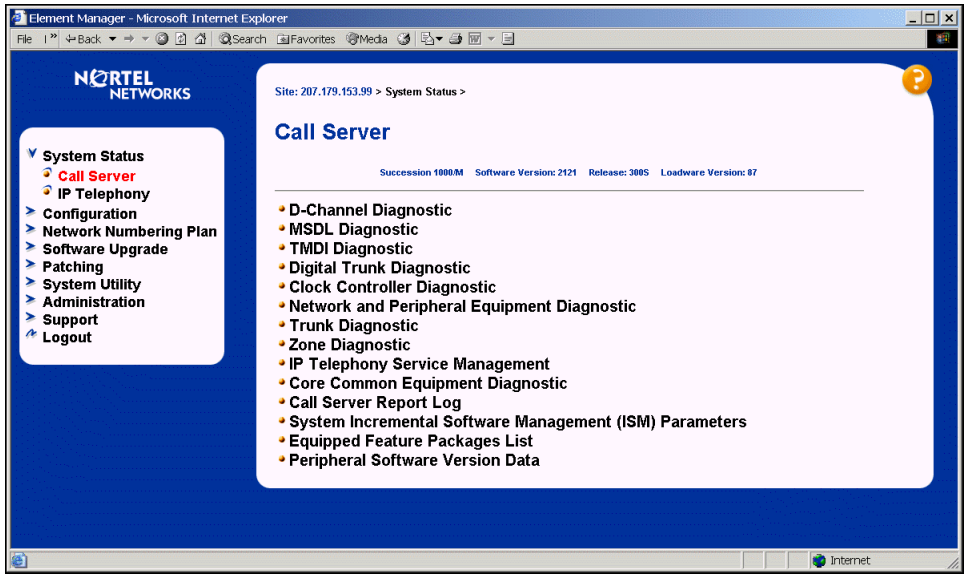
When you click the **Call Server** link in the **System Status** branch of the navigation tree (Figure 1 on page 33), you are presented with the following list of diagnostic tools:

- D-channel Diagnostic
- MSDL Diagnostic
- TMDI Diagnostic
- Digital Trunk Diagnostic
- Clock Controller Diagnostic
- Network and Peripheral Equipment Diagnostic
- Trunk Diagnostic
- Zone Diagnostic
- IP Telephony Service Management

- Core Common Equipment Diagnostic
- Call Server Report Log
- System Incremental Software Management (ISM) Parameters
- Equipped Feature Packages List
- Peripheral Software Version Data

The following sections provide information on each of these diagnostic tools.

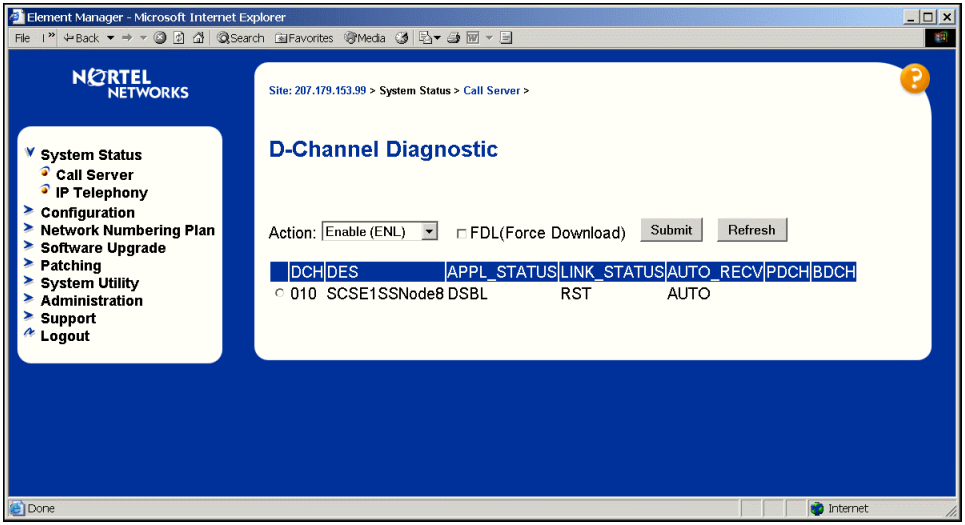
Figure 1
Call Server diagnostic tools



D-channel Diagnostic

When you click the **D-channel Diagnostic** link in the list of **Call Server** diagnostic tools, the D-channel Diagnostic page opens as shown in Figure 2 on page 34.

Figure 2
D-channel Diagnostic page



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

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

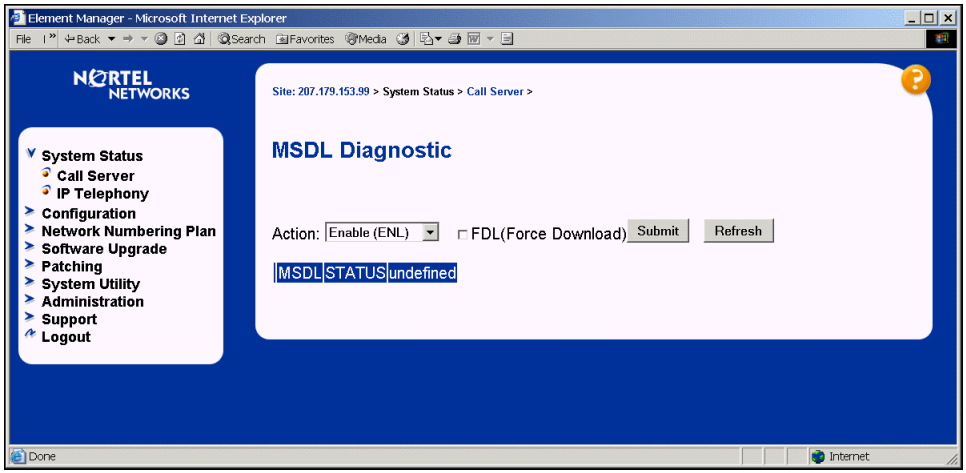
To perform diagnostic activities using this page:

1. Use the radio buttons to select a D-channel.
2. Select an Action from the drop-down list.
3. If you want to update the loadware, click the FDL (Force Download) check box.
4. Click **Submit**.

MSDL Diagnostic

When you click the **MSDL Diagnostic** link in the list of **Call Server** diagnostic tools, the MSDL Diagnostic page opens as shown in Figure 3.

Figure 3
MSDL Diagnostic page



This page is used to test and maintain Multipurpose Serial Data Link (MSDL) cards. The commands available from this page correspond to the MSDL data traditionally configured using overlays:

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

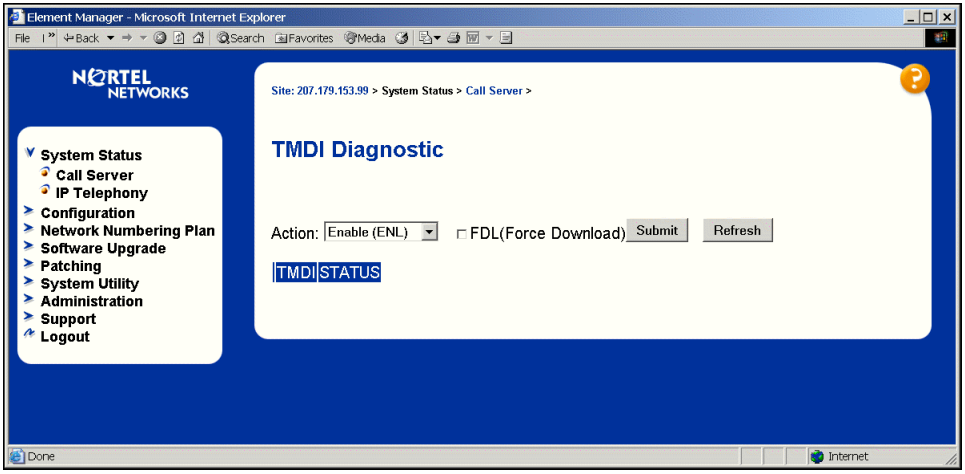
To perform diagnostic activities using this page:

1. Use the radio buttons to select an MSDL device.
2. Select an Action from the drop-down list.
3. If you want to update the loadware, click the FDL (Force Download) check box.
4. Click **Submit**.

TMDI Diagnostic

TMDI cards are used only in Succession 1000M Small Systems. When you click the **TMDI Diagnostic** link in the list of **Call Server** diagnostic tools, the TMDI Diagnostic page opens as in Figure 4.

Figure 4
TMDI Diagnostic page



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

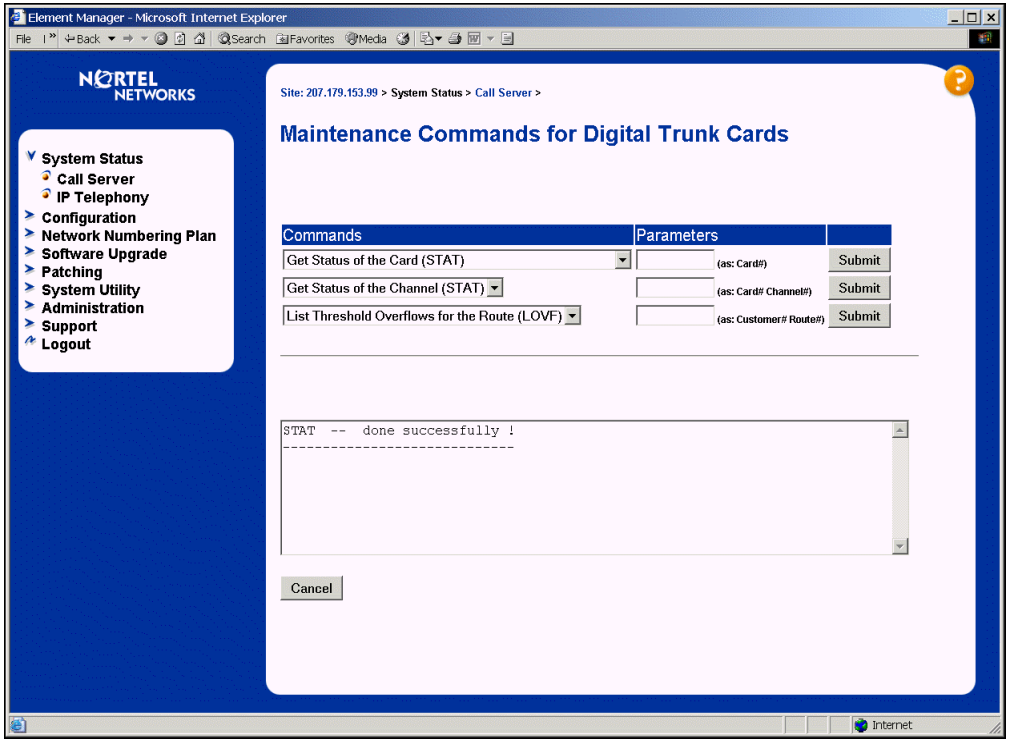
To perform diagnostic activities using this page:

1. Use the radio buttons to select a TMDI card.
2. Select an Action from the drop-down list.
3. If you want to update the loadware, click the FDL (Force Download) check box.
4. Click **Submit**.

Digital Trunk Diagnostic

When you click the **Digital Trunk Diagnostic** link in the list of **Call Server** diagnostic tools, the Maintenance Commands for the Digital Trunk Loops page opens as shown in Figure 5.

Figure 5
Maintenance Commands for Digital Trunk Loops page



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

Click the icon to the left of the Card Number label to view information about the corresponding Digital Trunk Card.

Using this page, you can issue maintenance commands on cards, channels, or routes using the appropriate command drop-down list and parameter text box.

To perform maintenance activities on a Digital Trunk Card using this page:

1. Select a command from the top Commands drop-down list.
2. Enter the Card number in the top Parameters text box.
3. Click the top **Submit** button.

To perform maintenance activities on a Channel belonging to a Digital Trunk Card using this page:

1. Select a command from the middle Commands drop-down list.
2. Enter the Card number and the Channel number, separated by a space, in the middle Parameters text box.
3. Click the middle **Submit** button.

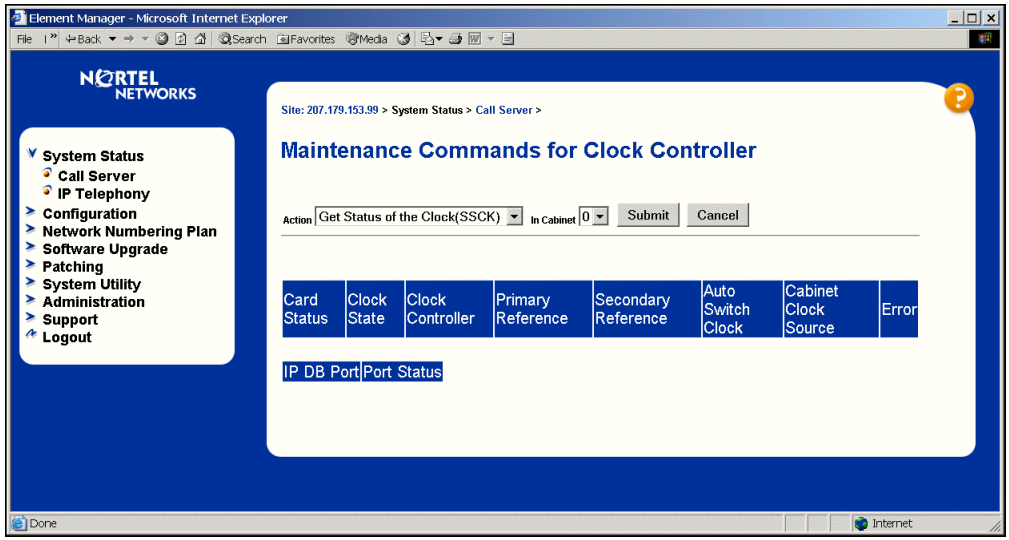
To perform maintenance activities on a Digital Trunk Route using this page:

1. Select a command from the bottom Commands drop-down list.
2. Enter the Customer number and the Route number, separated by a space, in the bottom Parameters text box.
3. Click the bottom **Submit** button.

Clock Controller Diagnostic

When you click the **Clock Controller Diagnostic** link in the list of **Call Server** diagnostic tools, the Maintenance Commands for the Clock Controller page opens as shown in Figure 6 on page 39.

Figure 6
Maintenance Commands for Clock Controller page



This page is used to maintain the Clock Controller. The commands available from this page correspond to the Clock Controller data traditionally maintained using the Digital Trunk Interface and Primary Rate Interface Diagnostic overlay, LD 60.

This page shows the status of the Clock Controller card. If using a small system, the status of the IP daughter board ports is shown.

To perform maintenance activities on a small system using this page:

1 Select a command from the Action drop-down list.

2 Select a Cabinet number from the Cabinet drop-down list.

3 Click **Submit**.

To perform maintenance activities on a large system using this page:

1 Select a command from the Action drop-down list.

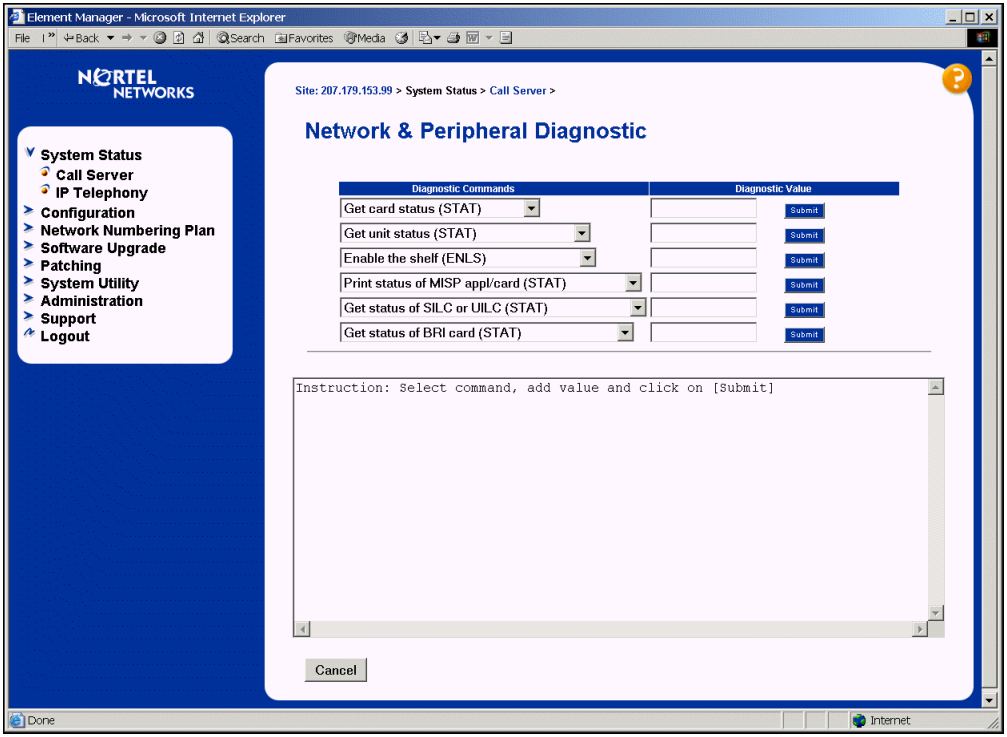
2 Select the Core number (Core 0 or Core 1) from the drop-down list.

3 Click **Submit**.

Network and Peripheral Equipment Diagnostic

When you click the **Network and Peripheral Equipment Diagnostic** link in the list of **Call Server** diagnostic tools, the Network & Peripheral Diagnostic page opens as shown in Figure 7.

Figure 7
Network & Peripheral Diagnostic page



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

These commands are split between six separate drop-down lists, grouped by equipment type:

- Basic card commands
- Basic unit commands
- Basic shelf commands
- ISDN BRI Multi-purpose ISDN Signaling Processor (MISP) commands
- ISDN BRI S/T-Interface and U-Interface Line Card (SILC/UILC) commands
- ISDN BRI Basic Rate Signaling Concentrator (BRSC) commands

Using this page, you can issue diagnostic commands on the network and peripheral equipment by using the appropriate Diagnostic Commands drop-down list and the corresponding Diagnostic Value text box.

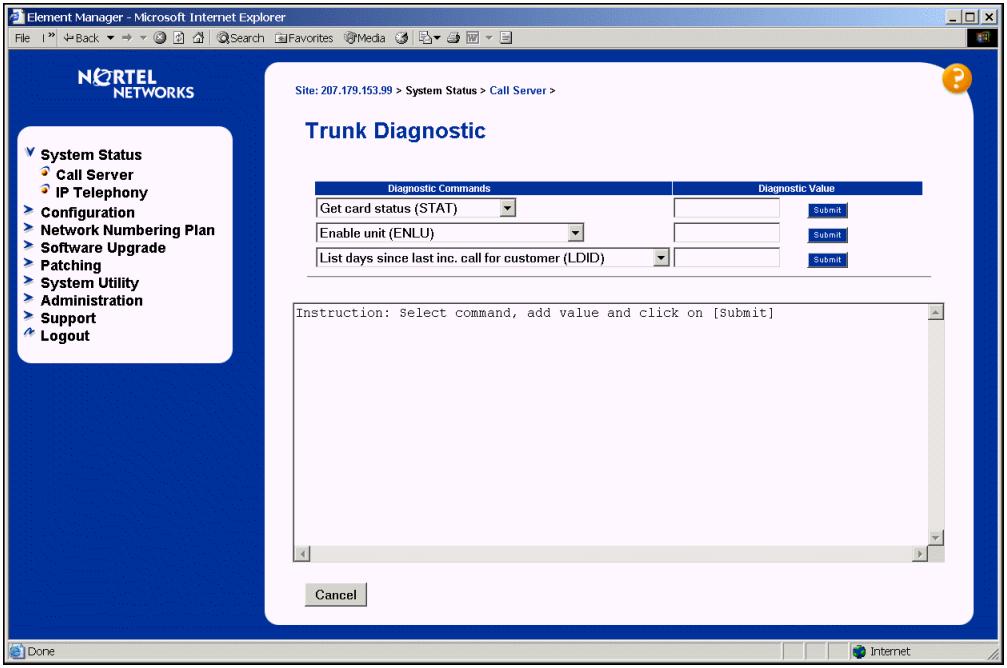
To perform maintenance activities using this page:

1. Select a command from one of the six Diagnostic Commands drop-down lists.
2. Enter the appropriate value in the corresponding Diagnostic Value text box.
3. Click the corresponding **Submit** button.

Trunk Diagnostic

When you click the **Trunk Diagnostic** link in the list of **Call Server** diagnostic tools, the Trunk Diagnostic page opens as shown in Figure 8 on page 42.

Figure 8
Trunk Diagnostic page



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

These commands are split between three separate drop-down lists according to the entity being acted upon:

- Card commands
- Unit commands
- Customer commands

Using this page, you can issue diagnostic commands on the trunks by using the appropriate Diagnostic Commands drop-down list and the corresponding Diagnostic Value text box.

To perform maintenance activities using this page:

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

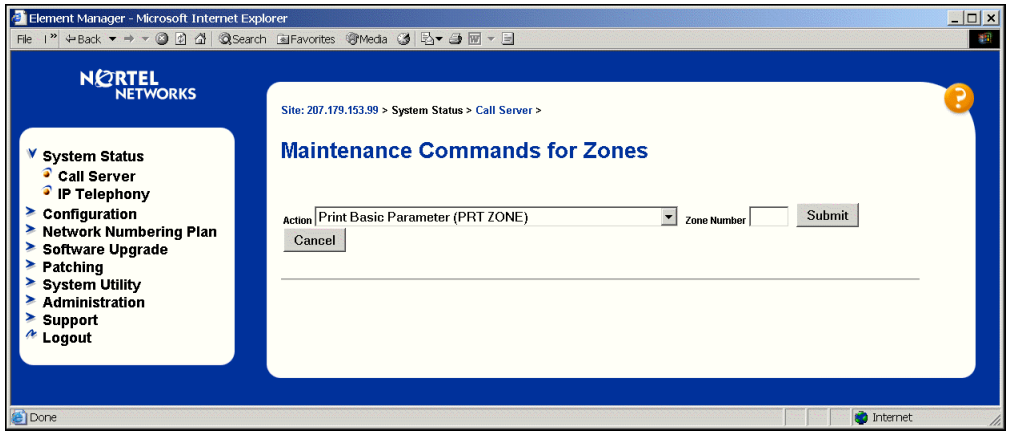
2 Enter the appropriate value in the corresponding Diagnostic Value text box.

3 Click the corresponding **Submit** button.

Zone Diagnostic

When you click the **Zone Diagnostic** link in the list of **Call Server** diagnostic tools, the Maintenance Commands for Zones page opens as shown in Figure 9.

Figure 9
Maintenance Commands for Zones page



This 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 page correspond to the data traditionally maintained using the Ethernet and Alarm Management overlay, LD 117.

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

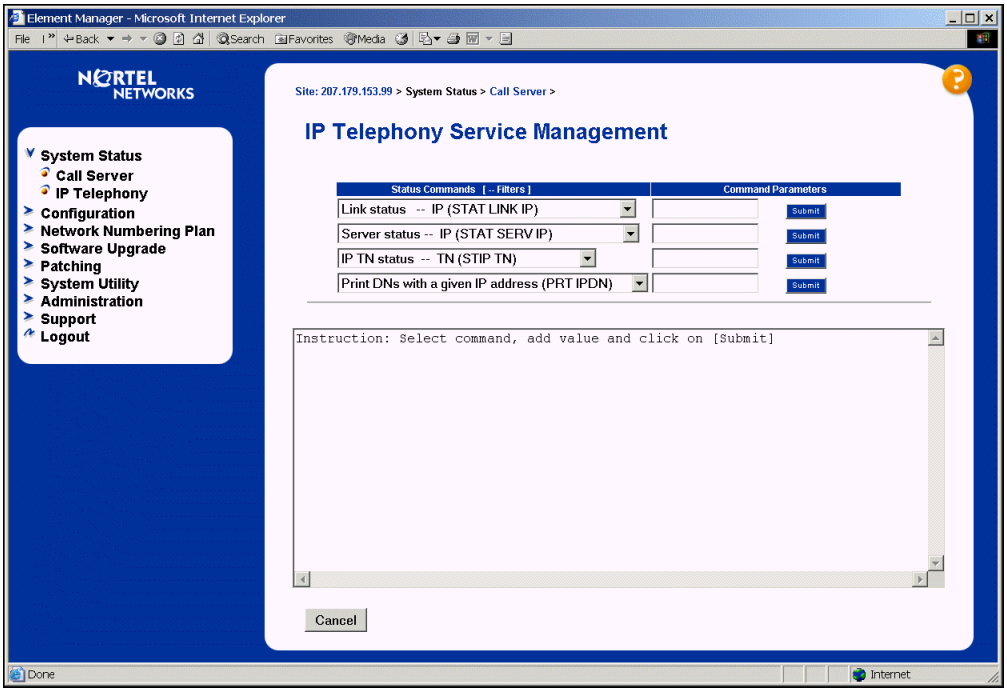
To perform maintenance activities using this page:

1. Select a command from the Action drop-down list.
2. Enter the Zone Number assigned to a configured zone in the Zone Number text box.
3. Click **Submit**.

IP Telephony Service Management

When you click the **IP Telephony Service Management** link in the list of **Call Server** diagnostic tools, the IP Telephony Service Management page opens as shown in Figure 10.

Figure 10
IP Telephony Service Management page



This page is used to maintain IP Telephony Service Management elements. The commands available from this page correspond to the data traditionally maintained using the Ethernet and Alarm Management overlay, LD 117.

These commands are split between four separate drop-down lists according to the element to which they apply:

- Link Status commands, including:
  - STAT LINK IP
  - STAT LINK SRV
  - STAT LINK NAME
  - STAT LINK NODE
- Server Status commands, including:
  - STAT SERV IP
  - STAT SERV TYPE
  - STAT SERV APP
  - STAT SERV NAME
  - STAT SERV NODE
- IP TN Status
  - STIP TN
  - STIP TYPE
  - STIP ZONE
  - STIP NODE
  - STIP HOSTIP
  - STIP TERMIP
- Print DNs or IP addresses
  - Print DNs with a given IP address
  - Print IP addresses with a given DN

Using this page, you can issue commands on elements by using the appropriate Status Commands drop-down list and the corresponding Command Parameters text box.

To perform maintenance activities using this page:

1. Select a command from one of the four Status Commands drop-down lists.
2. Enter the appropriate value in the corresponding Command Parameters text box.
3. Click the corresponding **Submit** button.

Core Common Equipment Diagnostic

When you click the **Core Common Equipment Diagnostic** link in the list of **Call Server** diagnostic tools, the Core Common Equipment Diagnostic page opens as shown in Figure 11 on page 47.

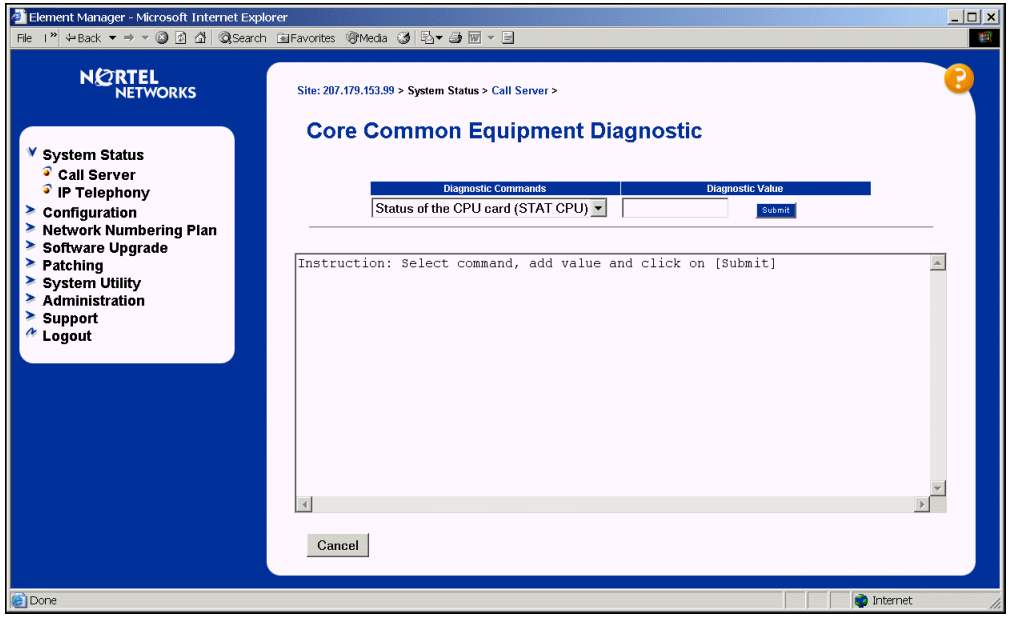
This page is used to maintain Core Common Equipment. The commands available from this page correspond to data traditionally maintained using the Core Common Equipment Diagnostic overlay, LD 135.

Using this page, you can issue status commands on Core Common Equipment by using the drop-down list and the corresponding Diagnostic Value text box.

To perform maintenance activities using this page:

1. Select a command from the Diagnostic Commands drop-down list.
2. Enter the appropriate value in the corresponding Diagnostic Value text box.
3. Click the **Submit** button.

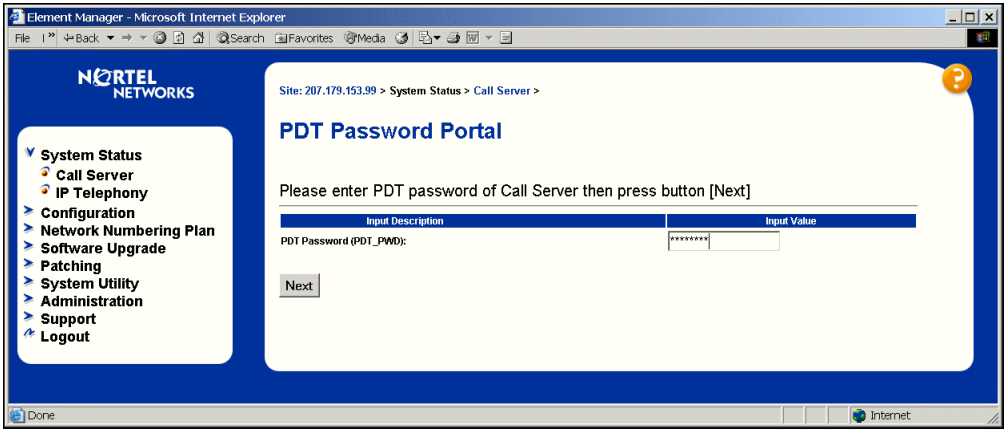
Figure 11
Core Common Equipment Diagnostic page



Call Server Report Log

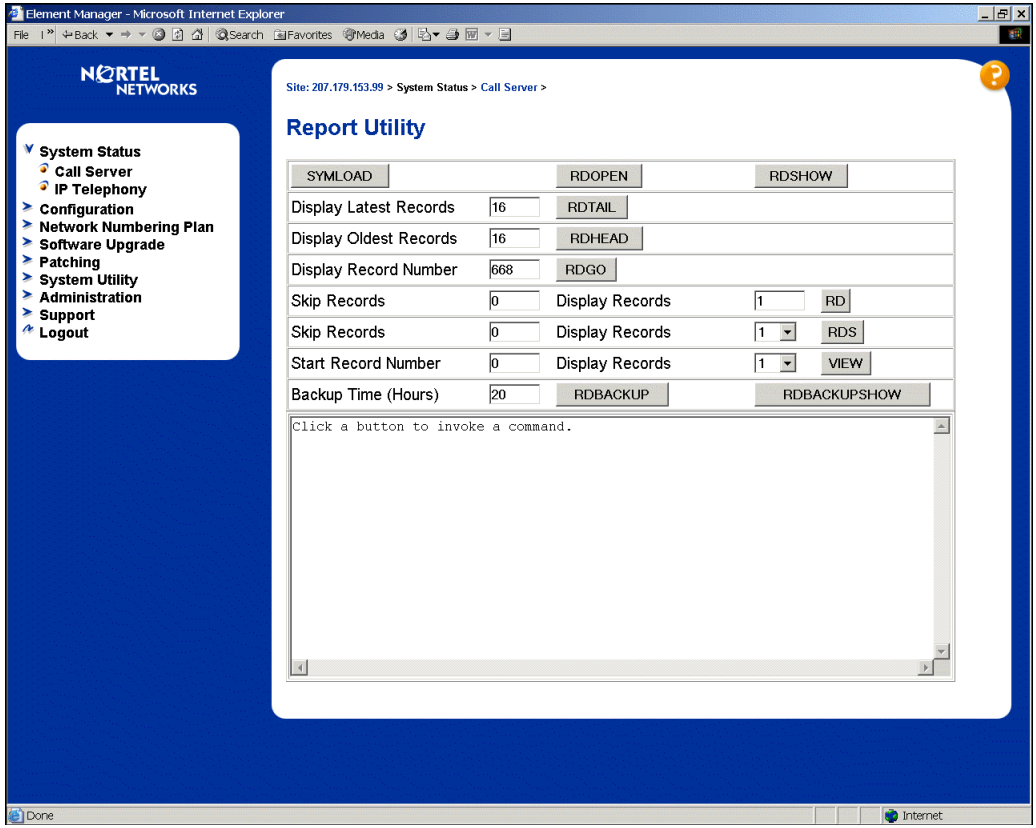
When you click the **Call Server Report Log** link in the list of **Call Server** diagnostic tools, if during the current session you have not previously entered the PDT password, the PDT Password Portal page opens as shown in Figure 12 on page 48.

Figure 12
PDT Password Portal page



Enter the PDT password and click the **Next** button. The Report Utility page opens as shown in Figure 13 on page 49.

Figure 13
Report Utility page



Using a combination of text boxes, drop-down lists, and buttons, you can view selected detail data on records in the *rpt.log* file.

The buttons on this page provide "one-click" access to the following functions:

- **SYMLOAD** — Loads Symbols.
- **RDOPEN** — Opens the report file *rpt.log*.
- **RDSHOW** — Shows details of the *rpt.log* file.

- **RDTAIL** — Shows *x* records up to the newest record in the *rpt.log* file (where *x* is the configured display size).
- **RDHEAD** — Shows *x* records starting from the oldest record in the *rpt.log* file (where *x* is the configured display size).
- **RDGO** — Displays the specified record.
- **RD** — To browse the report records. Enter the number of records to skip and the number of records to display.
- **RDS** — To browse the report records with (symbolic) memory dump. Enter the number of records to skip and the number of records to display.
- **VIEW** — Views selected records. Enter a starting record number and choose the number of records to view from the drop-down list. Negative numbers indicate records previous to the starting record.
- **RDBACKUP** —Displays the backup time interval for the report log.

  Note: Backup Time (Hours) shows the default setting. Click **RDBACKUP** to view the current setting**.**

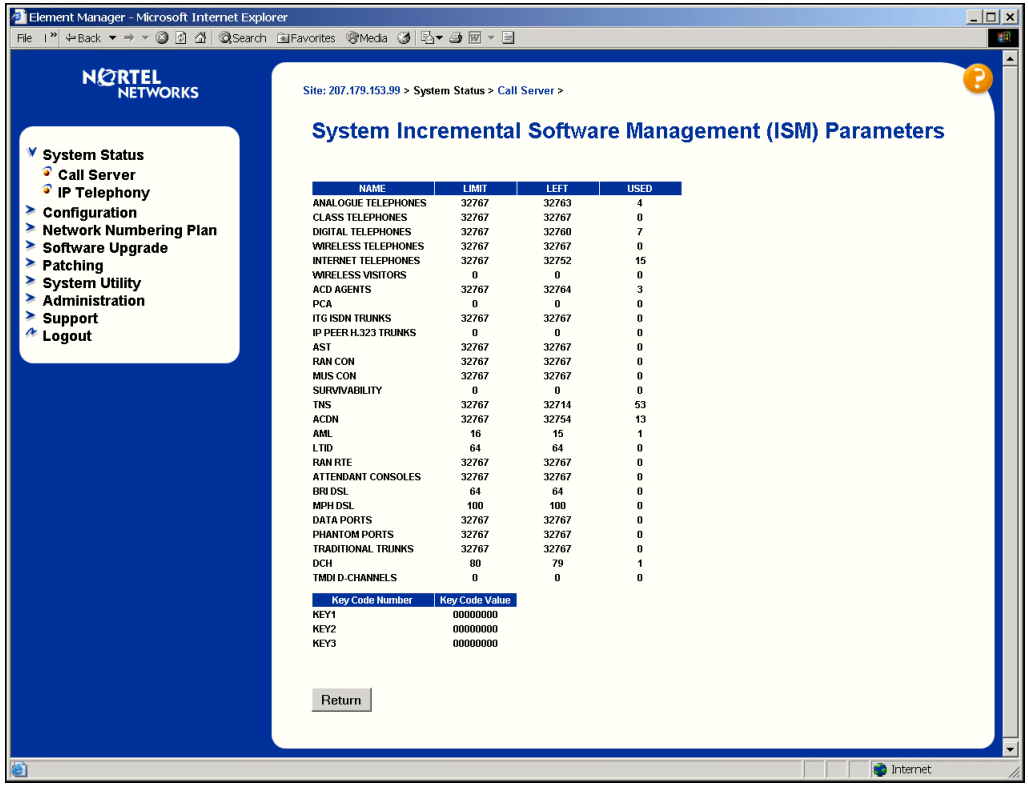
- **RDBACKUPSHOW** — Shows the last time the *rpt.log* file was saved.

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

System Incremental Software Management (ISM) Parameters

When you click the **System Incremental Software Management (ISM) Parameters** link in the list of **Call Server** diagnostic tools, the System ISM Parameters page opens as shown in Figure 14 on page 51.

Figure 14
System Incremental Software Management (ISM) Parameters page

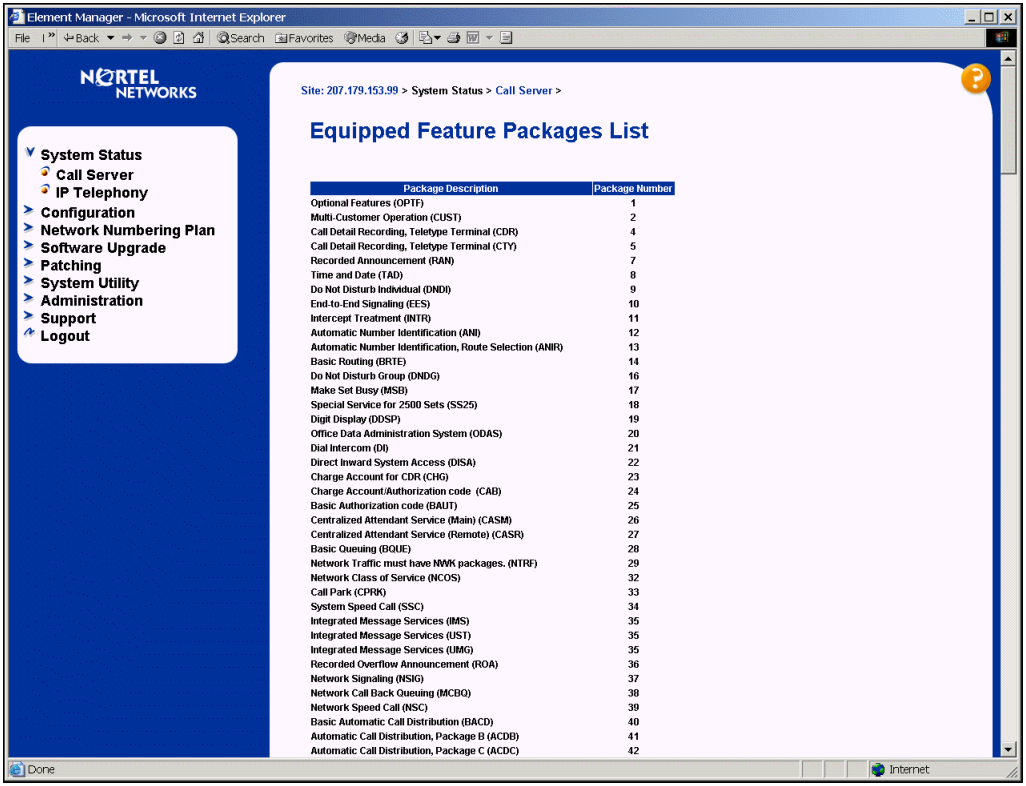


The System ISM Parameters page provides a list of Incremental Software Management (ISM) limits and Key Code values. This page lists the number of ISM units that are available and the number that have been used.

Equipped Feature Packages List

When you click the **Equipped Feature Packages List** link in the list of **Call Server** diagnostic tools, the Equipped Feature Packages List page opens as shown in Figure 15 on page 52.

Figure 15
Equipped Feature Packages List page

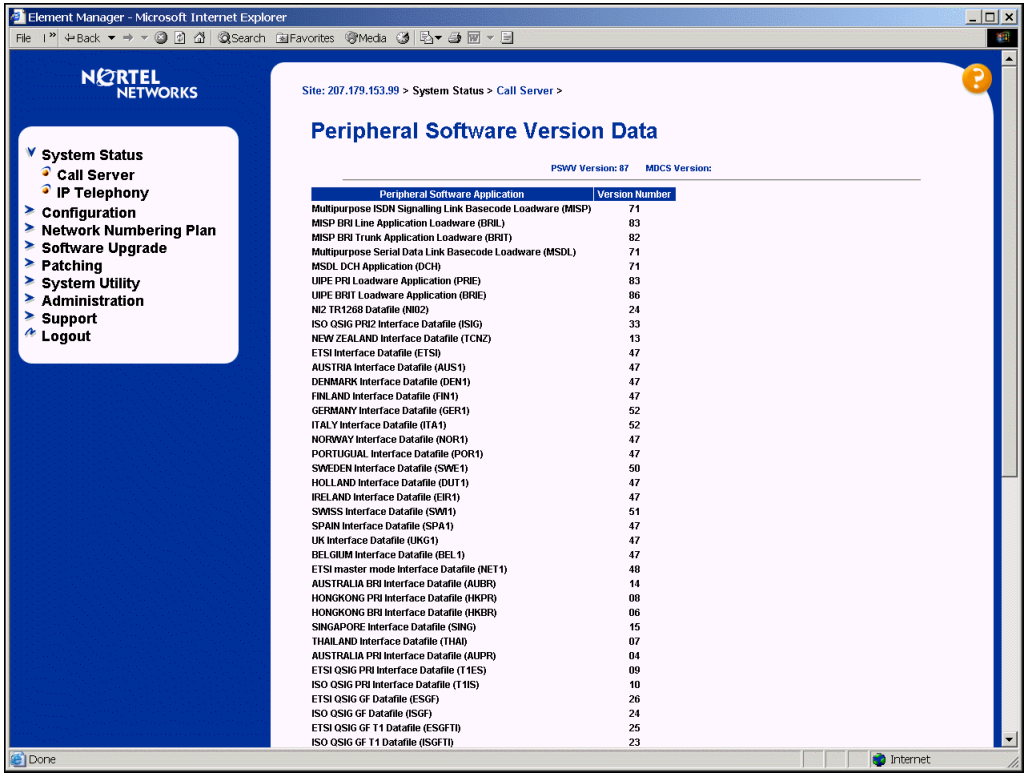


This page provides package descriptions and the corresponding package numbers for the equipped feature packages installed on the Call Server.

Peripheral Software Version Data

When you click the **Peripheral Software Version Data** link in the list of **Call Server** diagnostic tools, the Peripheral Software Version Data page opens as shown in Figure 16 on page 53.

Figure 16
Peripheral Software Version Data page



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

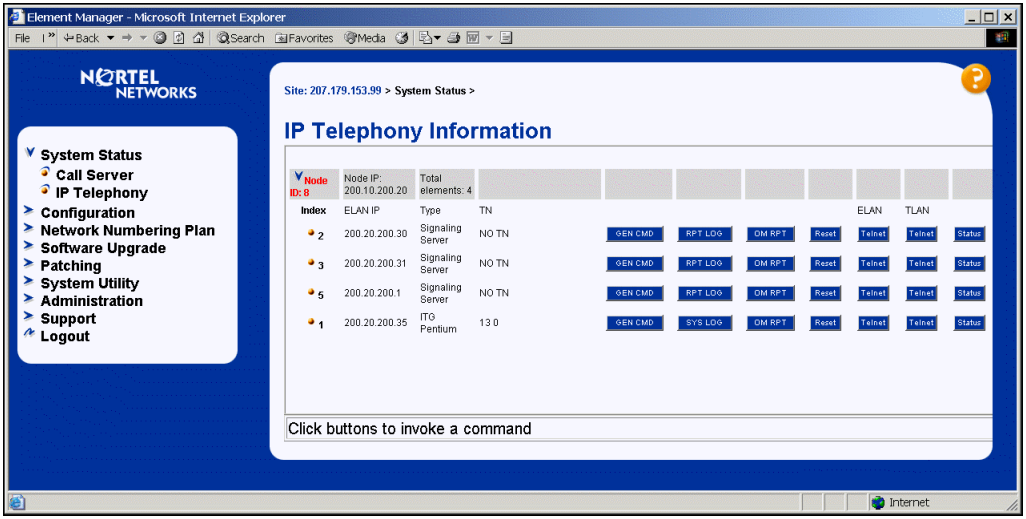
IP Telephony

When you click the **IP Telephony** link in the **System Status** Branch of the navigation tree, the IP Telephony Information page opens (Figure 17).

This page contains information on configured Signaling Servers and ITG cards and is arranged by node. Click on the icon beside the Node ID number to view the elements assigned to the node.

For more information on IP Telephony, see *IP Line: Description, Installation, and Operation* (553-3001-365) and *IP Peer Networking* (553-3001-213).

Figure 17
IP Telephony Information page



There are seven buttons located to the right of the TN column for each IP telephony element:

- **GEN CMD** — Launches the General Commands page.
- **RPT LOG** — Launches the Report Utility page (for Signaling Servers).
- **SYS LOG** — Launches the Syslog page (for ITG Line Cards).
- **OM RPT** — Launches the OM Report page.

- **Reset** — Resets the element.

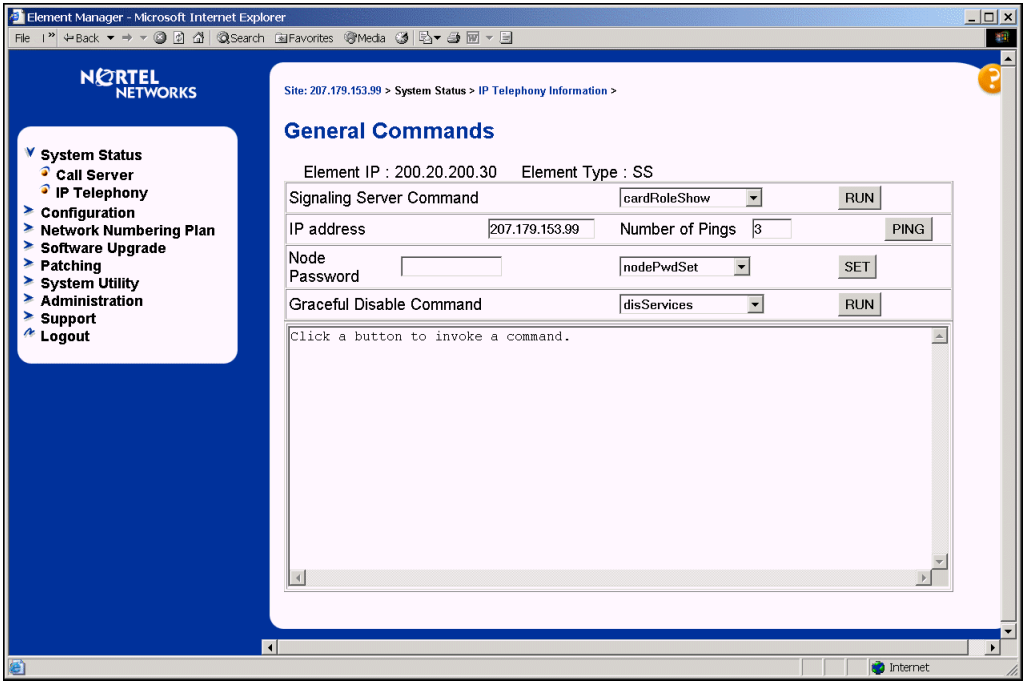
  Note: When you reset the Signaling Server on which the web server is located, you must wait approximately five minutes and then log in again.

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

General Commands

When you click the **GEN CMD** button, located beside the information for an IP telephony element, the General Commands page for that element opens. See Figure 18 on page 56.

Figure 18
IP Telephony Information > General Commands page



From this page, you can issue diagnostic commands to the selected element.

To issue an IP Line application command:

1 Select a command from the drop-down list.

2 Click **Run**.

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

Commands related to the node password are

- nodePwdSet — sets the node password
- nodeTempPwdSet — sets the temporary node password

To set the node password:

1. 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 *.

2. Select nodePwdSet from the drop-down list.
3. Click **Set**.

   If a non-zero length password is configured, all Internet Telephones that attempt to register after the password is set will display a prompt requesting the node password before allowing the TN to be modified.

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:

1. 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 *.

2. Enter the number of times that you want to allow the temporary password to be used in the Uses text box (maximum is 1000 times).
3. Enter the duration, in hours, for the temporary password in the Time-out text box (maximum is 240 hours).
4. Select nodeTempPwdSet from the drop-down list.
5. Click **Set**.

From the General Commands page, you can ping any IP address from this element. The default IP address is the address of the Call Server.

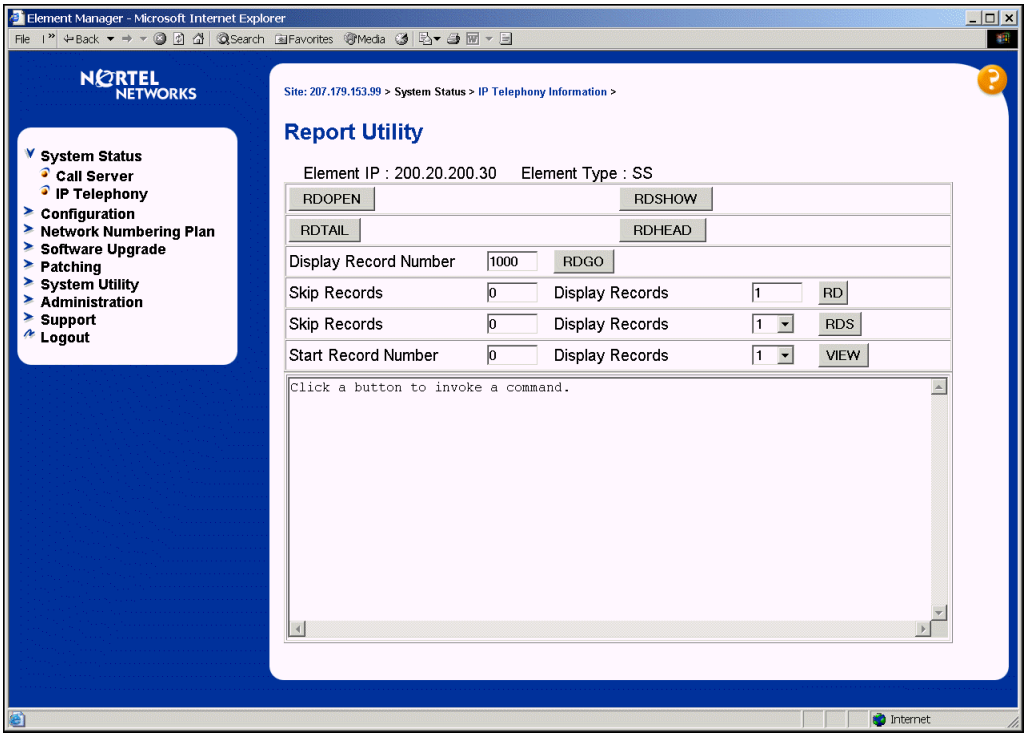
To ping an IP address:

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

Report Log

When you click the **RPT LOG** button, located beside the information for the Signaling Server, the Report Utility page for the Signaling Server opens (Figure 19).

Figure 19
IP Telephony Information > Report Utility page



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

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

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

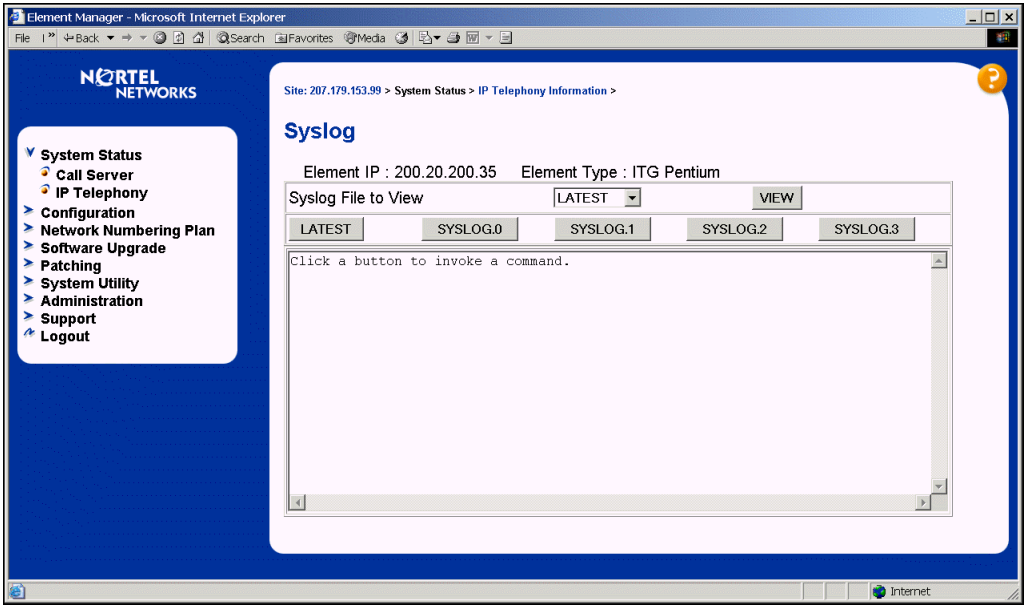
- **RDGO** — Displays the record specified in the adjacent text box (where -1 is the oldest record, 1000 is the most recent).
- **RD** — To browse the report records. Enter the number of records to skip and the number of records to display in the adjacent text boxes.
- **RDS** — To browse the report records with (symbolic) memory dump. Enter the number of records to skip, and select the number of records to display using the adjacent text box and drop-down list.
- **VIEW** — Views selected records. Enter a starting record number and select the number of records to view using the adjacent text box and drop-down list. Negative numbers indicate records previous to the starting record.

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

Syslog

When you click the **SYS LOG** button, which is located beside the information for an ITG Line Card, the Syslog page for the ITG Line Card opens (Figure 20 on page 60).

Figure 20
IP Telephony Information > Syslog page



To view a Syslog file:

1 Select a file using the Syslog File to View drop-down list.

2 Click **VIEW**.

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

- **LATEST** — Displays the latest syslog file.
- **SYSLOG.0** — Displays the file /C:/log/syslog.0 located on the Media Card.
- **SYSLOG.1** — Displays the file /C:/log/syslog.1 located on the Media Card.

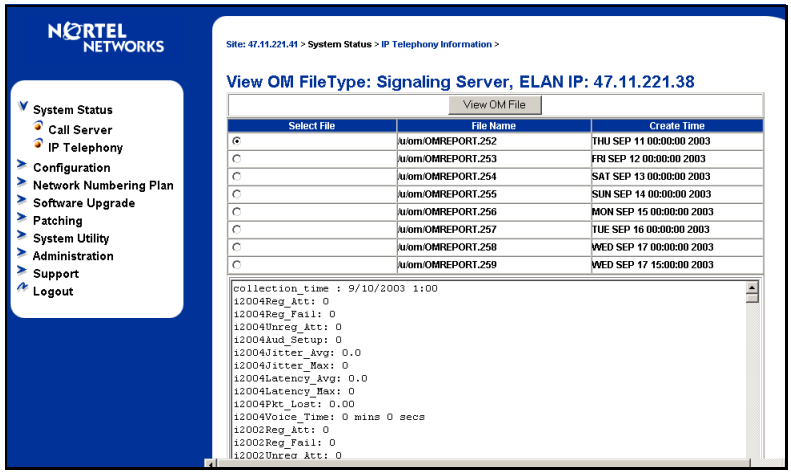
- **SYSLOG.2** — Displays the file /C:/log/syslog.2 located on the Media Card.
- **SYSLOG.3** — Displays the file /C:/log/syslog.3 located on the Media Card.

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

Operational Measurement Reports

When you click the **OM** (Operational Measurement) **RPT** button, which is located beside information for an IP telephony element, the OM Reports page for that element opens (Figure 21).

Figure 21
IP Telephony Information > OM Reports page



To view an OM Report file:

1. In the Select File column, click the radio button beside the OM Report that you want to view.

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

2. Click **View OM File**.

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

Configuration

Contents

This section contains information on the following topics:

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- Night service options configuration 71
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Trunk Properties 80

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D-channel 85

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Zone 103

Introduction

The Configuration branch of the navigation tree is used to launch web pages that allow you to configure and edit data that relate to customers and their equipment. 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 will overwrite any changes that you have not yet submitted.
- **Delete** — Deletes the item that you are editing or configuring.
- **Cancel** — Discards the changes and returns to the appropriate configuration page.

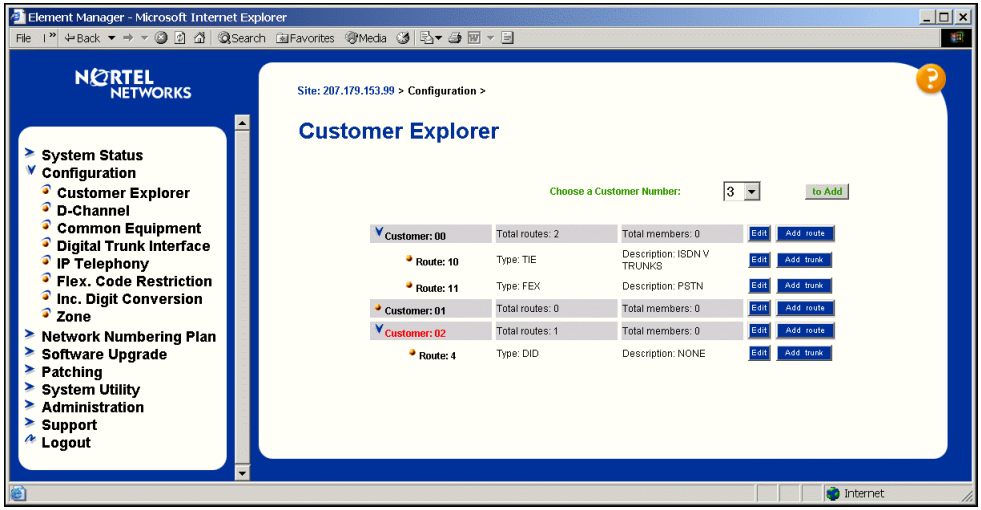
The configuration of route and trunk data blocks is context-sensitive. Logical conditions are applied to each parameter associated with these data blocks to determine whether the parameter should display in the web browser for a particular configuration. The conditions are executed every time an administrator makes a selection on a parameter. The browser only displays parameters that meet the conditions for the selected configuration.

Element Manager's Customer Explorer offers a more logical grouping of parameters than the current overlays. For example, when configuring a route data block, all parameters requiring mandatory inputs are grouped under the heading Basic Configuration. As an administrator starts making selections in the mandatory fields, additional parameters appear in the browser. Additional route data block parameters are grouped under the headings Basic Route Options, Network Options, General Options, and Advanced Configurations. See Figure 31 on page 74.

Customer Explorer

To configure or edit customer information, click the **Customer Explorer** link under **Configuration** in the Navigation tree. The Customer Explorer configuration Web page opens (Figure 22).

Figure 22
Customer Explorer configuration page



From this page you can view information on existing customers, routes, and trunks.

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

- Add a new customer
- Edit customer data
- Add a new route
- Edit route data
- Add a new trunk

- Edit trunk data
- Delete multiple trunks

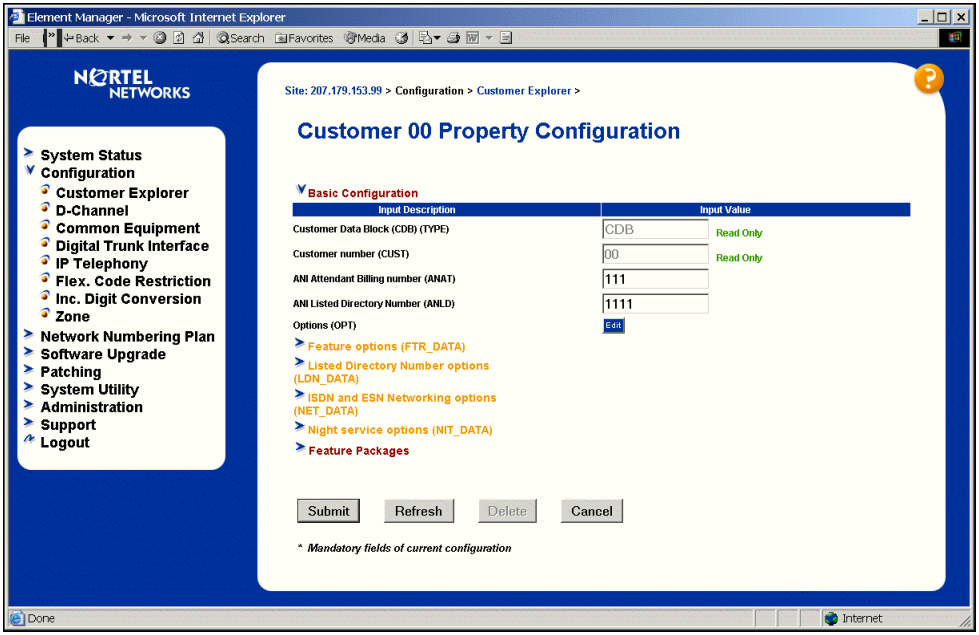
To add a new customer, select a number from the Choose a Customer Number drop-down list and click **to Add**. To edit customer, route, or trunk data, or to add new routes or trunks, click on the appropriate link.

Customer Properties

When you click the **Edit** button beside a Customer row in Figure 22 on page 65, the Customer Property Configuration page for that customer opens (Figure 23).

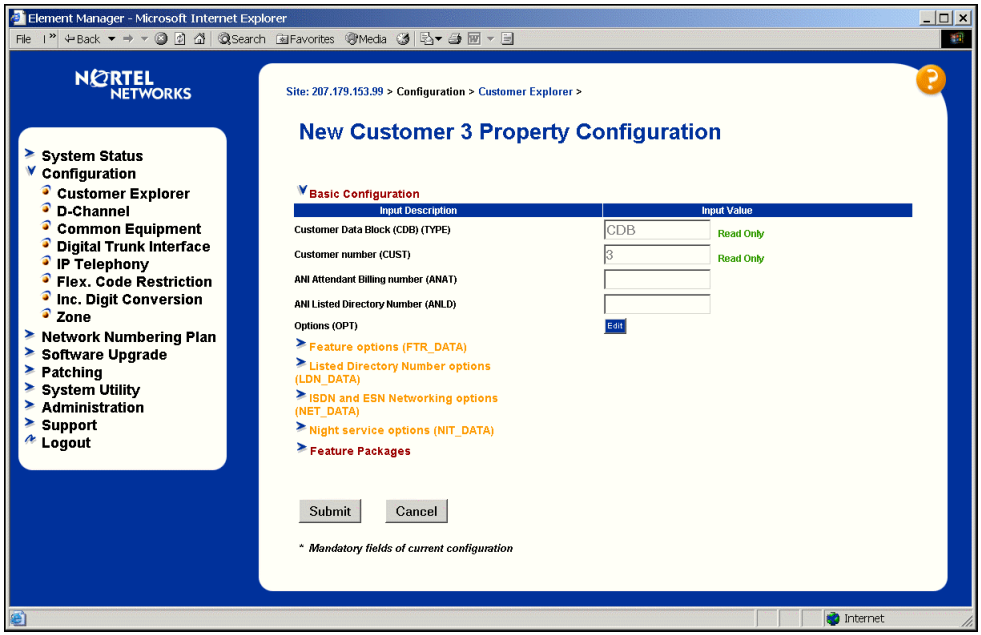
The information entered in the Basic Configuration section of this page corresponds to Default Customer Data Block information traditionally configured using the Customer Data Block overlay (LD 15).

Figure 23
Customer Property Configuration page



When you click the **to Add** button beside a Customer row in Figure 22 on page 65, the New Customer Property Configuration page for that customer opens (Figure 24).

Figure 24
New Customer Property Configuration page



In the Basic Configuration section of these web pages, you can do the following:

- Configure the Automatic Number Identification (ANI) billing number for attendants making ANI calls (ANAT).
- Configure the ANI Listed Directory Number (ANLD).
- Click the **Edit** button beside Options (OPT) to edit available options.

To save changes made in these sections, click **Submit** at the bottom of the page.

Feature options configuration

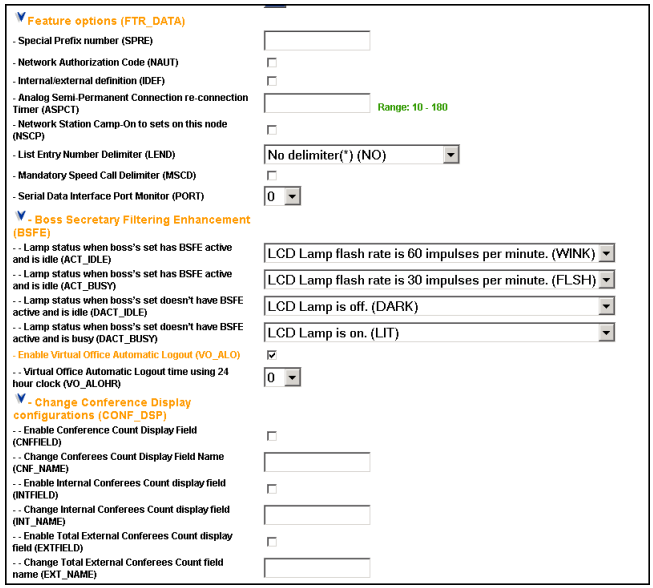
When you click the icon located to the left of the Feature options (FTR_DATA) heading, the section expands to show parameters associated with Feature options (Figure 25).

The information entered in the feature options section of the Customer Property Configuration page corresponds to FTR (Features and options) data traditionally configured using the Customer Data Block overlay (LD 15).

This section of the web page also includes sub-sections that allow you to configure:

- Boss Secretary Filtering Enhancement (BSFE)
- Virtual Office Automatic Logout (VO_ALO)
- Conference Display (CONF_DSP)

Figure 25
Feature options (FTR_DATA) configuration

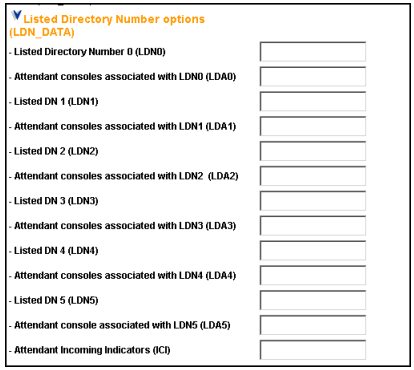


To save changes made in this section, click **Submit** at the bottom of the page.

Listed Directory Number options configuration

When you click the icon located to the left of the “Listed Directory Number options (LDN_DATA)” heading in Figure 23 on page 66, this section expands to allow you to view and edit the parameters associated with LDN options (Figure 26).

Figure 26
Listed Directory Number options (LDN_DATA) configuration



The information entered in the Listed Directory Number options section of the Customer Property Configuration page corresponds to LDN (Listed Directory Number) data traditionally configured using the Customer Data Block overlay (LD 15).

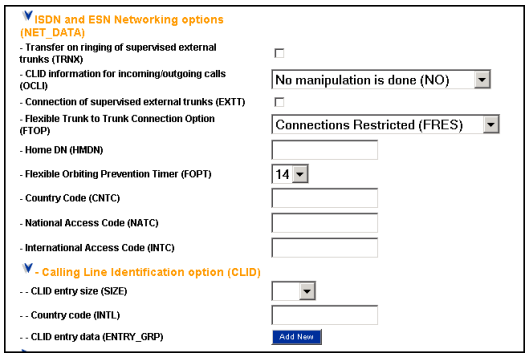
To save changes made in this section, click **Submit** at the bottom of the Customer Property Configuration web page.

ISDN and ESN Networking options configuration

When you click the icon located to the left of the "ISDN and ESN Networking options (NET_DATA)" heading in Figure 23 on page 66, this section expands so you can view and edit parameters associated with networking options (Figure 27), including the Calling Line Identification (CLID) parameters.

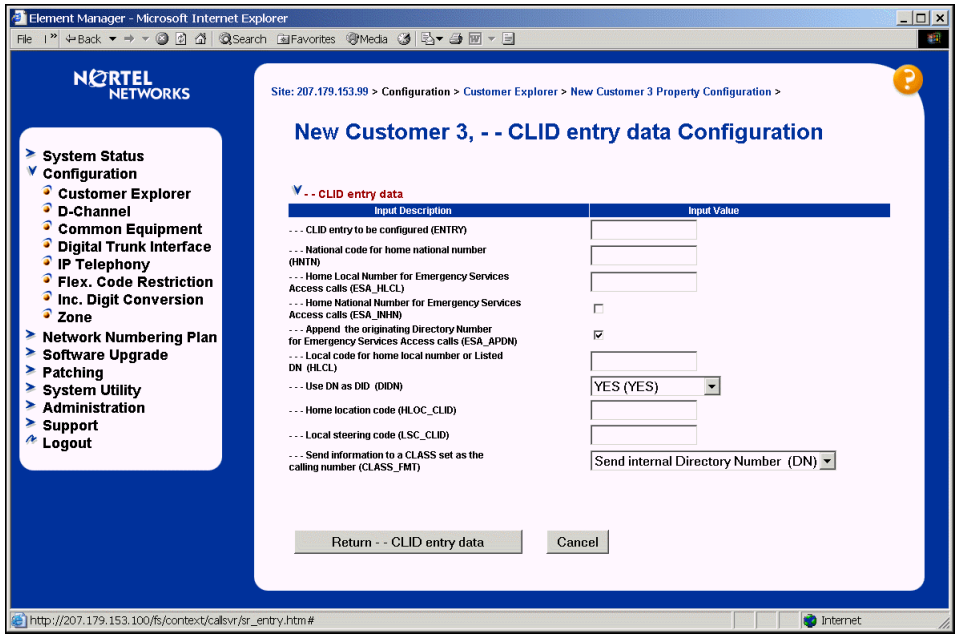
The information entered in the ISDN and Networking options section of the Customer Property Configuration page corresponds to NET (Networking) data traditionally configured using the Customer Data Block overlay (LD 15).

Figure 27
ISDN and ESN Networking options (NET_DATA) configuration



When you click on the **Add New** button in the CLID section, the New Calling Line Identification option page opens (Figure 28 on page 71).

Figure 28
New Calling Line Identification option page

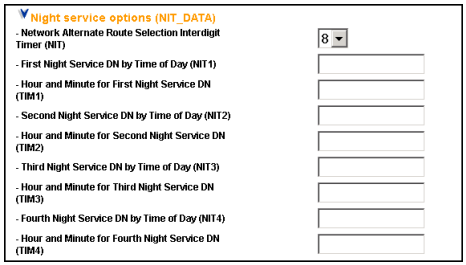


Clicking on the **Return - - CLID entry data** button will save your changes and return you to the CLID entry page.

Night service options configuration

When you click the icon located to the left of the “Night service options (NIT_DATA)” heading in Figure 23 on page 66, this section expands so you can view and edit parameters associated with night service feature (Figure 29 on page 72).

Figure 29
Night service options (NIT_DATA) configuration



The information entered in the Night Service options section of the Customer Property Configuration page corresponds to NIT (Night Service) data traditionally configured using the Customer Data Block overlay (LD 15).

To save changes made in this section, click **Submit** at the bottom of the Customer Property Configuration web page.

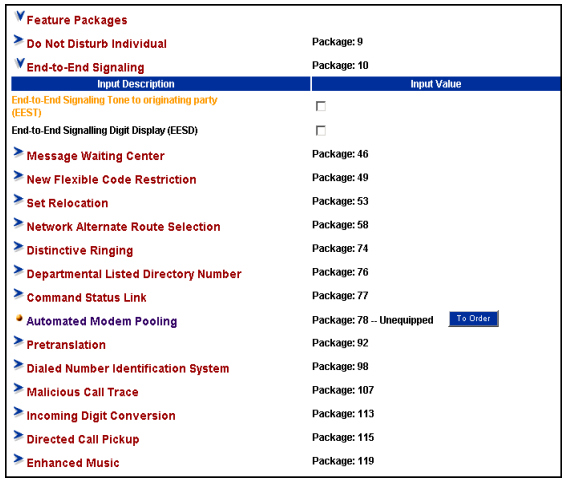
Feature Packages

When you click the icon located to the left of the "Feature Packages" heading in Figure 23 on page 66, this section expands so you can view software feature packages (Figure 30 on page 73).

> ***Note:*** You can only view and edit the parameters of feature packages that have been enabled on your Succession 1000 or Succession 1000M system. Feature packages cannot be removed or added from Element Manager.

Click the icon 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.

Figure 30
Feature Packages



To save changes made in this section, click **Submit** at the bottom of the Customer Property Configuration web page.

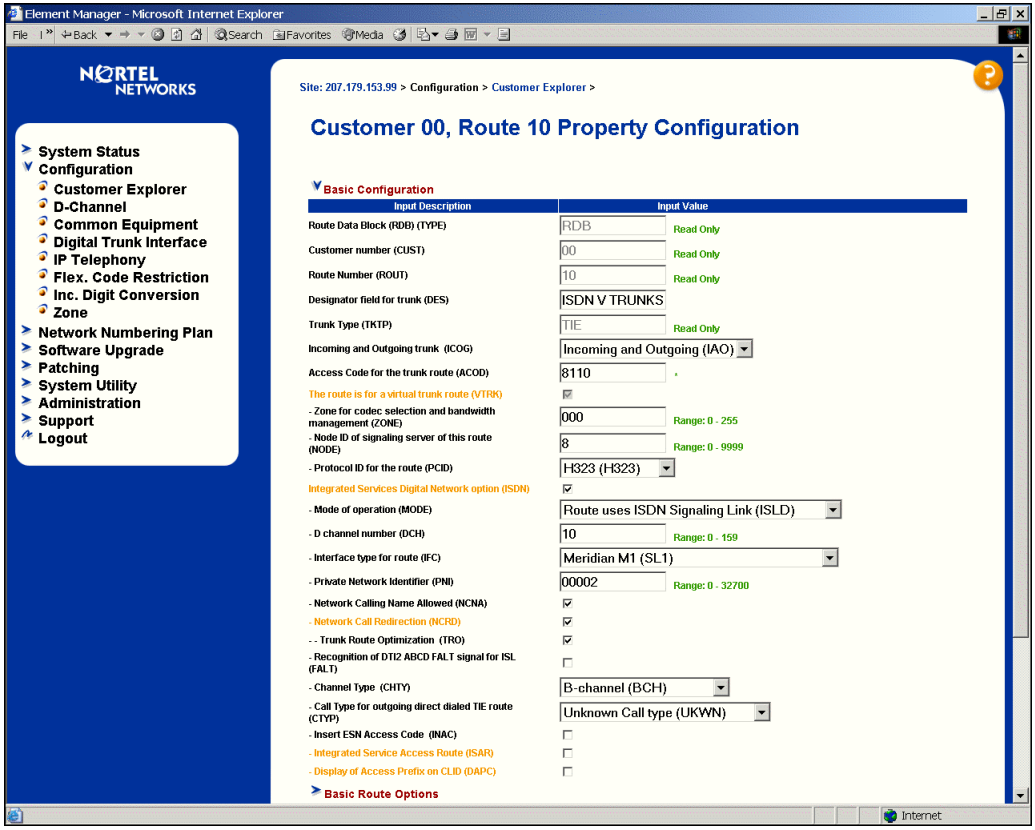
Route Properties

When you click the **Edit** button beside a Route row (as shown in Figure 22 on page 65), the Route Property Configuration page for the selected customer and route opens (Figure 31 on page 74).

The information entered in the Basic Configuration section of this page corresponds to Route Data Block information traditionally configured using the Route Data Block overlay (LD 16).

For information on configuring routes, see *IP Peer Networking* (553-3001-213).

Figure 31
Route Property Configuration page



Basic Configuration

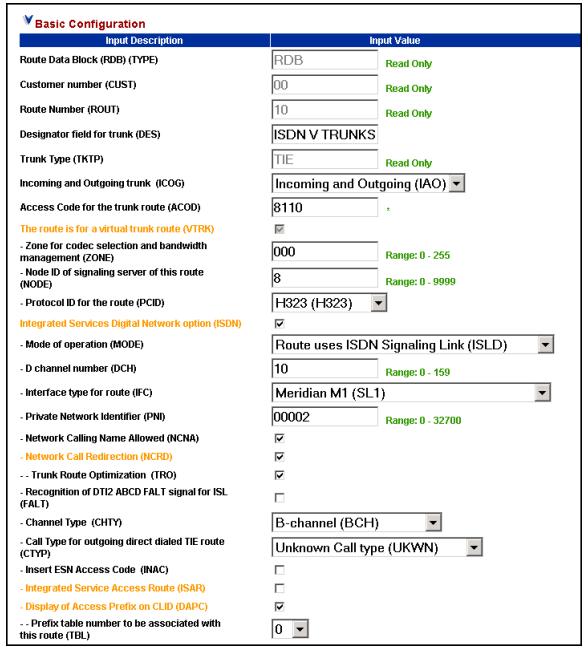
In the Basic Configuration section of this web page (Figure 32 on page 75), you can do the following:

- 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 you enter data for additional parameters, depending on what you 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. See Figure 32.

Figure 32
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 of this web page (Figure 33 on page 77), you can use the check boxes to activate the following options for this route:

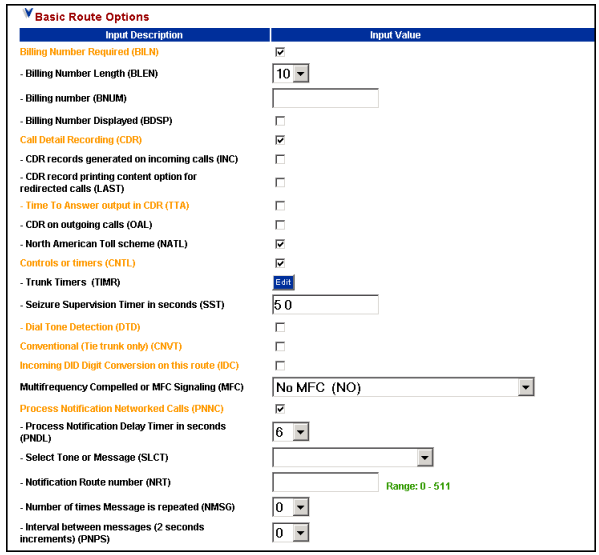
- Billing Number Required (BILN)
- Call Detail Recording (CDR)
- Controls or timers (CNTL)
- Conventional (Tie trunk only) (CNVT)
- Incoming DID Digit Conversion (IDC)
- Process Notification Networked Calls (PNNC)

In addition, you can use the drop-down list to select a Multifrequency Compelled or MFC Signaling (MFC) type.

> ***Note:*** The route used in this example is a TIE trunk route. The inputs requested by Element Manager will vary depending on your responses to earlier input requests, including Trunk Type (TKTP).

Depending on which boxes are checked in the preceding list, Element Manager may request that you enter data for additional parameters as shown in Figure 33 on page 77.

Figure 33
Basic Route Options configuration

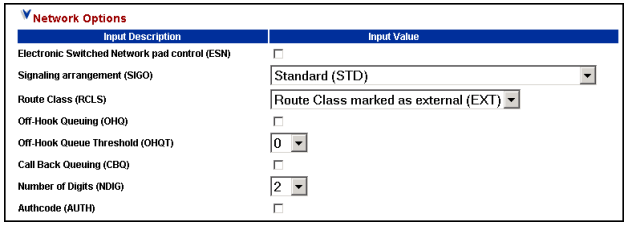


To save changes made in this section, click **Submit** at the bottom of the Route Property Configuration web page.

Network Options

Figure 34 on page 78 provides an example of the input requested in the Network Options section for the route in Figure 31 on page 74. The actual input that Element Manager requests will vary depending on the type of route and your responses to earlier input requests.

Figure 34
Network Options for routes

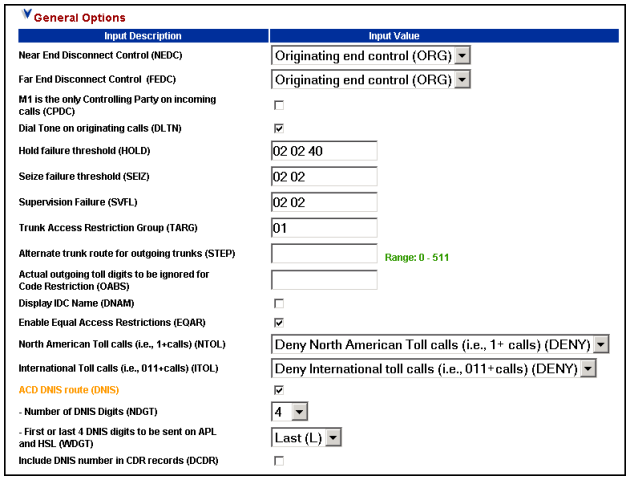


To save changes made in this section, click **Submit** at the bottom of the Route Property Configuration web page.

General Options

Figure 35 provides an example of the input requested in the General Options section for the route in Figure 31 on page 74. The actual input that Element Manager requests will vary depending on the type of route and your responses to earlier input requests.

Figure 35
General Options for routes



To save changes made in this section, click **Submit** at the bottom of the Route Property Configuration web page.

Advanced Configurations

Figure 36 and Figure 37 on page 80 provide an example of the input requested in the Advanced Configurations section for the route in Figure 31 on page 74. The actual input that Element Manager requests will vary depending on the type of route and your responses to earlier input requests.

Figure 36
Advanced Configurations for routes

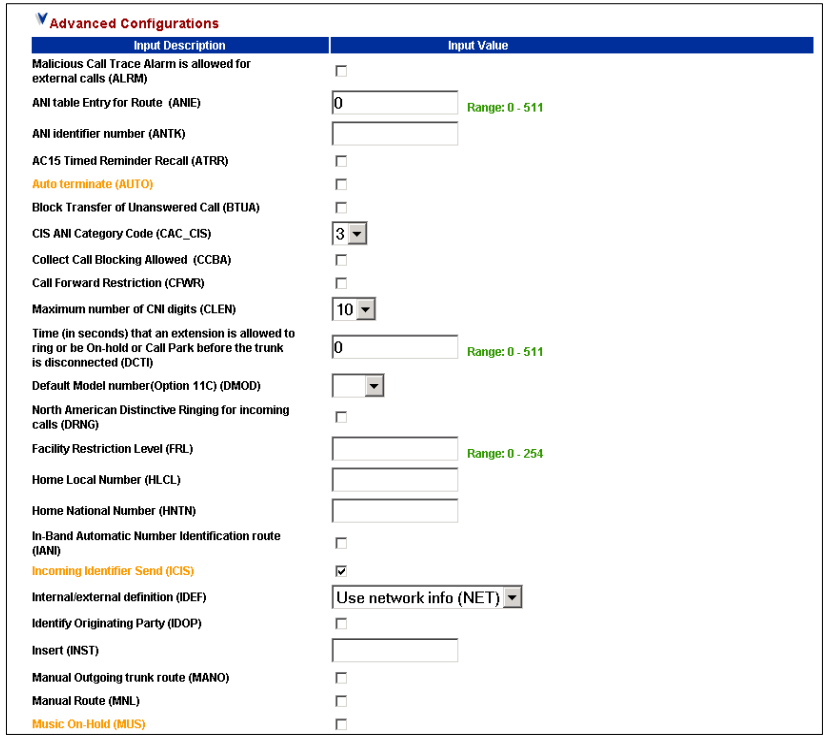
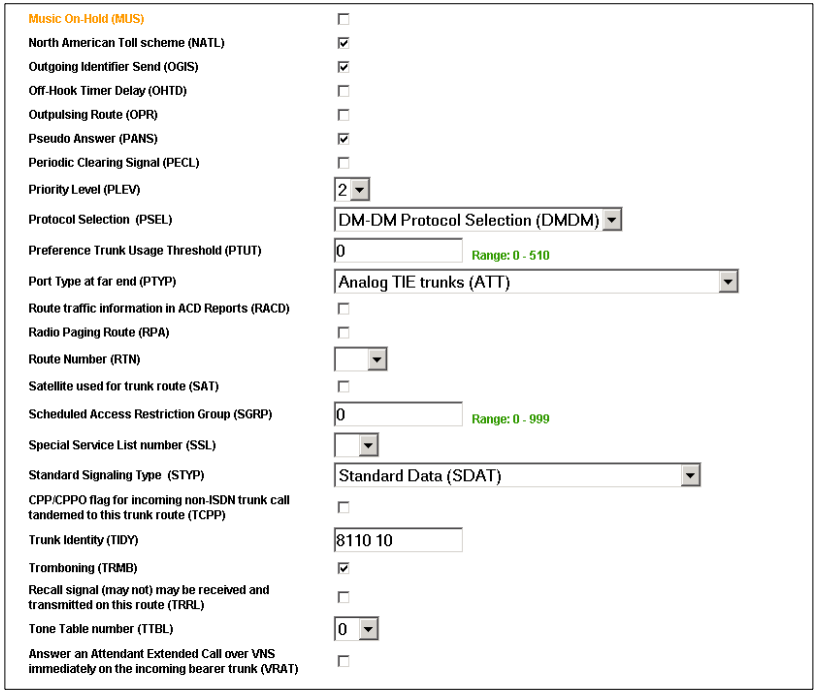


Figure 37
Advanced Configurations for routes (continued)

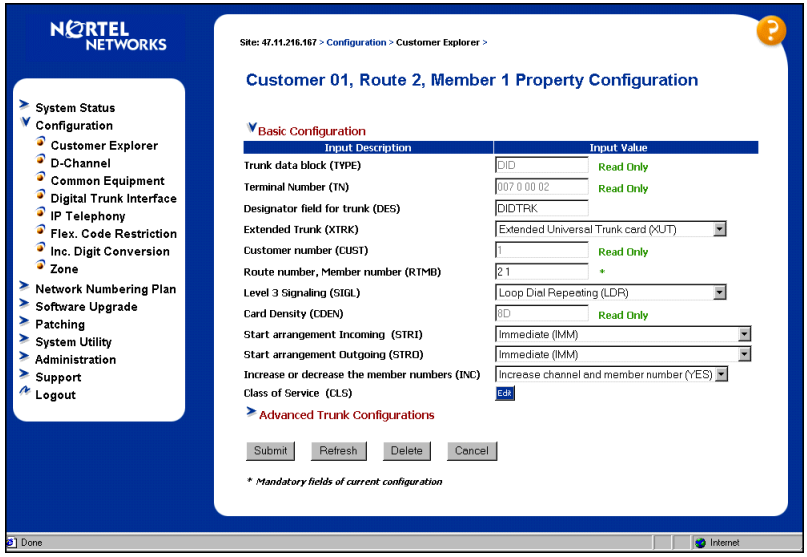


To save changes made in this section, click **Submit** at the bottom of the Route Property Configuration web page.

Trunk Properties

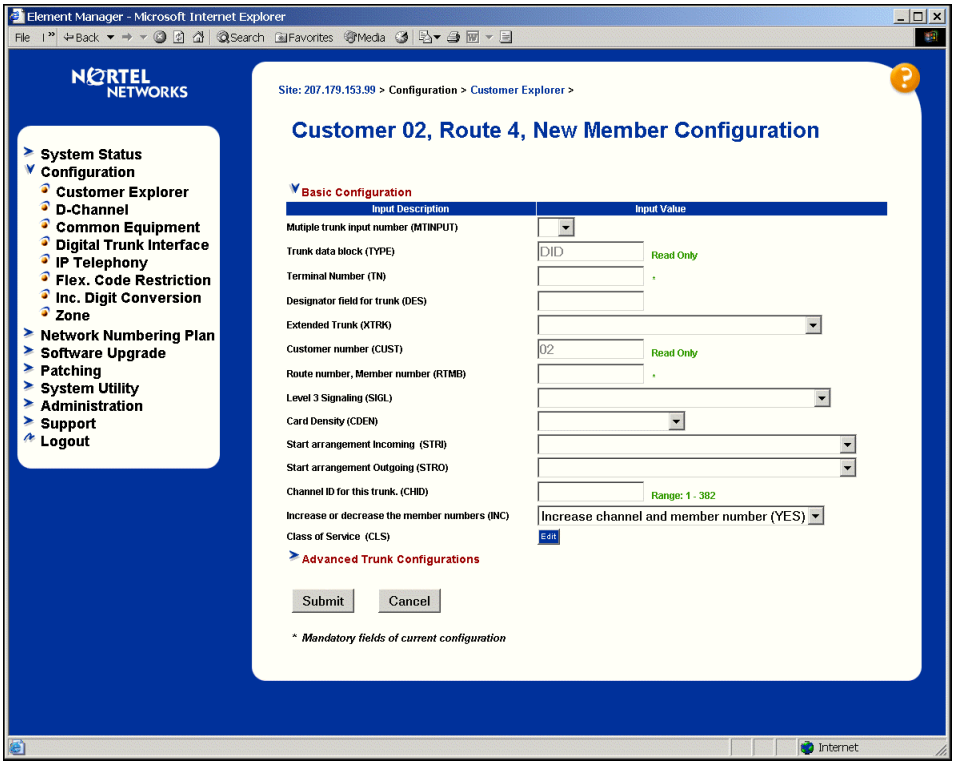
When you click the **Edit** button beside a Member row in Figure 22 on page 65, the Member Property Configuration page for the selected customer, route, and trunk opens (Figure 38 on page 81).

Figure 38
Member Property Configuration page for trunks



When you click the **Add Trunk** button beside a Member row in Figure 22 on page 65, the Member Property Configuration page for the selected customer, route, and trunk opens (Figure 39 on page 82).

Figure 39
New Member Property Configuration page for trunks



Input to the Member Property Configuration pages is divided into two categories:

1 Basic Configuration

2 Advanced Trunk Configurations

Basic Configuration

In the Basic Configuration section of these web pages (Figure 38 on page 81 and Figure 39), you can perform the following tasks:

- Enter a Designation (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.
- 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.

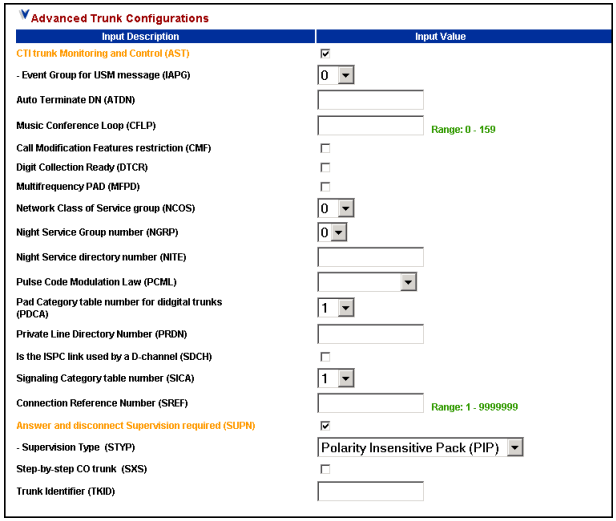
  Note: The member used in this example is a TIE trunk. The inputs requested by Element Manager may vary depending on your responses to earlier input requests.

To save changes made in this section, click **Submit** at the bottom of the Member Property Configuration web page.

Advanced Trunk Configurations

Figure 40 on page 84 provides an example of the input requested in the Advanced Trunk Configurations section for the TIE Trunk in Figure 38 on page 81.

Figure 40
Advanced Configurations for trunks



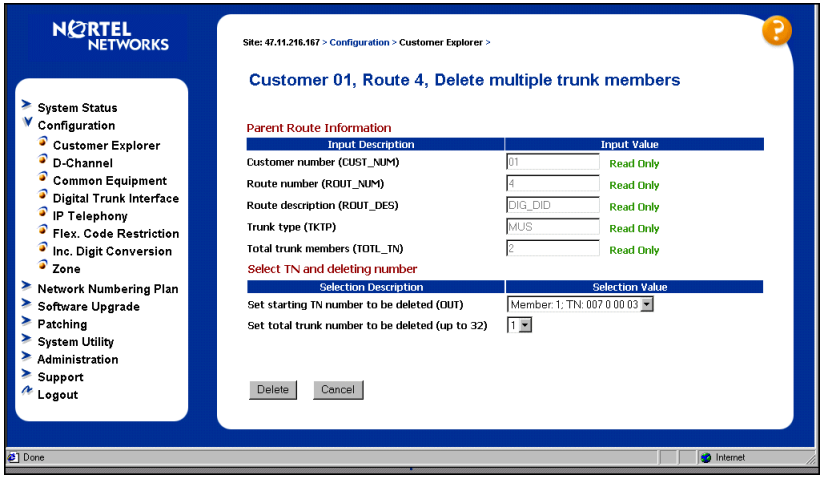
Note: The member used in this example is a TIE trunk. The inputs requested by Element Manager may vary depending on your responses to earlier input requests.

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

Delete multiple trunk members

When you click **Multi-Del** located beside a member row in Figure 22 on page 65, the Delete multiple trunk members page for the selected member opens (Figure 41 on page 85). On this page, the information for the Parent Route is read-only.

Figure 41
Delete multiple trunk members page



To delete multiple trunk members using this page:

1 Use the drop-down list to set the starting TN to be deleted.

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).

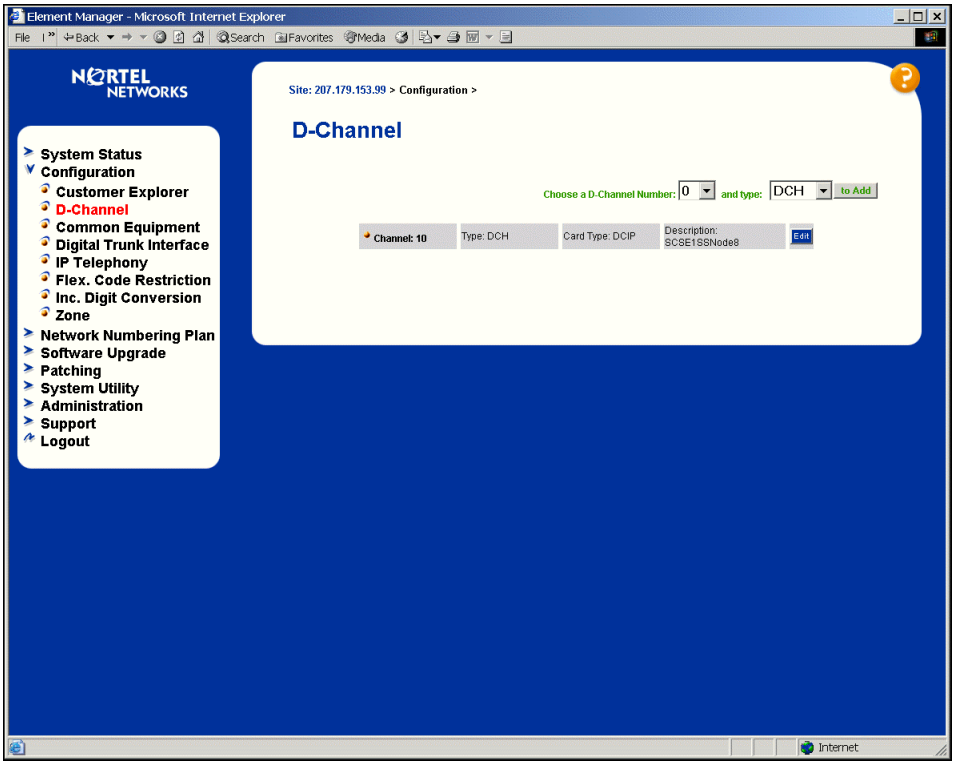
3 Click **Delete**.

D-channel

To configure or edit D-channel information, click the **D-channel** link under **Configuration** in the Navigation tree. The D-channel configuration page opens (Figure 42 on page 86).

For information on configuring D-channel information, see *IP Peer Networking* (553-3001-213).

Figure 42
D-channel configuration page



From this page you can view basic information on existing D-channels.

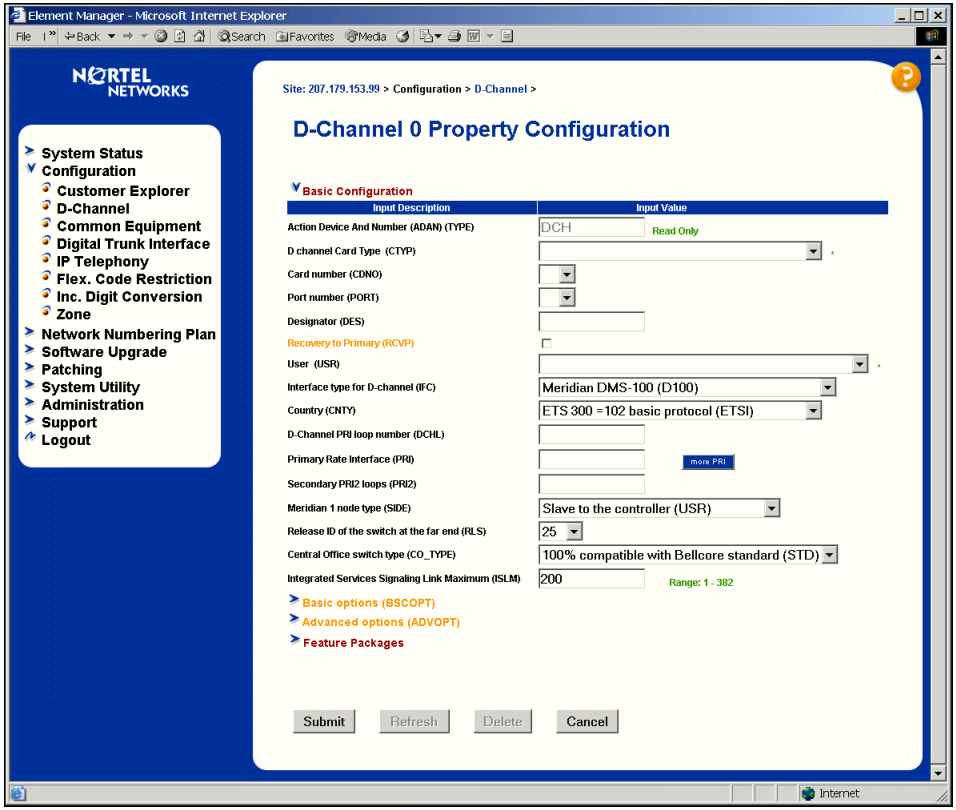
This page also contains buttons that link to additional Web pages. Follow these links to do the following:

- 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 type of D-channel from the type drop-down list, and click **to Add**. To edit the configuration information on an existing D-channel click the **Edit** button located to the right of the Description field.

When you click the **to Add** button or any of the **Edit** buttons in Figure 42 on page 86, the D-channel Property Configuration page for that channel opens (Figure 43).

Figure 43
D-channel Property Configuration page



In the D-channel Property Configuration page, you can:

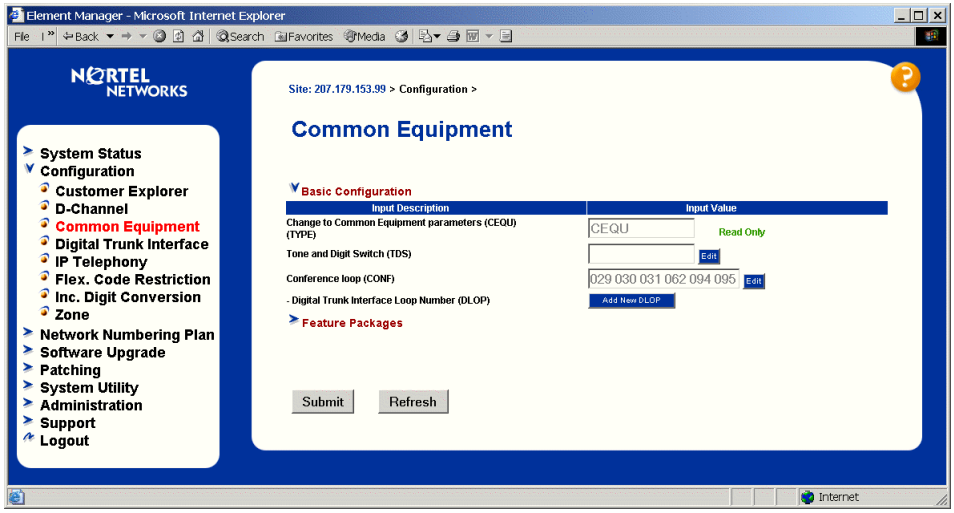
- Enter Basic Configuration.
  - — The information entered in this section corresponds to ADAN and ADAN DCH (Action Device and Number, D-channel and back-up D-channels) data traditionally configured using the Configuration Record 1 overlay (LD 17). In addition to basic D-channel configuration, additional information can be entered for optional settings in the following two categories:
    - **a** Basic D-channel options (BSCOPT)
    - **b** Advanced D-channel options (ADVOPT)
- Configure Feature Packages.
  - — 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-channel Property Configuration page.

Common Equipment

To configure or edit Common Equipment information, click the **Common Equipment** link under **Configuration** in the Navigation tree. The Common Equipment configuration page opens (Figure 44 on page 89).

Figure 44
Common Equipment configuration page



The Common Equipment page contains buttons that act as links to additional web pages. From these pages, you can:

- Add and delete Tone and Digit Switch (TDS) numbers
- Add and delete Digital Trunk Interface Loop (DLOP) numbers
- Add and delete Conference loop (CONF) numbers, and
- Configure parameters for the following Feature Packages:
  - Integrated Digital Access (Package 122)
  - 2 Mbit Digital Trunk Interface (Package 129)
  - Dial Tone Detection (Package 138)
  - 2.0 Mb/s Primary Rate Interface (Package 154).

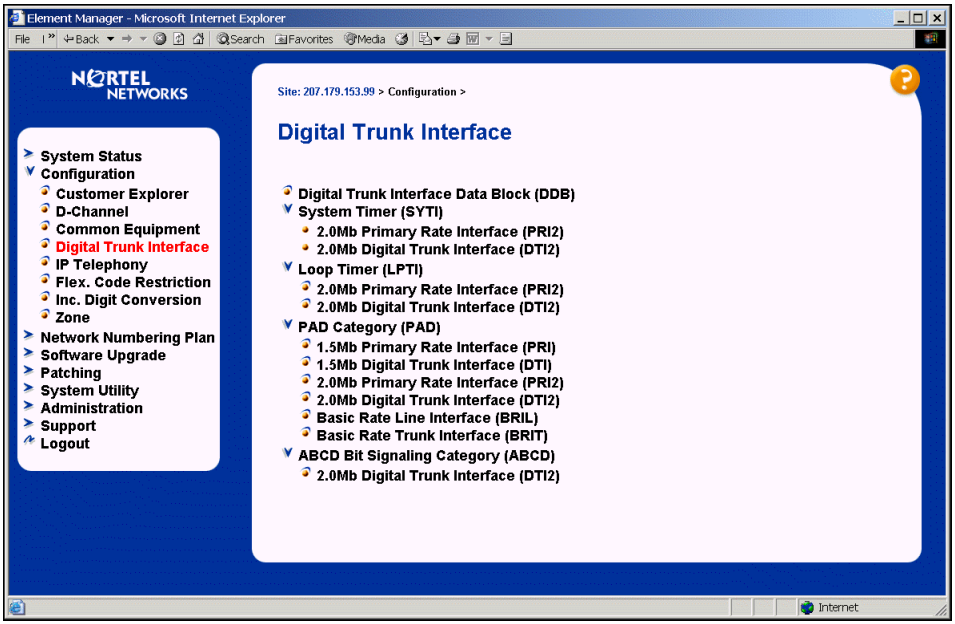
The information entered in this section corresponds to CEQU (Common Equipment) data traditionally configured using the Configuration Record 1 overlay (LD 17).

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

Digital Trunk Interface

To configure or edit Digital Trunk Interface information, click the **Digital Trunk Interface** link under **Configuration** in the Navigation tree. The Digital Trunk Interface page opens (Figure 45).

Figure 45
Digital Trunk Interface configuration page



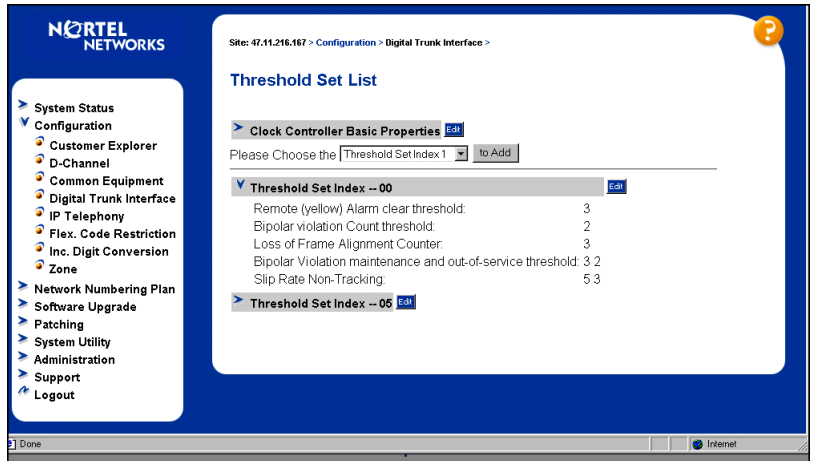
From this page you can access additional web pages that allow you to:

- 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 2.0Mb 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 page opens (Figure 46).

Figure 46
Threshold Set List page



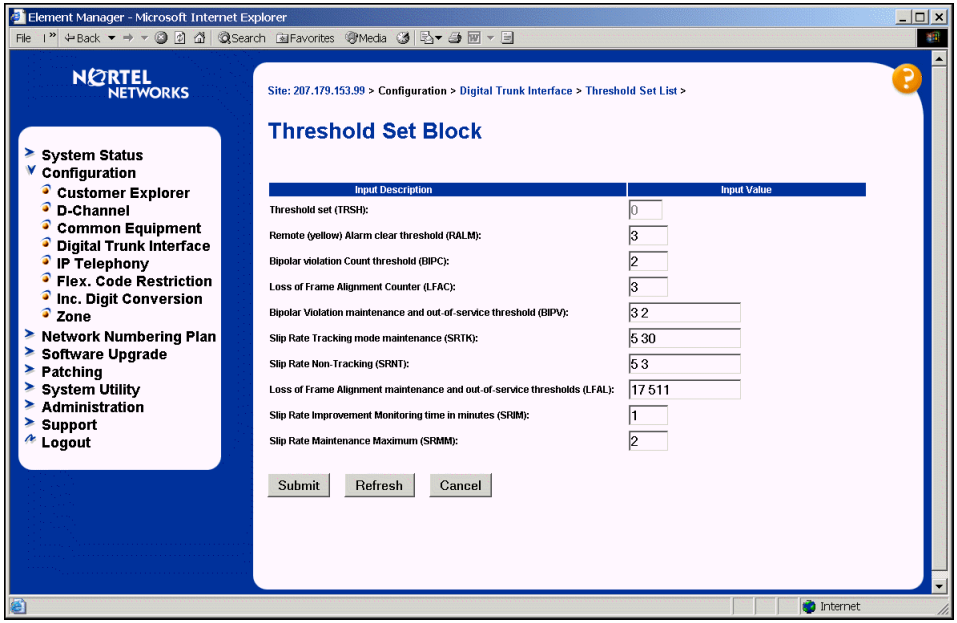
From this page, you can access additional pages that allow you to:

- Edit Clock Controller Basic Properties.
- Add a Threshold Set Index.
- Edit an existing Threshold Set Block.

To add a Threshold Set Index, select a Threshold Set Index from the drop-down list, and click **to Add**. To edit the configuration information in an existing Threshold Set Block, click **Edit** located to the right of the index number.

When you click either **to Add** or the Threshold Set Index **Edit** buttons in Figure 46 on page 91, the Threshold Set Block configuration page for that index opens (Figure 47).

Figure 47
Threshold Set Block page



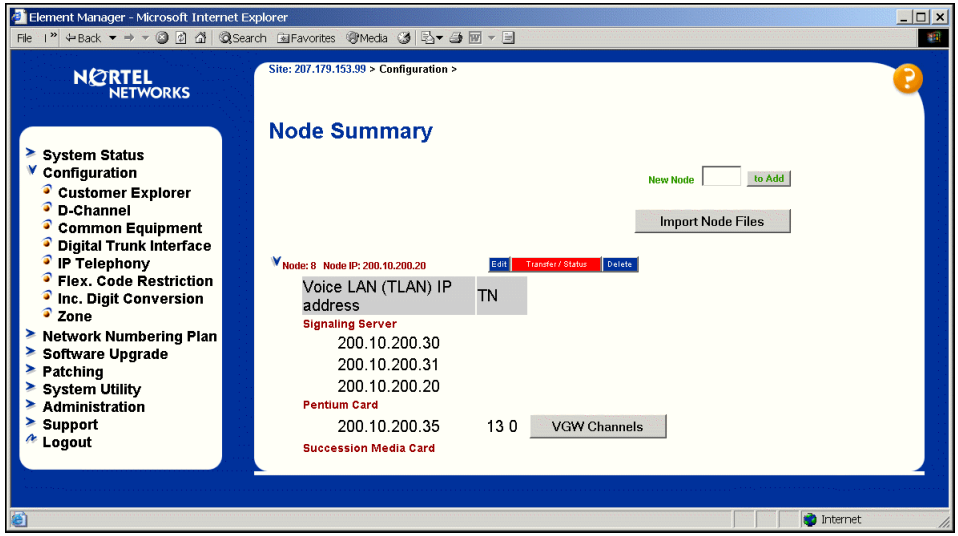
The information entered in this section corresponds to DDB (Digital Trunk Interface Data Block) information traditionally configured using the Digital Trunk Interface overlay (LD 73).

To save changes made in this section, click **Submit** at the bottom of the Threshold Set Block configuration page.

IP Telephony

To configure or edit IP telephony information, click the **IP Telephony** link under **Configuration** in the Navigation tree. The IP Telephony Node Summary page opens (Figure 48).

Figure 48
IP Telephony Node Summary page



From this page you can view basic information.

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

- Add a New Node.

- Import Node Files.
- Edit Node configuration.
- View status of a previous transfer operation, or re-transfer to selected or failed elements.
- Delete a Node.
- Add and edit VGW Channel configuration data on the media cards.

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

IMPORTANT!

For Succession 1000 and Succession 1000M systems:

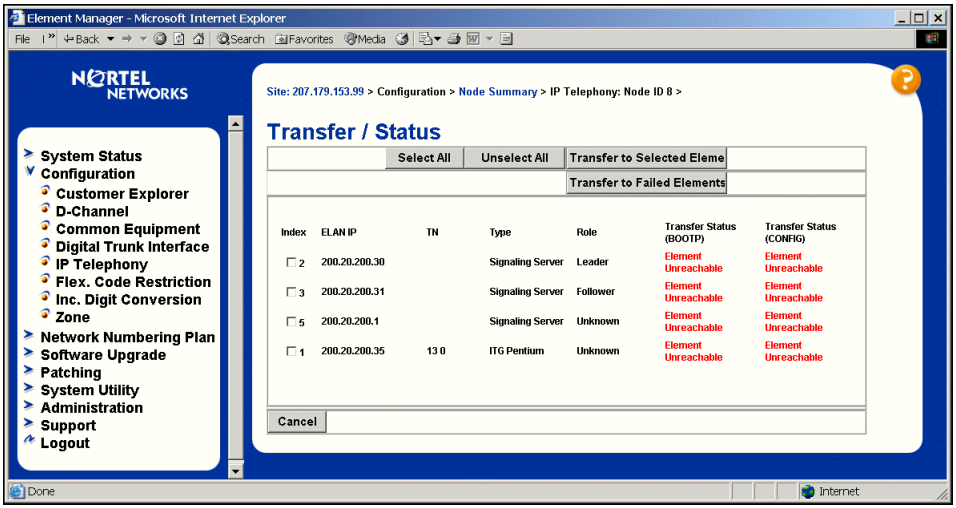
Make sure that the values for the Node ID in Element Manager/IP Telephony and in the Call Server/Route Data Block (for the Virtual Trunk) are the same. If these Node ID values do not match, the IP Peer H.323 virtual trunks will not establish.

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

To import Node files, click on the **Import Node Files** button. Enter the Manager LAN (ELAN) IP Address of the Leader in the text box. This address is used to retrieve the node files. Click **Import**. If the import is successful, information appears in the text area of the Node Import Files screen and a message box appears. In the message box, click **OK** to proceed to the Node Summary page, where you can view and edit node information.

If any element within the Node fails to transfer either bootp or config files, the **TRANSFER/STATUS** button will be highlighted in RED. The **TRANSFER/STATUS** button will be highlighted in YELLOW if the transfer status of the node elements is unavailable. A click on this button will redirect you to the Transfer / Status page (Figure 49 on page 95).

Figure 49
IP Node Transfer / Status page



On this page, the previous status of the node will display, and the failure reason will be displayed for elements in nodes that failed to get configuration files (*bootp.tab* and *config.ini*) from the Call Server side.

The Transfer status page displays two buttons:

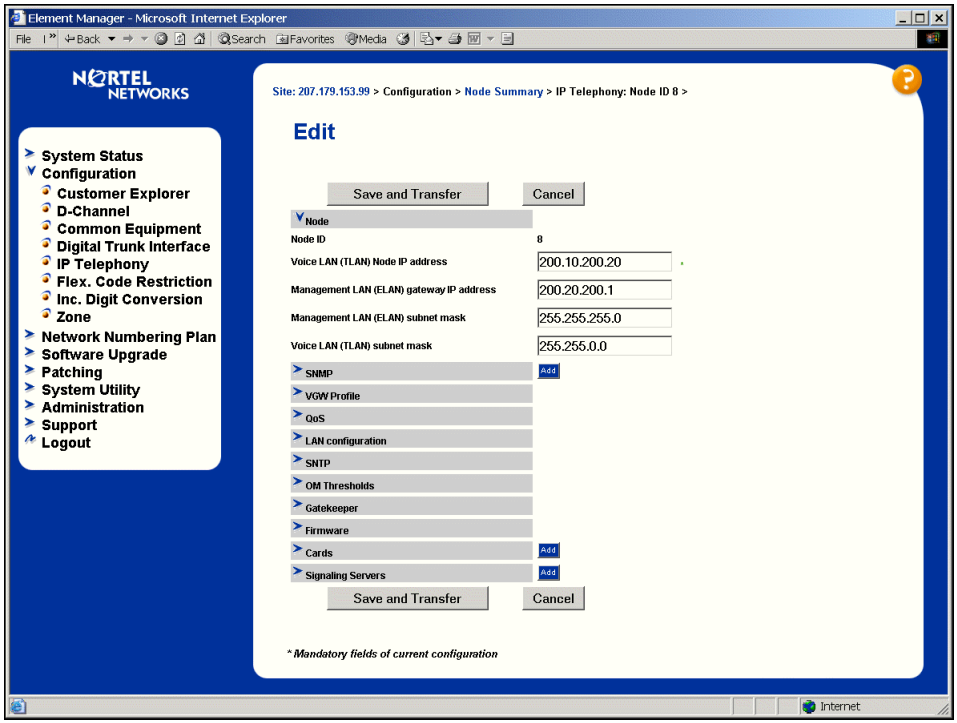
— **Transfer to Selected Elements.** Re-transfers node configuration files only to selected elements, regardless of a “Transfer Failed” state.

— **Transfer to Failed Elements**. Only transfers node configuration files to elements in a “Transfer Failed” state.

Note: This button will display only when at least one element on the Node failed to transfer either a *bootp.tab* or *config.ini* in the previous operation.

When you click either the **to Add** button or any of the **Edit** buttons in Figure 48 on page 93, the Edit Node configuration page for the Node opens (Figure 50 on page 96).

Figure 50
IP Telephony Node Edit page



From this page, you can:

- View and edit basic Node information.
- View and configure SNMP parameters and add IP addresses for forwarding SNMP traps.
- View and configure VGW Profile data.
- View and edit Quality of Service (QoS) parameters.
- Use LAN configuration to configure the ELAN, TLAN and Routes.
- View and edit SNTP Server and Client information.
- View and edit OM Threshold information.

- View and edit Gatekeeper information.
- View and configure file server access for downloading firmware for the Internet Telephones.
- View and edit card properties of Voice Gateway Media Cards.
- View and edit Signaling Server information.

IMPORTANT!

For Meridian 1, Succession 1000, and Succession 1000M systems:

Do not assign the same IP address for the Node ID and the TLAN. This must be verified manually. The Node IP address must be on the same subnet as the TLAN IP addresses of the SMC cards. Also, the SMC card's TLAN and ELAN network interfaces must reside on separate logical subnets.

When the administrator edits the Node and clicks the "**Save and Transfer**" button, transfer status information will be updated and displayed.

Detailed procedures for performing these tasks are included in *IP Line: Description, Installation, and Operation* (553-3001-365).

Note: The configuration of static Loss Plan values is now performed using LD 73 instead of Element Manager. A Dynamic Loss Plan has been implemented to define the gateway loss value per endpoint connection type. The loss plan adjusts the Voice Gateway Media Card gateway channel's loss for each call by sending pad values to the card.

Default values

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

Non-North American countries

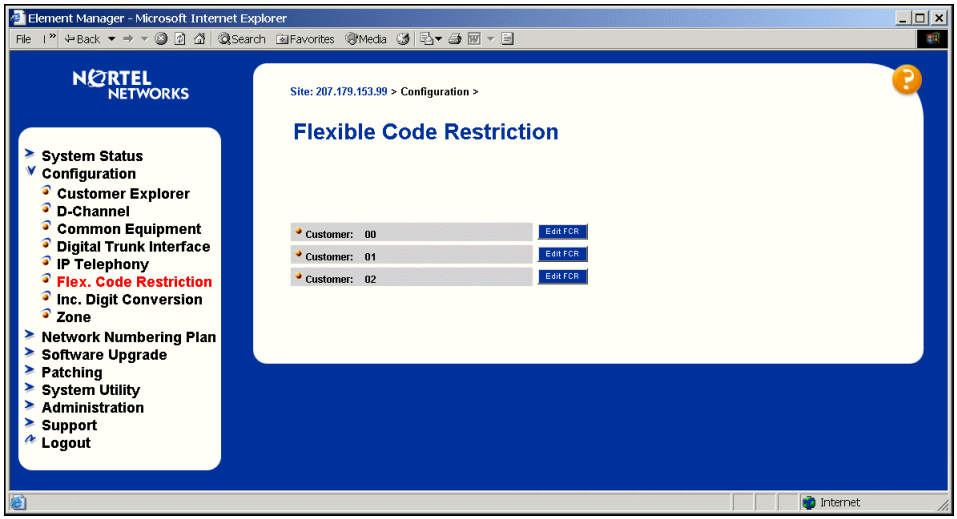
Installation of IP Line 3.1 in any other country requires setting the pad values in Table 15 to that country's loss plan. If the system is installed in other countries, the GPRI package (International 1.5/2.0 Mb/s Gateway package 167) must be used, and the NTP-specified values must be entered in LD 73. At the PDCA prompt, enter Table 15.

For more information on configuring Loss Plans, see *Transmission Parameters* (553-3001-182).

Flexible Code Restriction

To configure or edit Flexible Code Restriction information, click the **Flex. Code Restriction** link under **Configuration** in the Navigation tree. The Flexible Code Restriction page opens (Figure 51).

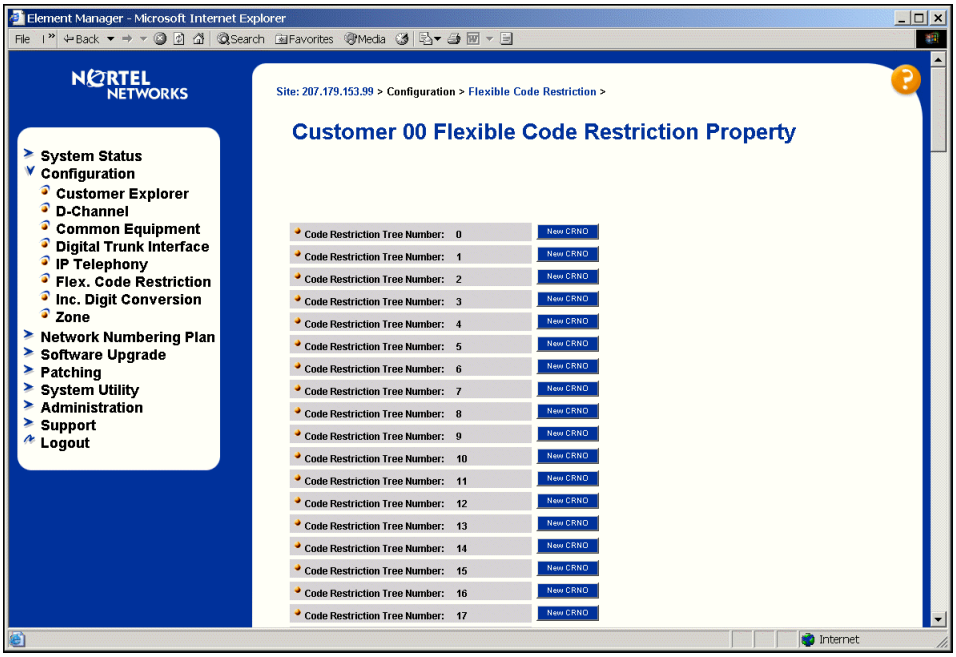
Figure 51
Flexible Code Restriction page



This page contains **Edit FCR** buttons that link to Flexible Code Restriction Property pages for each of the customers configured on the Call Server.

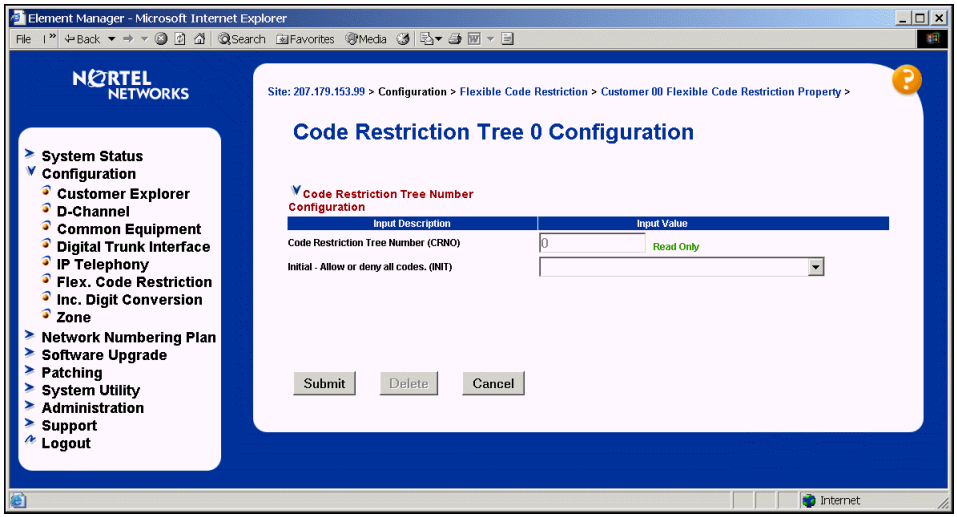
To view the list of Flexible Code Restriction Trees for a customer, click the **Edit FCR** button located beside the customer number. The Flexible Code Restriction Property page for the selected customer opens (Figure 52 on page 99).

Figure 52
Flexible Code Restriction Property page



The Flexible Code Restriction Property page contains buttons that link to Code Restriction Tree Configuration 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 be defined for the CRNO, the button is labeled **New CRNO**. When you click the **CRNO** button, the Code Restriction Tree Configuration page for the corresponding CRNO opens (Figure 53 on page 100).

Figure 53
Code Restriction Tree Configuration page



From this page you can:

- Add or edit digit sequences to be allowed.
- Add or edit digit sequences to be denied.

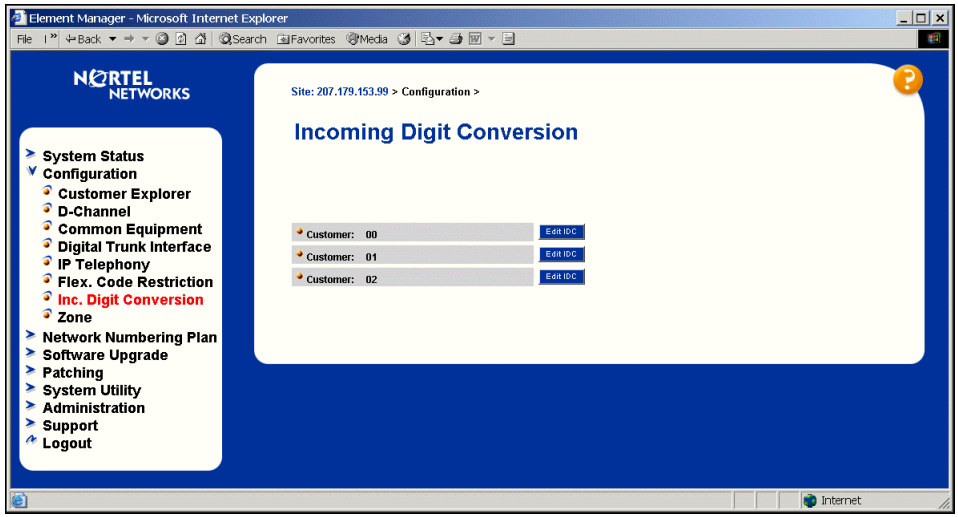
The information entered in this section corresponds to data traditionally configured using the Flexible Code Restriction and Incoming Digit Conversion overlay (LD 49).

To save changes made in the configuration for this Code Restriction Tree, click **Submit** at the bottom of the page.

Incoming Digit Conversion

To configure or edit Incoming Digit Conversion information, click the **Inc. Digit Conversion** link under **Configuration** in the Navigation tree. The Incoming Digit Conversion page opens (Figure 54 on page 101).

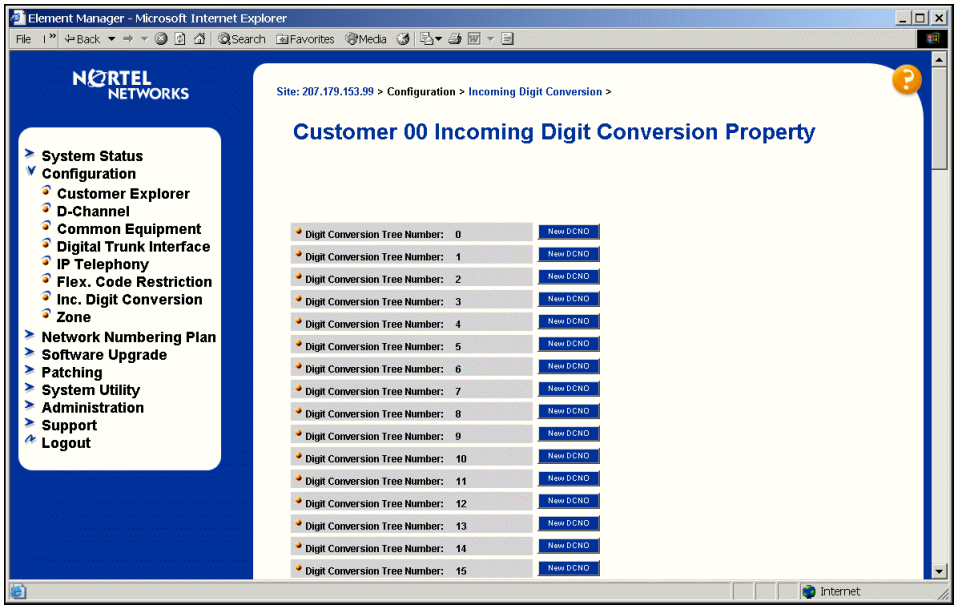
Figure 54
Incoming Digit Conversion page



This page contains **Edit IDC** buttons that link to Incoming Digit Conversion Property pages for each of the customers configured on the Call Server.

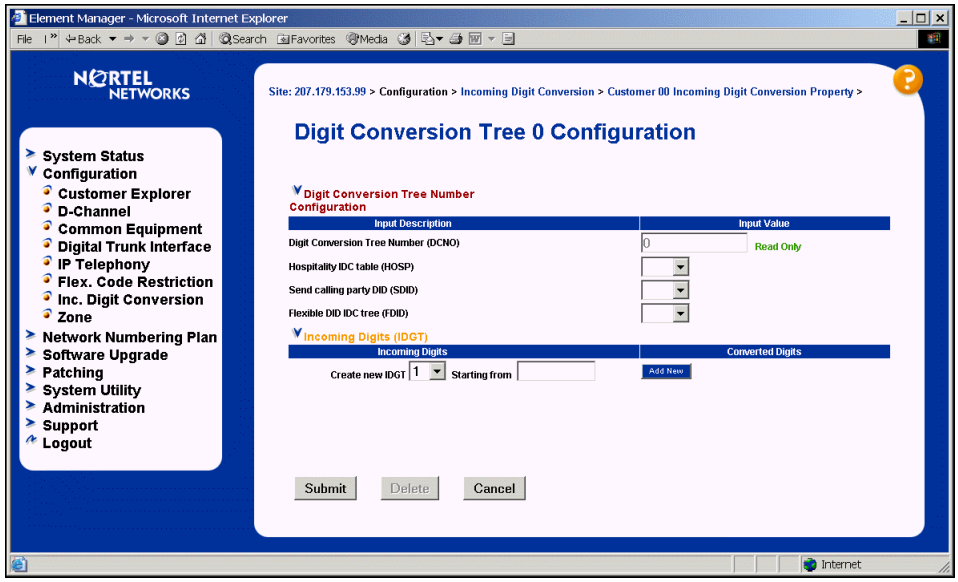
To view the list of Incoming Digit Conversion Trees for a customer, click the **Edit IDC** button located beside the customer number. The Incoming Digit Conversion Property page for the selected customer opens (Figure 55 on page 102).

Figure 55
Incoming Digit Conversion Property page



The Incoming Digit Conversion Property page contains buttons that link to Digit Conversion Tree Configuration 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 be defined for the DCNO, the button is labeled **New DCNO**. When you click the **DCNO** button, the Digit Conversion Tree Configuration page for the corresponding DCNO opens (Figure 56 on page 103).

Figure 56
Digit Conversion Tree Configuration page



From this page you can configure Incoming Digit Conversion data.

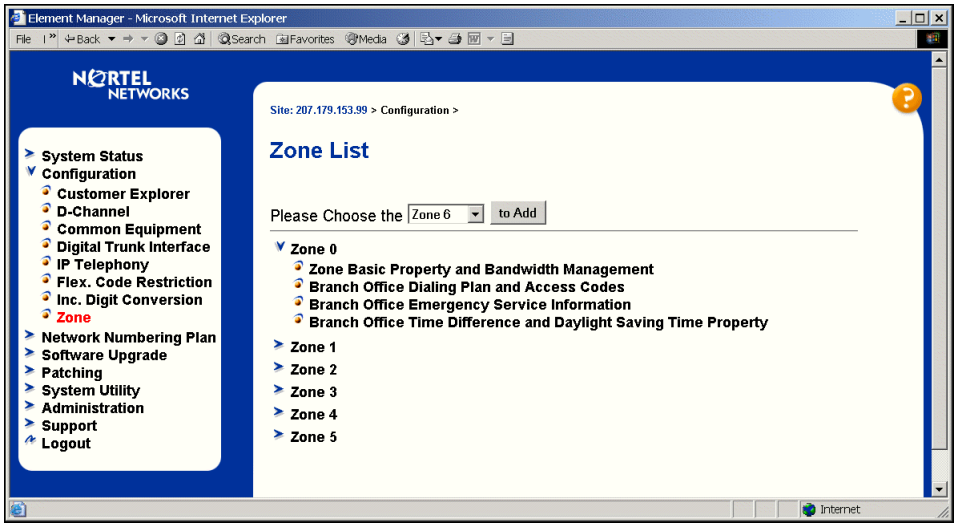
The information entered in this section corresponds to data traditionally configured using the Flexible Code Restriction and Incoming Digit Conversion overlay (LD 49).

To save changes made in the configuration for this Digit Conversion Tree, click **Submit** at the bottom of the page.

Zone

To configure or edit Zone information, click the **Zone** link under **Configuration** in the Navigation tree. The Zone List page opens (Figure 57 on page 104).

Figure 57
Zone List page



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

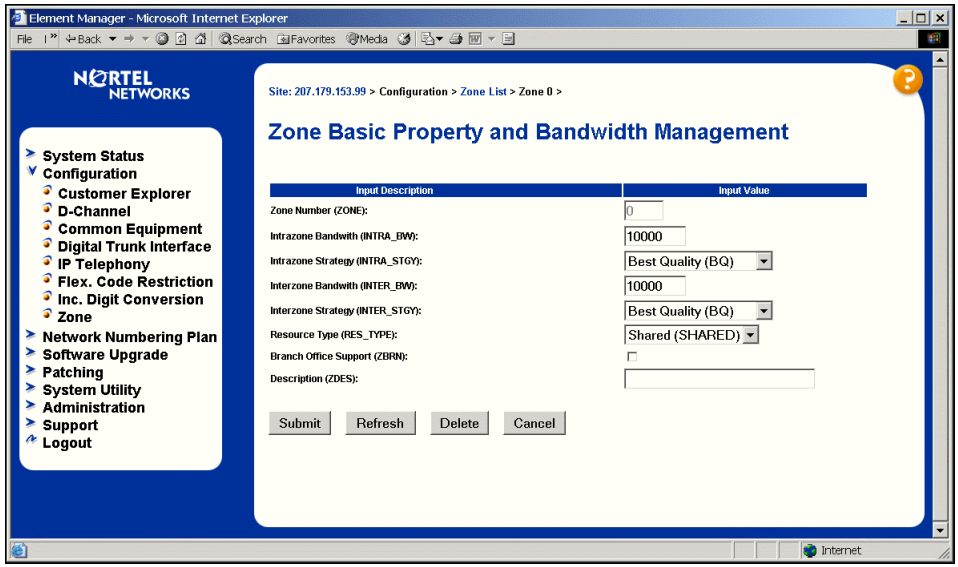
This page also contains links to the following four categories of Zone configuration data:

- Basic Property and Bandwidth Management
- Branch Office Dialing Plan And Access Codes
- Branch Office Emergency Service Information, and
- Branch Office Time Difference and Daylight Saving Time Property.

For information on configuring the Branch Office, see *Branch Office* (553-3001-214).

To edit basic properties, click the **Zone Basic Property and Bandwidth Management** link. The Zone Basic Property and Bandwidth Management configuration page opens (Figure 58 on page 105).

Figure 58
Zone Basic Property and Bandwidth Management configuration page



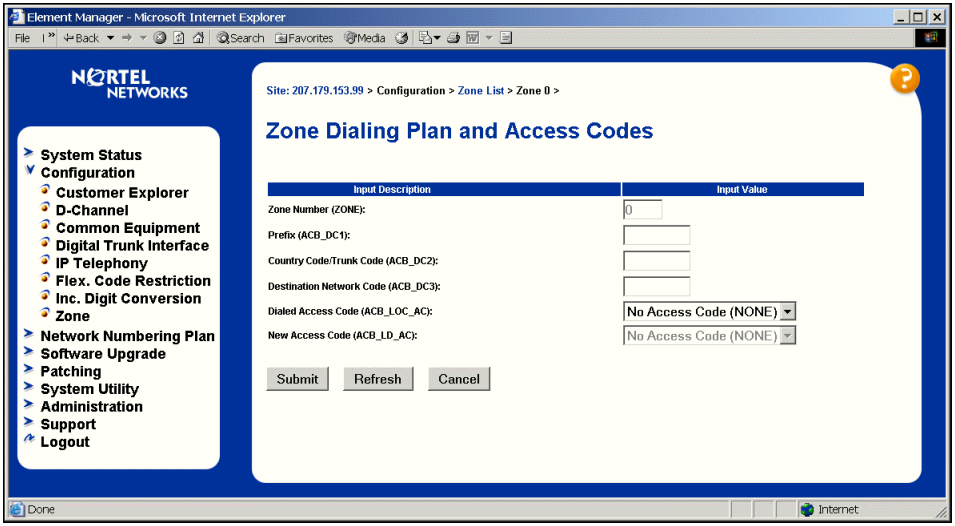
The information entered on this page corresponds to the ZONE, ZBRN, and ZDES data traditionally configured using the Ethernet and Alarm Management overlay (LD 117).

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

To return to the Zone List page (Figure 57 on page 104), click the **Zone List** link in the navigation path at the top of the page.

To edit dialing plan and access code parameters for a Zone's Branch Offices, click the **Branch Office Dialing Plan and Access Codes** link on the **Zone List** page. The Zone Dialing Plan and Access Codes page opens (Figure 59 on page 106).

Figure 59
Zone Dialing Plan and Access Codes page



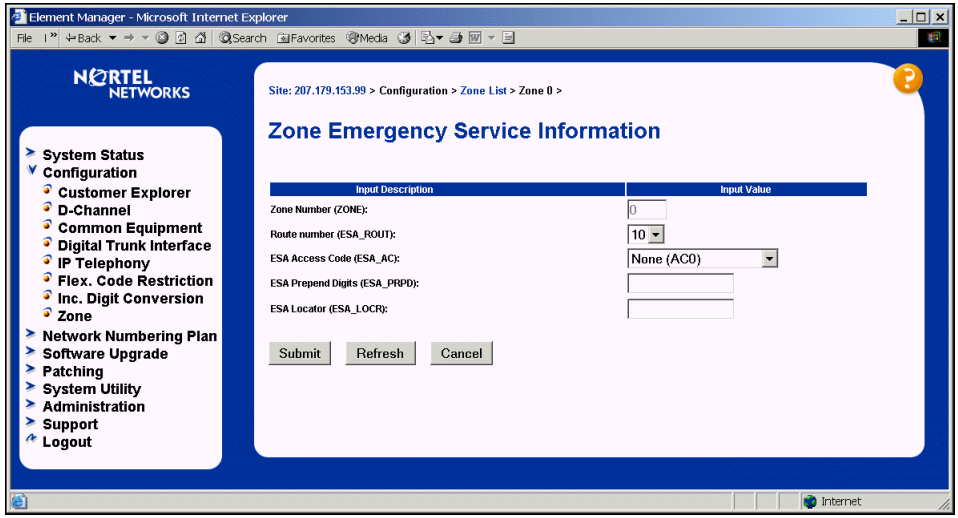
The information entered on this page corresponds to the ZACB command available in the Ethernet and Alarm Management overlay (LD 117).

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

To return to the Zone List page (Figure 57 on page 104), click the **Zone List** link in the navigation path at the top of the page.

To access emergency service parameters for a Zone's Branch Offices, click the **Branch Office Emergency Service Information** link on the **Zone List** page. The Zone Emergency Service Information page opens (Figure 60).

Figure 60
Zone Emergency Service Information page



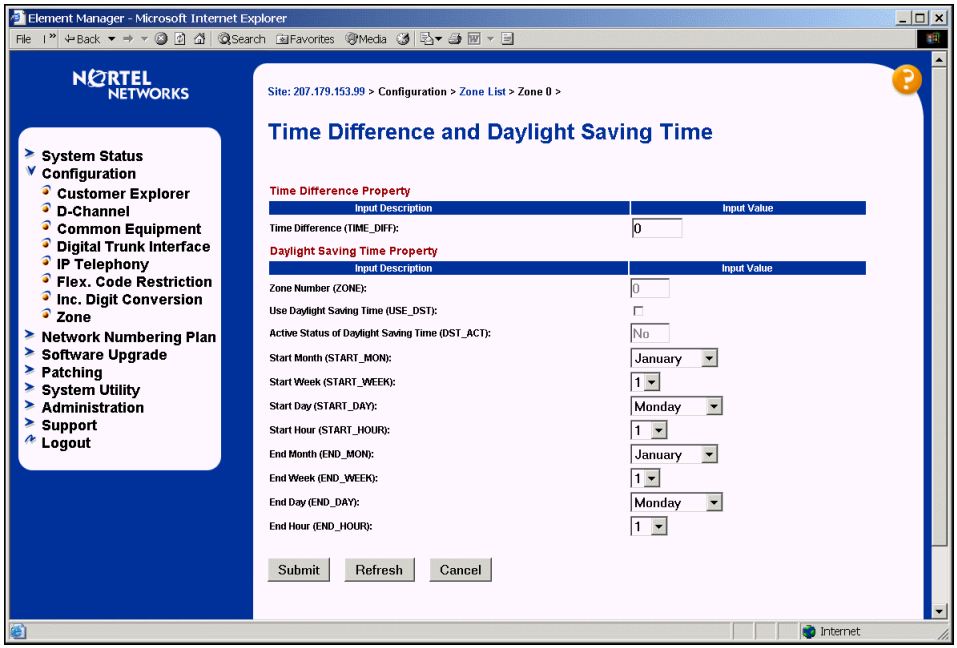
The information entered on this page corresponds to the ZESA command available in the Ethernet and Alarm Management overlay (LD 117).

To save changes made in Zone Emergency Service parameters, click **Submit** at the bottom of the page.

To return to the Zone List page (Figure 57 on page 104), click the **Zone List** 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 Branch Offices, click the **Branch Office Time Difference and Daylight Saving Time Property** link on the **Zone List** page. The Time Difference and Daylight Saving Time Property page opens (Figure 61 on page 108).

Figure 61
Time Difference and Daylight Saving Time page



The information entered on this page corresponds to the ZTDF and ZDST data traditionally configured using the Ethernet and Alarm Management overlay (LD 117).

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

To return to the Zone List page (Figure 57 on page 104), click the **Zone List** link in the navigation path at the top of the page.

Network Numbering Plan

Contents

This section contains information on the following topics:

Introduction 109
Call Server 109
Network Control & Services 111
Coordinated Dialing Plan 111
Numbering Plan 111
Gatekeeper 112
Managing the Gatekeeper 113
Access levels 116

Introduction

Element Manager enables users to configure the Network Numbering Plan for the Call Server and the Gatekeeper. The information that you configure in the Network Numbering Plan corresponds to the CLI prompts and responses for Electronic Switched Network (ESN) data traditionally configured in the following overlays; LD 86, LD 87, and LD 90.

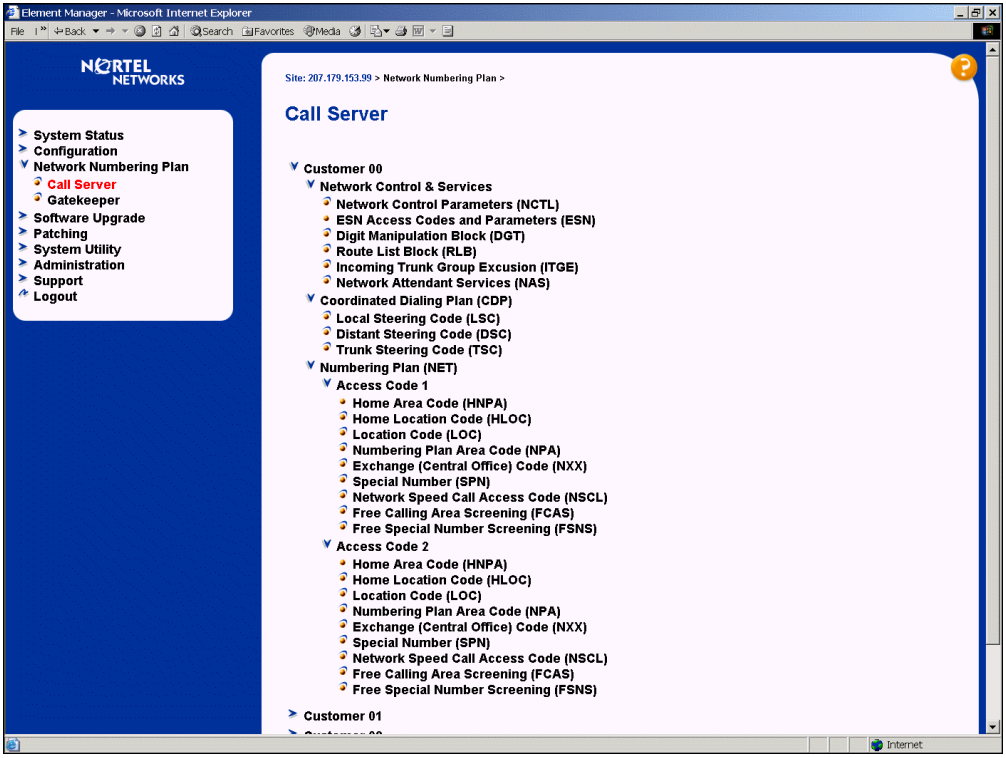
Call Server

To configure or edit the Network Numbering Plan for the Call Server, click the **Call Server** link under **Network Numbering Plan** in the Navigation tree. The Network Numbering Plan — Call Server page opens (Figure 62 on page 110). From this page you can configure the Network Numbering Plan for each customer on the Call Server.

Element Manager provides access to the following Network Numbering Plan parameters:

- Network Control & Services
- Coordinated Dialing Plan (CDP), and
- Numbering Plan (NET).

Figure 62
Network Numbering Plan > Call Server page



Network Control & Services

Under Network Control & Services, you can click on the links to configure or modify the parameters associated with the following items:

- Network Control Parameters (NCTL)
- ESN Access Codes and Parameters (ESN)
- Digit Manipulation Block (DGT)
- Route List Block (RLB)
- Incoming Trunk Group Exclusion (ITGE), and
- Network Attendant Services (NAS).

The Network Control Parameters (NCTL) that are configurable using Element Manager correspond to data traditionally configured in LD 87. The settings for the remaining five items under Network Control & Services correspond to CLI prompts and responses in LD 86.

Coordinated Dialing Plan

Under Coordinated Dialing Plan (CDP), you 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), you can click links to configure or modify parameters associated with the following codes:

- Home Area Code (HNPA)
- Home Location Code (HLOC)
- Location Code (LOC)

- Numbering Plan Area Code (NPA)
- Exchange (Central Office) Code (NXX)
- Special Number (SPN)
- Network Speed Call Access Code (NSCL)

These codes can also be configured using the prompts and responses in LD 90.

Numbering Plan (NET) is also used to configure the following two LD 87 features:

- Free Calling Area Screening (FCAS)
- Free Special Number Screening (FSNS)

Gatekeeper

All Succession 1000 or Succession 1000M systems in the network are registered with a Gatekeeper. This eliminates the need for manual configuration of IP addresses and numbering plan information at every site.

The Gatekeeper manages a centralized numbering plan for the network. This allows simplified management of the network. The Gatekeeper is H.323 compliant and can provide Gatekeeper features to other H.323-compliant Nortel Networks endpoints (for example, Succession 1000 and IP Trunk 3.1 endpoints).

For more information on the Gatekeeper, see *Succession 1000 System: Overview* (553-3031-010), and *IP Peer Networking* (553-3001-213).

Under **Network Numbering Plan** in the navigation tree, the **Gatekeeper** link is used to access the Gatekeeper.

The primary function of the Gatekeeper is to provide the following services:

- Endpoint and Gateway registration
- Call admission control

- Address translation and telephone number to IP lookup
- Centralized number plan administration

In a live network, the Gatekeeper inter-operates with systems that do not support H.323 Registration, Admission, and Status (RAS) procedures and H.323 gatekeeper procedures, for example, IP Trunk 1.0. Consequently, endpoints in a network are not required to register with the Gatekeeper or use the Gatekeeper for call admission and address translation.

Managing the Gatekeeper

Element Manager allows you to perform the following administration and maintenance activities on the Gatekeeper:

- Retrieve the current configuration database.
- Download a pre-configured database.
- Revert to the standby database.
- Provision a numbering plan from scratch.
- Add, modify, or remove pre configured endpoint data.
- Add, modify, or remove numbering plan entries on a per-endpoint basis.
- Change system passwords.

Additionally, Element Manager allows you to perform the following Gatekeeper-specific performance monitoring functions:

- Monitor the state of endpoint registrations

  This shows the call signal and RAS IP addresses of all currently registered endpoints. If an endpoint provided multiple alias addresses or vendor information in the RRQ message, then this information is also shown.

- View the traffic level history

  A log of the number of registration and admission requests handled per hour is kept. The traffic level history is tracked on a per endpoint basis.

- View the bandwidth usage history

  In every admission request, the ARQ originator provides a bandwidth field. The Gatekeeper logs the total bandwidth requested on an hourly basis.

The web interface also provides access to more generic Signaling Server platform debug services. These include the ability to view alarms and exception log histories.

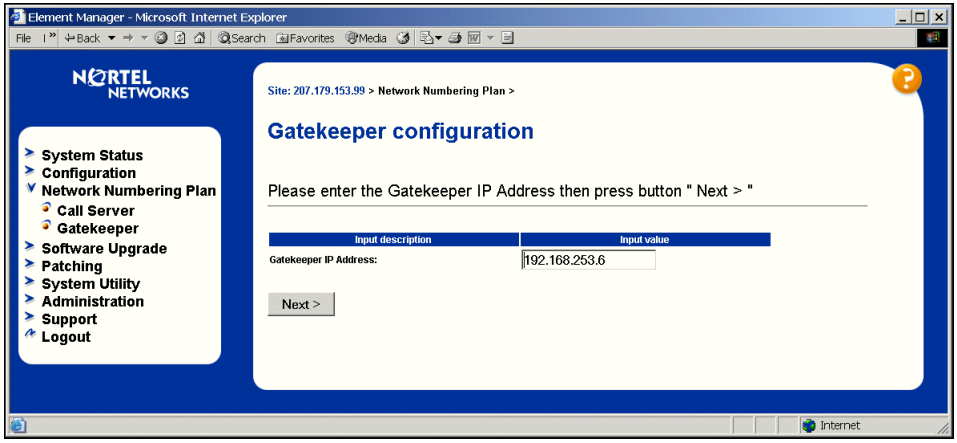
Procedure 1
Logging in from the navigation tree

To connect to the Gatekeeper:

1 Click on the **Gatekeeper** link in the navigation tree.

  Result: The Network Numbering Plan — Gatekeeper page opens (Figure 63).

Figure 63
Network Numbering Plan > Gatekeeper page

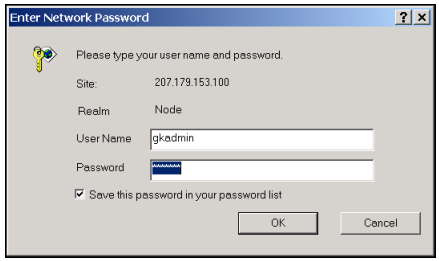


2 Enter the Gatekeeper IP address in the Input value text box.

3 Click the **Next** button.

  Result: The Enter Network Password dialog box opens (Figure 64 on page 115).

Figure 64
Enter Network Password dialog box



4 Enter your user name and password. See “Access levels” on page 116.

5 Click **OK**.

End of Procedure

Procedure 2
Logging in by entering the Gatekeeper’s IP address

An alternate way to connect to the Gatekeeper is to enter the Gatekeeper’s IP address followed by */gk* as a URL from any Web browser on the network. In the example shown in Figure 64, you would have entered http://47.11.249.84/gk.

> ***Note:*** Specifying the complete URL and including *gk* is important. The Gatekeeper can be co-resident with other applications running on the Signaling Server platform. If other Signal Server applications (Terminal Proxy Server, for example) also use a Web-based management tool, then, in this example, its management tool could use the URL http://47.11.249.84/tps.

1 In the Enter Network Password dialog box (Figure 64), enter your user name and password. See “Access levels” on page 116.

2 Click **OK**.

End of Procedure

Access levels

Element Manager provides two levels of access:

1 **Guest access.** Allows the user to view configuration data and view the output from performance monitoring functions. The user may not modify any Gatekeeper configurations or settings, including guest login user name and password.

2 **Administrator access**. Allows full administrative access to the Gatekeeper. All configuration entries may be updated and full write access is given to the database, including the ability to change all system passwords.

When you log in using Administrator access, Element Manager opens with the Web page shown in Figure 65 on page 117.

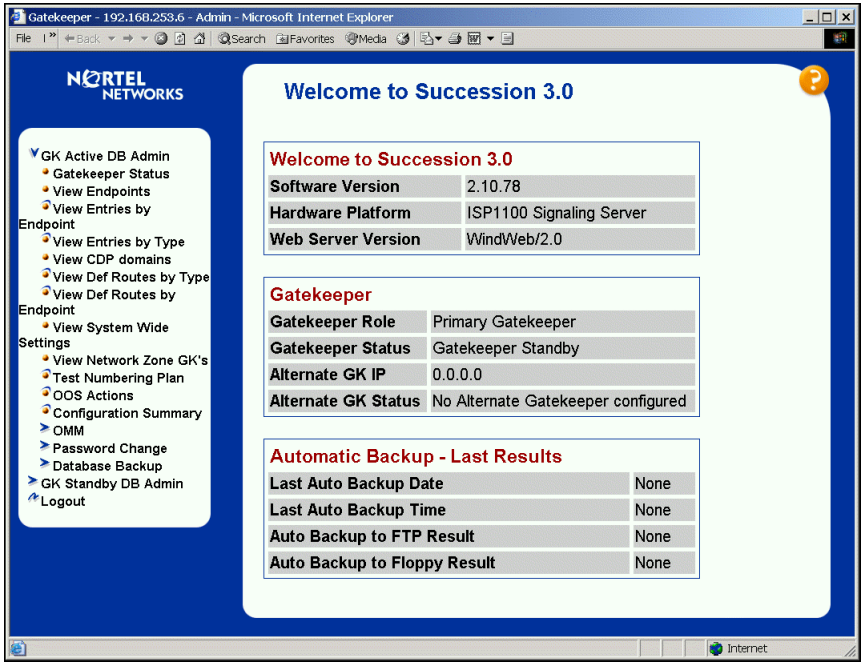
Guest access

When accessing the Gatekeeper as a guest, you can view configuration data and reports from the performance monitoring functions.

Administrator access

To make changes to the Gatekeeper configuration, you must log into the Gatekeeper using Administrator access. In addition to the monitoring functionality available with Guest access, Administrators can access configuration and administration functions shown in the menu tree in Figure 65 on page 117.

Figure 65
Gatekeeper Administrator page



Using Element Manager, the Administrator can:

- Change passwords.
- Configure system wide settings.
- Configure the CDP domains.
- Configure RAS and non-RAS endpoints.
- Select endpoint number prefixes.
- Configure Numbering Plan entries.
- Configure Default routes.
- Configure Gatekeeper zones.
- Test Numbering Plans.
- Take the Gatekeeper out-of-service.

- Perform a database cut over.
- Perform a database rollback.
- View traffic reports.

For detailed information on performing these procedures and managing the Gatekeeper using Element Manager, see *IP Peer Networking* (553-3001-213).

Software Upgrade

Contents

This section contains information on the following topics:

Introduction 119
IP Telephony loadware 119
Error message and delay when upgrading IP Telephony loadware . 121
IP Telephony firmware 121
File Upload 123

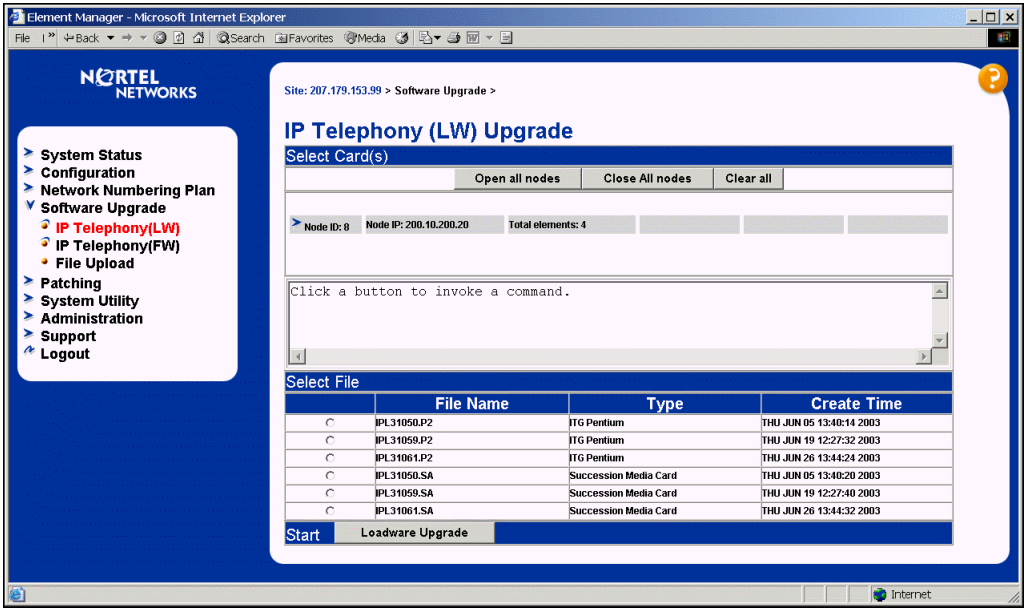
Introduction

The Software Upgrade selection in Element Manager's navigation tree allows you to view the version of software that is installed on the elements. You can also select Software Upgrade to upgrade IP telephony loadware and distribute IP Telephony firmware to ITG cards. The file upload feature allows you to store loadware and firmware files on the Signaling Server.

IP Telephony loadware

Click on **IP Telephony (LW)** in the navigation tree to open the Software Upgrade > IP Telephony (LW) Upgrade page (Figure 66 on page 120).

Figure 66
Software Upgrade > IP Telephony (LW) Upgrade page



From this page you can view:

- loadware version for each element
- available loadware files

Buttons at the top of this page enable you to:

- open all nodes
- close all nodes
- clear all check boxes

Procedure 3
Upgrading the loadware on the ITG cards

1 Click the check box beside each ITG card you want to upgrade.

Note: The maximum number of elements that can be upgraded at one time is four. For more information, see *Succession 1000 System: Upgrade Procedures* (553-3031-258))

2 Click the radio button beside the file that you want to use for the upgrade.

3 Click **Loadware Upgrade** to start the upgrade.

End of Procedure

Error message and delay when upgrading IP Telephony loadware

Applicable systems: Succession 1000 and Succession 1000M

When performing an upgrade of release 3.0 to 3.x IP telephony loadware on VGCM cards using the Element Manager interface through **Software Upgrade > IP Telephony (LW)**, you will experience a delay and the display of this error message: “Failed to connect msg pipe”. This will happen even under normal circumstances.

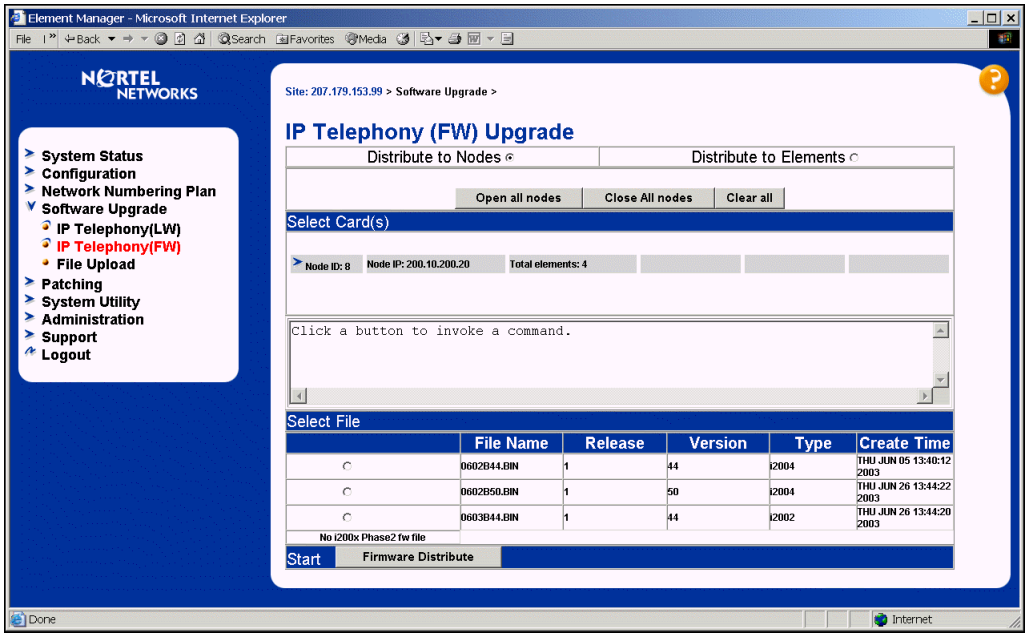
The delay is caused by the upgrade process trying to first communicate with the VGSCM card using the XMSG protocol, that is unsupported on release 3.0. After expiration of a timer, the process retries using the RPC protocol, that is supported with release 3.x.

Ignore the error message, and allow enough time for the procedure to execute properly.

IP Telephony firmware

Click on **IP Telephony (FW)** in the navigation tree to open the Software Upgrade > IP Telephony (FW) Upgrade page (Figure 67 on page 122).

Figure 67
Software Upgrade > IP Telephony (FW) Upgrade page



From this page you can view:

- IP telephone firmware versions available on each element
- IP telephone firmware files available for distribution to the elements

Buttons at the top of this page enable you to:

- open all nodes
- close all nodes
- clear all check boxes

Procedure 4
Distributing upgraded firmware to the elements

To distribute upgraded firmware to the elements:

1. Click the check box beside each of the elements that you want include in the firmware distribution.
2. Click the radio button beside the firmware file that you want to distribute.
3. Click **Firmware Distribute** to start the process.

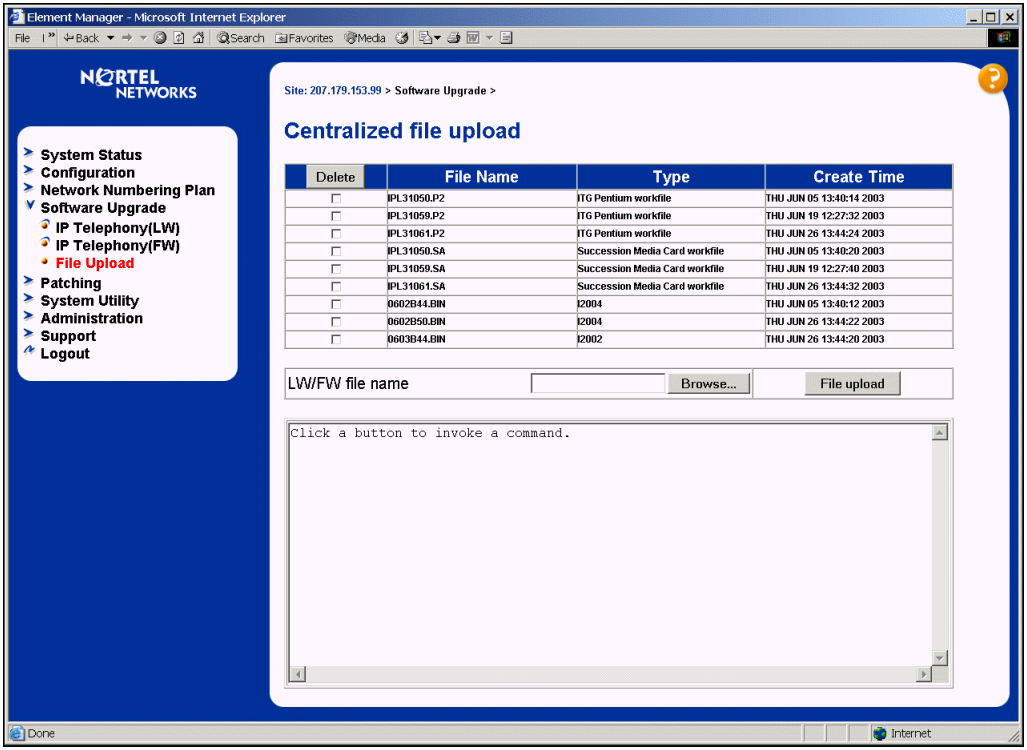
End of Procedure

File Upload

The file upload function allows you to upload and store loadware and firmware files on the Succession Signaling Server. These files can then be downloaded to IP telephones and other network elements using the functions available under the IP Telephony (LW) and IP Telephony (FW) branches in the navigation tree.

Under **Software Upgrade** in the navigation tree, click **File Upload**. The Centralized file upload page opens (Figure 68 on page 124).

Figure 68
Software Upgrade > Centralized file upload page



Procedure 5
Uploading a file to the Signaling Server

1 Enter the path and filename in the text box, or click the **Browse** button and navigate to the file that you want to upload.

Note: The file to be uploaded must be either a firmware or loadware file.

2 Click **File upload**.

End of Procedure

Patching

Contents

This section contains information on the following topics:

Introduction 125
Call Server 125
Media Gateway 128
IP Telephony 130

Introduction

Succession 1000 Element Manager provides the ability to download patches to the following Succession 1000 components:

- Call Server
- Media Gateway
- Voice Gateway Media Card
- Succession Media Card
- Succession Signaling Server

Call Server

Patching of the Call Server can be performed from Element Manager.

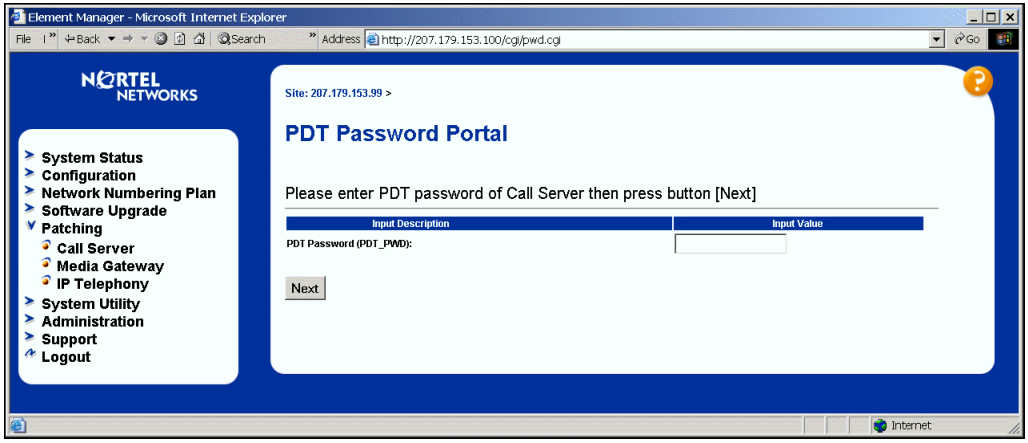
Procedure 6
Patching of Call Server

1 Enter the PDT password to access the patching feature.

2 In the **Patching** section of the navigation tree, click on **Call Server**.

The PDT Password Portal page opens (Figure 69).

Figure 69
PDT Password Portal page

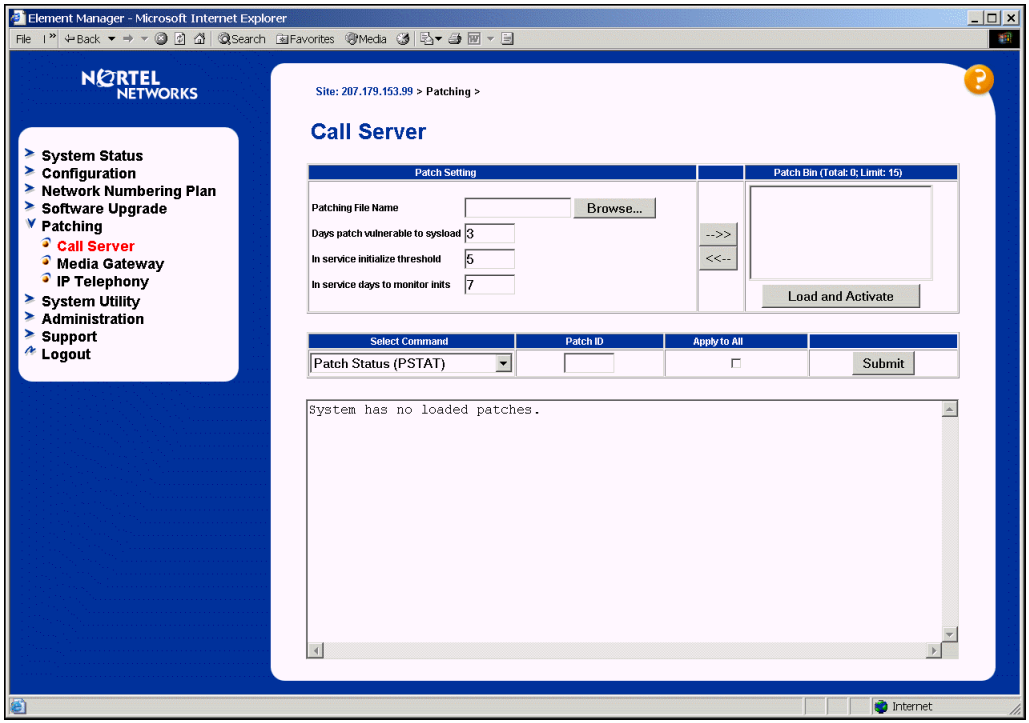


3 Enter the PDT Password, and click **Next**.

The Patching > Call Server page opens (Figure 70 on page 127).

End of Procedure

Figure 70
Patching > Call Server page



From the Patching > Call Server page you can:

- Load and activate a new patch.
- Get the status of a single patch or all patches (PSTAT).
- Activate a single patch or all patches (PINS).
- Deactivate a single patch or all patches (POOS).
- Remove a single patch or all patches (POUT).
- View the details on a patch (PLIS).

The Patch Setting section at the top left of the screen allows you to select files and choose settings. Clicking on the **-->>** (right arrow) button moves patch files into the Patch Bin section. Likewise, clicking on the **<<--** (left arrow)

button moves patch files out of the Patch Bin section. Press the **Load and Activate** button to submit the selected patch(es) to the call server. Results are displayed at the bottom of the screen.

> ***Note:*** You can patch only 15 files at a time. If you need to install more than 15 patches, you must run the utility again.

All patching commands require the Patch ID (sometimes called patch handle). After selecting the Patch command from the drop-down list, enter the Patch 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 will execute the command. Results are displayed at the bottom of the screen.

Media Gateway

Patching of the Media Gateways can be performed from Element Manager.

Procedure 7
Patching of Media Gateways

1. Enter the PDT password to access the patching feature.
2. Click on **Media Gateway** in the **Patching** section of the navigation tree

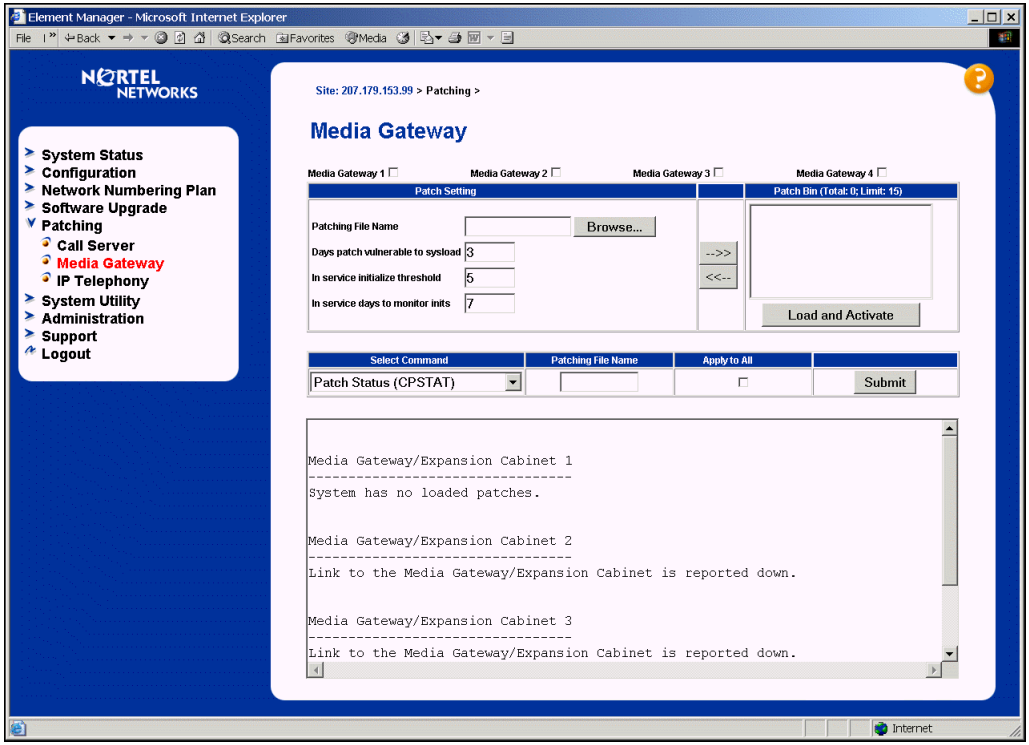
   If, during your current session, you have not previously entered the PDT password, the PDT Password Portal page opens. See Figure 69 on page 126.
3. Enter the PDT Password, and click **Next**.

   The Patching > Media Gateway page opens (Figure 71 on page 129).
4. Click on one of the check boxes at the top of the page to select the required Media Gateway for patching.

   Note: If no Media Gateway is selected, the patch command is applied to all of the Media Gateways.

End of Procedure

Figure 71
Patching > Media Gateway page



From the Patching > Media Gateway page, you can:

- Load and activate a new patch.
- Get the status of a single patch or all patches (CPSTAT).
- Activate a single patch or all patches (CPINS).
- Deactivate a single patch or all patches (CPOOS).
- Remove a single patch or all patches (CPOUT).
- View the details on a patch (CPLIS).

The Patch Setting section at the top left of the screen allows you to select files and choose settings. Clicking on the **-->>** (right arrow) button moves patch

files into the Patch Bin section. Likewise, clicking on the **<<--** (left arrow) button moves patch files out of the Patch Bin section. Press the **Load and Activate** button to submit the selected patch(es). Results are displayed at the bottom of the screen.

> ***Note:*** You can patch only 15 files at a time. If you need to install more than 15 patches, you must run the utility again.

All patching commands require the Patching File Name. After selecting the Patch command from the drop-down list, enter the patching file name in the text box.

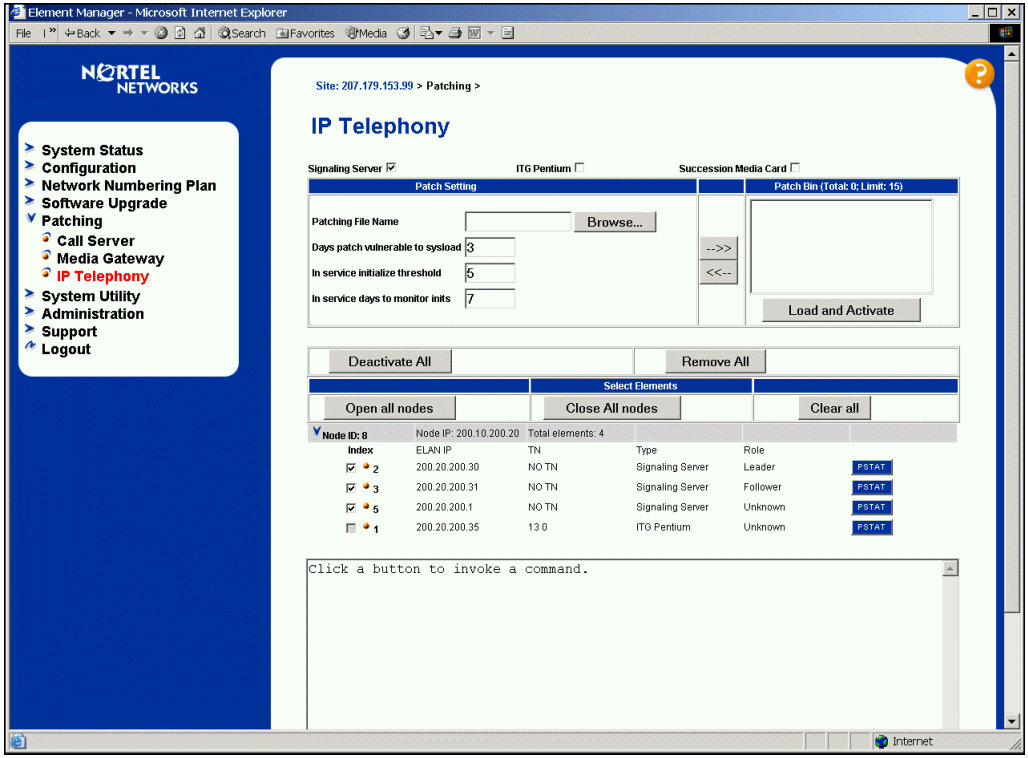
The "Apply to All" check box is enabled for all commands with the exception of the CPLIS command. Clicking the **Submit** button will execute the command. Results are displayed at the bottom of the screen.

IP Telephony

You can use Element Manager to patch IP Telephony elements, including Signaling Servers, ITG Line Cards, and Succession Media Cards. In the **Patching** section of the navigation tree, click on **IP Telephony**.

The Patching > IP Telephony page opens (Figure 72 on page 131).

Figure 72
Patching > IP Telephony page



Click on one of the check boxes at the top of the page to select an IP Telephony element for patching.

From the Patching > IP Telephony page, you can:

- Load and activate IP Telephony patches
- Deactivate all IP Telephony patches, and
- Remove all IP Telephony patches.

The Patch Setting section at the top left of the screen allows you to select files and choose settings. Clicking on the **-->>** (right arrow) button moves patch files into the Patch Bin section. Likewise, clicking on the **<<--** (left arrow)

button moves patch files out of the Patch Bin section. Press the **Load and Activate** button to submit the selected patch(es). Results are displayed at the bottom of the screen.

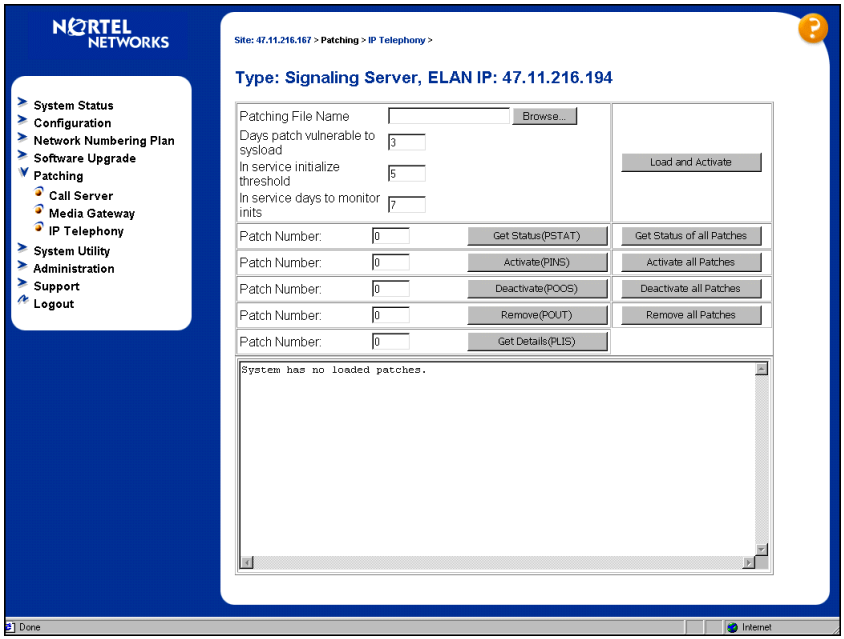
> ***Note:*** You can patch only 15 files at a time. If you need to install more than 15 patches, you must run the utility again.

Buttons on this page enable you to:

- deactivate all patches
- remove all patches
- open all nodes
- close all nodes
- clear all check boxes

You can also view the status of the patches associated with an individual Signaling Server or IP Line card. Click on the **Get Status** (PSTAT) button located in the right column of the list of elements. The patching page for the selected element opens. In Figure 73 on page 133, the **PSTAT** button associated with the Signaling Server in Node 435 was clicked. In Figure 74 on page 134, the **PSTAT** button associated with the Succession Media Card in Node 828 was clicked.

Figure 73
Patching > IP Telephony > Signaling Server page

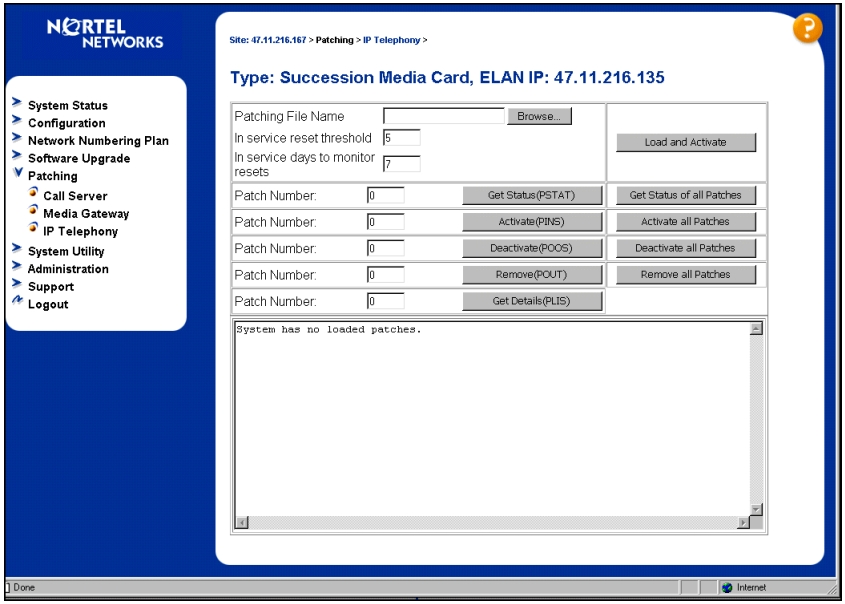


As is the case with the patching pages for the Call Server and Media Gateways, details on the Signaling Server patches appear at the bottom of the page.

From the Patching > IP Telephony > Signaling Server page, you can:

- Load and activate a new patch.
- Get the status of a single patch or all patches (PSTAT).
- Activate a single patch or all patches (PINS).
- Deactivate a single patch or all patches (POOS).
- Remove a single patch or all patches (POUT).
- View the details on a patch (PLIS).

Figure 74
Patching > IP Telephony > Succession Media Card page



Details about the Succession Media Card patches appear at the bottom of the page, as they do for other elements.

From the Patching > IP Telephony > Succession Media Card page, you can:

- Load and activate a new patch.
- Get the status of a single patch or all patches (PSTAT).
- Activate a single patch or all patches (PINS).
- Deactivate a single patch or all patches (POOS).
- Remove a single patch or all patches (POUT).
- View the details on a patch (PLIS).

System Utility

Contents

This section contains information on the following topics:

Introduction 135
Call Server Backup 135
Call Server Restore 138
System Date & Time 140

Introduction

The System Utility activities that can be accessed through Element Manager are:

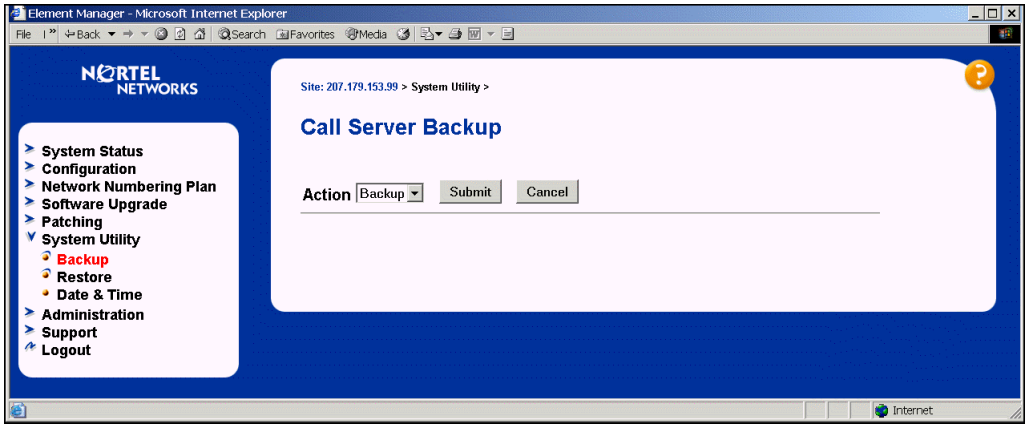
- Call Server Backup
- Call Server Restore
- System Date & Time

Call Server Backup

The Call Server 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 CLI command EDD traditionally configured in LD 43.

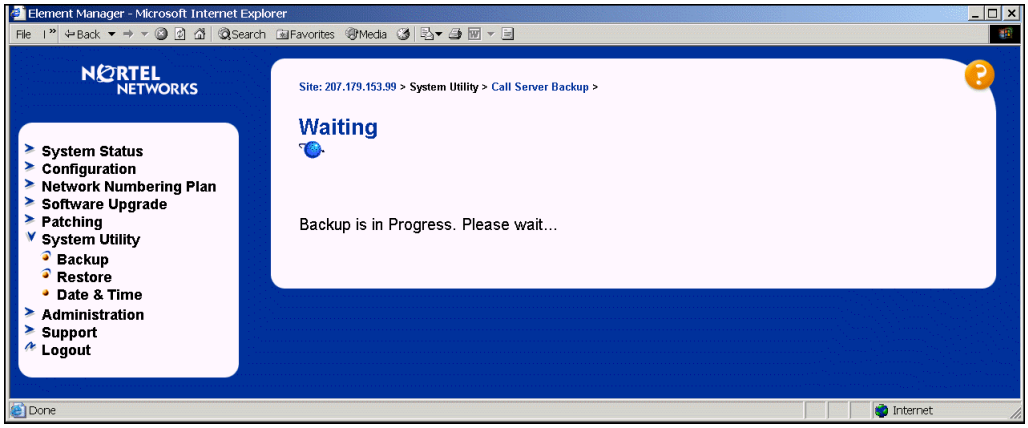
Under **System Utility** in the navigation tree, click **Backup**. The Call Server Backup page opens (Figure 75 on page 136).

Figure 75
System Utility > Call Server Backup page



To back up the Call Server, select Backup from the Action drop-down list and click **Submit**. The Call Server Backup Waiting page opens to indicate that the backup is in progress (Figure 76).

Figure 76
System Utility > Call Server Backup Waiting page

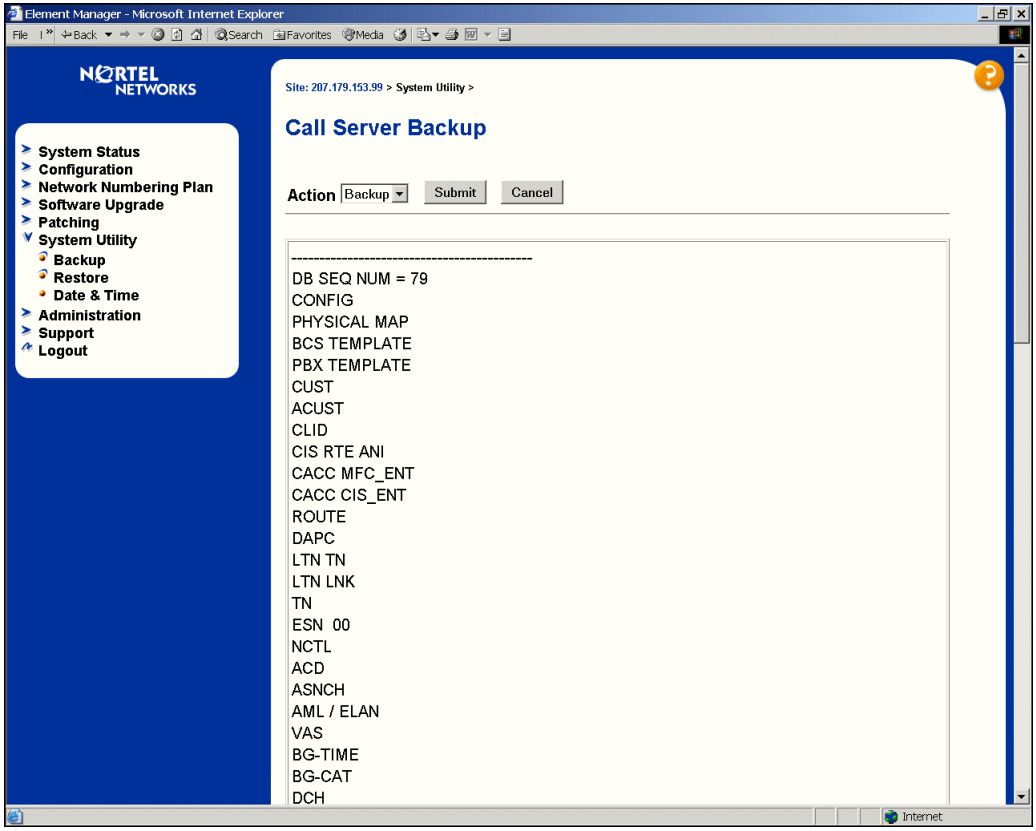


When the backup has finished, the dialog box shown in Figure 77 appears to indicate that the Equipment Data Dump (EDD) is complete.

Figure 77
EDD complete dialog box

Click **OK**. A summary of the results of the EDD appears at the bottom of the Call Server Backup page (Figure 78 on page 138).

Figure 78
System Utility > Call Server Backup results



Call Server 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 command RIB traditionally configured in LD 43.

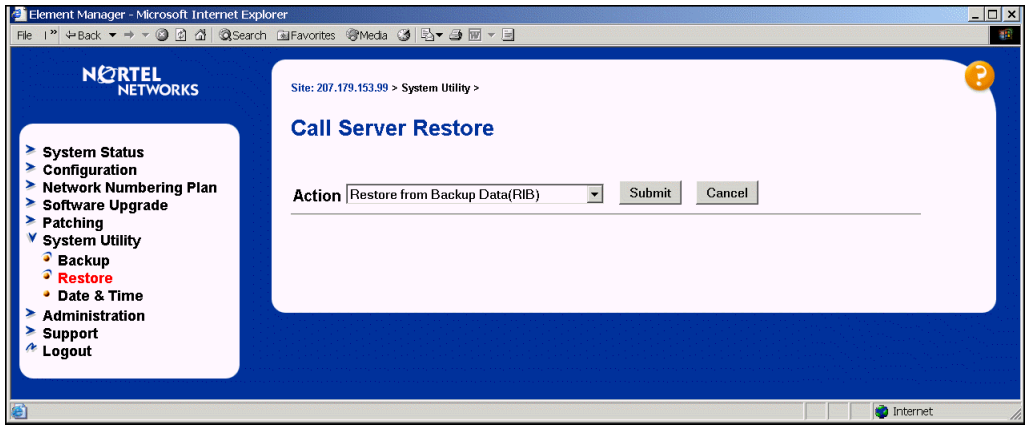
WARNING

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.

Under **System Utility** in the navigation tree, click **Restore**. The Call Server Restore page opens (Figure 79).

Figure 79
System Utility > Call Server Restore page



To restore the Call Server data, select Restore from Backup Data in the Action drop-down list and click **Submit**.

Note: The database for Element Manager IP telephony will be updated immediately after the restore. Other call server databases require a cold start after the restore.

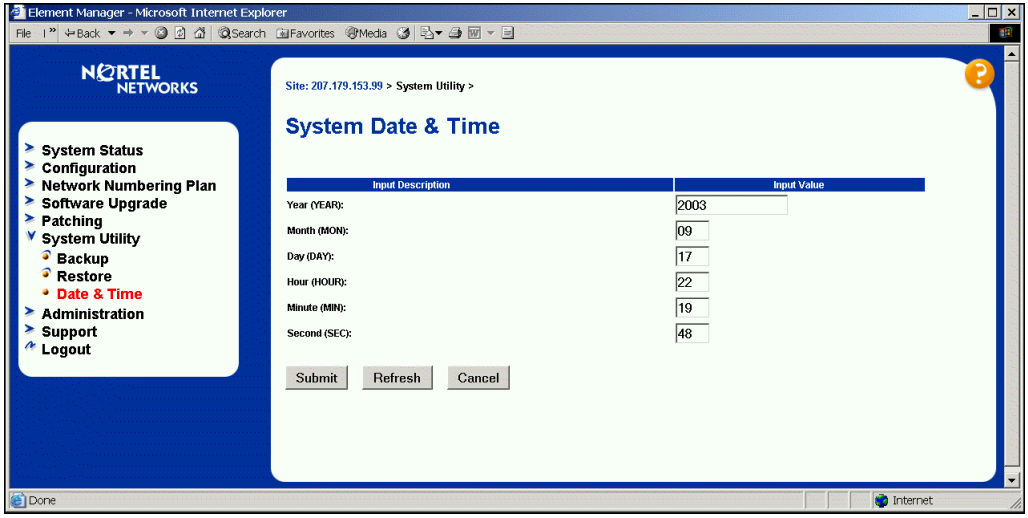
System Date & Time

The System Date & Time function allows you to modify the system's current time and date using Element Manager. The System Date & Time function performs the same task as the CLI command STAD traditionally configured in LD 02.

> ***Note 1:*** The date and time configured in either Element Manager or LD 02 is synchronized to all primary Signaling Servers and IP telephony Leaders within the system. You can specify on a node basis whether the SNTP server (running on the primary Signaling Server) or the ITGL Leaders will actively push the date and time to the SNTP clients (IP Line 3.1 / Voice Gateway cards and other Signaling Servers) or if the SNTP clients will pull the date and time from the SNTP server.
>
> ***Note 2:*** Synchronization can be set to occur on a regular interval, when modifications are made, or during a data dump, including a midnight routine data dump. As part of the Node configuration, you may specify how the date and time are propagated within the Node by configuring the primary Signal Servers or IP telephony Leaders to run in broadcast mode or listen mode.

Under **System Utility** in the navigation tree, click **Date & Time**. The System Date & Time page opens (Figure 80 on page 141).

Figure 80
System Utility > System Date & Time page



To modify the date and time, enter the current date and time in the Input Value text boxes and click **Submit**.

Note: The valid range for Month (MON) is 1 through 12. Entering a value higher than 12 will disable the **Refresh** button.

Administration

Contents

This section contains information on the following topics:

Introduction 143
System Information 143
User Time-out 144
Password 145
Password information for end users 146
Password administration 146

Introduction

The Administration activities that can be accessed through Element Manager are:

- System Information
- Password

System Information

The System Information page provides Succession Signaling Server and Call Server information, including web server configuration and logged-in users. This is the same information page that appears when you log in to Element Manager.

To access the System Information page, under **Administration** in the navigation tree, click on **System Info**. The System Information page opens as shown in Figure 81 on page 145.

User Time-out

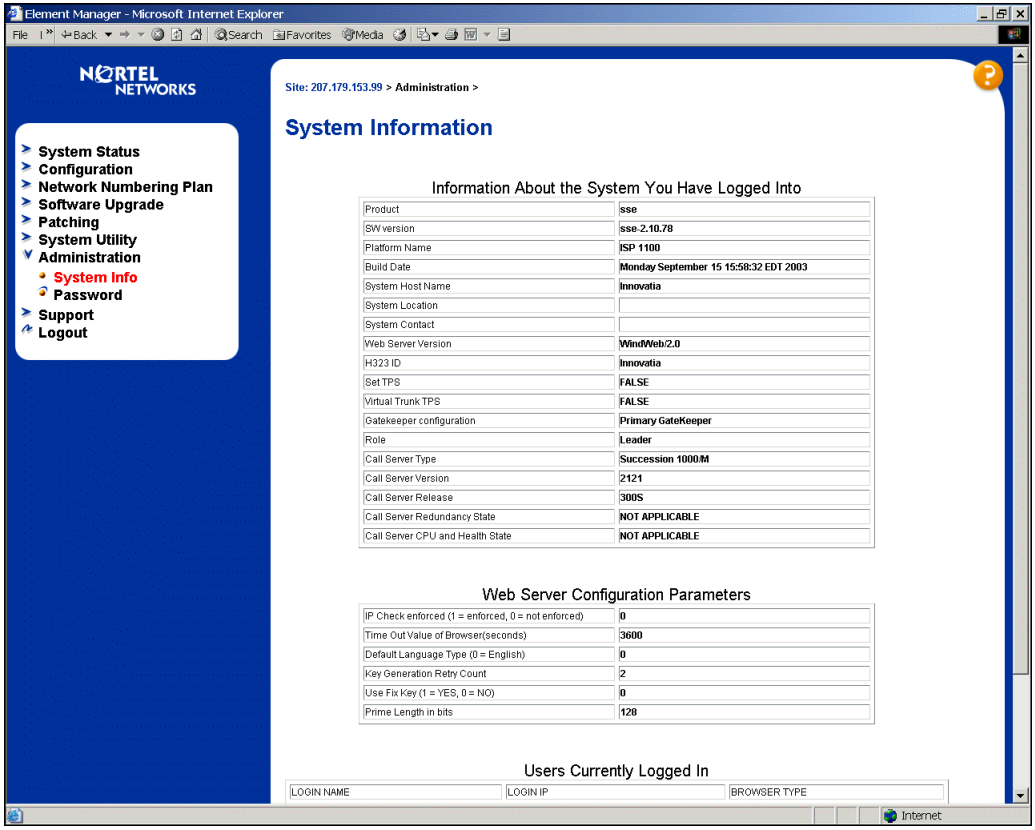
One parameter listed under Web Server Configuration Parameters in Figure 81 on page 145 is “Time Out Value of Browser (seconds).” This parameter is more commonly known as user time-out.

Procedure 8
Changing the web server user time-out

1. Log in to the Signaling Server CLI (vxshell).
2. Insert the Boot CD-ROM in the drive (for security).
3. Enter the command: *upgradeSSCfg*.
4. Follow the menus to change user time-out:
   a. Show current configuration.
   b. upgrade values.
   c. Save new configuration.
   d. Quit.
   e. Log out of the CLI.

End of Procedure

Figure 81
Administration > System Information page



Password

The information that appears when you click the **Password** link in the navigation tree depends on the login ID used to log into Element Manager.

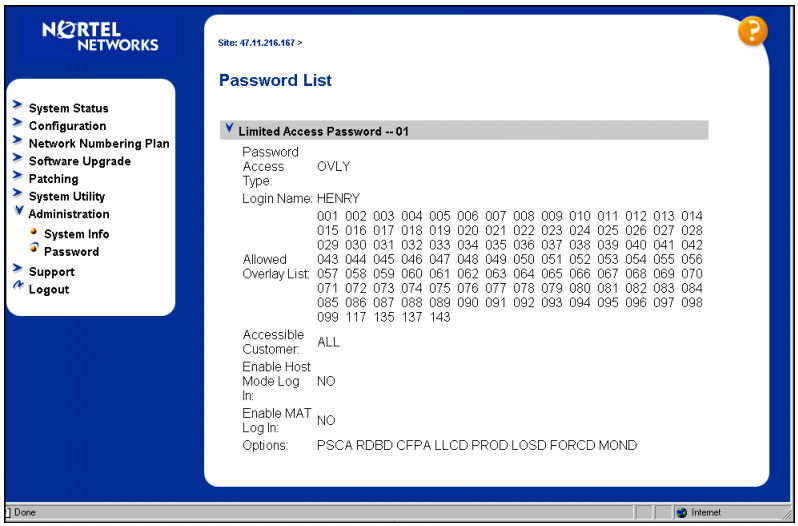
Users that log in with an Administrator level password can create Login Names and passwords for other users that limit access to certain aspects of Element Manager functionality. See “Password administration” on page 146.

Users that log in with a Login Name and password assigned by the Administrator can only access functionality configured for their Login Name.

Password information for end users

When an end-user clicks the **Password** link in the navigation tree, the Password List page opens (Figure 82). The information that the Administrator has configured for the user's Limited Access Password appears on this page.

Figure 82
Administration > Password List page for end user



Password administration

An end-user with Limited Access Password (LAPW) privileges can use Element Manager to change Level 1 and Level 2 passwords and login names for other end-users. Element Manager also allows the end-user to create or modify Limited Access Passwords. The Element Manager Password function performs the same tasks as the PWD related CLI commands traditionally configured in LD 17.

To access the password modification functions:

1. Under **Administration** in the navigator tree, click **Password.**

   Result: The Password Portal page opens (Figure 83).

2. Enter the Level 2 Password in the Input Value text box.

3. Click the **Next** button.

   Once your password is verified, the Password List page opens (Figure 84 on page 148).

Figure 83
Administration > Password Portal page

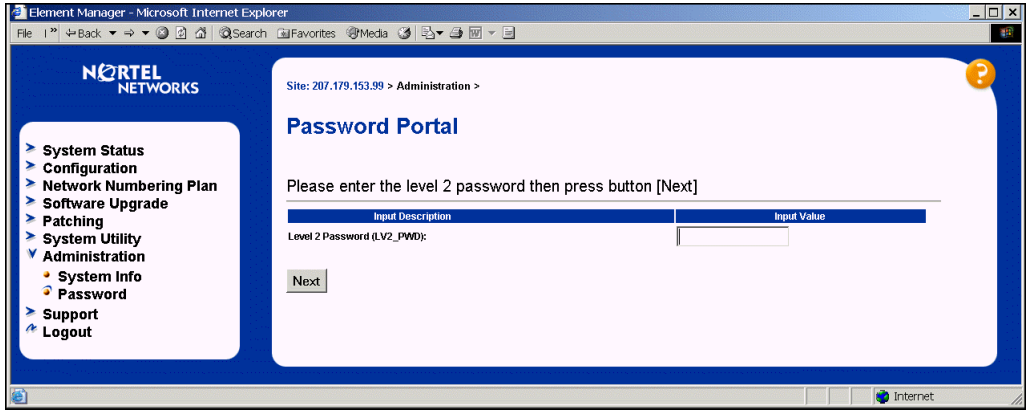
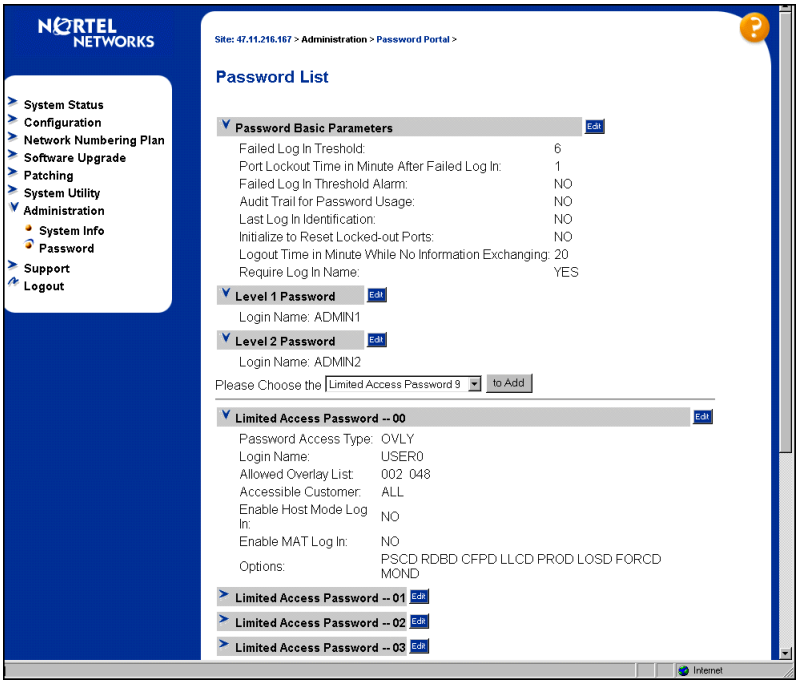


Figure 84
Administration > Password List page for Administrator



From the Password list page you can view the Password Basic Parameters and the settings for the Limited Access Passwords. To edit these parameters, click the **Edit** button located to the right of the password that you want to modify.

Figure 85 on page 149 and Figure 86 on page 149 show the Limited Access Password page that opens when you click the **Edit** button located next to "Limited Access Password -- 00" in (Figure 84). You can use the drop-down lists, text boxes and check boxes to modify the level of access granted to this end-user. Once you have completed your changes, click **Submit**.

Figure 85
Limited Access Password page (Part 1)

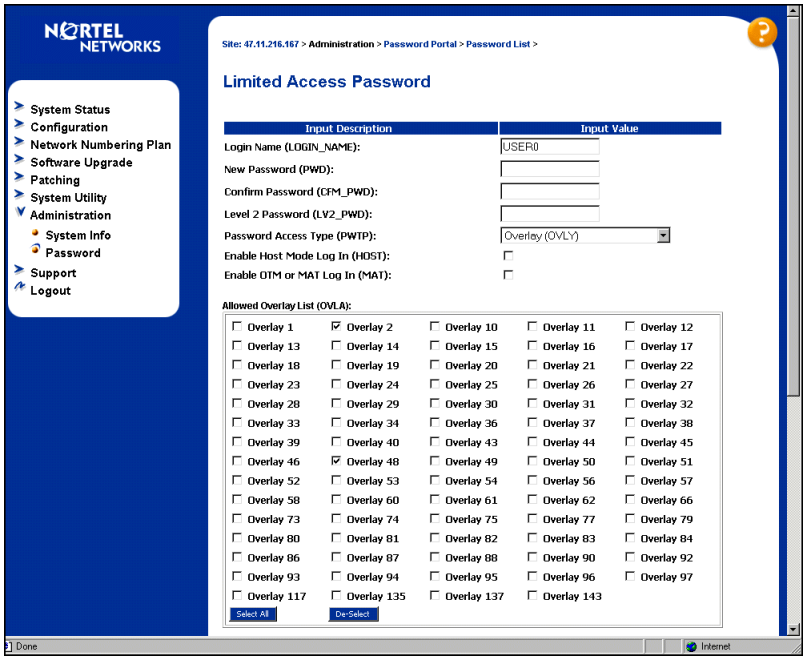
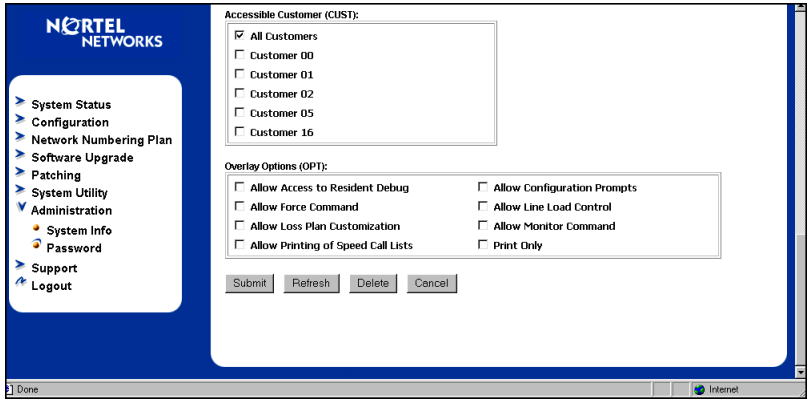


Figure 86
Limited Access Password page (Part 2)



Support

Contents

This section contains information on the following topics:

Introduction 151
Help 151
Contact Nortel Networks. 152
Logout 154

Introduction

The Support features that can be accessed through Element Manager are:

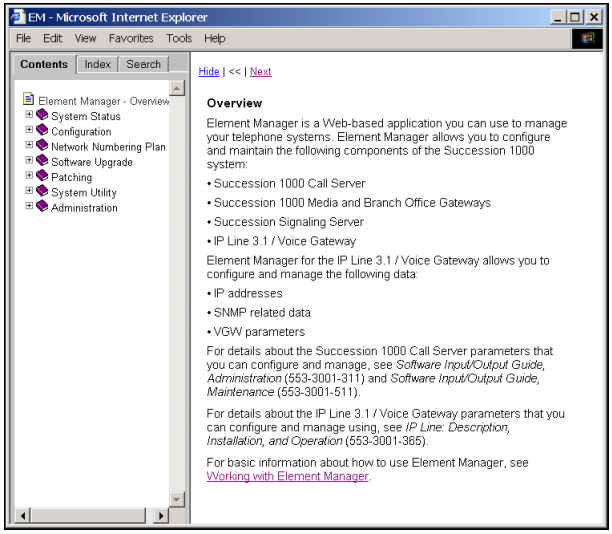
- Help
- Contact Nortel Networks
- Release Notes

Help

Element Manager provides context-sensitive online Help. To access Help, click on the question mark icon located in the top right corner of the Element Manager Web pages.

Element Manager also provides direct access to the Help system. Under **Support** in the navigation tree, click on **Help**. The Help page shown in Figure 87 on page 152 opens.

Figure 87
Support > Help page



Contact Nortel Networks

Element Manager provides a link to the Nortel Networks home page. When you click on the **Contact Nortel** link under **Support** in the navigation tree, the Nortel Networks home page opens in a new browser window as shown in Figure 88 on page 153.

Figure 88
Support > Contact Nortel page

Release notes

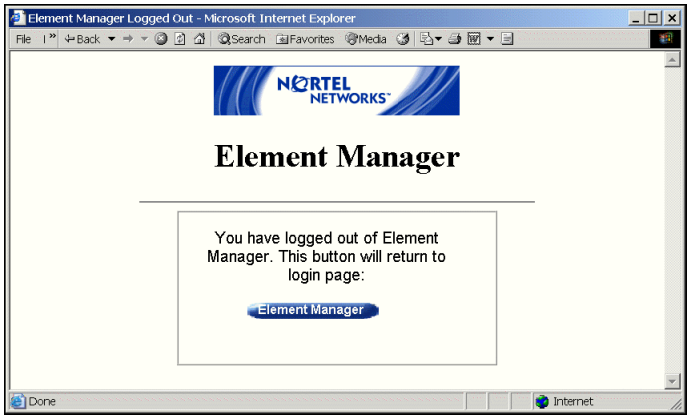
A Release Note can describe a design change or a product feature that was discovered after market release. Often, a Release Note describes how to work

around a product limitation. They are available through the web-based Helmsman Express application.

Logout

To exit Element Manager, click **Logout** in the navigation tree. The confirmation page shown in Figure 89 appears. Click the **Element Manager** button if you want to log back in.

Figure 89
Logout confirmation page



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System Administration

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