



Dialogic® Converged Services Platform - SwitchKit® Development Environment

Converged Services Administrator User's Guide

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Purpose

This documentation provides guidelines for using the Dialogic® CSP.

Safety Labels

The following Safety labels may appear in this information product to alert customers to avoidable hazards. The following are in the order of priority:



DANGER

Danger indicates the presence of a hazard that will cause death or severe personal injury if the hazard is not avoided.



WARNING

Warning indicates the presence of a hazard that can cause death or severe personal injury if the hazard is not avoided.



CAUTION

Caution indicates the presence of a hazard that will or can cause minor personal injury or property damage if the hazard is not avoided. Caution can also indicate the possibility of data loss, loss of service, or that an application will fail.

Conventions used

This information product uses the text conventions explained below. In addition, hexadecimal numbers are preceded by a zero and small “x.” For example, the decimal number 15 is represented in hexadecimal as 0x0F.

Convention	Description
. . .	A horizontal ellipsis in an API message indicates fields of variable length.
:	A vertical ellipsis in an API message indicates that a block of information is repeated or is variable.
<i>n</i>	The letter <i>n</i> is a generic placeholder for a number.
Sans serif mono space	Indicates a command name, option, input, output, non-GUI error, and system messages.
<i>Sans serif monospace italic</i>	Indicates a parameter name in an input message. Example: move *.dot a: c: -s The -s is the parameter.
<i>Serif italic</i>	Indicates the name of a book, chapter, path, file, or API message. Example: <i>UserDirectory/Config.exe</i>
Boldface	Indicates keyboard keys, key combinations, and command buttons Example: Ctrl+Alt+Del
Sans serif boldface	Identifies text that is part of a graphical user interface (GUI). Example: Go to the Configuration menu and select Card->Span Configuration

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1 Getting Started

Purpose This chapter gets you started with the Converged Services Administrator (CSA) in the SwitchKit® Development Environment. After a brief introduction you will see a procedure on installing the CSA and then an overview of the conventions used in the application.

Highlights of the Converged Services Administrator

Overview The Converged Services Administrator (CSA) is the graphical user interface that accompanies SwitchKit® (see *SwitchKit Features and Components (1-3)*). The CSA helps you with the administration and configuration of your Converged Services Platform (CSP). The CSA was introduced with SwitchKit Release 8.0 CI to replace the Switch-Sight Administrator (SSA) which is a monitoring tool, not a configuration, maintenance and provisioning tool.

Features The CSA is a real-time node configuration, maintenance, and administration application. It also lets you monitor the current state of your system in real-time. The states of all the connected nodes, components, and alarms are graphically displayed, enabling you to see activities on the system as they occur.

You can apply changes to the connected nodes with simple point-and-click operations. Through the CSA, system developers avoid low level, code-intensive channel and trunk group assignments and maintenance. Instead you can create and maintain trunk groups through the interface. You can trace and view channel status in real-time. You can take channels and trunk groups in and out of service without down time. You can examine detailed alarms and statistics without decoding log files.

This user guide describes the CSA interface and procedures that can be performed and includes screen shots of the application's many dialog boxes that graphically show tasks that can be completed. In some cases, it may be necessary to consult the API developer's guides for more information on the various options available in the fields shown in the dialog boxes. The CSA user's guide explains the administrative steps you can perform using the CSA application. It contains all the information you need to get your CSA started. It also outlines and demonstrates all the features provided.

SwitchKit Features and Components

Description SwitchKit is a software package that consists primarily of four modular components that function on an external host computer. SwitchKit acts as an application server, communicating with all applications and the CSP switch through a Transmission Control Protocol/Internet Protocol (TCP/IP) interface.

SwitchKit also provides a comprehensive, high-level and open programming environment for the application development and maintenance of the CSP. SwitchKit includes a feature-rich OA&M (operations, administration, and maintenance) system and a high-level API suite, freeing developers to concentrate on revenue-generating applications and services. Because it facilitates the development and integration of Dialogic switch-based telephony applications, it delivers important benefits to both system integrators and service providers.

In supporting multi-node CSP systems, SwitchKit:

- Connects to each matrix card.
- Connects to each node to minimize overhead.
- Allows applications to see a single logical switch.

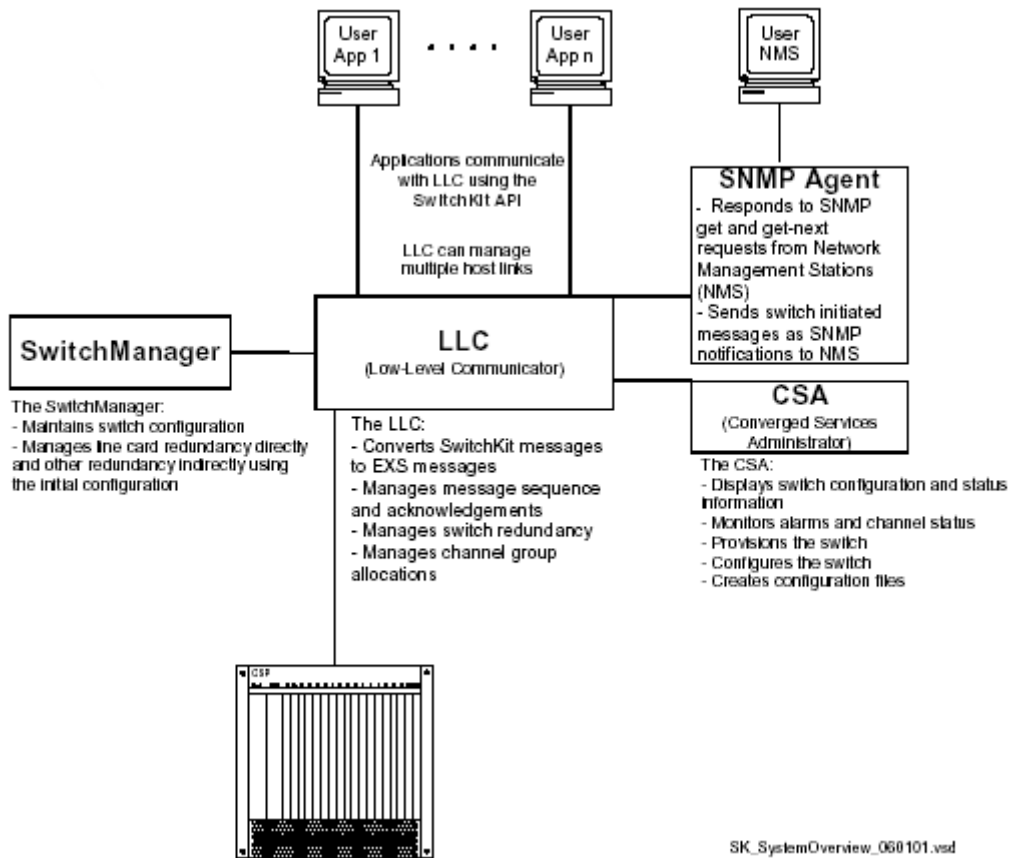
Main Components SwitchKit contains the following four components:

- Low-Level Communicator (LLC)
- SwitchManager
- Application Programming Interface (API)
- CSA

For more information on the LLC and SwitchManager see the *SwitchKit Introduction and Installation Guide* and for API information see the *API Reference*.

Components Diagram The following diagram provides an overview of the SwitchKit components. All components communicate using TCP/IP.

Figure 1-1 SwitchKit Overview Diagram



Supported Operating Environments

Purpose This section describes the operating environments supported with this release of the Converged Services Administrator (CSA).

Requirements The CSA works in conjunction with SwitchKit 8.3. The CSA is available in a Windows® environment only and communicates with SwitchKit using TCP/IP.

- Windows NT®, Version 4.0, Service Pack 5
- Windows® XP Service Pack 2
- Windows® 2003
- A minimum of Pentium III, 500 MHz.
- Display resolution 1024 x 768 pixels

Installing the CSA

Purpose This procedure guides you through the CSA installation.

Before you begin You should run the CSA on a separate computer from other SwitchKit modules and call control applications. Dialogic recommends separating critical real-time processes from graphical display environments.

Important! It might be necessary to reboot your machine after the installation.

Installing the CSA Follow the installation steps below to install the CSA.

- 1 Log on to your target machine with an administrative account.

- 2 If you have the SwitchSight Administrator (SSA) or an older version of the CSA on your system, you should remove them from your system. Use the **Add→Remove Programs** feature in the Windows **Control Panel** to remove the program.

- 3 When the SSA or older version of CSA is successfully uninstalled, revisit your installation directory and remove the SSA folder.

- 4 Insert the *SwitchKit Installation CD*.

- 5 Go to the folder: *SwitchKit/User Interface*.

- 6 Double-click on *CSA.exe* to install the program. This is a self-extracting executable. By default, all associated files will be installed in the directory *C:\Program Files\Cantata\CSA.exe*.

- 7 Follow the screen instructions.

-
- 8** Reboot your machine if prompted.

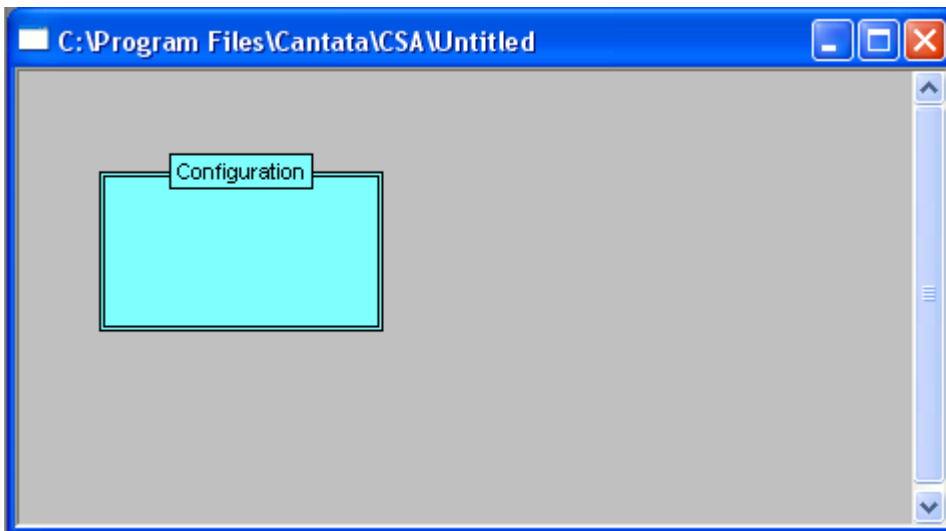
END OF STEPS

Opening the CSA Do the following to open the CSA.

-
- 1** At the **Start** menu, select **Programs** from the menu list.
-
- 2** Select **CSA** from the list of programs.
-
- 3** Click the **CSA** shortcut. This opens the CSA program.

END OF STEPS

CSA Start Window When you have completed the previous steps, the window below opens:



CSA Conventions

Purpose This procedure describes how you open the CSA and provides important information about saving your configurations. This section also aims to familiarize you with some of the frequently-used window views that you will see and basic conventions used in the CSA. For more details on the various monitoring views available within the CSA see the chapter, *System Provisioning and Monitoring (7-1)*.

Before you begin Make sure the CSA is installed on your system.

Modal Interface CSA is a modal interface, meaning you must highlight the module you want to operate on. By selecting a node within the LLC connection, you make that active, and all options are available to you (including Save As, and trunk windows). You don't have to open the node view. You simply have to select it.

Functionality Defined The CSA provides easy access to configure, monitor, and provision functionality on the CSP. The functionality is defined as follows:

Configuration

Ability to graphically configure a CSP from initial card layout to channel configuration.

Monitoring

Real-time view of a CSP used to monitor hardware status, application status, alarm status, and calls in progress.

Provisioning

Allows real-time changes required to maintain optimal processing on the CSP. This includes bringing components in or out of service, busying out components, and managing channel groups.

Configuration Options With CSA, you have the choice of configuring either offline or online. To configure offline means that the CSA is not connected to a CSP. To configure online means the CSA is connected to the LLC and SwitchManager is started. See the procedures: *Adding a Node Offline (2-13)* and *Adding a Node Online (2-16)*

Offline configuration:

- Requires no additional hardware or software.
- Allows you to modify existing configurations or build a new one.

Online configuration:

- Requires LLC and SwitchManager for real-time configuration and maintenance.
- Allows you to import live configuration or card population from the CSP.
- Allows you to download new configuration to the CSP.
- Allows you to modify active configuration to the CSP.

Sending or Refreshing Configuration

After you have a CSP connected to LLC, you can send or refresh your configuration changes to the CSP.



CAUTION

When you are sending a configuration for the first time, you must use **Send All Configurations to Switch**. Do not use **Send Only Modified Configuration to Switch** unless you have previously sent a configuration using **Send All Configurations to Switch**.

Four options are available for making configuration changes:

- **Configuration→ Configure Through SwitchMgr→ Send All Configurations To Switch**
- **Configuration→ Configure Through SwitchMgr→ Send Only Modified Configuration To Switch.**
- **Configuration→ Configure Through SwitchMgr→ Refresh Configuration & Reconfigure.**
- **Configuration→ Configure Through SwitchMgr→ Refresh Configuration Without Reconfiguring.**

If you select **Send All Configurations To Switch**, the CSP deletes its current configuration and the new configuration replaces the current one. This results in system downtime.

If you select **Send Only Modified Configuration To Switch**, the CSA determines which messages have changed, appends the messages to the *system.cfg* file and then sends only those appended messages to the CSP. This results in minimal disruption to a system.

The option, **Refresh Configuration & Reconfigure**, sends the configuration to the CSP, clears the system.cfg file, and then rewrites to the current system.cfg file. If you select this option, your configuration is changed immediately.

The option, **Refresh Configuration Without Reconfiguring**, clears the configuration in the system.cfg file, and then rewrites the current configuration to the system.cfg file. If you select this option, your configuration is changed later only when you select **Send Only Modified Configuration To Switch**.

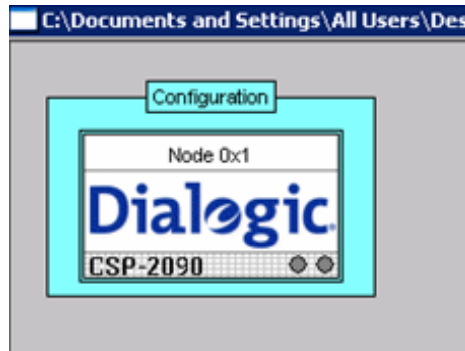
Keyboard Commands The following keyboard commands are provided for use with the CSA.

Key strokes	Action
Arrows Keys	Move the active column left or right.
Ctrl+Insert	Copy a value from the edit cell.
Shift+Insert	Paste a value to the edit cell.
Limitation: Tab Key will not step in/ out of the control.	

Color Conventions Colors are used consistently throughout CSA to indicate which view you are currently working on. All configuration displays are colored light blue. All monitoring displays are white. Provisioning is a subset of monitoring functionality and, therefore, is depicted with white displays.

Configuration Global View

The configuration global view is opened by selecting the menu, **File→New Configuration**. This view displays an icon of a node that is not yet configured. To start configuration of the node, you must right-click on the icon and select **Add New Node** from the pop-up menu. You are then prompted to configure the IP addresses, logical node ID (valid range is: 0-254.), and node type.

**Node Configuration**

The icon in the screen below shows a graphical presentation of a configured node on a CSP. From this view, you can configure the assigned logical node ID, user defined display node name, and chassis type. The blue color indicates the node is in a configuration mode. When you select the icon, then a double line forms around the icon indicating you can perform the configuration. When your configuration is saved, the name of the icon changes to **Configuration** - Your Node Name.

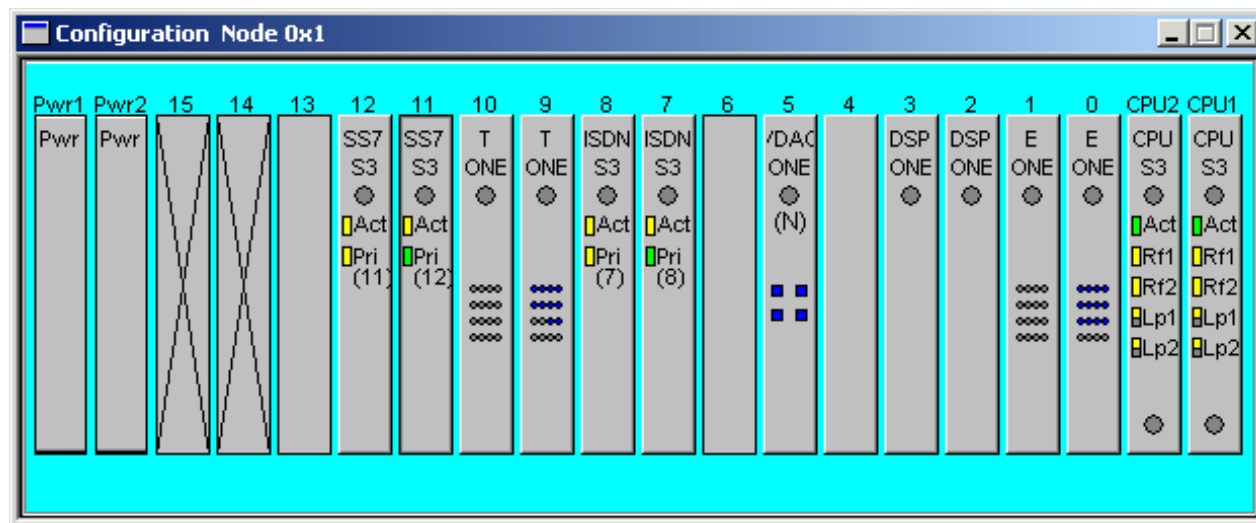
Monitor icon

This icon represents the monitoring view of a configured node that is connected to an LLC. The white color of the node indicates it has been configured and is in a monitoring mode. From this view, you can see the chassis ID. The lights flash green on receipt of poll messages.

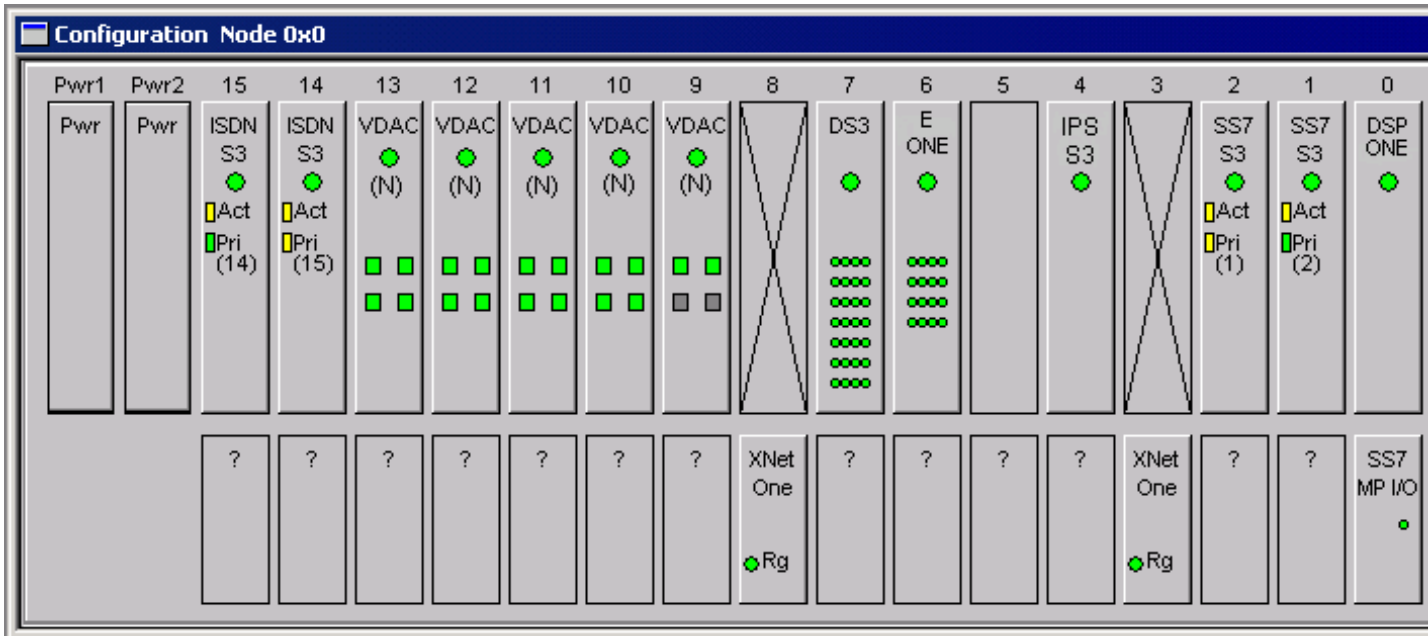
Node View

The node view, which looks similar to a CSP, is used to add and configure cards, as well as monitor the configured cards. Each card is displayed with the card type, an indicator for in-service and out-of-service, and other card specific indicators are shown:

- Line cards display span indicators.
- Matrix cards display diagnostic (DIAG) and clock indicators.
- Out-of-service cards are displayed with a red light emitting diode (LED) in the monitoring view.



You can also view the back of the panel by right-clicking within the node view and selecting **Show Back View** from the pop-up menu. See the next screen shot.



The question marks displayed on the I/O slots in the node view, signify those I/O slots have not been reported as being populated in the Card Population Query message.

2 Basic Configuration - System/Node

Purpose This chapter contains information on the configuration procedures, that guide you through the system and node related configuration steps.

Opening a Configuration File

Purpose This procedure describes how to open an existing configuration file using CSA.

Before you begin Open the CSA.

Open Configuration File The following steps explain how to open an existing configuration file using CSA.



CAUTION

You can only read/open a configuration file with the CSA that is based on SwitchKit release 5.7 and higher.

- 1 Go to the **File** menu, select **Open Configuration**.
 - 2 Browse to the configuration file you want to open and click **Open**. Now you should see a configuration icon of your node. If not, go to the next step.
 - 3 If your configuration file lacks information about the cards and slots in a CSP node, then you will be prompted for this information.
-

See the next screen shot.

Slot Information of Node 54

The Configuration File does not have slot information. Please fill in the slot information below:

Node: Node Type: ☒ EXS CSP 2000 ☐ EXS CSP 1000 ☐ EXNET Connect PCI/H.100 ☐ EXNET Connect ISA/SCBus

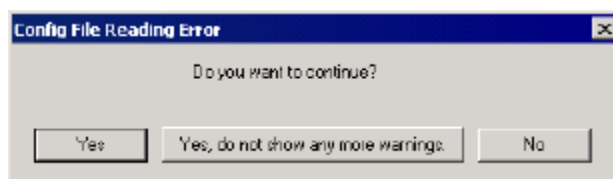
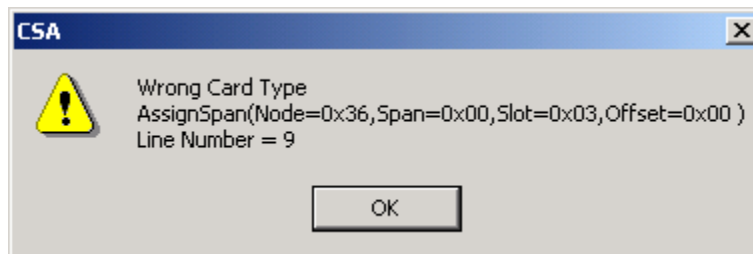
Front Slots		Back Slots		Virtual Slots	
	Card Type		Card Type		Card Type
Slot0		Slot0		Slot64	
Slot1		Slot1		Slot65	
Slot2		Slot2		Slot66	
Slot3		Slot3		Slot67	
Slot4		Slot4		Slot68	
Slot5		Slot5		Slot69	
Slot6		Slot6		Slot70	
Slot7		Slot7		Slot71	
Slot8		Slot8		Slot72	
Slot9		Slot9		Slot73	
Slot10		Slot10		Slot74	
Slot11		Slot11		Slot75	
Slot12		Slot12		Slot76	
Slot13		Slot13		Slot77	
Slot14		Slot14		Slot78	
Slot15		Slot15		Slot79	

OK Cancel

Select the **Node Type**.

- 4 Select the card types for the slots corresponding to your node and click **OK** when you've provided all of the card information.

Important! If you do not select the right card for each slot used in your configuration, you will get error messages. See the next screen shots.



To get back to the **Slot Information...** of your node you can select **No** and start this procedure again. If you want to continue, click **Yes**. You will be forced to click **Yes** numerous times to allow CSA to process each message in your configuration file. If you want to continue without receiving the error messages, click **Yes, do not show any more warnings**. In selecting either of the Yes options, you can add the cards to your node later. See *Adding Cards to a Node (2-21)*.

END OF STEPS

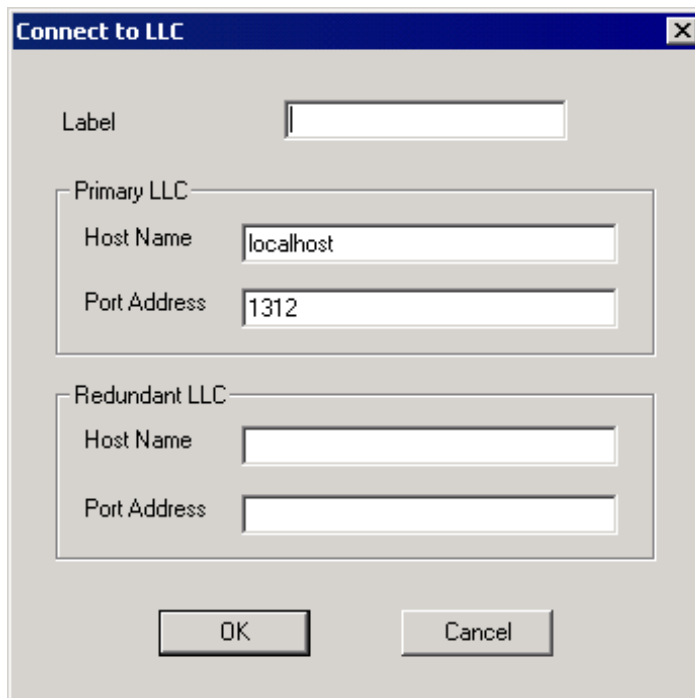
Reading a Configuration from SwitchManager

Purpose This procedure describes how to read an existing configuration from SwitchManager.

Before you begin The LLC and SwitchManager must be running and a configuration must be applied to your CSP. The CSA must be started.

Read Configuration The following steps explain how to read the configuration from SwitchManager.

- 1 Go to the **File** menu, select **Read Configuration from SwitchManager**. If you are not already connected to the LLC, this opens the **Connect to LLC** dialog.



The image shows a Windows-style dialog box titled "Connect to LLC". It has a blue title bar with a close button (X) in the top right corner. The dialog is divided into several sections. At the top, there is a "Label" section with a text input field. Below this is a "Primary LLC" section, which contains two sub-sections: "Host Name" with a text input field containing "localhost", and "Port Address" with a text input field containing "1312". Below the "Primary LLC" section is a "Redundant LLC" section, which also contains two sub-sections: "Host Name" with an empty text input field, and "Port Address" with an empty text input field. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

- 2 Specify the **Label**. This may be alphanumeric and must contain no spaces.
 - 3 Fill in the other fields, if necessary. This depends on your system setup.
-

-
- 4** Click **OK** to close the **Connect to LLC** dialog box.

E N D O F S T E P S

Converting Older Configuration Files

Purpose This procedure describes the steps to read an older configuration file and convert that file to a new format.

Before you begin Open the CSA.

Converting an older configuration file This procedure describes how to convert a SwitchKit configuration file that was not created using CSA.



CAUTION

You can only read/open a configuration file with the CSA that is based on SwitchKit release 5.7 and higher.

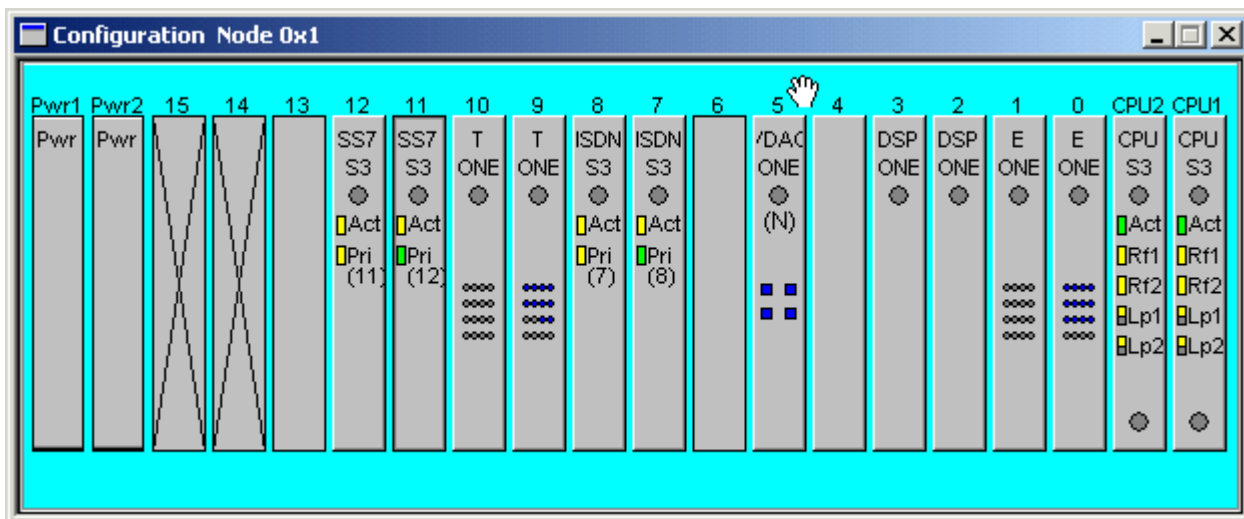
- 1 Create an empty configuration file by selecting **New** or select the File menu, then **New Configuration**.
 - 2 Add a new node. Right-click on the **Configuration** node icon, which represents the LLC, and select the menu **Add New Node**. This will bring up the **Configure New Node** dialog box, as shown below:
-

- 3 Enter the matrix **IP Address(es)** and **Logical Node ID**. The valid range of logical node IDs is: 0-63. Select the node type you want to add by clicking the corresponding radio button.

Important! Select the option to enable ISUP Remote Control, if you want to use a multi-node system without an EXNET® (ring) card.

- 4 Click **OK** in the **Configure New Node** dialog box. The CSA displays a configured node within the **Configuration** icon.

- 5 Double-click on the node to open the node view as shown in the next screen shot:



- 6 To populate the cards in the node, do one of the following:

- Offline configuration.

Right-click in the node view and select the menu item **Add Card**. This will bring up the **Configure Card Type** dialog box. Using this dialog you can specify the cards for each slot.

- Online configuration.

Start LLC and SwitchManager (Switchmgr -p). Right-click in the node view and select the menu item **Populate card from node**. This will bring up the LLC connection dialog box, **Connect to LLC**. After LLC establishes the connection to the switch, CSA will query the switch to get the card information.

- 7 Go to the Global View. Right-click in the node and select the menu item, **File→Import Additional Configuration....** Specify the configuration file and click **Open**. CSA will now read the configuration file and display an error message if it is unable to parse the file.

END OF STEPS

Saving a Configuration

Purpose This procedure describes saving the CSP configuration.

Before you begin Before you can save a configuration, you must create a new configuration or open an existing configuration.

Saving a Configuration The following steps explain saving a configuration file.

1 In the **Global View** select the configuration icon.

2 Go to the **File** menu and select **Save Configuration** or **Save Configuration As** to save your configuration file.

END OF STEPS

Configuring the CSP Using an Existing *.cfg File

Purpose This procedure describes how to send an existing configuration file for the first time to the Converged Services Platform (CSP) and then modify the configuration. To create a new configuration with CSA, see *Adding a Node Online (2-16)*.

Before you begin The LLC and SwitchManager must be running. See the *SwitchKit Installation and Maintenance Guide* for more information. Open the CSA.

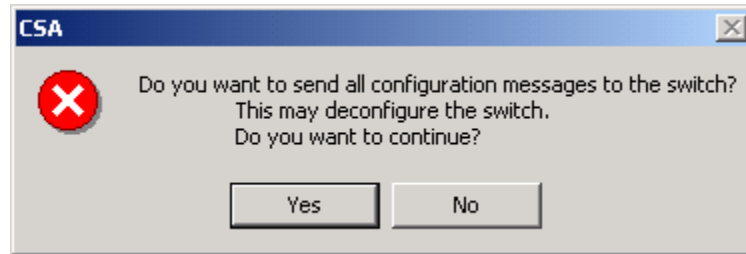
Sending Configuration to the CSP Do the following to send an existing *.cfg file to the CSP.

- 1 Open an existing configuration file by selecting **File→Open Configuration**.
- 2 Browse to your configuration file and click **Open**. A configuration icon appears in the global view.

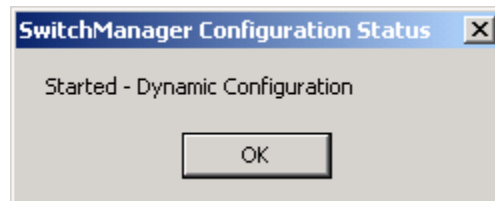


- 3 Since this is your first time sending your configuration to the CSP, go to the menu and select **Configuration→ Configure Through SwitchMgr→ Send All Configurations to Switch**.
- 4 At this point you are prompted to connect the CSA to the LLC. Follow the steps in *Connecting to the LLC (7-2)*.

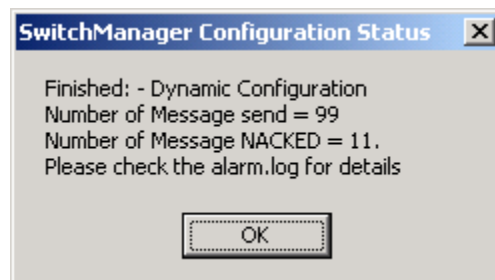
-
- 5 The following sequence of dialog boxes appears.



Click **Yes** and the next dialog box opens. This may take a few minutes.



Click **OK** and then the next dialog box appears.



Click **OK**. A monitoring mode icon appears in your global view.

- 6 Now that you have sent your initial configuration, when you want to send changes to this configuration select **Configuration→Configure Through SwitchMgr→ Send Modified Configuration to Switch.**

END OF STEPS

Adding a Node Offline

Purpose This procedure describes the offline configuration of a node within the CSA. To configure offline means that the CSA is not connected to a CSP.

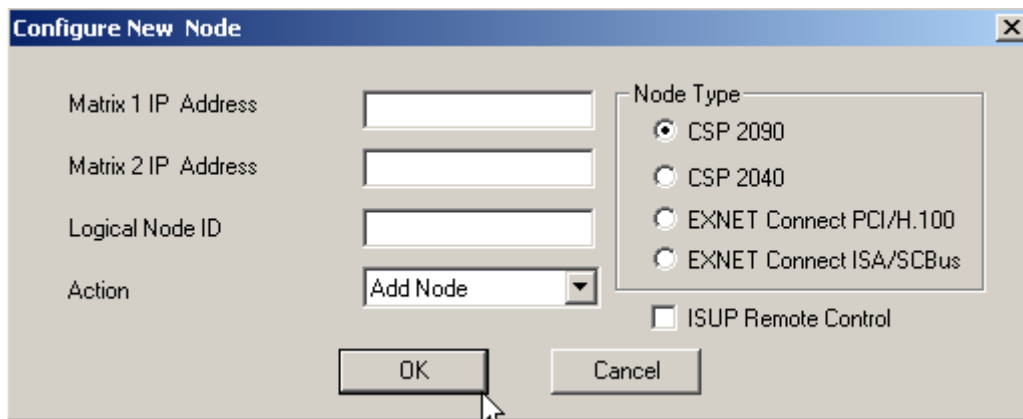
Before you begin Open the CSA. The LLC and the SwitchManager do not need to be started.

Configuring a Node Offline The following steps explain the offline configuration of a node.

- 1 To start configuration offline, do one of the following:
 - Go to the **File** menu, select **New Configuration**. This opens the global view which displays the **Configuration** icon.
 - Go to the **File** menu, select **Open Configuration**. Select the file you want to open from the **Open** dialog box. This displays the **Configuration** icon.

- 2 After the **Configuration** icon is shown, you can access the configuration menus. To continue configuration, do one of the following:
 - Right-click the **Configuration** icon and select **Add New Node**.
 - Left-click the **Configuration** icon to activate it (an activated configuration box has a double-line border). On the menu, go to **Configuration**→**System**→**Add New Node**.

The **Configure New Node** dialog box opens. See the next screen shot.



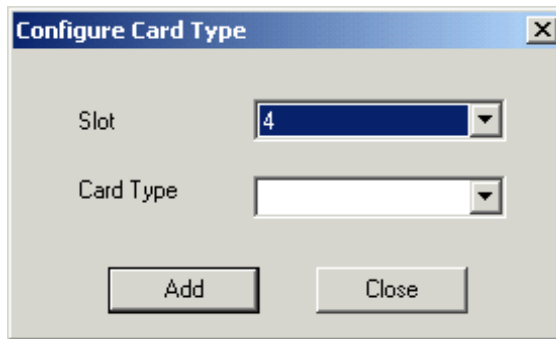
-
- 3 Enter the matrix **IP Address(es)** and **Logical Node ID**. The valid range of logical node IDs is: 0-254. Select the node type you want to add by clicking the corresponding radio button.

Important! Select the option to enable ISUP Remote Control, if you want to use a multi-node system without an EXNET® (ring) card.

-
- 4 Click **OK** in the **Configure New Node** dialog box. The CSA displays a configured node within the **Configuration** icon.

-
- 5 Double-click the node icon, a node view opens.

-
- 6 Right-click an empty slot in the configuration node view and select **Add Card**. The **Configuration Card Type** dialog box opens. See the next screen shot.



-
- 7 Specify the **Card Type** and click **Add**. Repeat this for all cards you want to add.

Important! Be sure to select the card type that corresponds to the card in the physical slot of the CSP. You can move a card to a different slot by right-clicking the card and then select **Change Slot Number** on the pop-up menu.

-
- 8 Click **Close** to close the **Configure Card Type** dialog box. You are now ready to start configuring line cards, spans, and channels. Go to *Configuring Line Cards, Spans, and Channels (3-1)*.

END OF STEPS

Adding a Node Online

Purpose This procedure describes how to add and configure a node within the CSA graphical user interface when the CSA is connected to a CSP.

Before you begin The node to be added must already have system software downloaded through a TFTP server. The LLC and SwitchManager must be running. For information on starting the LLC and SwitchManager refer to the *SwitchKit* documentation set.



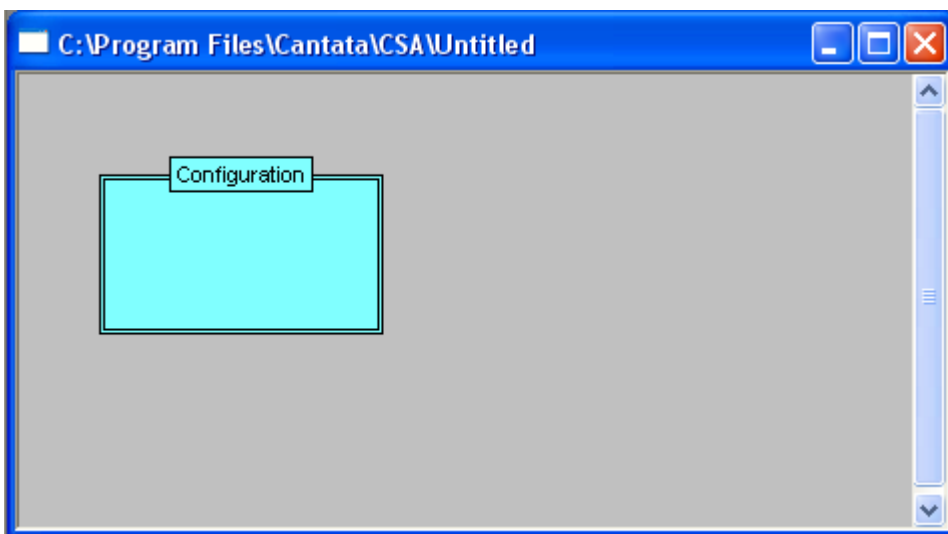
CAUTION

*If you already have other nodes configured, selecting the menu option **Configuration→ Configure Through SwitchMgr→ Send All Configurations To Switch** will reconfigure those nodes. Thus, **Send All Configurations to Switch** should only be used when creating a new configuration. **Send All Configurations to Switch** replaces any previous configuration. When adding a node to an already configured system, you should select the menu option **Configuration→ Configure Through SwitchMgr→ Send Only Modified Configuration To Switch**.*

Configuring a Node Online Do the following to add and configure a node online.

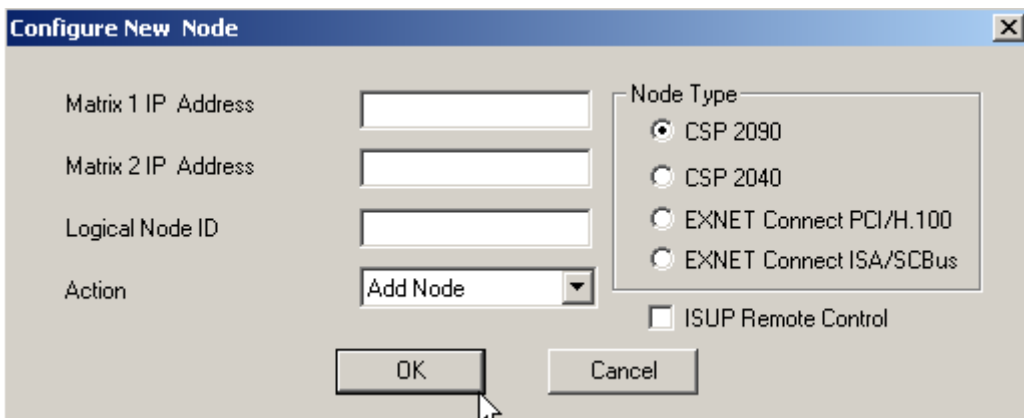
- 1 Go to the **File** menu, select **New Configuration**.

The **Configuration** icon opens in the global view.



- 2 After the **Configuration** icon appears, you can access the configuration menus. To access the configuration menus, do one of the following:
 - Right-click the **Configuration** icon and select **Add New Node**.
 - Left-click the **Configuration** icon to activate it (an activated configuration box has a double-line border). On the menu, go to **Configuration**→**System**→**Add New Node**.

The **Configure New Node** dialog box opens.



- 3 Enter the **IP Address(es)** and **Node ID**. The valid range of logical node IDs is: 0-254. Select the node type you want to add by clicking the corresponding radio button.

Important! Select the option to enable ISUP Remote Control, if you want to use a multi-node system without an EXNET® (ring) card.

-
- 4 Click **OK** in the **Configure New Node** dialog box. The CSA displays a node in the configuration icon.
-

- 5 Double-click the node, the node view window opens.
-

- 6 In the node view, right-click in the space around the card slots and select **Populate Card from the node**.

If you are not already connected to an LLC, the **Connect to LLC** dialog box is invoked. Enter the **Label**, which becomes the name of the node. If you have a redundant LLC, enter the Host Name and Port Address which can be either an IP address or a machine name.

- 7 Once the connection is completed, a monitor icon appears in the global view.

END OF STEPS

Note When you have completed the previous steps, the node view in the configuration mode displays the populated cards. The node view in the monitor mode displays the live system.

You can now make changes to your system configuration or do any provisioning that is required. Remember that changes under all menus other than the configuration menus are executed immediately. Configuration changes are not sent to the CSP until you select the menu: **Configuration→ Configure Through SwitchMgr→ Send All Configurations To Switch** or **Configuration→ Configure Through SwitchMgr→ Send Only Modified Configuration To Switch**.

Updating or Deleting a Node Online or Offline

Purpose This procedure describes how to update or delete a node within the CSA graphical user interface when the CSA is connected to a CSP or not connected.

Before you begin **Updating**

If the node to be updated is online, you must already have system software downloaded through a TFTP server. The LLC and SwitchManager must be running. For information on starting the LLC and SwitchManager refer to the *SwitchKit* documentation set.

Deleting

If the node to be deleted is online you must already have system software downloaded through a TFTP server. The LLC and SwitchManager must be running. For information on starting the LLC and SwitchManager refer to the *SwitchKit* documentation set.



CAUTION

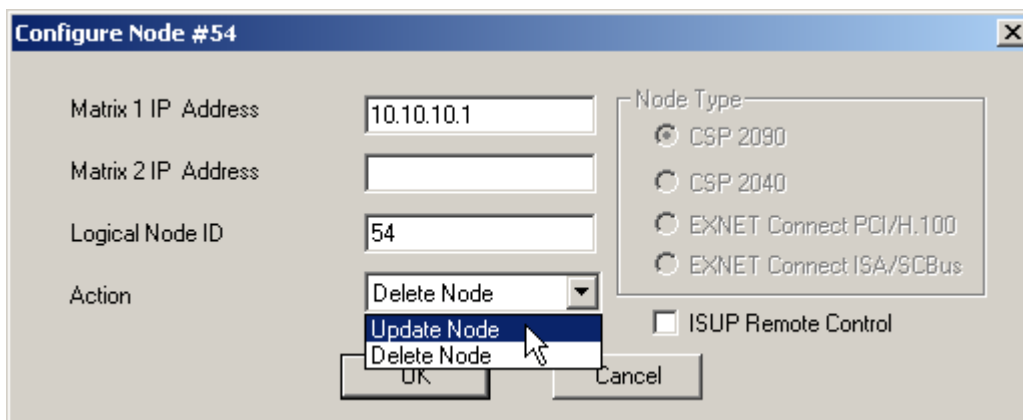
*If you already have other nodes configured, selecting the menu option **Configuration→ Configure Through SwitchMgr→ Send All Configurations To Switch** will reconfigure those nodes. Thus, **Send All Configurations To Switch** should only be used when creating a new configuration. **Send All Configurations To Switch** replaces any previous configuration. When updating or deleting a node in an already configured system, you should select the menu option **Configuration→ Configure Through SwitchMgr→ Send Only Modified Configuration To Switch**.*

Steps for Updating or Deleting a Node

Do the following to update or delete a node online or offline.

- 1 Go to the global view and do one of the following:
 - Right-click the configuration icon and select **IP Address Configuration**.
 - Click on the configuration icon and then on the menu select **Configuration→Change IP Address/Node ID**.
 - Click on the configuration icon and then on the menu select **Configuration→System→ IP Address Configuration**.
 - Go to the configuration node view, right-click in the blue area around the slots and select **Change IP Address/Node ID**.

The **Configure Node...** dialog box opens.



- 2 To update the node, you may enter a new IP address, logical node ID or node type. Then click **OK**.

To delete the node, in the **Action** field, select **Delete Node** from the drop-down list. Then click **OK**.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration→Configure Through SwitchMgr →Send Only Modified Configuration To Switch**.

Adding Cards to a Node

Purpose This procedure describes how to add cards to a node.

Before you begin To add cards you must open a node view window.

Adding Cards to a Node The following steps explain how to add cards to a node.

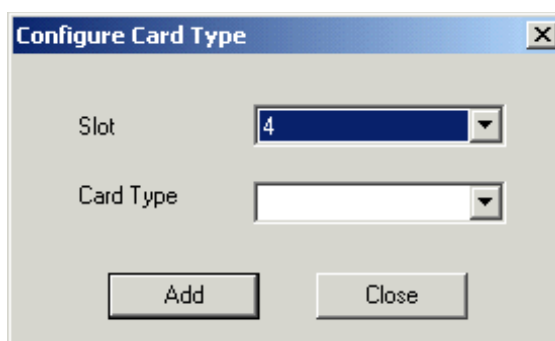


CAUTION

If a card is added, removed, or reconfigured in a slot with another card already in place, that card and the specified configuration will be lost.

- 1 To add a card, do one of the following:
 - Right-click an empty slot in the node view window and select **Add Card**.
 - With the node view window opened, go to the **Configuration** menu and select **Node Configuration**→**Add Card**.

This opens the **Configure Card Type** dialog box. The selections shown in the screen below are example selections.



- 2 Select a **Card Slot** from the drop-down list if an empty slot was not already selected.

**CAUTION**

If a card is added, removed, or reconfigured in a slot with another card already in place, that card and the specified configuration will be lost.

-
- 3** From the drop-down list, select the **Card Type** that corresponds to the card in the physical slot of the CSP. You can move a card to a different slot by right-clicking the card and selecting **Change Slot Number** on the pop-up menu.

-
- 4** Click **Add**.

-
- 5** Repeat steps 2 to 4 for each card you want to add.

-
- 6** Click **Close**. All the cards you added are now displayed in the node view window.

From the node view, you can populate the cards from an online system, please refer to *Adding a Node Online (2-16)*, Step 6.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

Removing a Card

Purpose This procedure describes how to remove a card from a node.

Before you begin To remove cards, you must have an open node view window.

Removing a Card The following steps explain how to remove a card.



CAUTION

If a card is removed all the card configuration settings will be lost.

- 1** Right-click the card in the node view window and select **Remove** from the pop-up menu.
 - 2** A message box pops up, asking if you really want to remove the card. Click **Yes**. The card is removed from the node view.
-

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

Resetting Card Configuration

Purpose This procedure describes how to reset a card's configuration. By doing this configuration you add a *ResetConfig* message to a new configuration file.

Before you begin To reset cards, you must have an open node view window.

Resetting Card Configuration Follow the steps below for the card reset:

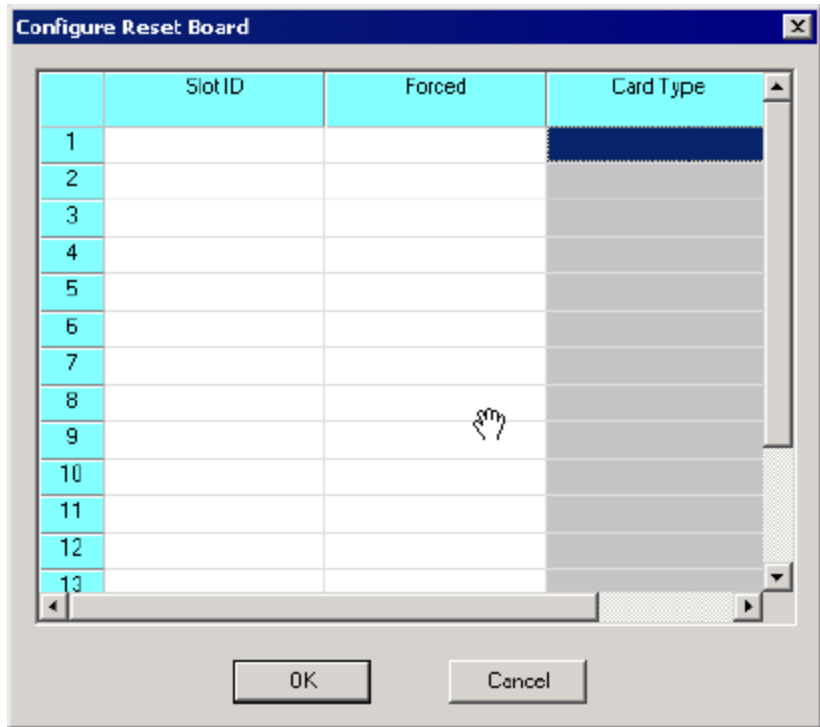


CAUTION

If you reset a card, all the card configuration settings will be lost. If you reset the CSP Matrix Series 3 card, all cards will be reset and lose their configuration.

- 1 To open the card reset configuration dialog box, do one of the following:
 - Right-click in the blue area around the card slots in the node view window, and select **Card Reset Configuration** from the pop-up menu.
 - With the node view open, go to the **Configuration** menu and select **Node Configuration**→**Card Reset Configuration**.

The **Configure Reset Board** dialog box opens. See the next screen shot.



- 2 In the field **Slot ID**, you have a drop-down list with options to either reset cards in all slots or you can select a single slot from a list of slots that contain cards.
- 3 In the **Forced** field, select **Yes** for a forced reset, or **No** for a graceful reset from the drop-down list. A forced reset happens immediately after you send the configuration to the node. If you choose **No**, the reset happens as soon as there is no traffic on the card.
- 4 The input in the **Card Type** column gets generated automatically based on your input for the **Slot ID** in step 2. Verify if this is the card you want to reset.
- 5 Click **OK** to close the **Configure Reset Board** dialog box.

END OF STEPS

Resetting All Card Configuration

Purpose This procedure describes how to reset all card's configuration. By doing this configuration you add a *ResetConfig* message to a new configuration file.

Before you begin To reset all cards, you must have an open node view window.

Resetting All Card Configuration Do the following to reset all cards:



CAUTION

If you reset the CSP Matrix Series 3, all cards will be reset and lose their configuration.

Right-click the CSP Matrix Series 3 card in the node view and select from the menu: **Reset All Cards**.

END OF STEPS

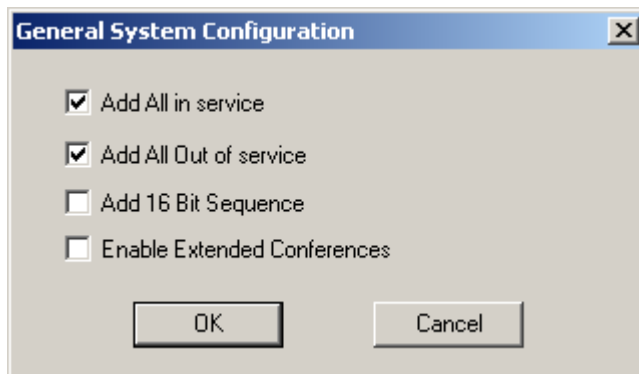
General System Configuration

Purpose This procedure describes how to do a general system configuration. The **Add All In Service** and **Add All Out Of Service** options in the **General System Configuration** dialog box allow you to bring all components (for example, spans and channels) of your configuration in-service or out-of-service with one message.

Before you begin You must have a **Configuration** icon in your global view.

General Configuration Follow the steps below for the general system configuration:

- 1 To enter the general system configuration box, either
 - Right-click on the **Configuration** icon in the **Global View** window, and select **General System Configuration** from the pop-up menu, or
 - With the **Configuration** icon present, go to the **Configuration** menu and select **System**→**General System Configuration**.



In the **General System Configuration** box you can disable or enable the following system options:

- **Add All in Service**
- **Add All Out of Service**
- **Add 16 Bit Sequence**
- **Enable Extended Conferences**

The options in this dialog box allow you to simplify configuration by bringing all CSP components (spans/channels/links) in-service or out-of-service in a single step. SwitchManager will expand this command into the appropriate API messages. If you choose not to use the *All In-Service* message, you should manually bring each component of the CSP in-service. **Add All in service** will bring spans/channels/links/SIMMs into service. **All out of service** will bring spans/channels/links/SIMMs out-of-service before doing any configuration.

If you do not select to **Add 16 Bit Sequence**, the CSP Matrix Series 3 uses an 8-bit value for sequence numbers. For more information on sequence numbers, see *Introduction to API Messages* in the *API Reference*.

If you do not enable extended conferences, each node can accommodate up to 512 conference IDs. By enabling extended conferences the number of available conference IDs increases to 1024. See *Increased Number of Conferences (7-52)* in the *CSP Developer's Guide: Overview*.

-
- 2 Click **OK** to close the **General System Configuration** box.

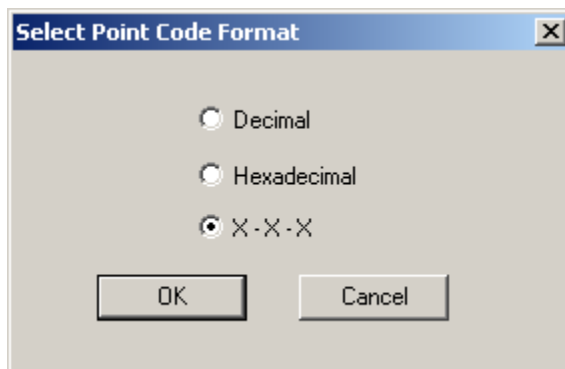
END OF STEPS

Note Configuration changes are not sent to the CSP until select **Configuration→Configure Through SwitchMgr →Send Only Modified Configuration To Switch**.

Setting a Point Code Format

Procedure This procedure describes how to change the point code format to decimal or hexadecimal from the default 24 bit, three octet ANSI point code format. You can change the format in either configuration or monitor mode.

- 1 Go to the menu **View→ Display Settings→Select Point Code Format**. The next dialog box opens:



- 2 Select a format. X-X-X is the default format for ANSI point code. Click **OK**.

General Node Configuration

Purpose This procedure describes how to do a general node configuration.

You must have a node view window open in configuration mode.

Configuring a Node Follow the steps below for configuring a node:

- 1 To enter the configuration dialog box for the general node configuration, either
 - Right-click in the node view window around the card slots, and select **General Node Configuration** from the pop-up menu, or
 - With the node view window open, go to the **Configuration** menu and select **Node Configuration**→**General Node Configuration**.

The **General Node Configuration** dialog box opens. The screen on the next page shows example configuration settings.

General Node Configuration

Product License

	License Key	License Data
1	System Software	41 4b 2 39 4d 4e 42 42 41 4c 4c 32 30 4b
2	IPN-S2 Add Span	41 4e 30 50 5a 36 44 42 41 4c 4c 32 30 4b
3	M3UA License	41 39 42 38 56 47 50 42 34 31 35 54 4d 53
4		
5		
6		
7		
8		

EXS Node Configure

☐ Specify Number of Time Slot
Number of Time Slot:

☐ Specify Master for more than 1 ring at a time
☒ Do not Allow ☐ Allow

General

☒ Unassign All Spans Before Reconfiguring

☐ Poll Interval Configure
Poll Interval (In Seconds):

OK Cancel

- 2 Select the **License Key** from the drop-down list.

- 3 In the **Product License** field, you must specify your product license file or type it in the **License Key** column. Dialogic recommends you read in your license file. To do this, use the browse button or right-click on a blank row under **License Data**. Select **File** and open the file name.

To enter the key manually, right-click a blank row in the **Product License** table, select **Edit Message**, and type the number. The key must be entered in Hexidecimal with spaces. For example: 00 23 10 2a.

4 If you are using a multi-node system, enable the fields under the group, **EXS Node Configure**.

- By default, no Time Slot number is specified. To specify a Time Slot number, select the **Specify Number of Time Slot** box. Enter the **Number of Time Slot** in the input field.
- By default, the configuration will not allow the node to be master for more than one ring. To change the setting, select the **Specify Master for more than 1 Ring at a time** box. Select between **Do Not Allow** and **Allow**.

5 Select **Unassign All Spans Before Reconfiguring**, if required.

6 Select the **Poll Interval Configure** box, if you want to change the default setting (two seconds) for the **Poll Interval**. Select the new value from the drop-down list. Dialogic recommends that you not change this.

7 Click **OK** to close the **General Node Configuration** dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

Configuring Multiple Hosts

Purpose This procedure describes how to configure a CSP node for multiple hosts. Dialogic recommends that you contact Technical Support for assistance before using this procedure.

Before you begin You must have a node view window open in configuration mode.

Configuring Multiple Hosts Follow the steps below to configure multiple hosts:

- 1 To enter the configuration dialog box for the multi-host configuration, do one of the following:
 - Right-click in blue area of the node view window, and select **Multi-Host Configuration** from the pop-up menu.
 - With the node view window open, go to the **Configuration** menu and select **Node Configuration→Multi-Host Configuration**.

The **Configure Multi-Host** dialog box opens. See the next screen shot

This dialog box opens with the default settings shown.

Configure Multi-Host

☐ Multi-Host

☐ Enable

☐ Disable

Port Number: 0x3142

☐ Enable all Switch initiated messages

☐ Enable Switch-Initiated Messages

	API Messages
1	
2	
3	
4	
5	

☐ Enable PPL Event Indication Mess

	PPL Component ID
1	
2	
3	
4	
5	

☐ Disable Switch-Initiated Messages

	API Messages
1	
2	
3	
4	
5	

☐ Disable PPL Event Indication Mess

	PPL Component ID
1	
2	
3	
4	
5	

OK Cancel

- 2 Select the **Multi-Host** check box to activate the field. In the **Multi-Host** field, either **Enable** or **Disable** the Multi-host configuration.
- 3 When the Multi-Host is enabled the **Port Number** field gets activated. You can keep the default port number or change the number through the drop-down menu and do the configuration for the specified port.

-
- 4 You can **Enable** or **Disable All Switch Initiated Messages** using the check boxes.
 - 5 If you want to **Enable** or **Disable** some of the **Switch Initiated Messages** select the check boxes for the tables. Specify the messages you want to enable or disable in those tables.
 - 6 If you want to **Enable** or **Disable PPL Event Indication Messages** select the check boxes for the tables. Specify the messages you want to enable or disable in those tables.
 - 7 Click **OK** to close the **Configure Multi Host** dialog box.
-

END OF STEPS

Note This procedure must be repeated for each multi-host port. Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

Configuring Loop Timing

Purpose This procedure describes configuring loop timing.

Before you begin You must have a node view window open in configuration mode.

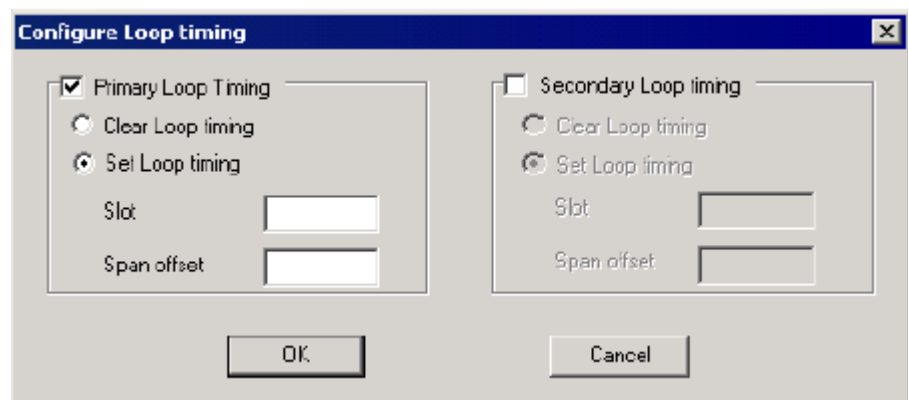


CAUTION

Do not configure loop timing on a VDAC-ONE card, IP Network Interface Series 2 card or a DS3 span.

Configuring Loop Timing The following steps explain how to configure Loop Timing with the CSA.

- 1 Right-click your active **CPU S3** (CSP Matrix Series 3) card and select **Loop Timing Configuration**. This opens the **Configure Loop Timing** dialog box:



- 2 Check the boxes for **Primary Loop Timing** and **Secondary Loop Timing**. Select **Set Loop Timing**.
 - 3 Enter the **Slot** and **Span Offset** information.
-

-
- 4 Click **OK** to close the **Configure Loop Timing** dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

Configuring Synchronization Priority List

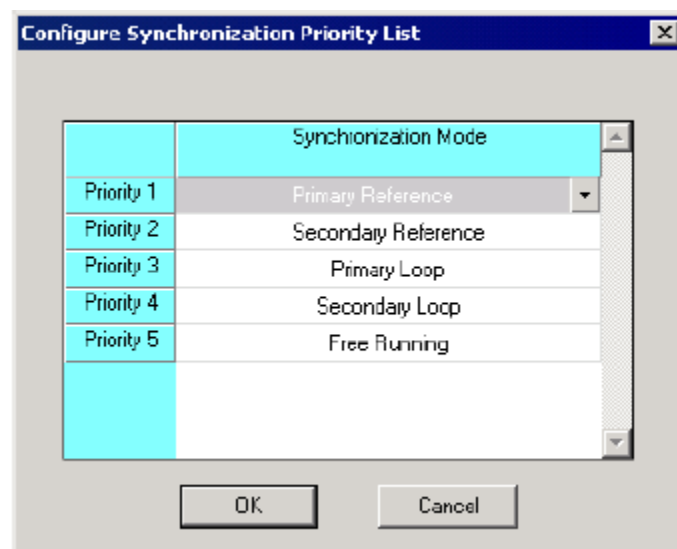
Purpose This procedure describes how to configure the synchronization priority list.

Before you begin You must have a node view window open in configuration mode.

Configuring Synchronization Priority List Follow the steps below to configure the synchronization priority list:

- 1 Two methods can be used to enter the configuration dialog box for the Synchronization Priority List configuration:
 - Right-click the **CPU S3** card in the node view window and select **Syn Priority List Configuration** from the pop-up menu.
 - Select the **CPU S3** card in the node view window, go to the **Configuration** menu and select **Card→Syn Priority List Configuration**.

The **Configure Synchronization Priority List** dialog box opens. The settings in the following screen are example settings.



-
- 2 Select your **Synchronization Modes** for the **Priority** levels from the drop-down list in the table.
-

- 3 Click **OK** to close the **Configure Synchronization Priority List** dialog.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

Editing the Configuration Table Entries

Purpose This procedure describes how to edit the configuration through the **Configure Table Edit** dialog box. Dialogic recommends that you contact Technical Support for assistance before using this procedure.

Before you begin To use the Configure Table Edit dialog, you have an open configuration dialog box in the global view.

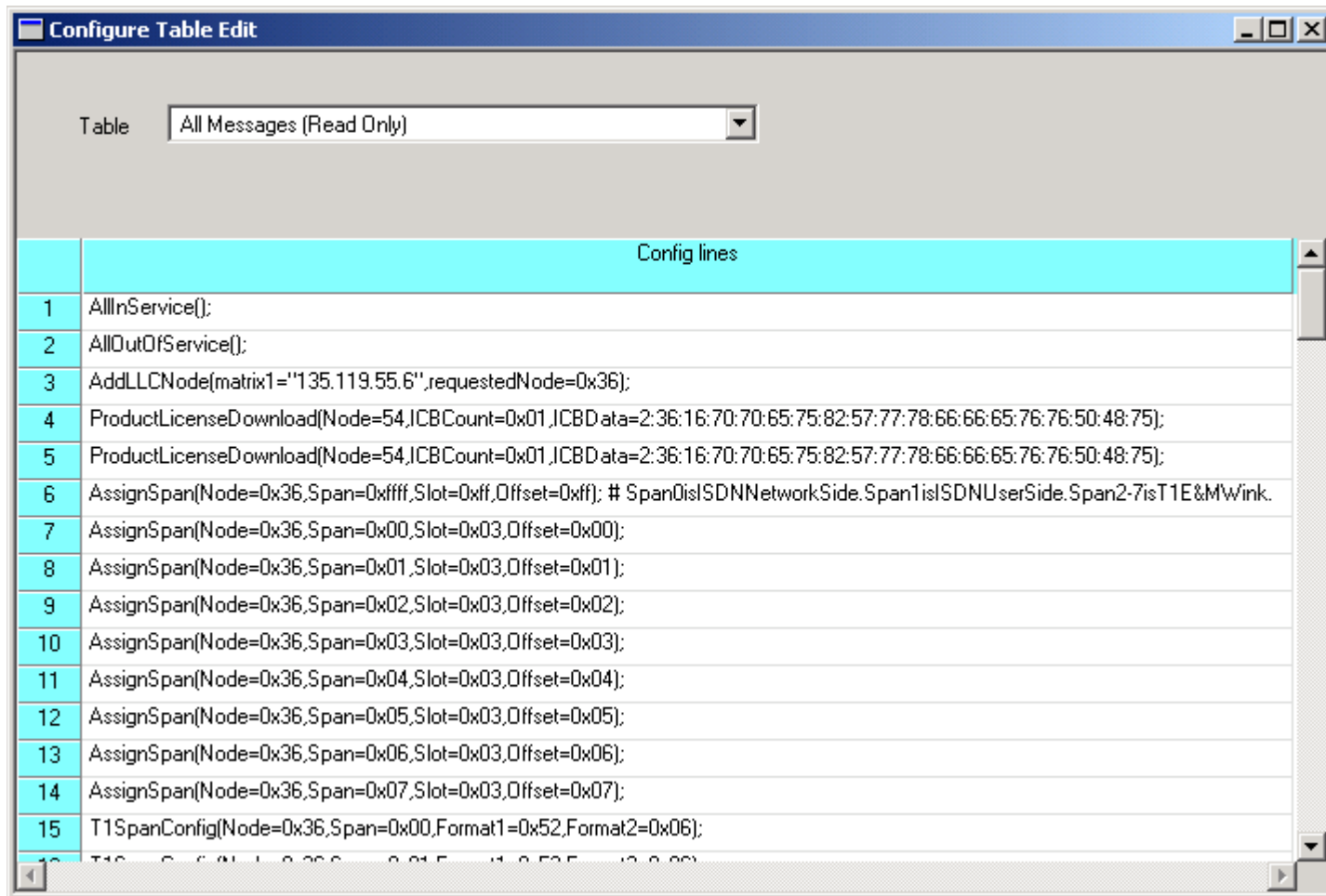
Editing the Configuration Follow the steps below to edit the configuration through the **Configure Table Edit** dialog:



CAUTION

Hand edited changes are not validated and might cause parsing errors. Use this feature with caution! This is intended for experienced users.

-
- 1 With an open Configuration box, go to the **File** menu and select **Open Edit Configuration**. The **Configure Table Edit** dialog opens, listing all the current configuration messages in read only mode. See the next screen shot.



2 In the **Table** field you can select from the pull-down menu to display

- All Messages (Read Only), or
- All Messages Not Yet Sent (Read Only), or
- A message that is contained in the file.

3 To edit a configuration message, select the message name from the pull-down menu.

4 Double-click the message you want to edit in the table cell. The cursor is placed in the message text. You can change the configuration values.

-
- 5 When you are finished editing a message, you may do one of the following:
- Select another message to display for editing.
 - Select all the messages to display in read-only mode.
 - Close the editing window. A message box pops up asking if you want to save your edits.
-

- 6 Click **Yes** to send your edits.
-

- 7 To send the changes to the CSP go to the **Configuration** menu and choose from the choices in the **Table Edit** menu:
- **Show Only Changed Messages.**
 - **Send Selected Messages.**
 - **Refresh.**

If you select **Show Only Changed Messages**, you can then select those messages and use the **Send Selected Messages** to send the configuration.

The **Refresh** option refreshes the display in the Configure Table Edit window.

- 8 Close the editing window by clicking the **x** in the upper right-hand corner of the window.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

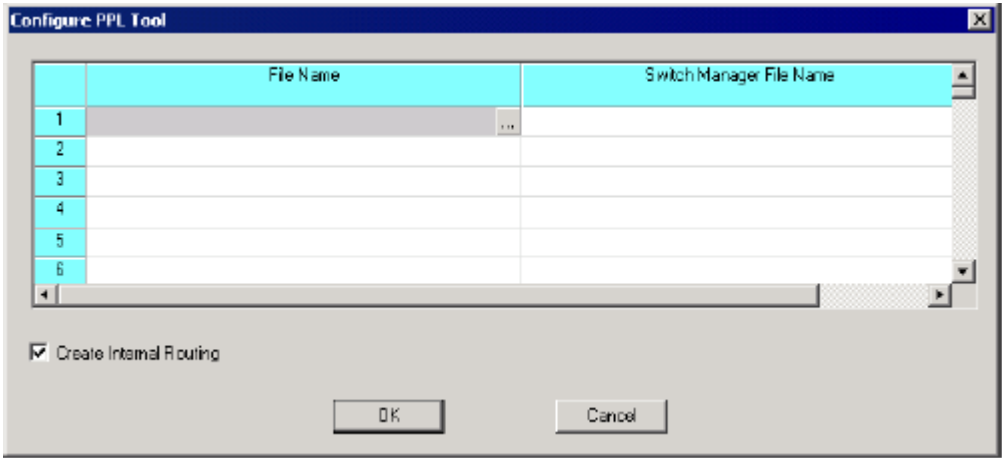
Specifying PPL Files

Purpose This procedure describes how you send a PPL file with the CSA to the CSP.

Before you begin You must have a node view window open in configuration mode.

Sending a PPL File Follow the steps below for sending a PPL File:

-
- 1 In the node view window, right-click the blue area around the card slots and select **PPL Tool Configuration** from the pop-up menu. The **Configure PPL Tool** dialog opens:



-
- 2 Click the **File Name** cell and click **browse** to select a file (*.cfg), or type the path and file name into the table cell. You do not specify the SwitchManager file name.

-
- 3** By default, the **Create Internal Routing** is enabled. If you do not want the CSA to create the routing table for the VDAC-ONE card or IP Network Interface Series 2 card, uncheck the box. See *Configuring VDAC-ONE (5-2)* or *Configuring IP Network Interface Series 2/3 Cards (5-11)*.
-

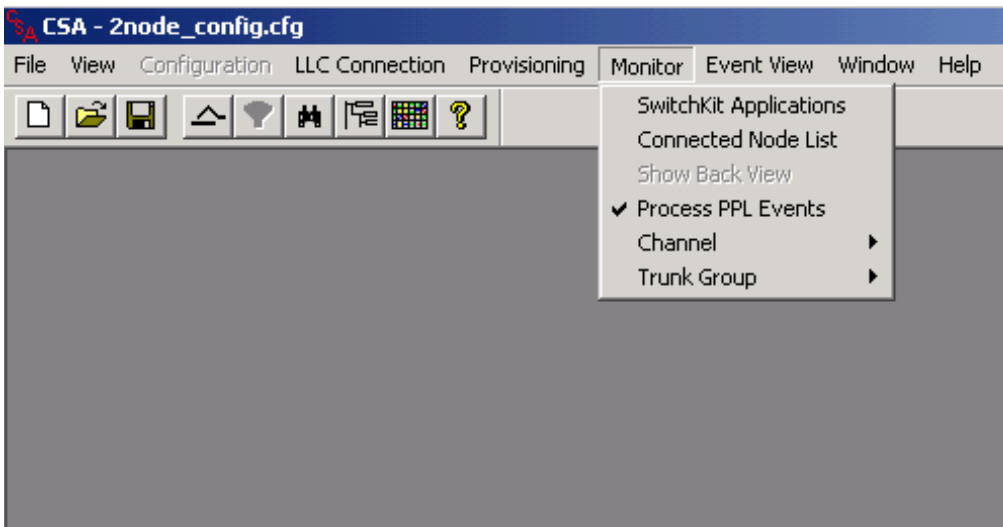
- 4** Click **OK** to close the dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

The Process PPL Events Menu

Process PPL Events Use the Process PPL Events menu to turn on or turn off the processing of PPL Events. To do this you go to the menu: **Monitor→Process PPL Events**. Process PPL Events is enabled by default. See the next screen shot.



Dialogic recommends that you process PPL Events only for troubleshooting and test reasons. Processing PPL Events impacts the system performance.

3 Configuring Line Cards, Spans, and Channels

Purpose This chapter contains the configuration procedures for line cards, such as: the DS3, E-ONE, J-ONE, and T-ONE.

Configuring the DS3 Card

Purpose This procedure describes configuring the DS3 card.

Before you begin You must have a node view window open in configuration mode. You must add a DS3 card to a node. See *Adding Cards to a Node (2-21)*.

Information Source Please refer to the DS3 information contained in the *SwitchKit* user guides and the *Developer's Guide: Line Cards*.

Configuring the DS3 Card The following steps explain the DS3 card configuration.

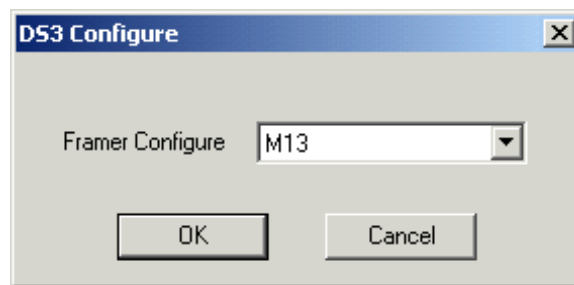


CAUTION

You can have up to three active DS3 cards and one redundant DS3 card in your CSP. The three active cards give you 84 spans. The last four spans can be configured for SS7 signaling links but not for voice Circuit Identification Codes (CICs). At the end of this procedure, see more information about SS7 CIC Traffic Over the DS3 Line Card (3-4).

- 1 Right-click the **DS3** card in the node view and select **DS3 Configuration** from the menu.

The **DS3 Configure** dialog box opens:



- 2 From the drop-down list select, **M13** or **CBIT**, and then click **OK**.
 - 3 To configure spans on the **DS3** card configuration dialog box, do one of the following:
-

- Select the **DS3** card in the node view. Go to the **Configuration** menu and select **Card/Span Configuration**.
- Right-click the **DS3** card in the node view and select **Span Configuration** from the menu.
- Double-click the **DS3** card in the node view.

The **Configure DS3** dialog box opens. The configuration data shown in the screen shot on the next page is example data.

	Logical Span ID	Span Configuration
11	75	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
12	76	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
13	77	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
14	78	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
15	79	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
16	80	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
17	81	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
18	82	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.
19	83	D4, Bit 7 zero suppressing, CAS, Line Length = 000-133 ft.

-
- 4 To configure the spans, highlight the range of spans you want to configure.
-
- 5 Right-click in the **Span Configuration** column and select **Span Format Configuration** from the menu. This opens the following dialog box.

Configure T1 Span(s) Spans (49)

Framing:
☐ ESF
☒ D4

Line Length:
 000 - 133 ft

Signaling Method:
☐ Clear Channel
☒ CAS

Line Coding method:
☒ Bit 7 zero suppressing
☐ B8ZS zero suppression

OK Cancel

-
- 6 Specify the **Framing, Signaling Method, Line Length, and Line Coding Method**.
 - 7 Click **OK** to close the dialog box. Your span configuration is now displayed in the **DS3** Card configuration table.
 - 8 Click **OK** to close the **DS3** card configuration dialog box.
-

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

SS7 CIC Traffic Over the DS3 Line Card

The DS3 line cards support SS7 CIC traffic. Under normal operation, a DS3 line card can handle 28 spans, and a CSP chassis can support up to three DS3 line cards. If, however, you wish to support SS7 CIC traffic on all three line cards, you must reconfigure one of the DS3 line cards to 24 spans using DIP switch 4 and 6. The table below shows what the DIP Switch settings are. See the next table.

DIP Switch	Setting	Spans usable for CIC
Switches 4 and 6	Both On	All physical spans can be used for CIC's
Switches 4 and 6	Both Off	Only physical spans 0-23 can be used for CIC's

Configuring the E-ONE Card

Purpose This procedure describes configuring the E-ONE card.

Before you begin You must have a node view window open in configuration mode.

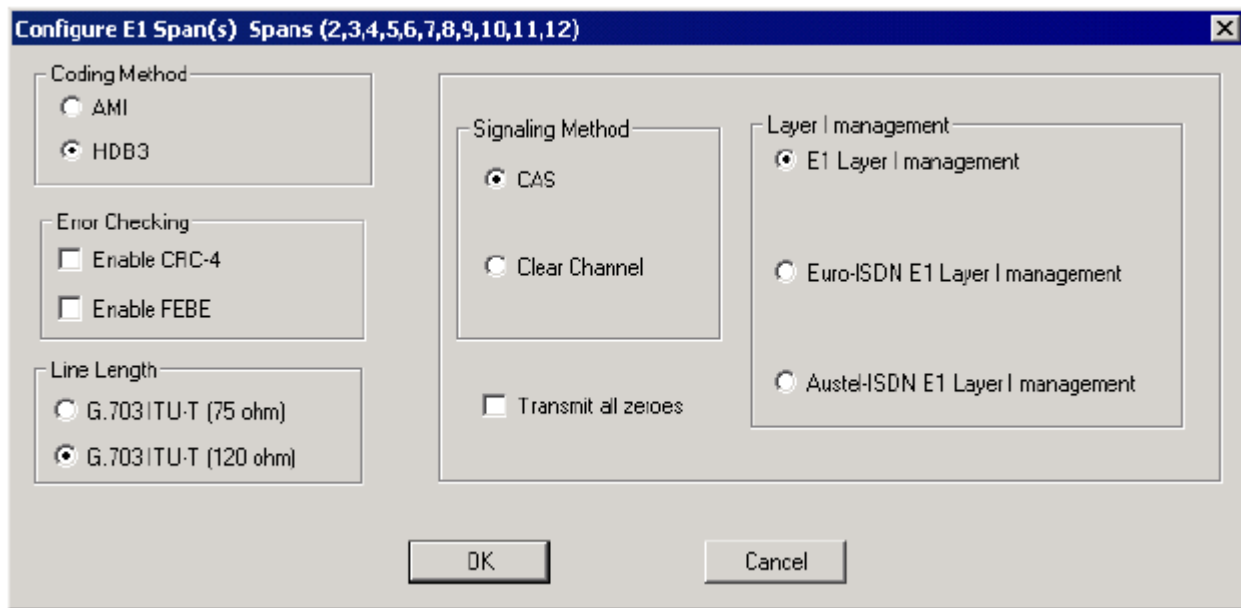
Information Source Please refer to the E-ONE information contained in the *SwitchKit* user's guides and the *Developer's Guide: Line Cards*.

Configuring the E-ONE Card The following steps explain the E-ONE card configuration.

- 1 To access the E-ONE card configuration dialog box, do one of the following:
 - Select the E-ONE card in the node view. Go to the **Configuration** menu and select **Card/Span Configuration**.
 - Right-click on the E-ONE card in the node view and select **Span Configuration** from the menu.
 - Double-click the E-ONE card in the node view.

The Configure E-ONE Card dialog box opens.

- 2 To configure the spans, you can either:
 - Highlight the range of spans you want to configure. To do this you first right-click in the highlighted area and select **Assign Logical Span ID**. Then, type a number in the **Logical Span ID** text box. This number is assigned to the first span highlighted. The other spans are automatically assigned IDs.
 - Or, you may want to configure all E1 spans at once. In the node view, right-click in the area around the slots and select **Configure All E1 Spans** from the pop-up menu. A message box pops up telling you that the configuration will not be applied to unassigned spans. Click **OK** and the **Configure E1 Span(s)** dialog box opens.



To get to the **Configure E1 Spans** dialog box when only highlighting some spans, right-click in the **Span Configuration** column and select **Span Format Configuration** from the menu. The **Configure E1 Span(s)** dialog box then opens.

- 3 Specify the **Coding Method**, **Error Checking**, **Line Length**, **Signaling Method**, and **Layer 1 Management**.
- 4 You can also choose to **Transmit all Zeroes**.
- 5 Click **OK** to close the dialog box. Your span configuration is now displayed in the E-ONE Card configuration dialog box.

Configure E-ONE Card in Slot 11 of Configuration Node 0x2d		
	Logical Span ID	Span Configuration
1	17	?
2	18	?
3	19	?
4	Unassigned	
5	Unassigned	
6	Unassigned	
7	Unassigned	
8	Unassigned	
9	Unassigned	
10	Unassigned	
11	Unassigned	
12	Unassigned	

- 6 Click **OK** to close the E-ONE card configuration dialog box.

- 7 To configure the spans, highlight the range of spans you want to configure.

- 8 After the spans have been configured, you can configure channel groups. See *Configuring Channel Groups (3-20)*

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration→Configure Through SwitchMgr →Send Only Modified Configuration To Switch.**

Configuring the J-ONE Card

Purpose This procedure describes configuring the J-ONE card.

Before you begin You must have a node view window open in configuration mode.

Information Source Please refer to the J-ONE information contained in the *SwitchKit* user's guides and the *Developer's Guide: Line Cards*.

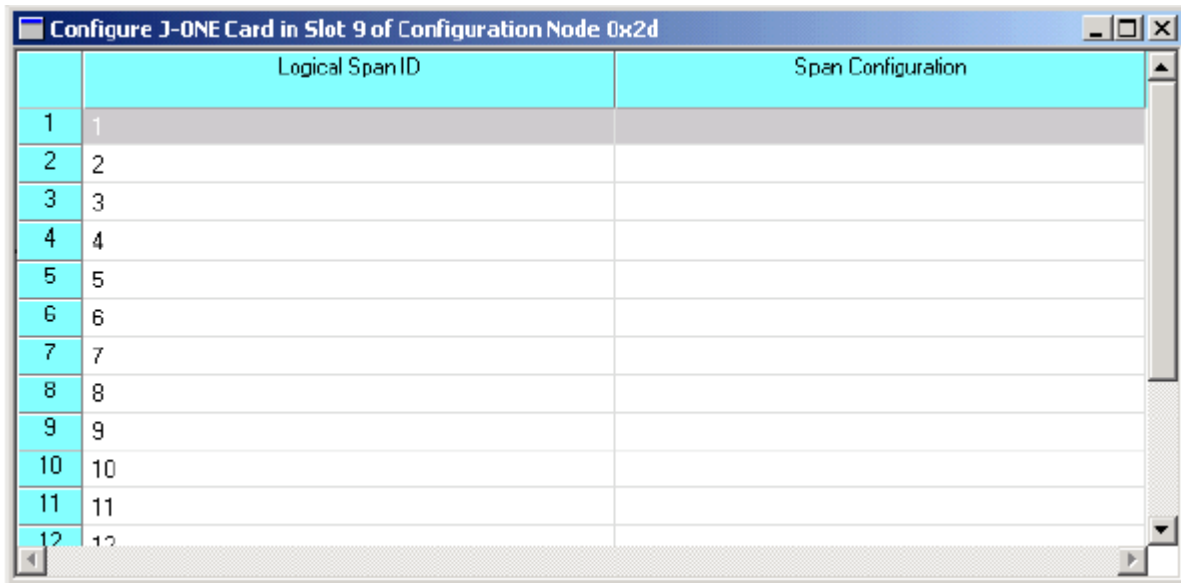
Configuring the J-ONE Card The following steps explain the J-ONE card configuration.

Important! For J-ONE cards, we only support assigning Logical Span IDs. Configuring the Span Format (as is possible for T-ONE and E-ONE cards) is not offered. Please use a configuration file and SwitchManager to configure your Span Formats.

- 1 To access the J-ONE card configuration dialog box, do one of the following:
 - Select the J-ONE card in the node view. Go to the **Configuration** menu and select **Card→Span Configuration**.
 - Right-click on the J-ONE card in the node view and select **Span Configuration** from the menu.
 - Double-click the J-ONE card in the node view.

The Configure J-ONE dialog box opens:

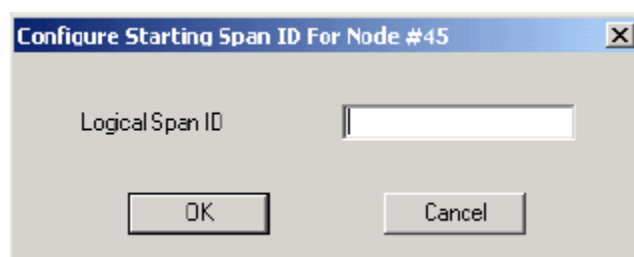
- 2 Highlight the spans to be configured. Right-click in the highlighted area, select **Assign Logical Span ID**. Type a number in the **Logical Span ID** text box. This number is assigned to the first span highlighted. The other spans are automatically assigned IDs.
- 3 To configure the spans, highlight the range of spans you want to configure. See the Configure J One Card dialog box on the next page.



	Logical Span ID	Span Configuration
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	
8	8	
9	9	
10	10	
11	11	
12	12	

-
- 4 To assign **Logical Span IDs**, highlight the range of spans you want to configure and select either
- Right-click on the highlighted area and select **Assign Logical Span ID from the** pop-up menu, or
 - Go to the **Configuration** menu and select **Span→Assign Logical Span ID**.

The **Configure Starting Span ID** dialog box opens:



-
- 5 Click **OK** to close the **Configure Starting Span ID** dialog box.

-
- 6 Click **OK** to close the J-ONE card configuration dialog box. You are ready to configure channel groups. See *Configuring Channel Groups (3-20)*

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

Configuring the T-ONE Card

Purpose This procedure describes configuring the T-ONE card.

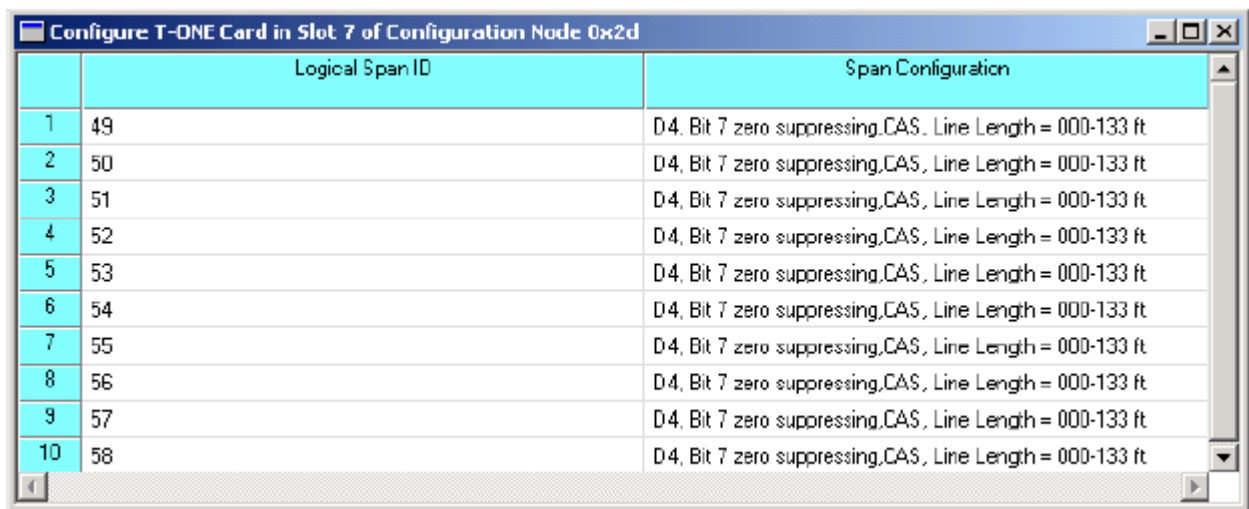
Before you begin You must have a node view window open in configuration mode.

Information Source Please refer to the T-ONE information contained in the *SwitchKit* user's guides and the *Developer's Guide: Line Cards*.

Configuring the T-ONE Card The following steps explain the T-ONE card configuration.

- 1 To access the T-ONE card configuration dialog box, do one of the following:
 - Select the T-ONE card in the node view. Go to the **Configuration** menu and select **Card→Span Configuration**.
 - Right-click on the T1 card in the node view and select **Span Configuration** from the menu.
 - Double-click the T-ONE card in the node view.

The **Configure T-ONE Card...** dialog box opens:

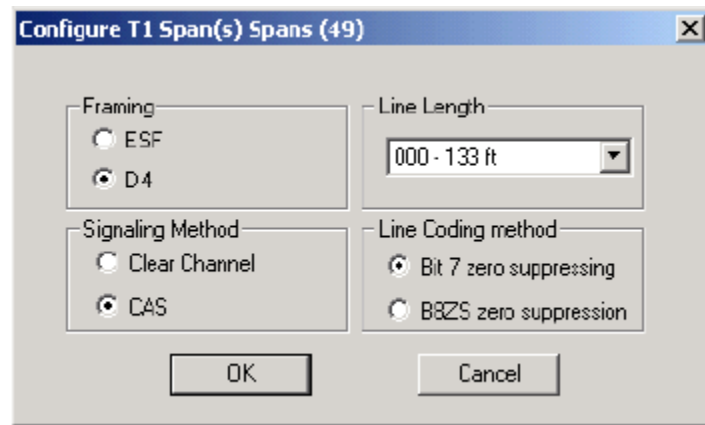


	Logical Span ID	Span Configuration
1	49	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
2	50	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
3	51	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
4	52	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
5	53	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
6	54	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
7	55	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
8	56	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
9	57	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft
10	58	D4, Bit 7 zero suppressing,CAS, Line Length = 000-133 ft

-
- 2 To configure the spans, highlight the range of spans you want to configure.
-

- 3 Right-click in the Span Configuration column and select **Span Format Configuration** from the menu.

The next dialog box opens.



-
- 4 Specify the **Framing, Signaling Method, Line Length, and Line Coding Method**.
-
- 5 Click **OK** to close the dialog box. Your span configuration is now displayed in the T-ONE Card configuration table.
-
- 6 Click **OK** to close the T-ONE card configuration dialog box.
-
- 7 You can also configure all T1 spans at once. In the node view window right-click in the area around the slots and select **Configure All T1 Spans** from the pop-up menu. A message box pops up telling you that the configuration will not be applied to unassigned spans. Click **OK**

and the **Configure T1 Spans** dialog box opens as shown in Step 3 of this procedure. Follow Steps 3 to 6 to **Configure All T1 Spans**.

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration→Configure Through SwitchMgr →Send Only Modified Configuration To Switch**.

Configuring Virtual Cards

Purpose This procedure describes how to configure virtual cards for T1, E1, and VoIP protocols. The J1 protocol is configured on the Virtual E-ONE card.

For more information on the T1, E1, or J1 protocols, see the *Developer's Guide: Line Cards*.

Before you begin You must have a node view window open in configuration mode. Before you configure a VOIP protocol, you must locate your SIP and virtual span license files (typically named, license.cfg) which contains license keys. To configure virtual T-ONE, E-ONE or J-ONE cards, you must have an SS7 user part license. Contact your sales representative for these licenses. To install a license key, you must use the General Node Configuration dialog box. See *General Node Configuration (2-30)* for the procedure on opening the license key.

Since virtual slots in the switch are each assigned a card type as if they were installed as physical cards, both CSP Matrix Series 3 diagnostics and alarms function normally.



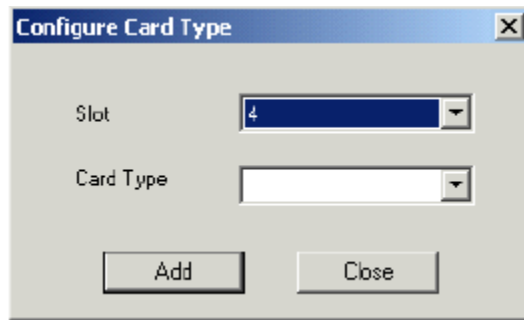
CAUTION

If a virtual card is added, removed or reconfigured in a slot with another card already in place, that card and the specified configuration will be lost.

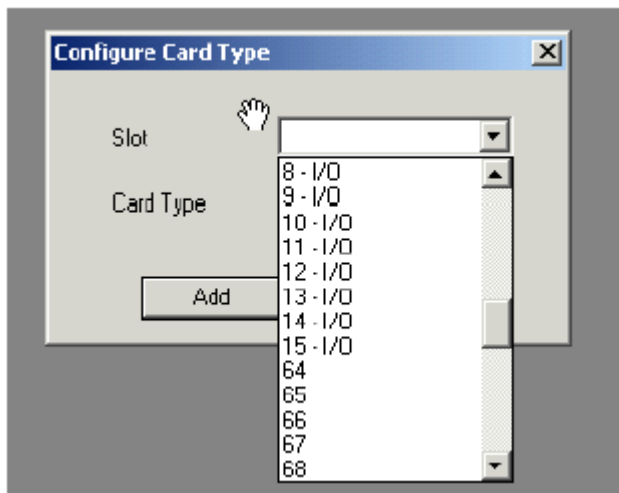
Configuring Virtual Cards The following steps explain the virtual card configuration.

- 1 To add a virtual card, do one of the following:
 - In the node view, right-click the blue area around the card slots or in an unused slot and select **Add Card**.
 - Go to the **Configuration** menu and select **Node Configuration** → **Add Card**.

The **Configure Card Type** dialog box opens.

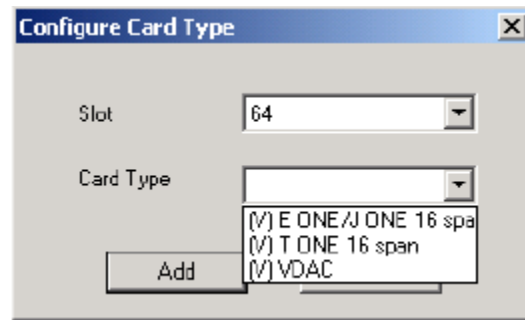


- 2 For the **Slot**, select a physical slot that is unused. Or, you may select from the drop-down list a virtual slot which starts at number 64. See the next screen shot.



- 3 For the **Card Type**, select **(V) VDAC**, **(V) E ONE /J ONE 16 Span**, or **(V) T ONE 16 Span** from the drop down list.

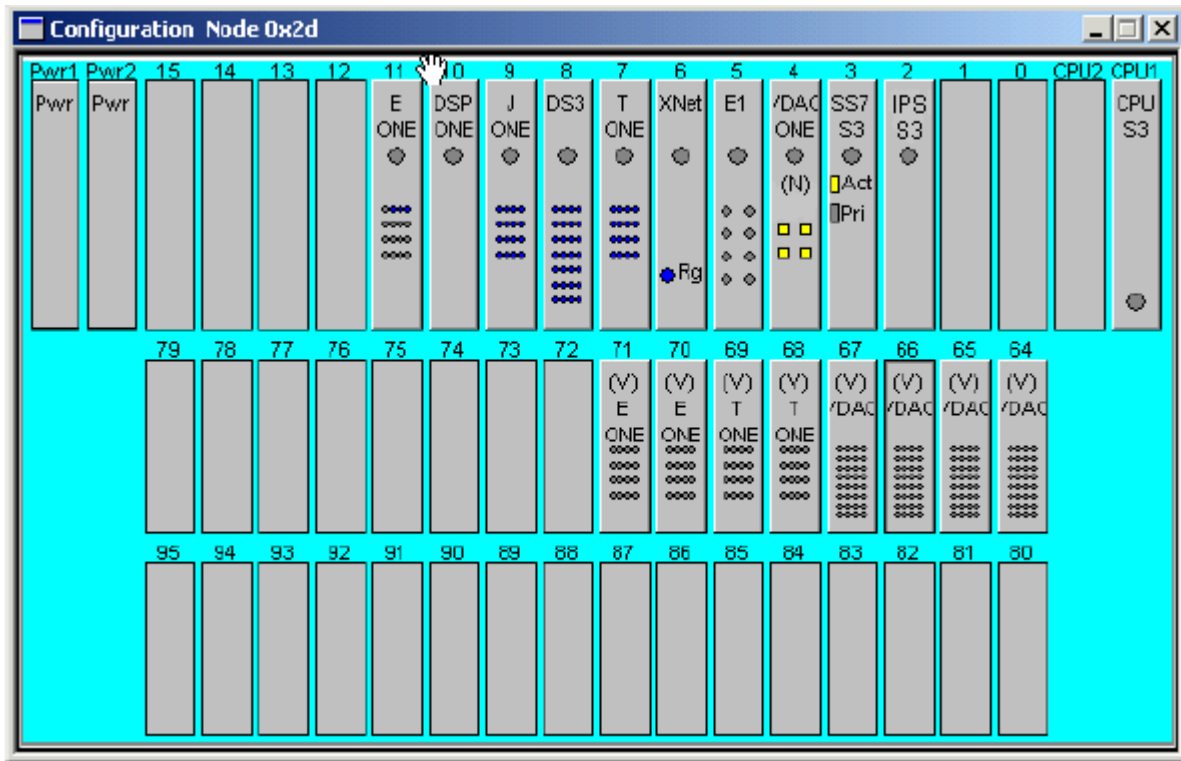
Note: A virtual VDAC card, **(V) VDAC**, has all the functionality of both the VDAC-ONE and IP Network Interface Series 2 cards.



-
- 4 Click **Add**. Repeat steps 2-4 for each virtual card you want to add.
 - 5 Click **Close**.
 - 6 If you have configured a physical slot, skip this step and continue with the next.
-

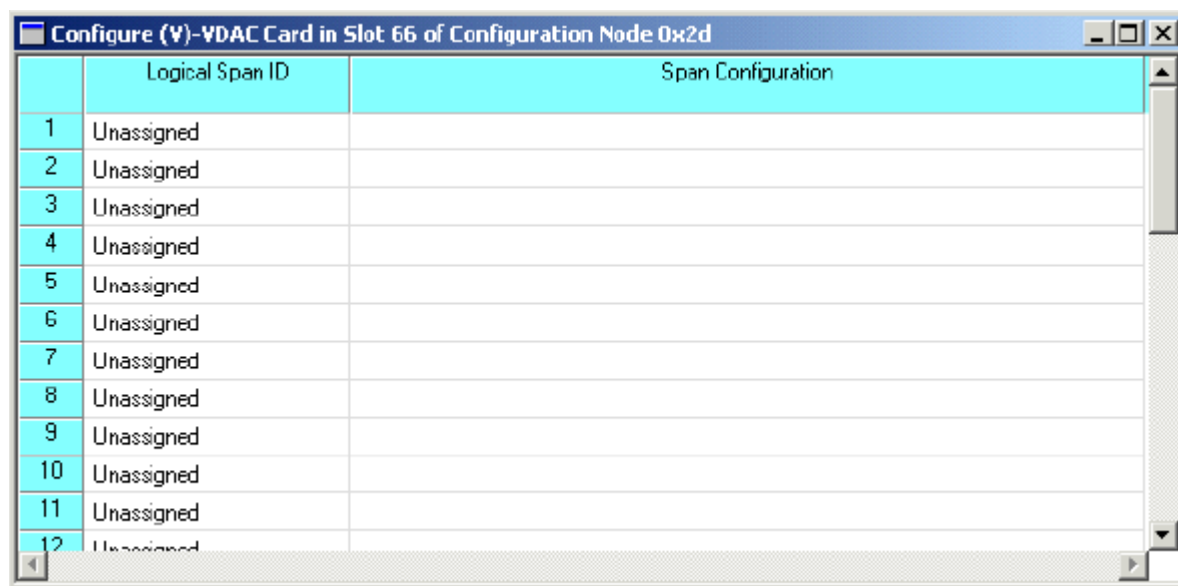
If you have added a card to a virtual slot, in the node view you must right-click the blue area around the card slots or in an unused slot to select **Show Virtual View** from the drop-down list.

The next screen shot shows the virtual view:



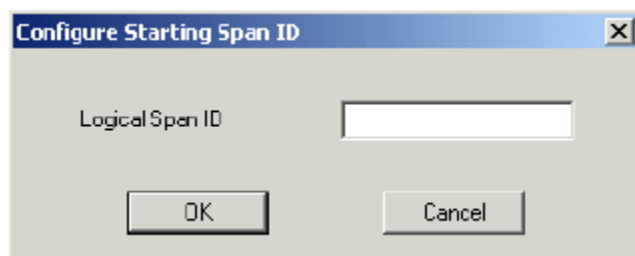
Important! If you do not want internal routing tables to be created for the Virtual VDAC card, you must use the **Configure PPL Tool** dialog box to uncheck this option. See *Specifying PPL Files (2-43)*

- 7 Right-click the label of the virtual card that you are configuring and select **Span Configuration** from the drop-down list. A dialog box similar to the one in the next screen will open:



	Logical Span ID	Span Configuration
1	Unassigned	
2	Unassigned	
3	Unassigned	
4	Unassigned	
5	Unassigned	
6	Unassigned	
7	Unassigned	
8	Unassigned	
9	Unassigned	
10	Unassigned	
11	Unassigned	
12	Unassigned	

-
- 8 Highlight a single span or a group of spans and right-click the highlighted area. Select **Assign Logical span ID** from the drop-down list. The **Configure Starting Span ID** dialog box opens.



Configure Starting Span ID

Logical Span ID

OK Cancel

-
- 9 Enter a number for a single span or a number which represents the beginning of a contiguous group of logical span IDs.

Important! For a 10,000 channel license, the CSA allows you to configure 10 virtual VDAC cards for a total of 315 virtual spans. Nine of those cards support 32 spans each but the tenth will only support 27 spans. With virtual T-ONE cards, the CSA allows you to configure 27 virtual T-ONE cards for a total of 420 virtual spans. Twenty-six of those cards support 16 spans but the 27th virtual card only supports 4 spans. With virtual E-ONE or J-ONE cards, the CSA allows you to configure 20 virtual E-ONE or J-ONE cards for

a total of 315 virtual spans. Nineteen of those cards support 16 spans but the 20th virtual card only supports 11 spans. If you configure too many spans or cards, the switch will not accept the configuration.

10 Click **OK**.

11 To complete your configuration of the virtual T-ONE card see *Configuring the T-ONE Card (3-11)*. To complete your configuration of the virtual E-ONE card see *Configuring the E-ONE Card (3-5)*. To complete your configuration of the virtual VDAC card see *Configuring VDAC-ONE (5-2)*, starting at Step 9 with the **Channel Group Configuration** dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

Configuring Channel Groups

Purpose This procedure describes how to configure channel groups.

Before you begin To configure channels you must be in configuration mode with an open global view window. Before you enter the Channel Group Configuration dialog box, you must have spans and span formats assigned for each card.

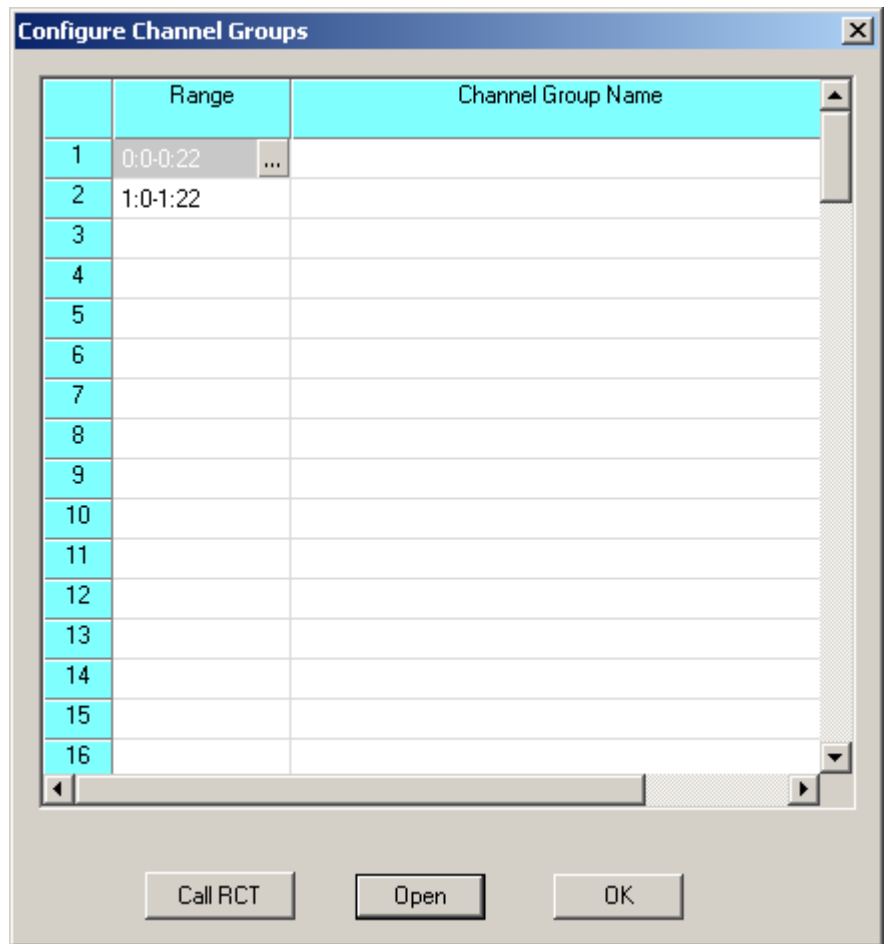
Important! When configuring channel groups in the CSA a maximum of 100 channel groups are supported per configuration. With the channel group, SK AllAssignedChannels, the LLC always creates this group with the number of channels being zero.

When you right-click to **Clear Row**, selecting this option will remove the channels from the group, but will not remove the group. Channel groups will remain configured with LLC even after all channels are deleted.

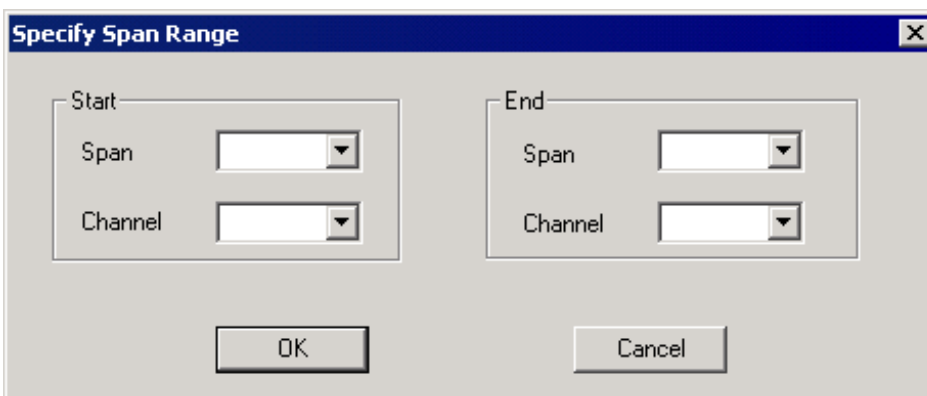
Configuring Channel Groups Follow the steps below to configure the channel groups:

-
- 1 To invoke the **Configure Channel Group** dialog box, do one of the following:
 - Right-click on the **Configuration** icon and select **Channel Group Configuration** from the menu.
 - Select the **Configuration** icon. Go to the **Configuration** menu and select **System→Channel Group Configuration**.
 - Click on the **Configuration** icon. Select the **Configuration** menu, **Node Configuration→Channel Group Configuration**.
 - Right-click on the blue part of the node view, select **Channel Group Configuration**.

This opens the **Configure Channel Groups** dialog box. See the next screen shot.



- 2 Double-click a table cell in the **Range** column. This opens the **Specify Span Range** dialog box:



-
- 3 Specify the **Start Span** and **Channel**.
 - 4 Specify the **End Span** and **Channel**.
 - 5 Click **OK** to close the **Specify Span Range** dialog box. This brings you back to the **Configure Channel Groups** dialog box.
 - 6 Click **Open** in the **Configure Channel Groups** dialog box. This opens the **Configure Channel Range Messages** dialog box. See the next screen shot.

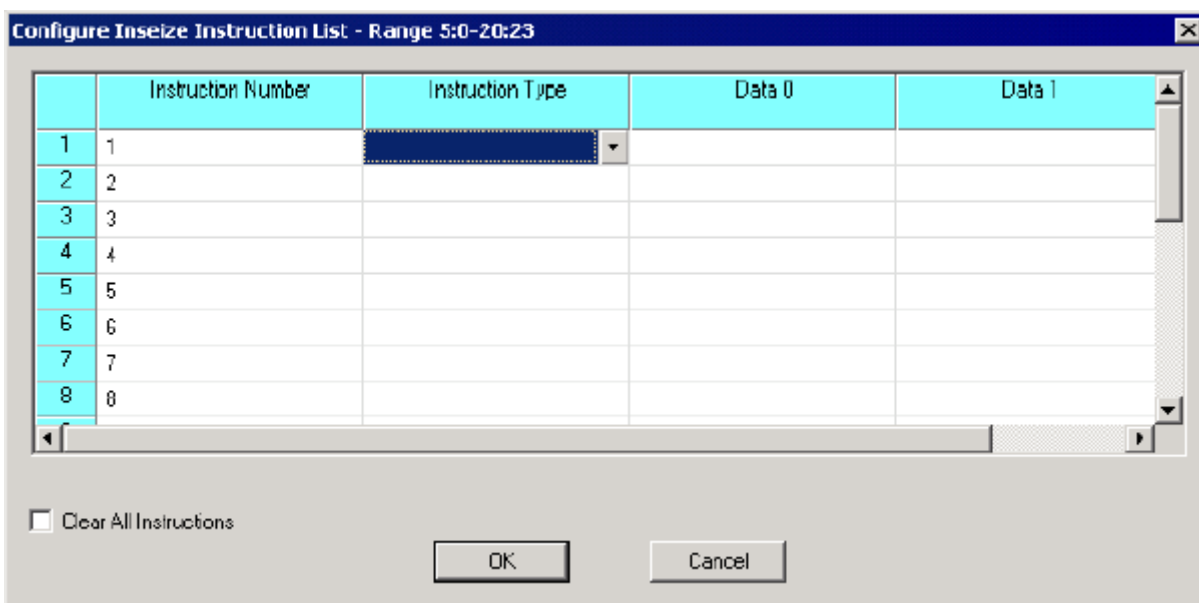
Configure Channel Range Messages - Range 6:12-10:4 ()

<input type="checkbox"/> Answer Supervision Mode <input checked="" type="radio"/> Propagate Answer <input type="radio"/> Notify Host <input type="radio"/> Propagate Answer & Notify Host <input type="radio"/> No Answer Supervision	<input type="checkbox"/> Local End Release Mode <input type="radio"/> Park Channel <input checked="" type="radio"/> Release Channel <input type="radio"/> Release Channel with Host Notify <input type="radio"/> Park Channel with Host Notify	Start Dial <input type="checkbox"/> Incoming <input checked="" type="radio"/> Wink Start <input type="radio"/> Delay Dial <input type="radio"/> Immediate <input type="radio"/> Dial Tone	<input type="checkbox"/> Outgoing <input checked="" type="radio"/> Wink Start <input type="radio"/> Delay Dial <input type="radio"/> Fixed Pause <input type="radio"/> Dial Tone	Inseize Instruction List <input type="button" value="Open"/>
<input type="checkbox"/> PCM Encoding Format <input checked="" type="radio"/> μ -law encoded PCM <input type="radio"/> A-law encoded PCM	<input type="checkbox"/> Distant End Release Mode <input type="radio"/> Park Channel <input checked="" type="radio"/> Release Channel	Filter/Timer <input type="checkbox"/> Signal Scanning Filter Filter/Timer ID: <input type="text"/> Value: <input type="text"/>		Outseize Instruction List <input type="button" value="Open"/>
<input type="checkbox"/> InterWorking <input type="checkbox"/> Enable Input Side: Format: <input type="text" value="SS7"/> Flavor: <input type="text"/> Output Side: Format: <input type="text" value="SS7"/> Flavor: <input type="text"/>		<input type="checkbox"/> Signal Scanning Timer Filter/Timer ID: <input type="text"/> Value: <input type="text"/>		Impulsing Parameters <input type="button" value="Open"/>
<input type="checkbox"/> Busy Out Flag <input type="checkbox"/> Enable	<input type="checkbox"/> Flash Timing <input checked="" type="radio"/> OFF <input type="radio"/> ON, Propagate to Distant End <input type="radio"/> ON, Inform Host <input type="radio"/> ON, Inform Host and Propagate	<input type="checkbox"/> Transmit Signaling Timer Filter/Timer ID: <input type="text"/> Value: <input type="text"/>		FPL Assign <input type="button" value="Open"/>
<input type="checkbox"/> Trunk Type Configure Type: <input type="text" value="E&M"/>				FPL Transmit Signal <input type="button" value="Open"/>
				FPL Timer <input type="button" value="Open"/>
				FPL Config <input type="button" value="Open"/>
				ISDN B Channel <input type="button" value="Open"/>

- 7 Change the **Answer Supervision Mode** default setting by enabling the field and selecting a different parameter.

-
- 8 Change the **PCM Encoding Format** default setting by enabling the field and selecting a different parameter.
-
- 9 Change the **InterWorking** default setting by enabling the field and selecting a different parameter.
-
- 10 Change the **Busy Out** default setting by enabling the field and selecting a different parameter.
-
- 11 Change the **Trunk Type Configure** default setting by enabling the field and selecting a different parameter.
-
- 12 Change the **Local End Release Mode** default setting by enabling the field and selecting a different parameter. **Release Channel with Host Notify** and **Park Channel with Host Notify** can be enabled only if **Trunk Type Configure** is set to type: **E&M**.
-
- 13 Change the **Distant End Release Mode** default setting by enabling the field and selecting a different parameter.
-
- 14 Change the **Flash Timing** default setting by enabling the field and selecting a different parameter.
-
- 15 Change the **Start Dial Incoming** and **Start Dial Outgoing** default setting by enabling the field and selecting a different parameter.
-
- 16 Change the **Signal Scanning Filter** default setting by enabling the field and selecting a different parameter.
-
- 17 Change the **Signal Scanning Timer** default setting by enabling the field and selecting a different parameter.
-

- 18 Change the **Transmit Signaling Timer** default setting by enabling the field and selecting a different parameter.
- 19 If you want to specify Inseize Instruction List settings, click **Open** in the Inseize Instruction List field. This opens the **Configure Inseize Instruction List** dialog box:



- 20 Select the **Instruction Type** from a drop-down menu in the table cell.
- 21 Enter the **Data** using hexadecimal (preceded by 0x) or decimal numbers (default).
- 22 If you want to clear previously configured **Inseize Instruction Lists**, check the **Clear All Instructions** check box.
- 23 Click **OK** to close the **Configure Inseize Instruction List** dialog box and to return to the **Configure Channel Range Message** dialog box.

- 24 If you want to specify **Outseize Instruction List** settings, click **Open** in the **Outseize Instruction List** field. This opens the **Configure Outseize Instruction List** dialog box:

	Instruction Number	Instruction Type	Data 0	Data 1
1	1			
2	2			
3	3			
4	4			
5	5			
6	6			
7	7			
8	8			

☐ Clear All Instructions

OK Cancel

- 25 Select the **Instruction Type** from a drop-down menu in the table cell.
- 26 Enter the **Data** using hexadecimal (preceded by 0x) or decimal numbers (default).
- 27 If you want to clear previously configured **Outseize Instruction Lists**, check the **Clear All Instructions** check box.
- 28 Click **OK** to close the **Configure Outseize Instruction List** dialog box and to return to the **Configure Channel Range Message** dialog box.
- 29 If you want to specify **Inpulsing Parameter** settings, click **Open** in the **Inpulsing Parameter** field. This opens the **Configure Inpulsing Parameters** dialog box:

Configure Impulsing parameter - Range 2:0-7:30

	Stage Number	# of Digit String	Time Out	Address Signaling Type	Collection Method 1	Collection Data 1	Collection Method 2	Collection Data 2
1	1							
2	2							
3	3							
4	4							

OK Cancel

- 30 Select the **# of Digit String**, **Address Signaling Type**, **Collection Method 1**, and **Collection Method 2 parameters** from a drop-down menu in the table cell.
- 31 Enter the **Time Out**, **Collection Data 1**, and **Collection Data 1** values, using hexadecimal (preceded by 0x) or decimal numbers (default).
- 32 Click **OK** to close the **Configure Impulsing Parameter** dialog box and to return to the **Configure Channel Range Message** dialog box.
- 33 If you want to specify **PPL Assign** settings, click **Open** in the **PPL Assign** field. This opens the **Configure PPL Assign** dialog box:

Configure PPL Assign Channel Range: 2:0 - 7:30

	Component ID	Protocol ID
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

OK

Cancel

- 34

Enter the **Component ID** using hexadecimal (preceded by 0x) or decimal numbers (default).
- 35

Select the **Protocol ID** from the drop-down menu in the table cell.
- 36

Click **OK** to close the **Configure PPL Assign** dialog box and to return to the **Configure Channel Range Message** dialog box.

- 37 If you want to specify **PPL Transmit Signal** settings, click **Open** in the **PPL Transmit Signal** field. This opens the **Configure PPL Transmit Signal** dialog box:

Configure PPL Transmit Signal Channel Range: 1:1 - 3:10

	Component ID	Signaling State	Signaling Bits
1			
2			
3			
4			

OK Cancel

- 38 Select the **Component ID**, **Signaling State**, and **Signaling Bits** from the drop-down menu in the table cell.
- 39 Click **OK** to close the **Configure PPL Transmit Signal** dialog box and to return to the **Configure Channel Range Message** dialog box.

- 40 If you want to specify **PPL Timer** settings, click **Open** in the **PPL Timer** field. This opens the **Configure PPL Timer** dialog box:

Configure PPL Timer Channel Range: 1:0 - 3:30

	Component ID	Timer Type	Timer ID	Timer Value (* 10ms)
1	0x08	Generic Protocol Timer	0x0a	0x3e8
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

OK Cancel

- 41 Enter the **Component ID**, **Timer ID**, and **Timer Value**. Use either hexadecimal (preceded by 0x) or decimal numbers (default) or a combination. For example, they would be typed in as follows: 00 10 19.
- 42 Select the **Timer Type** from the drop-down menu in the table cell.

-
- 43 Click **OK** to close the **Configure PPL Timer** dialog box and to return to the **Configure Channel Range Message** dialog box.
-
- 44 If you want to specify **PPL Config** settings, click **Open** in the **PPL Config** field. This opens the **Configure PPL Configure** dialog box.

Configure 'PPL Configure' Channel Range: 1:1 - 2:2

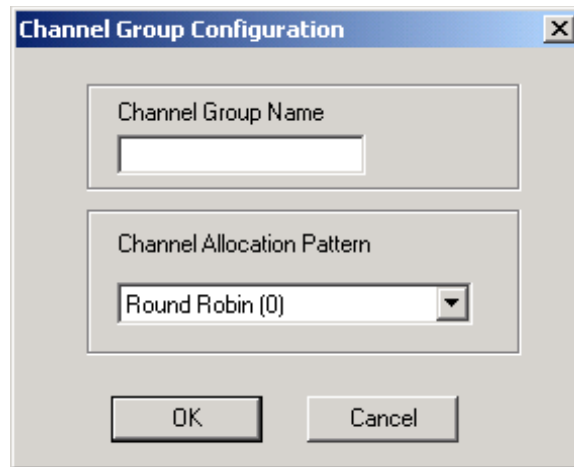
	Component ID	Entity	Data
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

OK Cancel

-
- 45** Enter the **Component ID** and **Data** values. The numbers must have spaces between each byte and the hexadecimal values would not include 0x.
-
- 46** Select the **Entity** from the drop-down menu in the table cell.
-
- 47** Click **OK** to close the **Configure PPL Configure** dialog box and to return to the **Configure Channel Range Message** dialog box.
-
- 48** If you want to specify **ISDN B Channel** settings, click **Open** in the **ISDN B Channel** field. This opens the **Configure ISDN B Channel** dialog box:

	Entity	Value
1		

-
- 49 Select the **Entity** and **Value** from the drop-down menu in the table cell.
-
- 50 Click **OK** to close the **Configure ISDN B Channel** dialog box and to return to the **Configure Channel Range Message** dialog box.
-
- 51 Click the **Channel Group Configuration** button to assign a name to your configured channel group. This opens the **Channel Group Configuration** dialog box. See the next screen shot.



52 Enter the Name.

53 Click **OK** to close the **Channel Group Name** dialog box and to return to the **Configure Channel Range Message** dialog box.

54 Click **OK** to close the **Configure Channel Range Message** dialog box and to return to the **Configure Channel Group** dialog box. If you want to create more Channel Groups, repeat steps 1 to 55.

55 Click **OK** to close the **Configure Channel Group** dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr** →**Send Only Modified Configuration To Switch**.

Using the Route Control Tool

Purpose This procedure describes how to use the route control tool.

Before you begin To use the route control tool you must be in configuration mode with an open global view window. Before you enter the route control tool, you must have completed the channel group configuration. See *Configuring Channel Groups (3-20)*.

Router Configuration Tool Follow the steps below to use the route control tool.

- 1 Invoke the **Configure Channel Group** dialog box, by doing one of the following:
 - Right-click on the **Configuration** icon and select **Channel Group Configuration** from the menu.
 - Select the **Configuration** icon. Go to the **Configuration** menu and select **System→Channel Group Configuration**.
 - Click on the **Configuration** icon. Select the **Configuration** menu, **Node Configuration→Channel Group Configuration**.
 - Right-click on the blue part of the node view, select **Channel Group Configuration**.

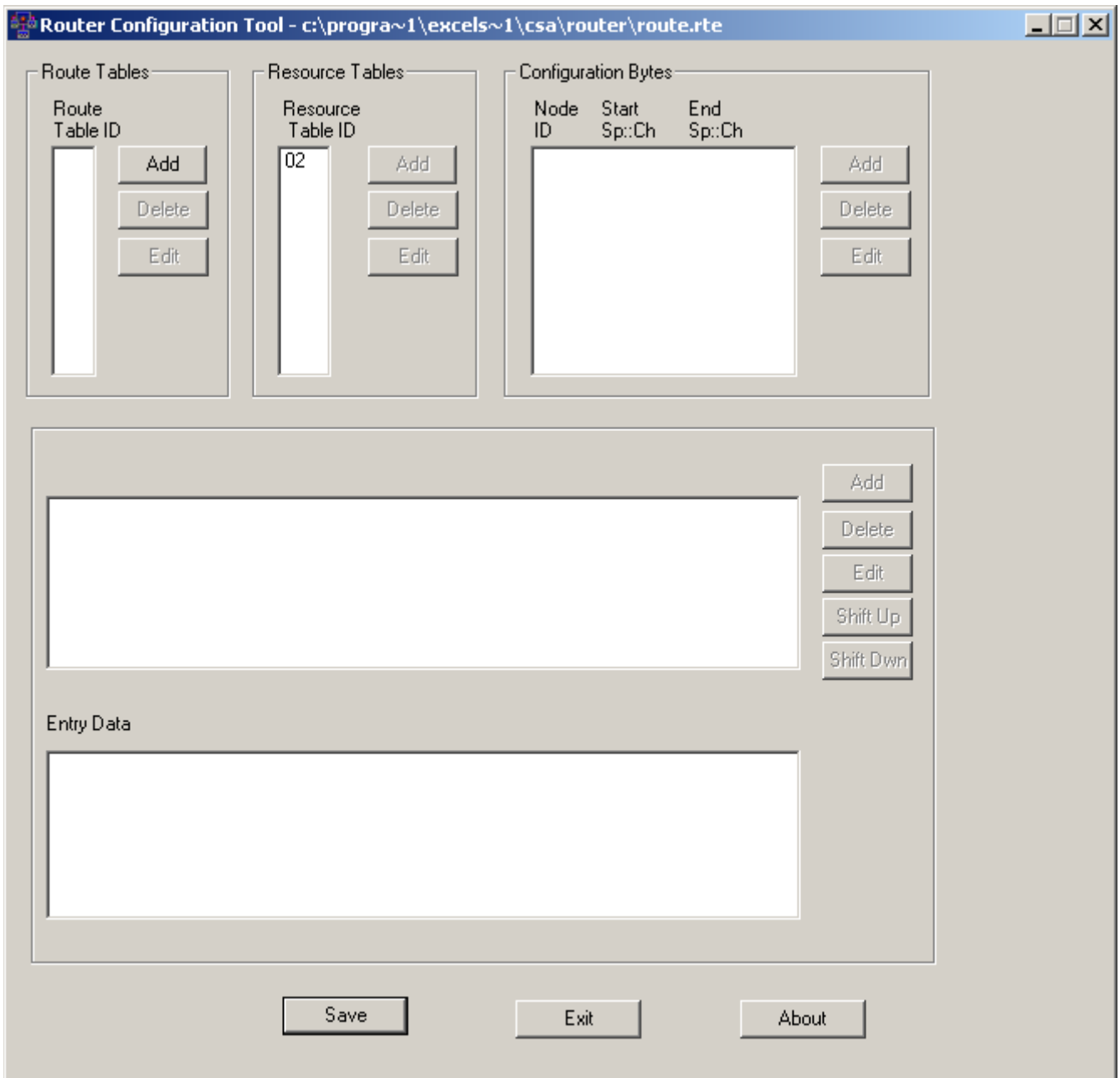
The **Configure Channel Groups** dialog box opens. See the next screen shot.

Configure Channel Groups [X]

	Range	Channel Group Name
1	0:0-0:22 ...	
2	1:0-1:22	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Call RCT Open OK

2 Click **Call RCT**. See the next screen shot.



The screenshot shows the Router Configuration Tool interface. The title bar reads "Router Configuration Tool - c:\progra~1\excels~1\csa\router\route.rte". The interface is divided into three main sections at the top: "Route Tables", "Resource Tables", and "Configuration Bytes".

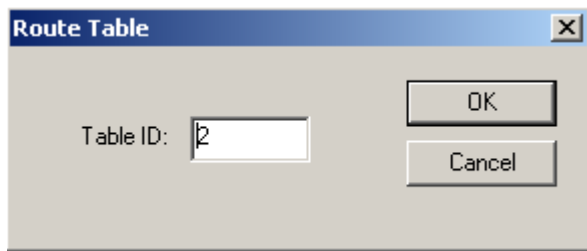
- Route Tables:** Contains a "Route Table ID" list box (empty) and buttons for "Add", "Delete", and "Edit".
- Resource Tables:** Contains a "Resource Table ID" list box with the value "02" and buttons for "Add", "Delete", and "Edit".
- Configuration Bytes:** Contains a table with columns "Node ID", "Start Sp::Ch", and "End Sp::Ch". The table is empty, and there are "Add", "Delete", and "Edit" buttons to its right.

Below these sections is a large empty rectangular area. To its right are buttons for "Add", "Delete", "Edit", "Shift Up", and "Shift Down".

At the bottom of the main area is the "Entry Data" section, which contains another empty rectangular area.

At the very bottom of the window are three buttons: "Save", "Exit", and "About".

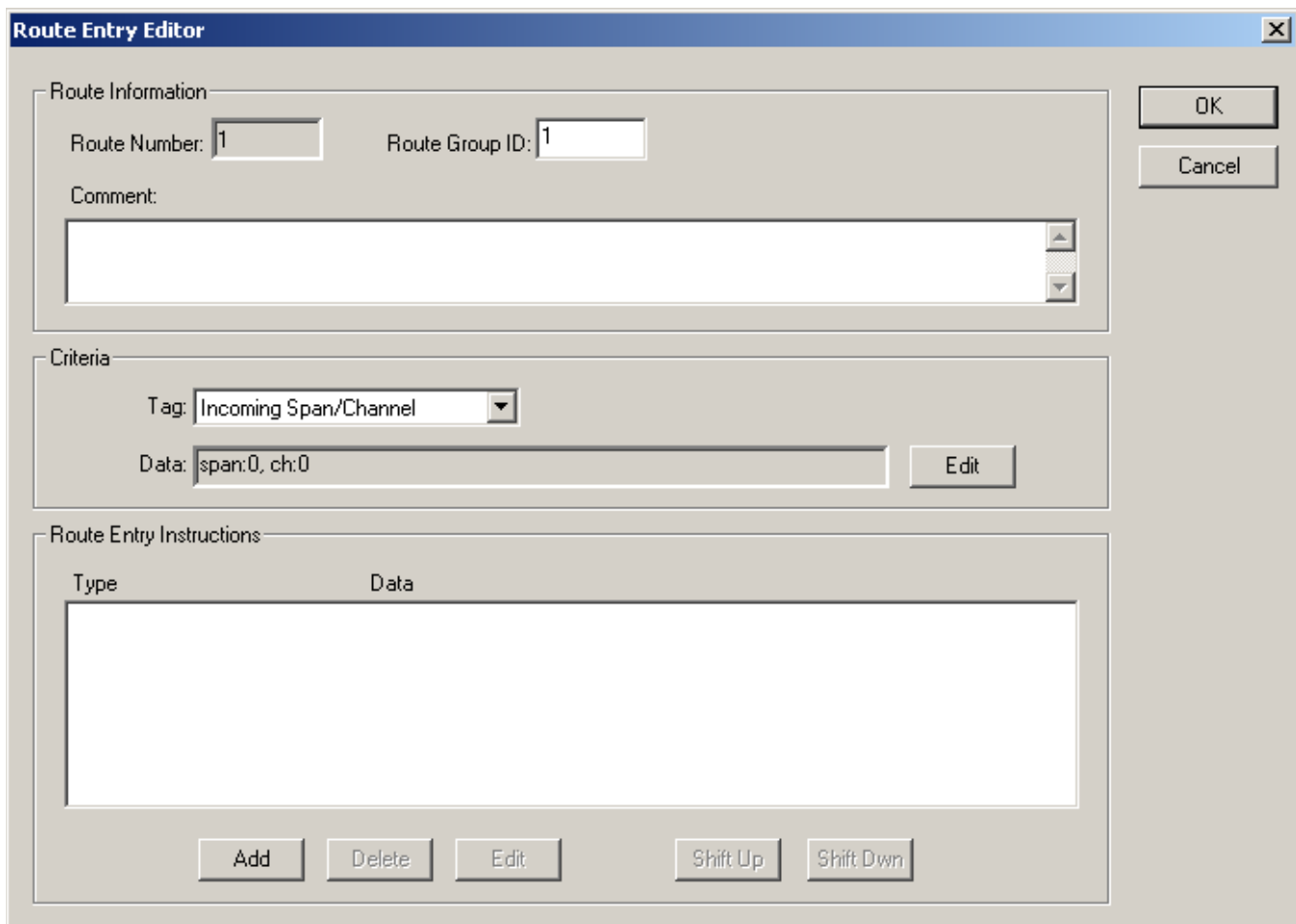
- 3 Under **Route Tables**, click **Add**. The Route Table dialog box opens.



The Route Table dialog box is a small window with a title bar that says "Route Table" and a close button (X). It contains a label "Table ID:" followed by a text input field containing the number "2". To the right of the input field are two buttons: "OK" and "Cancel".

- 4 Enter a **Table ID** and click **OK**.

- 5 Under **Route Table Entries**, click **Add**. The **Route Entry Editor** dialog box opens.



The Route Entry Editor dialog box is a larger window with a title bar that says "Route Entry Editor" and a close button (X). It is divided into three main sections: "Route Information", "Criteria", and "Route Entry Instructions".

- Route Information:** Contains two text input fields: "Route Number:" with the value "1" and "Route Group ID:" with the value "1". Below these is a "Comment:" label followed by a large text area with up and down arrow buttons on the right.
- Criteria:** Contains a "Tag:" dropdown menu with "Incoming Span/Channel" selected. Below it is a "Data:" text input field with the value "span:0, ch:0" and an "Edit" button to its right.
- Route Entry Instructions:** Contains a table with two columns: "Type" and "Data". The table is currently empty. Below the table are four buttons: "Add", "Delete", "Edit", and "Shift Up". To the right of the "Edit" button is a "Shift Down" button.

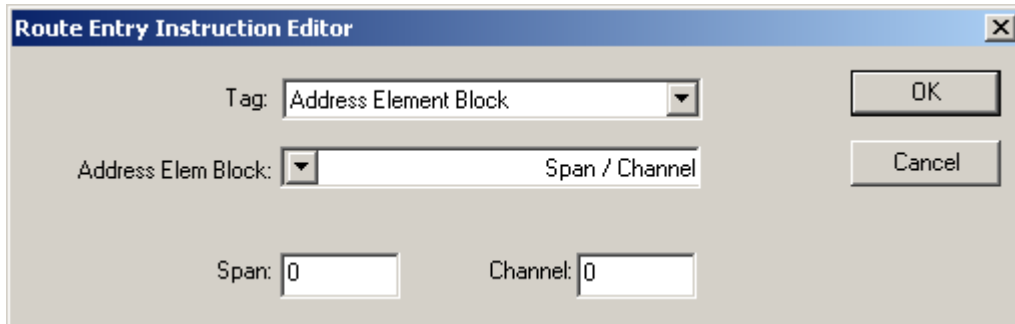
On the right side of the dialog box, there are two buttons: "OK" and "Cancel".

-
- 6 Enter a **Comment**, if you wish.
 - 7 Select a **Tag** from the drop-down list if you want to change the default setting.
 - 8 For **Data**, click **Edit** and enter the values to be used for **Tag** you selected and then click **OK**.
-

The image shows a software dialog box titled "Criteria Editor - Called Party Number". It contains several input fields and checkboxes for configuring search criteria.

- Called Party Number:** A section with two text boxes: "Digits:" and "ToDigits:".
- Options:** Three checkboxes: "User Defined Mask" (unchecked), "Exact Match" (checked), and "Force Sequential" (unchecked).
- Span / Channel:** A section with four text boxes: "Span:", "To Span:", "Channel:", and "To Channel:". Each has a "don't care" checkbox next to it.
- Time of Day:** A section with two rows of dropdown menus. The first row is labeled "Time of Day" and the second row is labeled "To:". The dropdowns are for Month, Day, Year, Week of Month, Day of Week, Hour, Minute, and Second. Each dropdown has a "don't care" checkbox below it.
- Buttons:** "OK" and "Cancel" buttons are in the top right.
- Incoming Data:** A section on the right with radio buttons for "Single" (selected), "Range", "BCD" (selected), "ASCII", "Raw Bytes", and "Decimal".
- Offset:** A text box with the value "4".

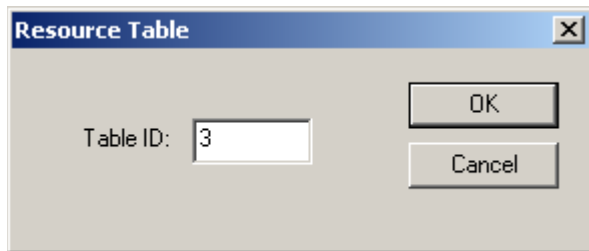
-
- 9 Click **Add**, to enter **Route Entry Instructions**. The **Route Entry Instruction Editor** dialog box opens.



The **Route Entry Instruction Editor** dialog box has a title bar with a close button. It contains the following fields and controls:

- Tag:** A drop-down menu currently showing "Address Element Block".
- Address Elem Block:** A drop-down menu with a small downward arrow.
- Span / Channel:** A text input field.
- Span:** A numeric input field with the value "0".
- Channel:** A numeric input field with the value "0".
- Buttons:** "OK" and "Cancel" buttons on the right side.

-
- 10 Select the **Tag** from the drop-down list.
-
- 11 Select the **Address Element Block** from the drop-down list and then click **OK**.
-
- 12 In the **Router Configuration Tool** dialog box, place your cursor in the white space under **Resource Table ID**. Click **Add**. The **Resource Table** dialog box opens.

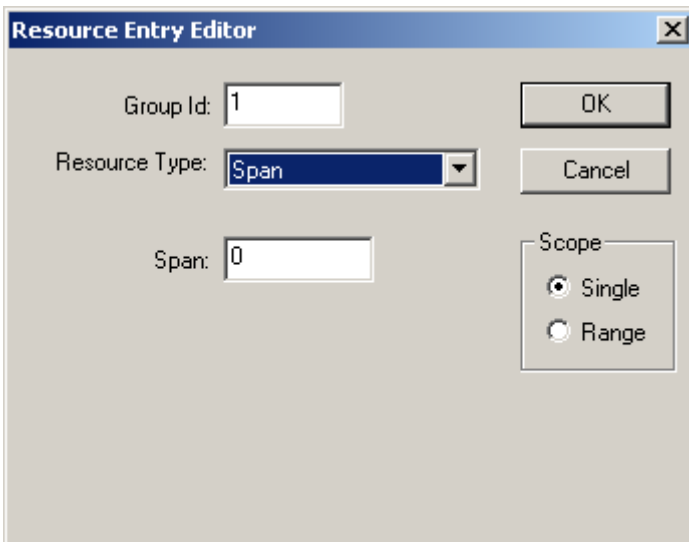


The **Resource Table** dialog box has a title bar with a close button. It contains the following fields and controls:

- Table ID:** A text input field with the value "3".
- Buttons:** "OK" and "Cancel" buttons on the right side.

-
- 13 Enter a **Table ID** and click **OK**.

-
- 14 For each Table ID entered, click **Add** in the **Resource Table Entries** group box. The **Resource Entry Editor** opens.



The screenshot shows the 'Resource Entry Editor' dialog box. It has a title bar with a close button. Inside, there are three input fields: 'Group Id' with the value '1', 'Resource Type' with a dropdown menu showing 'Span', and 'Span' with the value '0'. To the right of these fields are 'OK' and 'Cancel' buttons. Below the 'Span' field is a 'Scope' section with two radio buttons: 'Single' (which is selected) and 'Range'.

-
- 15 Enter the Group ID.
-
- 16 Select the **Resource Type** from the drop-down list.
-
- 17 Enter the **Span**.
-
- 18 Select the **Scope** and click OK.

- 19 In the **Router Configuration Tool** dialog box, place your cursor in the white space in the **Configuration Bytes** group box, and click **Add**. The **Configuration Byte Editor** dialog box opens.

The screenshot shows the "Configuration Byte Editor" dialog box. It has a title bar with a close button. The dialog is divided into two main sections: "Configuration Bytes" on the left and "Resource" on the right. The "Configuration Bytes" section contains input fields for "Byte Offset" and "Config Data: 0x", a checkbox for "Add TLV", and "Add" and "Delete" buttons. Below these is a table with columns: "Byte Offset", "Tag", "Length", "Data", and "Next Available Offset". The "Resource" section contains input fields for "Node", "Start Span", "Start Channel", "End Span", and "End Channel". At the bottom of the dialog are "Cancel" and "OK" buttons.

Byte Offset	Tag	Length	Data	Next Available Offset
-------------	-----	--------	------	-----------------------

Deleting, Adding or Modifying Channels

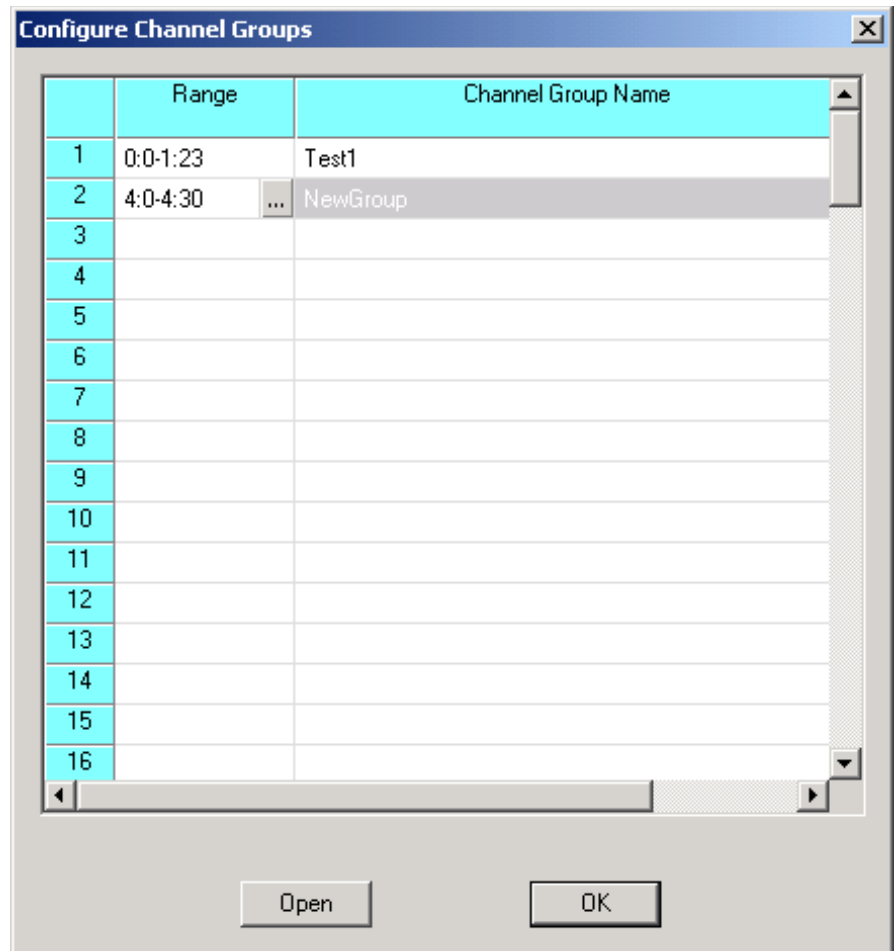
Purpose This procedure describes how to delete, add, or modify channels from a group.

Before you begin To delete, add or modify a channel from a group, you must be in configuration mode with an open global view window.

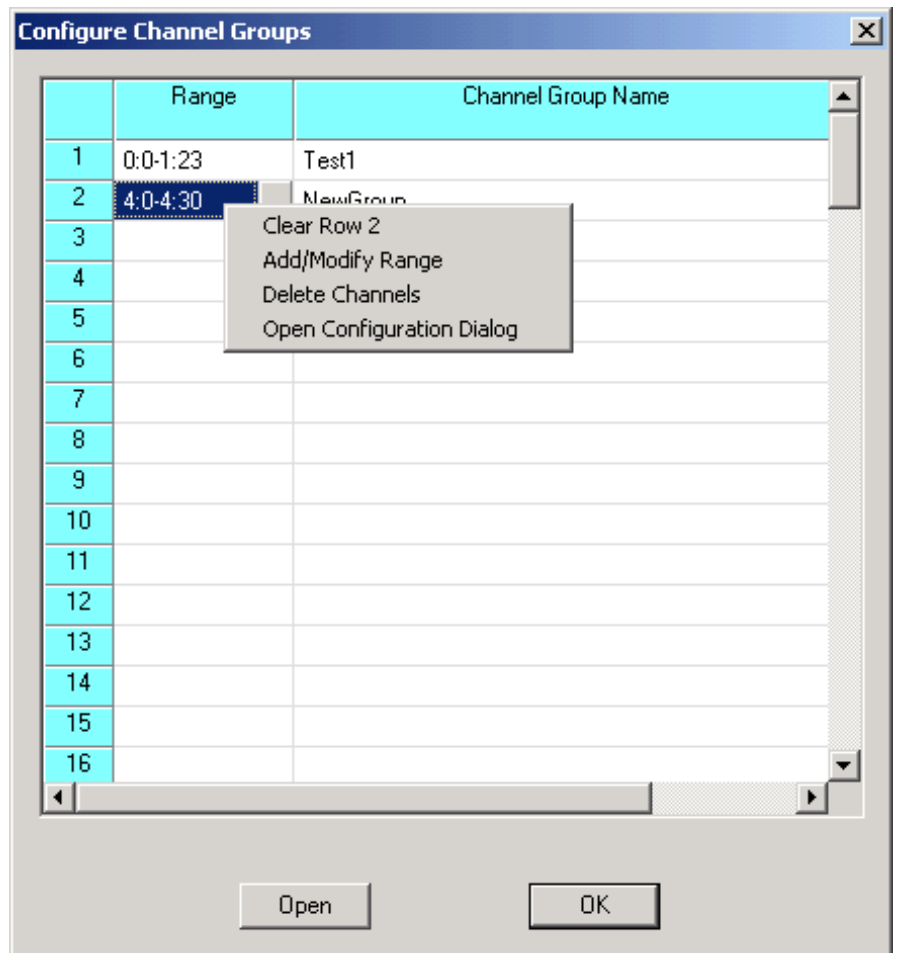
Deleting, Adding or Modifying Channels The following steps explain how to delete, add, or modify channels from a group.

- 1 To open the **Configure Channel Group** dialog box, do one of the following:
 - Right-click on the **Configuration** icon and select **Channel Group Configuration** from the menu.
 - Select the **Configuration** icon. Go to the **Configuration** menu and select **System→Channel Group Configuration**.
 - Click on the **Configuration** icon. Select the **Configuration** menu, **Node Configuration→Channel Group Configuration**.
 - Right-click on the blue part of the node view, select **Channel Group Configuration**.

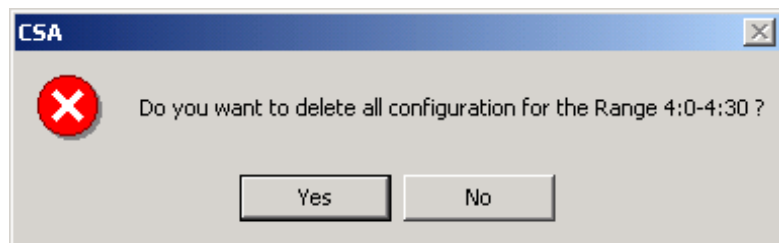
This opens the **Configure Channel Groups** dialog box as shown on the next page:



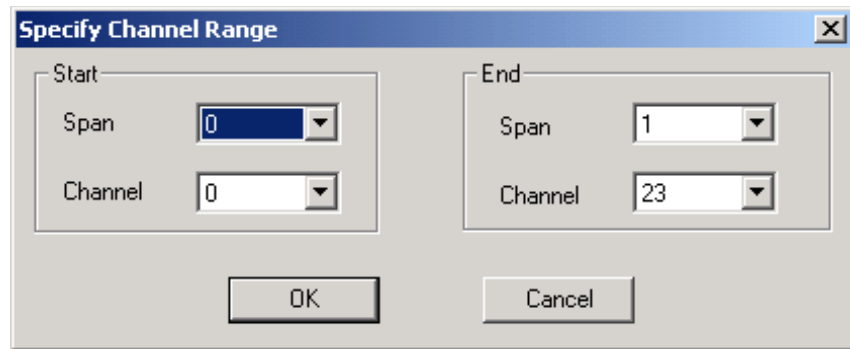
- 2 Right-click in the **Range** cell of the channel group that you want to delete, add, or modify. Select an option from the pop-up menu. See the next screen shot.



- 3 If you select **Clear Row 2**, you will get a message. Click **OK**. See the next screen shot.



- 4 If you select **Add/Modify Range** or **Delete Channels** the **Specify Span Range** dialog box opens. See the next screen shot.



-
- 5 Specify the **Start Span** and **Channel**.
 - 6 Specify the **End Span** and **Channel**.
 - 7 Click **OK** to close the **Specify Span Range** dialog box. This brings you back to the **Configure Channel Groups** dialog box.
 - 8 To close the **Configure Channel Groups** dialog box, click **OK**.
-

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

4 Configuring Signaling Cards

Purpose This chapter contains the configuration procedures for signaling cards, such as ISDN and SS7.

Configuring the ISDN Card

Purpose This procedure describes configuring the ISDN card.

Before you begin The signaling method for an E1 span and/or T1 span must be set to: clear channel. An ISDN card requires an I/O card (CCS I/O) only when redundancy is being supported. You must have a node view window open in configuration mode.

Information Source Please refer to the ISDN information contained in the *API Reference* and the *Converged Services Platform, Developer's Guide: Common Channel Signaling*.

Configuring the ISDN Card The following steps explain the ISDN card configuration.

- 1 To access the ISDN card configuration dialog box, do one of the following:
 - Select the ISDN card in the node view. Go to the **Configuration** menu and select **Card→ISDN Configuration**.
 - Right-click on the ISDN card in the node view and select **ISDN Configuration** from the menu.
 - Double-click the ISDN card in the node view.

The **Configure ISDN** dialog box opens. The configuration data shown in the screen shot on the next page is example data.

Configure ISDN

	Action	Pri D - Channel Span	Pri D - Channel Channel	Sec D - Channel Span	Sec D - Channel Channel
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					

D Channel Facility List

ISDN Interface Configuration

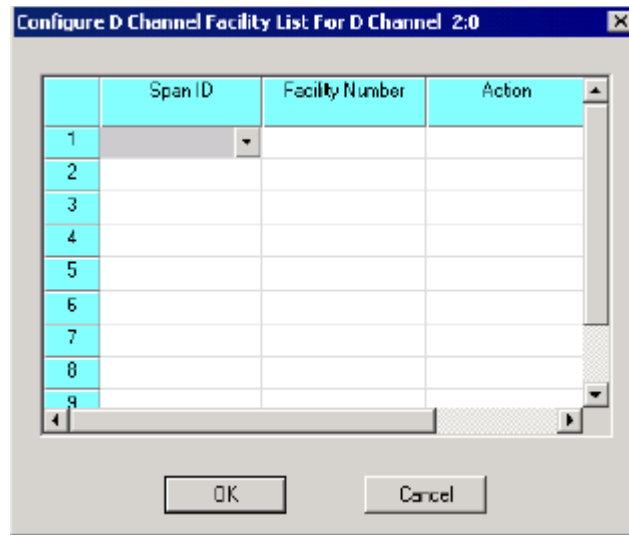
ISDN Terminal Configuration

OK

Cancel

2 Specify the **Action**, **Primary D Channel Span**, and **Primary D Channel** through the drop-down lists in the table cells.

3 Click **D Channel Facility List** to access the next dialog box:

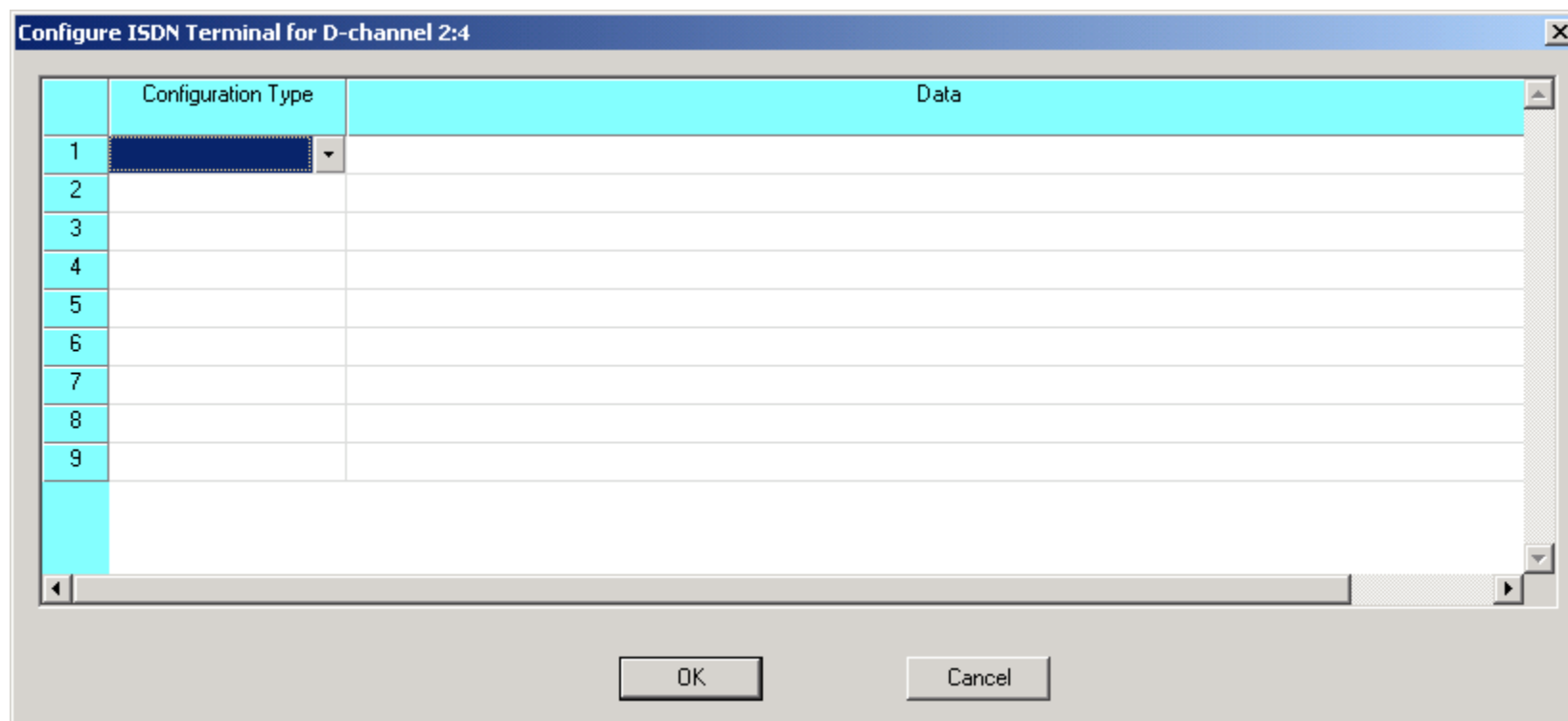


- 4 Select the **Span ID**, **Facility Number**, and **Action** from the drop-down lists in the table cells.
- 5 Click **OK** to close the **Configure D Channel Facility List** dialog box and to return to the **Configure ISDN** dialog box.
- 6 Click **ISDN Interface Configuration** to open the following dialog box:

The screenshot shows a dialog box titled "Configure ISDN Interface for D-channel 2:4". Inside, there is a table with two columns: "Entity" and "Data". The "Entity" column has a drop-down menu in the first row. The table has 10 rows in total. At the bottom of the dialog box are "OK" and "Cancel" buttons.

	Entity	Data
1	<input type="text"/>	
2		
3		
4		
5		
6		
7		
8		
9		

- 7 Select the **Entity** from the drop-down list in the table cell.
 1. Enter the **Data**. The data can be entered in hexadecimal or decimal with spaces, for example, 00 23 10 2a.
- 8 Click **OK** to close the **Configure ISDN Interface** dialog box and to return to the **Configure ISDN** dialog box.
- 9 Click **ISDN Terminal Configuration** to open the next dialog box:



The dialog box is titled "Configure ISDN Terminal for D-channel 2:4". It contains a table with two columns: "Configuration Type" and "Data". The table has 10 rows, numbered 1 through 9, and a 10th row that is currently empty. The first row (row 1) has a drop-down menu in the "Configuration Type" column. The "Data" column is empty for all rows. At the bottom of the dialog box, there are two buttons: "OK" and "Cancel".

	Configuration Type	Data
1	<input type="text"/>	
2		
3		
4		
5		
6		
7		
8		
9		

- 10 Select the **Configuration Type** from the drop-down list in the table cell.
- 11 Enter the **Data**.The data can be entered in hexadecimal or decimal with spaces, for example, 00 23 10 2a.
- 12 Click **OK** to close the **Configure ISDN Terminal** dialog box and to return to the **Configure ISDN** dialog box.

-
- 13** Click **OK** to close the ISDN card configuration.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configure**→ **Configure Through SwitchMgr**→ **Send Only Modified Configuration to Switch**.

Configuring V5.2

Purpose This procedure describes how to configure the V5.2 interface on the ISDN Series 3 card. You can configure 16 interfaces per ISDN Series 3 card. In the CSA, the V5.2 protocol is referred to in some instances simply as V5. Please refer to the V5.2 chapter in the *Converged Services Platform, Developer's Guide: Common Channel Signaling*.

Before you begin Before you configure the CSP V5.2 protocol, you must locate your V5.2 license file (license.cfg) which contains a license key. Contact your sales representative for a license. To install the license key, you must use the General Node Configuration dialog box. See *General Node Configuration (2-30)* for the procedure on opening the license key.

You must have a node view window open in configuration mode. You must have an ISDN Series 3 card already added to a slot.

Important! E1 spans must be configured before configuring the V5.2 interface. See *Configuring the E-ONE Card (3-5)*.

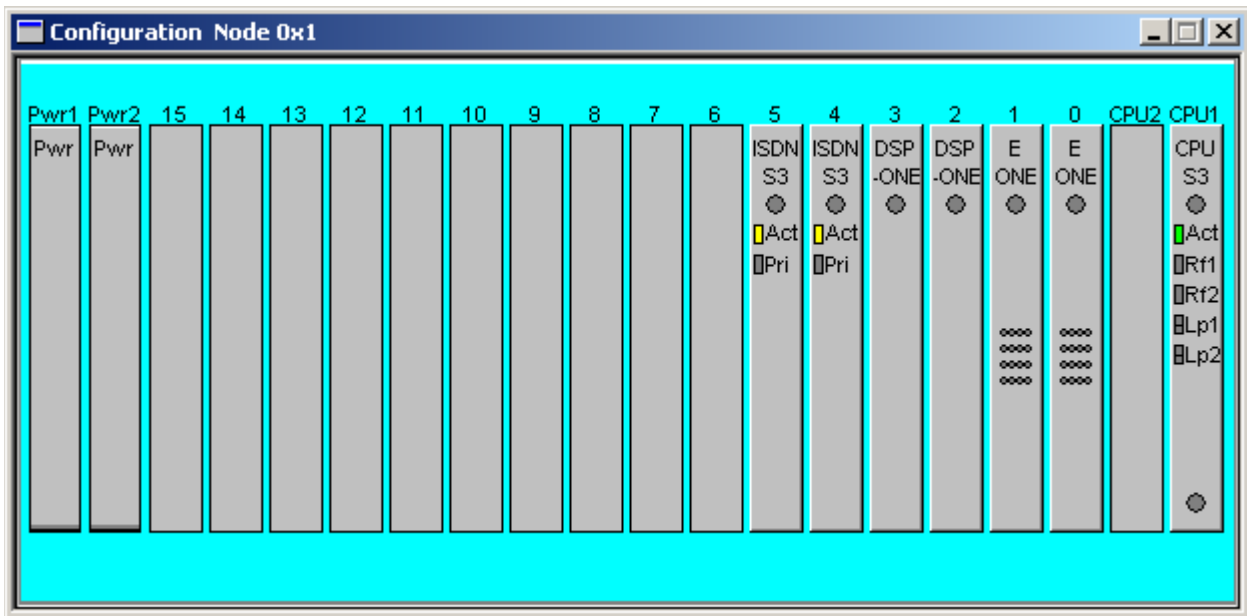
If you are configuring the V5.2 interface for the first time, you must do the following in sequence:

1. Create V5.2 Interface
2. Add V5.2 Link
3. Add C Channel
4. Add User Ports

ISDN Series 3 See *Configuring the ISDN Card (4-2)* for information on how to configure this card.

Please refer to the ISDN information contained in the SwitchKit user's guides and the *Converged Services Platform, Developer's Guide: Common Channel Signaling*.

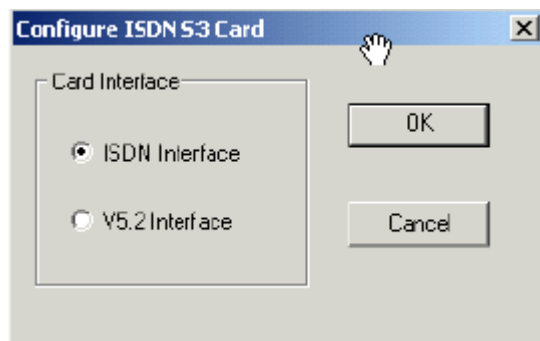
Configuring V5.2 Configuration of the V5.2 interface starts from the node view as shown in the next screen shot:



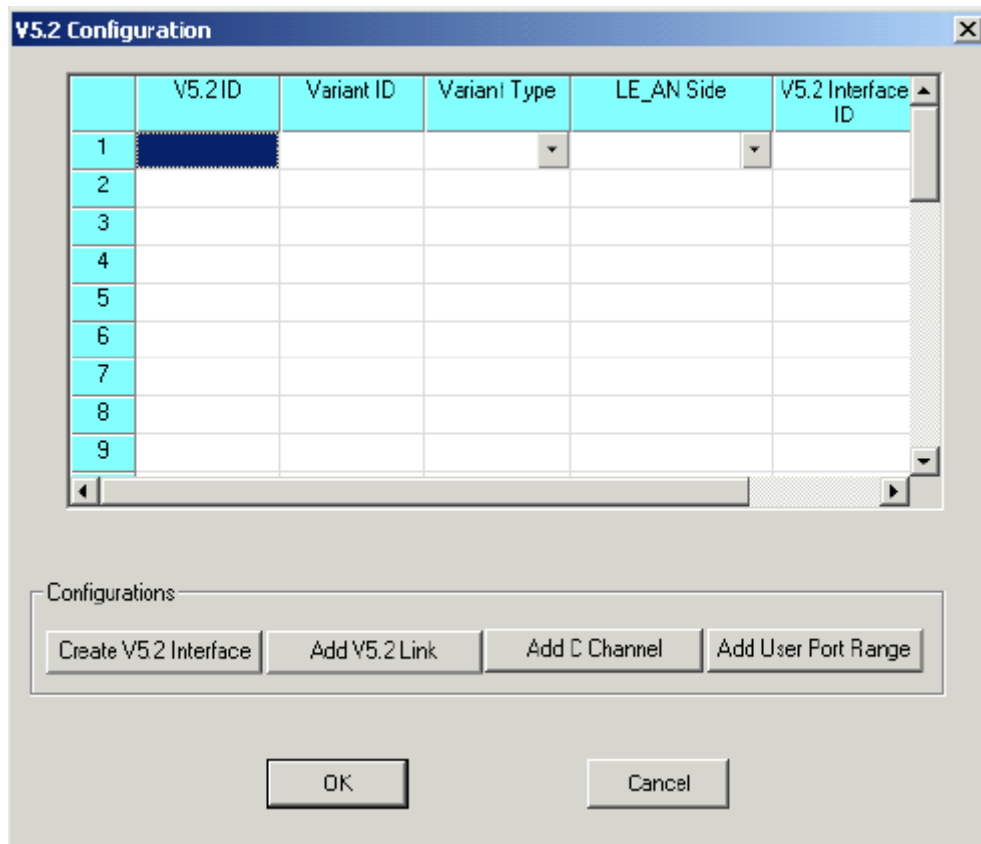
The following steps explain the V5.2 configuration.

- 1 To invoke the V5.2 configuration dialog box, do one of the following:
 - Double-click the ISDN Series 3 card (labelled ISDN S3) in the node view window.
 - Right-click the ISDN Series 3 card in the node view window.
 - With an open node view window go to the **Configuration** menu and select **Card**→ **ISDN Configuration**.

The **Configure ISDN S3 Card** dialog box opens with the ISDN Interface selected by default:



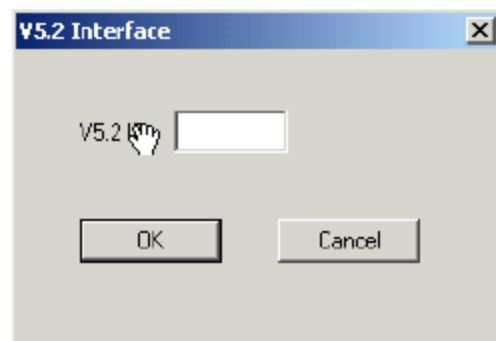
- 2 Select **V5.2 Interface** and click **OK**. The **V5.2 Configuration** dialog box opens. See the next screen shot.



Important! The AN side is not supported.

- 3 Click **Create V5 Interface**.

The **V5.2 Interface** dialog box opens.



-
- 4 Enter a **V5.2 ID** and click **OK**.

Important! The **V5.2 ID** is a local ID, unlike the **V5.2 Interface ID** which is the actual ID used in the V5 network.

The **Variant ID**, **Variant Type**, **LE_AN Side**, and **V5 Interface ID** are then automatically specified with default values. You can change these default values by clicking in the cells and typing the values or selecting from the drop-down lists. Continue to perform this step until you have filled in all the V5 IDs that you need to configure.

- 5 Click **Add V5.2 Link**.

The **Add V5.2 Link** dialog box opens.

	Link ID	Span ID	Real Link ID
1			
2			
3			
4			
5			
6			
7			
8			
9			

-
- 6 Enter the **Link ID**. Under **Span ID**, select the one you want to use for the V5.2 link. Enter the **Real Link ID**. Click **OK**.
-

- 7 Click **Add C Channel**.

The **Add C Channel** dialog box opens:

	Channel ID	Span ID	Link ID
Primary C Channel			
Secondary C Channel			

- 8 The value for the **Channel ID** of the **Primary C Channel** is always zero. Select the **Span ID** and **Link ID** from the drop-down lists.
- 9 Enter the **Channel ID** for the **Secondary C Channel**. Select the **Span ID** and **Link ID** from the drop-down lists. Click **OK**.
- 10 Click **Add User Port Range**.

The **Add User Port Ranges** dialog box opens.

	Port Type	Start Port	End Port
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

OK Cancel

11 Select the **Port Type** from the drop-down list. Enter the **Start Port** and **End Port**. Click **OK**.

12 In the **V5.2 Configuration** dialog box, click **OK**.

END OF STEPS

Configuring the SS7 Card

Purpose This procedure describes configuring an SS7 card.

- Before you begin** The signaling method for a T1 and/or E1 spans must be set to: clear channel. You must obtain the following:
- SS7 user part licenses
 - Originating, adjacent and destination point codes
 - A CCS I/O card is required to support redundancy, SS7 over a CSP ring or SCCP/TCAP.
 - An IP address is required for SCCP/TCAP configuration on each SS7 card.
 - An Ethernet connection is required for each SS7 card over a CSP ring.
 - Before configuring SS7 links, you must first assign spans on T-ONE, E-ONE, J-ONE and Multi-Protocol I/O cards.

You must have a node view window open in configuration mode. If you set up redundant SS7 cards place them in adjacent card slots. You may configure four stacks per SS7 card; each stack has an individual point code (OPC).

Important! When using SS7 PQ cards in either a single node or a multi-node system you may configure a total of 3000 physical and virtual CICs, if both ISUP and SCCP/TCAP are to be configured for this system.

Information Source Please refer to the SS7 information contained in the *API Reference* and the *Developer's Guide: Common Channel Signaling*.

Configuring SS7 Use the following configuration sequence to bring SS7 signaling links and voice circuits in service. The steps below are used for an SS7 PQ card or SS7 Series 3 card. More details are provided about each step following the table.

Step	Action
1	Assign and configure spans
2	Configure SS7 license

Step	Action
3	Configure SS7 cards
4	Configure Signaling Stacks
5	Configure Signaling Link Sets
6	Configure Signaling Links
7	Configure Signaling Route(s)
8	Assign Voice Circuits (CICs)
9	<p>The following entities must be brought in service in this order and messages must sent separately for each:</p> <ol style="list-style-type: none"> 1. Spans 2. CICs 3. Signaling links

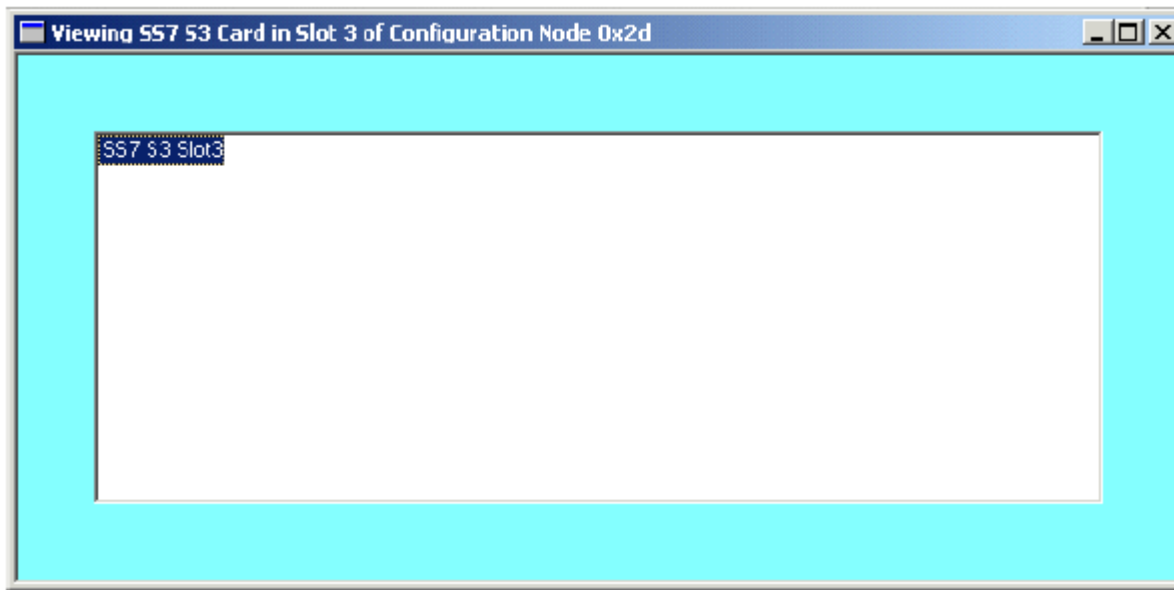
Configuring the SS7 Card

The following steps guide you through the initial sequence of configuring an SS7 Card. If your card is already configured and you want to change parts of that configuration, please look for the appropriate information in this procedure. To modify any of these SS7 configuration settings, click on the entity you want to modify.

To invoke the SS7 Card Configuration dialog box, do one of the following:

- Double-click the SS7 card in the node view window.
- Right-click the SS7 card in the node view window and select **SS7 Configuration** from the drop-down list.
- Select the SS7 card, go to the **Configuration** menu and select **Card→SS7 Configuration**.

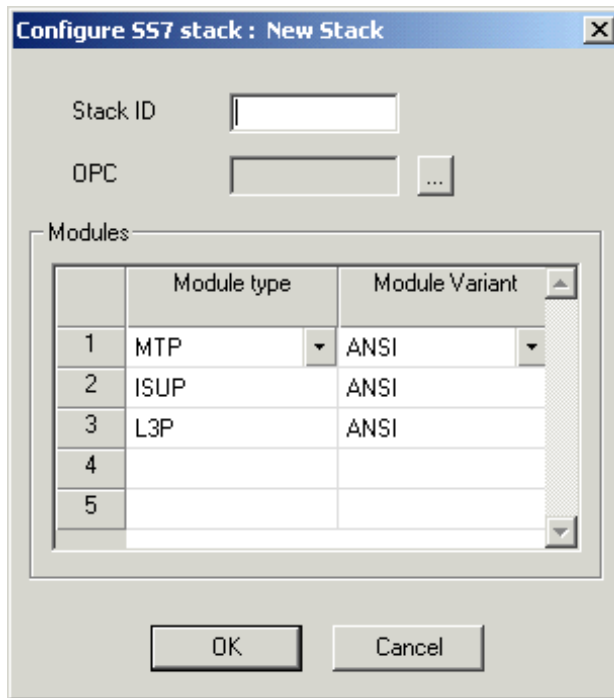
The **Viewing SS7...** dialog box opens. See the next screen shot.



SS7 Stack Configuration

-
- 1 To invoke the SS7 Stack configuration dialog box, do one of the following:
 - Right-click the SS7 entry in the view and select **SS7 Stack Configuration** from the menu.
 - Select the SS7 entry in the view and go to the **Configuration** menu. Select **SS7→SS7 Stack Configuration**.


This opens the **Configure SS7 Stack** dialog box:

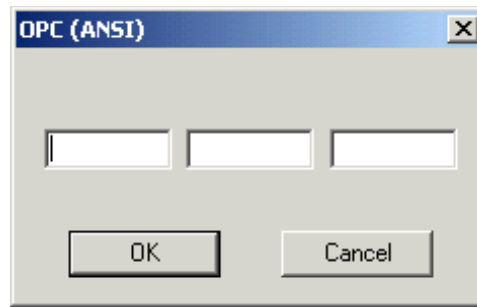


-
- 2 Enter the **Stack ID**. The valid IDs are 0 to 3.

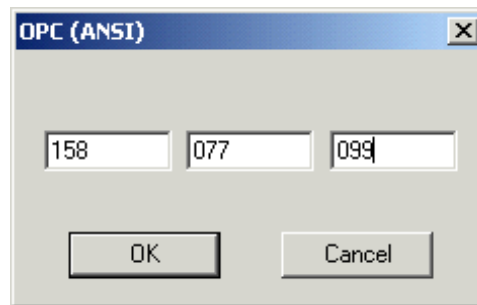
Important! In a multi-node system, you can have up to four SS7 stacks in the entire system (stack IDs 0-3).

-
- 3 Select the **Module Type** and **Module Variant** from the drop-down lists for the **Modules**. The **Module Variant** must be the same for all modules in one Stack ID.

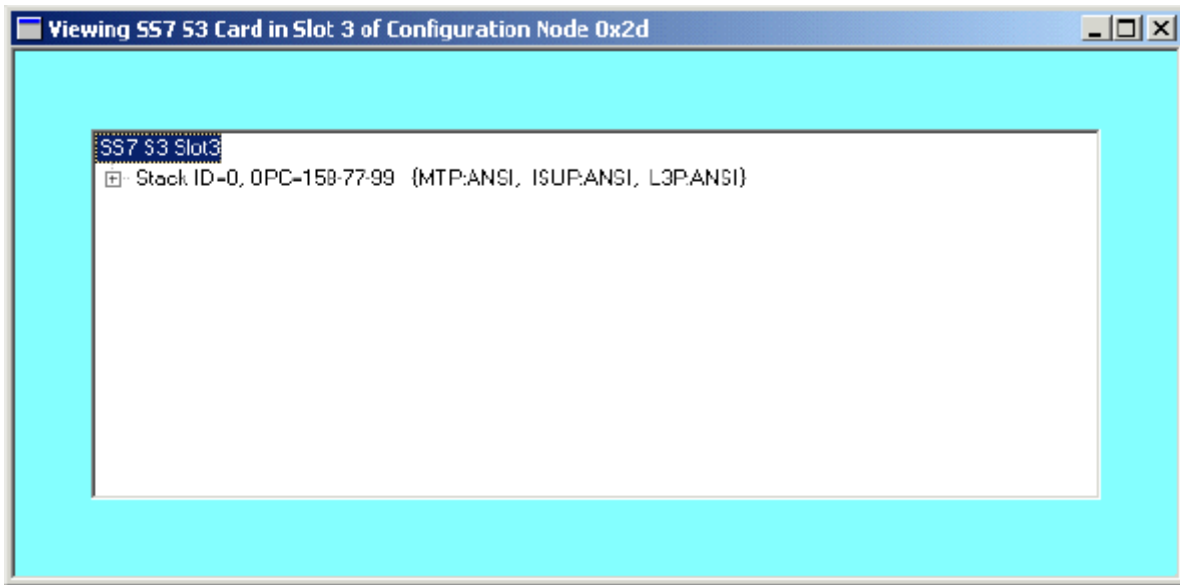
-
- 4 Click the button:  When ANSI module variants are selected, the **OPC (ANSI)** dialog box opens. When other module variants are selected, the **OPC** dialog box for the selected variant opens.



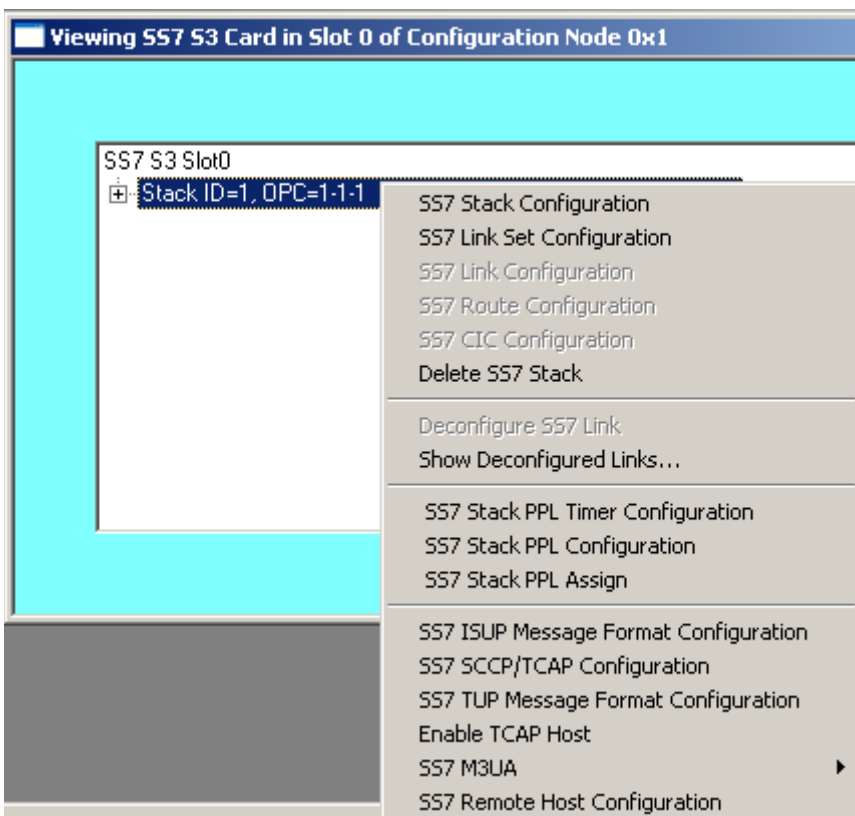
-
- 5 Enter the Originating Point Code (**OPC**). The OPC must be a numeric value. For example, an originating point code would be entered as 158 77 99. To change the default format for entering point codes, see *Setting a Point Code Format (2-29)*. For more details, see the section: “SS7 Point Codes” in the *Basics of SS7, Chapter 2, Developer’s Guide: Common Channel Signaling*.



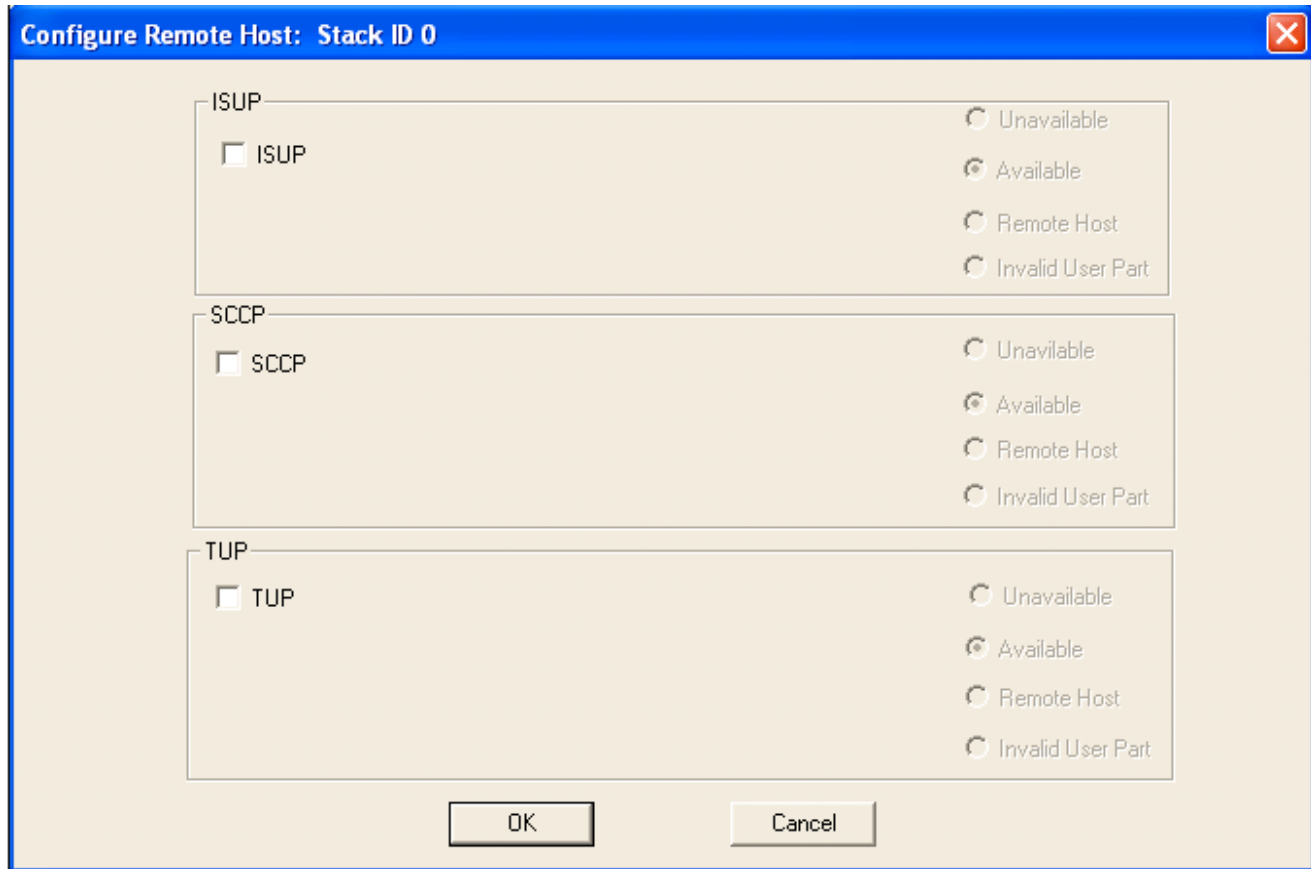
-
- 6 Click **OK**.
-
- 7 Click **OK** to close the dialog box. The SS7 Card view shows the stack information. The configuration data shown in the screen on the next page is example data.



- 8 If you want to configure a remote host, right click the relevant stack and select **SS7 Remote Host Configuration**.



In the next dialog box select the user part that you want configured on the remote host, then select **Remote Host** (radio button) and click **OK**.



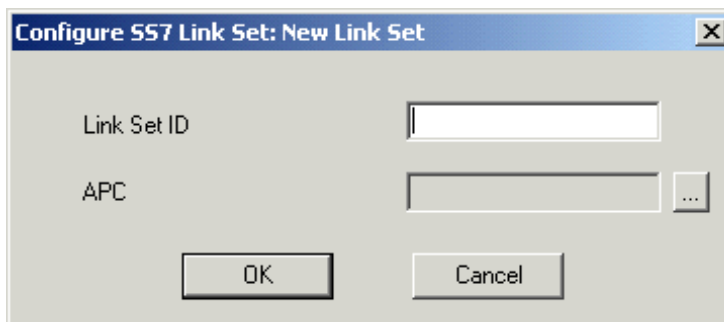
-
- 9 You must now configure the SS7 Link Set.


SS7 Link Set Configuration

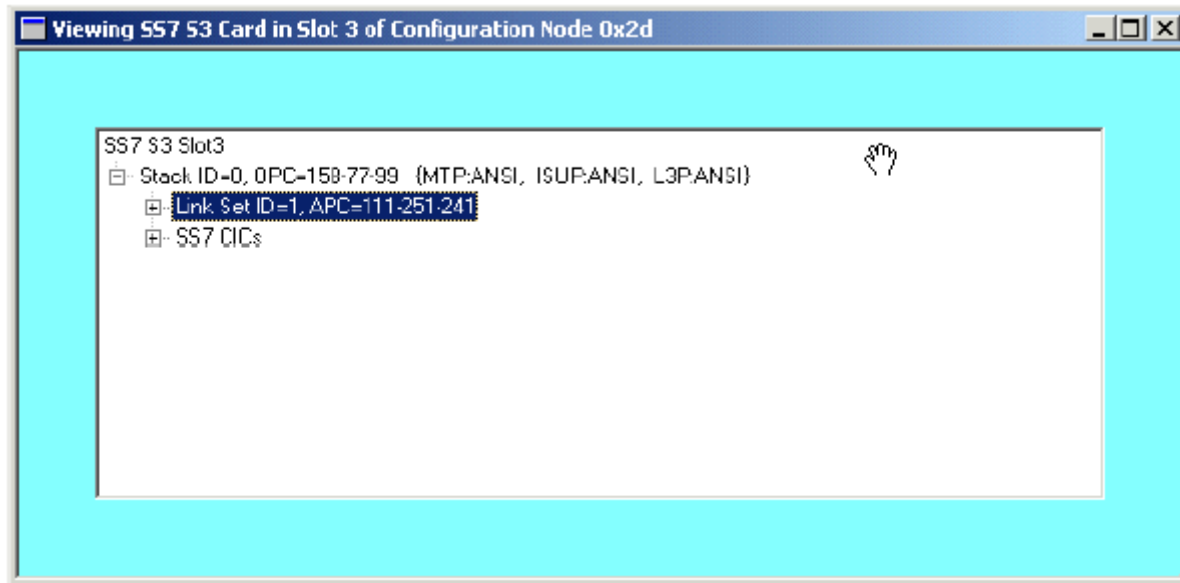
- 1 To invoke the SS7 Link Set configuration dialog box, do one of the following:
 - Right-click the SS7 Stack entry in the view and select **SS7 Link Set Configuration** from the menu.

- Select the SS7 Stack entry in the view and go to the **Configuration** menu. Select **SS7→SS7 Link Set Configuration**.

This opens the **Configure SS7 Link Set** dialog box:



- 2 Enter the **Link Set ID**. The valid IDs are 0 to 32.
- 3 Click the button:  The **APC** dialog box opens.
- 4 Enter the Adjacent Point Code (**APC**). The APC must be a numeric value and be different from the OPC. For example, an adjacent point code would be entered as 111 251 241. To change the default format for entering point codes, see *Setting a Point Code Format (2-29)*. For more details, see the section: “SS7 Point Codes” in the *Basics of SS7, Chapter 2, Developer’s Guide: Common Channel Signaling*.
- 5 Click **OK**.
- 6 Click **OK** to close the dialog box. The SS7 Card view shows the stack information. The configuration data shown in the next screen shot is example data.



-
- 7 Next, you must configure the SS7 Link.

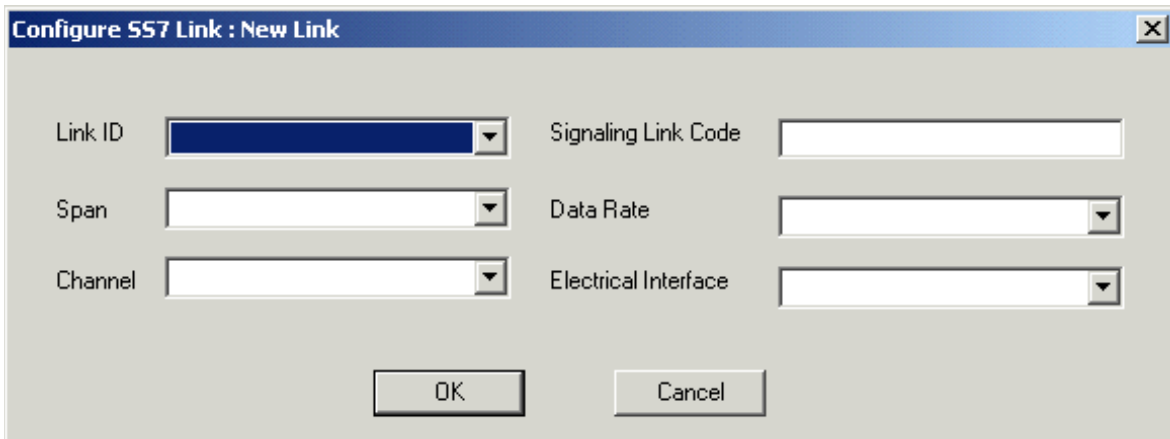
SS7 Link Configuration

- 1 Before configuring SS7 links, you must first assign spans on T-ONE, E-ONE, J-ONE and Multi-Protocol I/O cards.

To invoke the SS7 Link configuration dialog box, do one of the following:

- Right-click the Link Set entry in the view and select **SS7 Link Configuration** from the menu.
- Select the Link Set entry in the view and go to the **Configuration** menu. Select **SS7→SS7 Link Configuration**.

This opens the **Configure SS7 Link** dialog box.



The dialog box titled "Configure SS7 Link : New Link" contains the following fields and controls:

- Link ID**: A drop-down menu.
- Span**: A drop-down menu.
- Channel**: A drop-down menu.
- Signaling Link Code**: A text input field.
- Data Rate**: A drop-down menu.
- Electrical Interface**: A drop-down menu.
- OK** and **Cancel** buttons at the bottom.

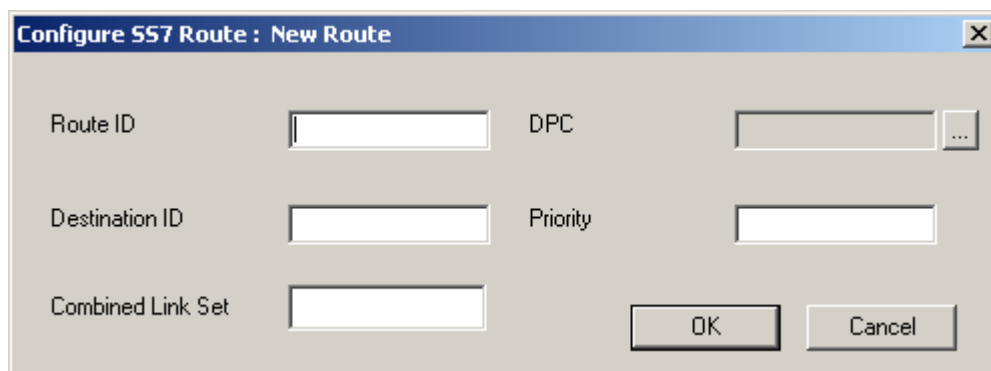
- 2 Specify the **Link ID** by selecting a value from the drop-down list.
- 3 Specify the **Span** by selecting a value from the drop-down list.
- 4 Specify the **Channel** by selecting a value from the drop-down list.
- 5 Enter the **Signaling Link Code**, valid range 0 to 15. The Signaling Link Code (SLC) must be the same on both ends of the link.
- 6 Specify the **Data Rate** by selecting a value from the drop-down list.
- 7 Specify the **Electrical Interface** by selecting a value from the drop-down list.
- 8 Click **OK**.


-
- 9 You must now configure the SS7 Route.

SS7 Route Configuration

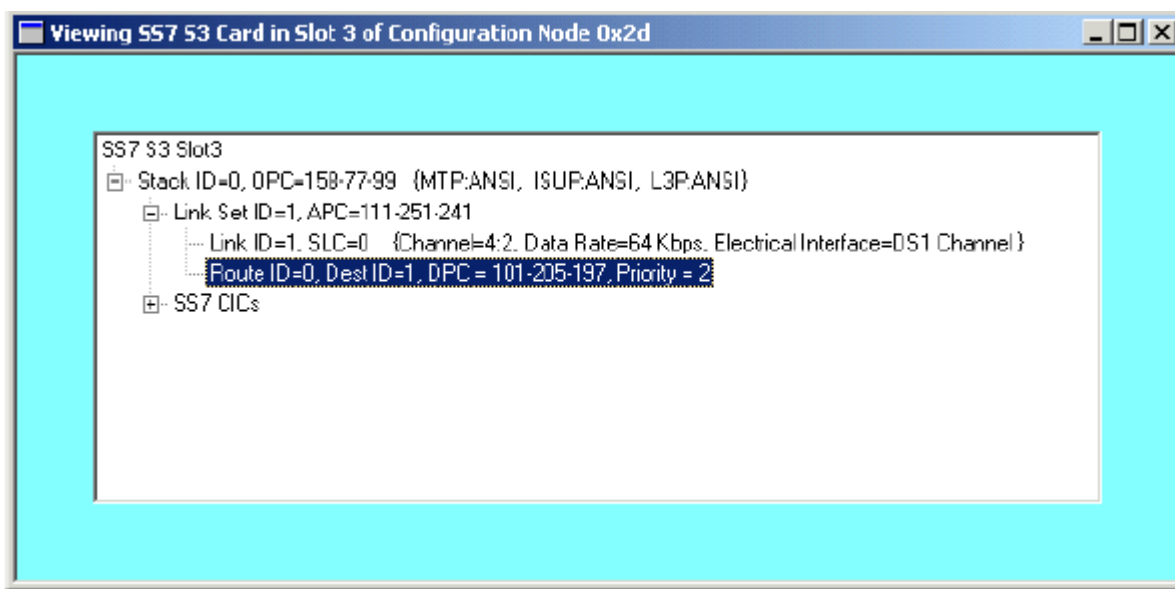
- 1 To invoke the **SS7 Route Configuration** dialog box, do one of the following:
- Right-click the Link Set entry in the view and select **SS7 Route Configuration** from the menu.
 - Select the Link Set entry in the view and go to the **Configuration** menu. Select **SS7→SS7 Route Configuration**.

This opens the **Configure SS7 Route** dialog box. See the next screen shot.



- 2 Enter the **Route ID**.
- 3 Enter the **Destination ID**.
- 4 If you want to add a **Combined Link Set** for the route you are configuring, enter a value (0-65535), otherwise leave it blank.
- 5 Click the button:  The **DPC** dialog box opens.

- 6 Enter the Destination Point Code (**DPC**). The DPC can be the same as the APC. For example, a destination point code would be entered as 101 205 241. To change the default format for entering point codes, see *Setting a Point Code Format (2-29)*. For more details, see the section: “SS7 Point Codes” in the *Basics of SS7, Chapter 2, Developer’s Guide: Common Channel Signaling*.
- 7 Click **OK**.
- 8 Enter the **Priority**, valid range 0 to 35.
- 9 Click **OK** to close the dialog box. In the SS7 Card view you now see the SS7 Stack, Link Set, Link, and Route information. The configuration shown in the next screen shot uses example data.



- 10 Next you must configure either:
 - SS7 Circuit Identification Code (CIC). See Step 1.

- SCCP/TCAP. See *Configuring SCCP/TCAP on an SS7 card* (4-42).

SS7 CIC Configuration

- 1 To invoke the **SS7 CIC Configuration** dialog box, do one of the following:
 - Right-click the **SS7 CICs** entry in the view and select **SS7 CIC Configuration** from the menu.
 - Select the **SS7 CICs** entry in the view and go to the **Configuration** menu. Select **SS7→SS7 CIC Configuration**.

The **Configure SS7 CIC** dialog box opens. See the next screen shot.

Configure SS7 CIC

CIC Info For First Group

Base CIC Number

Base CIC Span

Base CIC Channel

Number of CICs

DPC ...

Call control user

☐ Multiple CIC Configuration

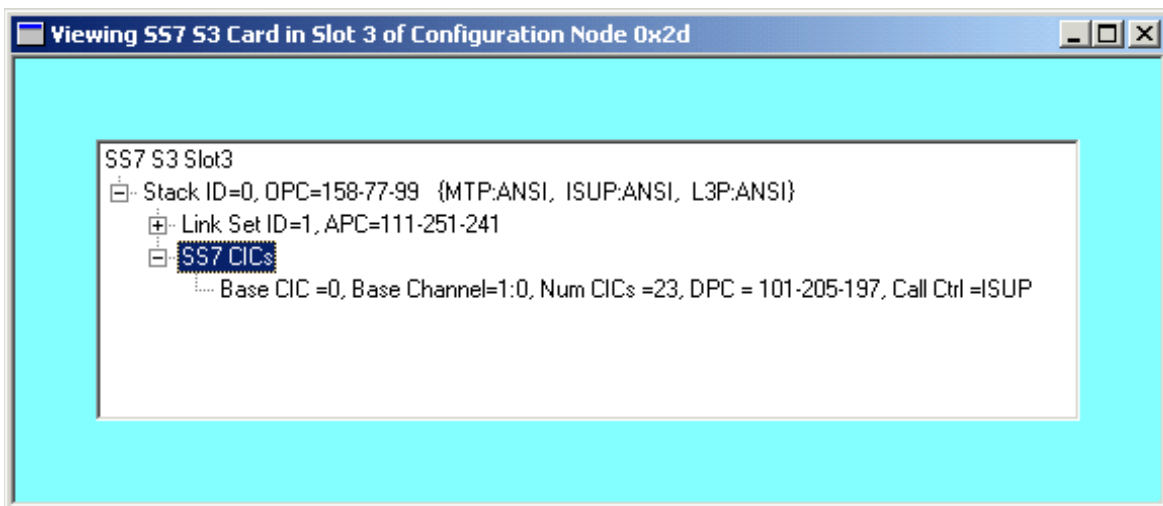
Ending Span

OK Cancel

- 2 Enter the **Base CIC Number**.
- 3 Select the **Base CIC Span** from the drop-down list.
- 4 Select the **Base CIC Channel** from the drop-down list.

-
- 5 Select the **Number of CICs** from the drop-down list.
-
- 6 Enter the **DPC**, the same as in Step 6.
-
- 7 Select the **Call Control User** from the drop-down list.
-
- 8 You can click **OK** to close the dialog box to create one base CIC. Or, if you want to create multiple CICs in one step, do the following:
- Select **Multiple CIC Configuration**
 - Then, select the **Ending Span** from the drop-down list.

The configuration shown in the next screen shot uses example data.



-
- 9 Click **OK** to close the dialog box. You have now created all the necessary SS7 Configuration information.

END OF STEPS

SS7 Message Formats

After you finished the SS7 stack configuration you are able to Configure SS7 Message Formats, please refer to the *Configuring SS7 ISUP/TUP Message Formats (4-39)* procedure for instructions.

Note Configuration changes are not sent to the CSP until you select the menu: **Configure**→**Configure Through SwitchMgr**→**Send Only Modified Configuration to Switch**.

Dual Port Usage for SS7 Series 3 Card

Configuring Port A, Port B This procedure describes how to configure two ports for your SS7 card. For more information see the Developer's Guide: CCS, *Dual Ethernet Port for SS7 Series 3 Card (2-105)*.

- 1 Open a node view.
 - 2 Right-click the SS7 card in its slot.
 - 3 Select **IP Address Configure** from the menu.
 - 4 Enter the **IP Address**, **Subnet Mask** and **Gateway** for **Port A**.
 - 5 Enter the **IP Address**, **Subnet Mask** and **Gateway** for **Port B**.
 - 6 Click **OK**.
-

Clearing SS7 Deconfiguration Messages

SS7 Deconfiguration Messages

This procedure allows you to remove all the de-configuration messages in the CSA records.

- 1 Open the CSA offline.
- 2 In the node view, select from the menu: **Configuration→Table Edit→Clear SS7 Deconfiguration.**

Configuring SS7 M3UA

Purpose This procedure describes configuring SS7 message formats for the MTP3 User Adaptation Layer (M3UA).

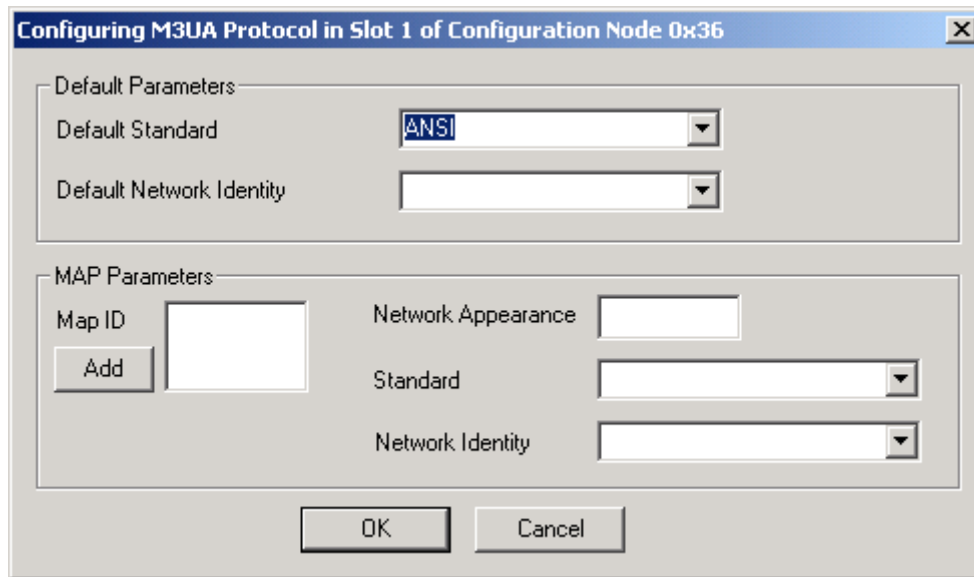
Before you begin You must install an M3UA license file before you can perform configuration. See *General Node Configuration (2-30)*. You need to configure a stack on an SS7 Series 3 card before you are able to configure M3UA message formats. MTP, ISUP and L3P must also be configured on the stack. Please refer to the procedure *Configuring the SS7 Card (4-14)* for instructions.

Information Source Please refer to the M3UA information contained in the SwitchKit user's guides and the *Developer's Guide: CCS*.

Configuring M3UA Do the following to configure M3UA:

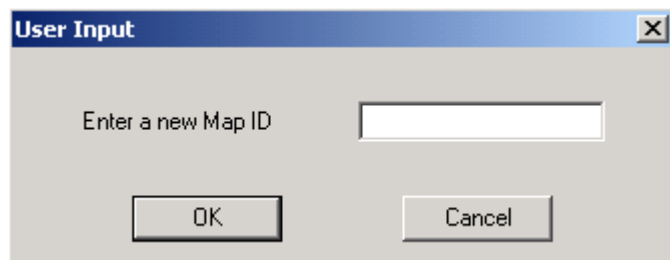
-
- 1** Right-click on the stack of an SS7 card in the card view and select the **SS7 Stack Configuration**.
 - **2** In the **Configure SS7 stack...** dialog box, under **Module Type**, select **M3UA** from the drop-down list.
 - **3** Under **Module Variant**, select a variant and then click **OK**.
 - **4** Now you are ready to configure M3UA objects. Dialogic recommends that you configure these in the following order:
 - Protocol
 - Signaling Gateway/Signaling Gateway Process (SG/SGP)
 - Route Sets
 - Application Server Process (ASP)
 - Application Server (AS)
 - Connections

In the **Viewing SS7 S3 Card...** configuration dialog box, right-click on the stack that you configured with **M3UA**. Select **Protocol** from the drop-down list.



-
- 5 Select the **Default Standard** and **Default Network Identity**.
-

- 6 To enter a Map ID click **Add**, enter a value and then click **OK**.



The fields for **Network Appearance**, **Standard**, and **Network Identity** are assigned default values.

- 7 In the **Viewing SS7 S3 Card...** configuration dialog box, right-click on the stack that you configured with **M3UA**. Select **SG/SGP** from the drop-down list.

Important! All stacks on the same card share the same M3UA configuration.

Configuring M3UA Remote SG in Slot 1 of Configuration Node 0x36

Remote SG Table

SG ID

Parameters

Traffic Mode Type

Remote SGP Parameters

SGP IDs IP Addresses Port

Primary SGP

-
- 8 To configure the SG ID, click **Add**.

User Input

Enter a new SG ID

-
- 9 Enter an SG ID and click **OK**.
-
- 10 Select the **Traffic Mode Type**.
-
- 11 Configure the **SGP IDs** by clicking **Add**, enter an ID, and then click **OK**.

-
- 12 Configure the **IP Addresses** by clicking **Add**, enter an IP address, and then click **OK**. The **Port** is automatically populated and should not be changed.
-
- 13 Select the **Primary SGP**.
-
- 14 In the **Viewing SS7 S3 Card...** configuration dialog box, right-click on the stack that you configured with **M3UA**. Select **Route Sets** from the drop-down list.

The screenshot shows a Windows-style dialog box titled "Configuring M3UA Route Sets in Slot 1 of Configuration Node 0x36". The dialog is organized into three main sections. The top section, "Route Set Table", contains a text field for "Route Set ID" and two buttons, "Add" and "Remove". The middle section, "Parameters", contains a text field for "DPC". The bottom section, "Associated Routes", contains a text field for "Route ID" with an "Add" button to its left, and three dropdown menus for "SG ID", "Net Appr", and "Priority". At the very bottom of the dialog are "OK" and "Cancel" buttons.

-
- 15 Configure the **Route Set ID** by clicking **Add**, enter an ID, and then click **OK**.
-
- 16 Enter a **DPC**.
-
- 17 Configure the **Route ID** by clicking **Add**, enter an ID, and then click **OK**.

-
- 18 Select an **SG ID**, **Net Appr** (network appearance), and **Priority**.
-
- 19 In the **Viewing SS7 S3 Card...** configuration dialog box, right-click on the stack that you configured with **M3UA**. Select **ASP** from the drop-down list.

The screenshot shows a Windows-style dialog box titled "Configuring M3UA Local ASP in Slot 1 of Configuration Node 0x36". The dialog is divided into two main sections. The top section, labeled "Local ASP Table", contains a text input field for "ASP ID", followed by "Add" and "Remove" buttons. The bottom section, labeled "Local ASP Parameters", contains two text input fields: "Primary IP Address" and "Secondary IP Address". At the very bottom of the dialog are "OK" and "Cancel" buttons.

Important! The IP addresses must have been configured on the SS7 card pair in order for the message to be accepted by the switch.

-
- 20 Configure the **ASP ID** by clicking **Add**, enter an ID, and then click **OK**. Enter the **Primary IP Address** and the **Secondary IP Address**.

- 21 In the **Viewing SS7 S3 Card...** configuration dialog box, right-click on the stack that you configured with **M3UA**. Select **AS** from the drop-down list.

Configuring M3UA Local AS in Slot 1 of Configuration Node 0x36

Local AS Table

AS ID

Local AS Parameters

Routing Key

Type
Point Code
Net Appr

Range Definition

Range Index
OPC
SIO
SSN
Low CIC
High CIC

Traffic Mode Type

Associated Entities

Local ASP IDs Routing Context
Remote SG Table

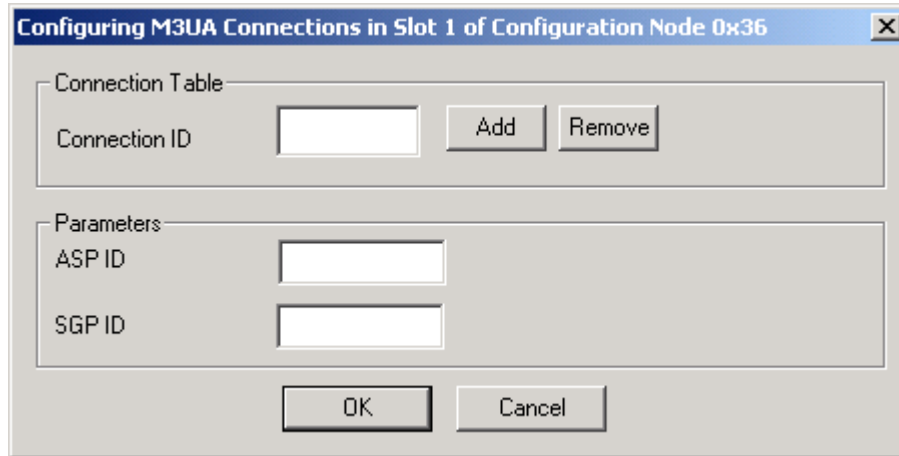
Logical Connection

Service State
Status

- 22 Configure the **AS ID** by clicking **Add**, enter an ID, and then click **OK**.
- 23 Under the Routing Key, select the **Type**.

-
- 24** Enter a **Point Code**. To change the default format for entering point codes, see *Setting a Point Code Format (2-29)*.
-
- 25** Select the **Net Appr** (Net Appearance).
-
- 26** Under the **Range Definition**, the **Range Index**, **SIO**, and **SSN** are already populated. Ensure the values are the correct ones.
-
- 27** Enter the **OPC**, **High CIC**, and **Low CIC**.
-
- 28** Select the **Traffic Mode Type**.
-
- 29** Configure the **Local ASP ID** by clicking **Add**, enter an ID, and then click **OK**.
-
- 30** Configure the **Routing Context** (ID) by clicking **Add**, enter an ID, and then click **OK**. The **Remote SG Table** gets populated automatically. Ensure the values are the correct ones.
-
- 31** The **Logical Connection** fields are disabled.

-
- 32** In the **Viewing SS7 S3 Card...** configuration dialog box, right-click on the stack that you configured with **M3UA**. Select **Connections** from the drop-down list.



The screenshot shows a Windows-style dialog box titled "Configuring M3UA Connections in Slot 1 of Configuration Node 0x36". The dialog is divided into two main sections. The top section, labeled "Connection Table", contains a text input field for "Connection ID", followed by "Add" and "Remove" buttons. The bottom section, labeled "Parameters", contains two text input fields, one for "ASP ID" and one for "SGP ID". At the very bottom of the dialog are "OK" and "Cancel" buttons.

-
- 33** Configure the **Connection ID** by clicking **Add**, enter an ID, and then click **OK**.
-
- 34** Enter the **ASP ID** and the **SGP ID** and then click **OK**.

Configuring SS7 ISUP/TUP Message Formats

Purpose This procedure describes configuring SS7 message formats for ISUP and TUP.

Before you begin You need to configure the SS7 card before you are able to configure SS7 message formats, please refer to the procedure *Configuring the SS7 Card (4-14)* for instructions. You must have a node view window open in configuration mode.

Important! When using SS7 PQ cards in either a single node or a multi-node system you may configure a total of 3000 physical and virtual CICs, if both ISUP and SCCP/TCAP are to be configured for this system.

Information Source Please refer to the SS7 information contained in the SwitchKit user's guides and the *Developer's Guide: CCS*.

Configuring SS7 Message Formats You can configure your SS7 card with one these message formats:

- SS7 ISUP
- SS7 TUP

Do the following to enter the message format configuration dialog box:

-
- 1 Double-click on the SS7 card in the node view to open the **Viewing SS7... Card in Slot...** dialog box.
-
- 2 Right-click on the line with the Stack ID/OPC information to open a pop-up menu.
-
- 3 Select one of the following options in the pop-up menu:
 - **SS7 ISUP Message Format Configuration**
 - **SS7 TUP Message Format Configuration.**

- 4 An SS7 configuration dialog box opens. The window title bar reflects the format you are configuring. Refer to the screen shots in the next sections.

SS7 ISUP

Configure SS7 ISUP Message Format: Stack ID 0

	Message Index	Message ID	Priority	Number of MFPs	Data
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

OK Cancel

1. Select the **Message Index** and **Message ID** from the drop-down lists in the table cells.
2. Enter the **Priority** value.
3. Enter the **Number of MFPs**.
4. Enter the **Data**. The data must be entered in hexadecimal with spaces, for example, 00 23 10 2a.
5. Click **OK** to close the dialog box.

SS7 TUP

Configure SS7 TUP Message Format: Stack ID 0

	Message Index	MCT Entry	H0 Length	H0 Value	H1 Length	H1 Value	Message Attributes	Data
1								
2								
3								
4								
5								
6								
7								
8								
9								

OK Cancel

1. Select the **Message Index**, **MCT Entry**, **H0 Length**, **H1 Length**, and **Message Attributes** from the drop-down lists in the table cells.
2. Enter the **H0** and **H1 Values**.
3. Enter the **Data**. The data must be entered in hexadecimal with spaces, for example, 00 23 10 2a.
4. Click **OK** to close the dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configure**→**Configure Through SwitchMgr**→**Send Only Modified Configuration to Switch**.

Configuring SCCP/TCAP on an SS7 card

Purpose This procedure describes how to configure the Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP) on an SS7 card.

Before you begin You must have an SS7 card configured. See *Configuring the SS7 Card (4-14)*. You must have a node view window open in configuration mode.

Important! When using SS7 PQ cards in either a single node or a multi-node system you may configure a total of 3000 physical and virtual CICs, if both ISUP and SCCP/TCAP are to be configured for this system.

Configuring SCCP/TCAP Follow the steps below to configure SCCP/TCAP on an SS7 card.

-
- 1 Double-click on the SS7 card in the node view to open the **Viewing SS7 ... Card in Slot...** dialog box.
-
- 2 To open the **Configure SS7 SCCP/TCAP...** dialog box do one of the following:
 - In the **Viewing SS7... Card in Slot...** dialog box, right-click a stack for which you want to configure SCCP/TCAP and select **SS7 SCCP/TCAP Configuration**.
 - In the **Viewing SS7... Card** dialog box, select a stack for which you want to configure SCCP/TCAP and click the menu, **Configuration→SS7→SS7 SCCP/TCAP Configuration**.

The next screen shot shows the **Configure SS7 SCCP/TCAP...** dialog box.

Configure SS7 SCCP/TCAP: Stack 1

SSN Configuration

	Action	SSN Number
1		
2		
3		
4		
5		
6		
7		
8		

General Configuration

SCCP Default Parameter

	Action	Parameter Type	Parameter Value
1			
2			
3			
4			
5			
6			
7			
8			

GTT Group Configuration

	Action	Group ID	Global Title Indicator	Translation Type	Numbering Plan	Nature of Address Indicator	Minimum Digits	Maximum Digits	Group Attribute
1									
2									
3									
4									
5									
6									
7									
8									

☐ Build Index table

-
- 3** To configure a Subsystem Number (SSN), under **SSN Configuration** click in the **Action** cell and select **Add**.
 -
 - 4** Enter a value for the **SSN Number**.
 -
 - 5** Click the **Configure SSN** button.

The **Configure SSN...** dialog box opens. See the next screen shot.

Configure SSN Stack ID 0, SSN 2

Routing Flag

☒ Route Network message directly to host

☐ Route network message to TCAP

Local GTT function

☒ Not Allowed

☐ Allowed

Adjacent Translator

	Action	Adjacent Translator
1		
2		
3		
4		
5		

Other Concerned Point Codes

	Action	Other Concerned Points
1		
2		
3		
4		
5		

SSN Default Parameter

	Action	Parameter Type	Parameter value
1			
2			
3			
4			
5			

Network DPC/SSN

	Action	DPC	Remote SSN
1			
2			
3			
4			
5			

SCCP/TCAP Host Configuration

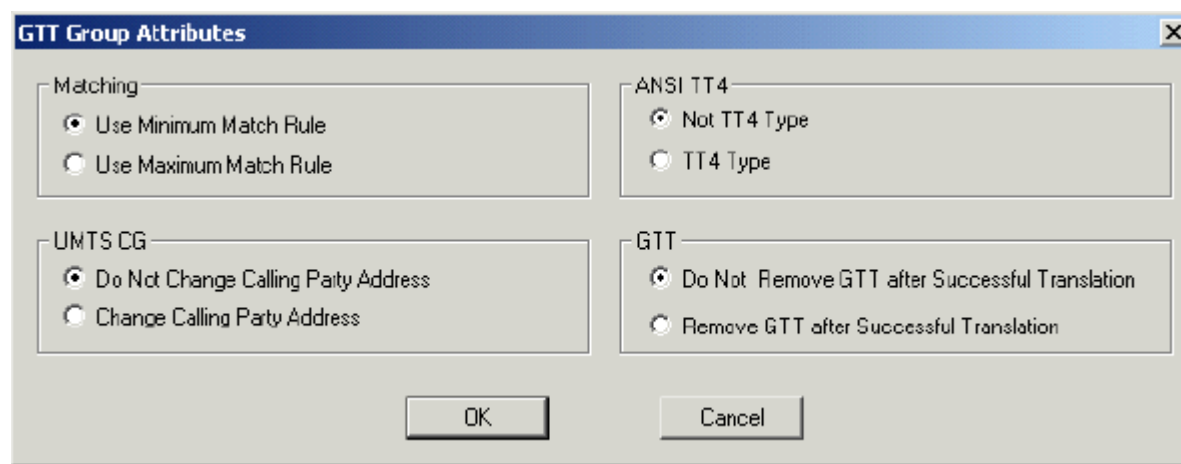
	Action	Local/Matrix Port	Host Port
1			
2			
3			
4			
5			

- 6 If you want to change from the default options in **Routing Flag** and **Local GTT Function**, select another button.
- 7 You can configure the following SCCP/TCAP options for a subsystem by first selecting **Add** under the **Action** columns:
 - **Adjacent Translator**
 - **Other Concerned Points**
 - **Network DPC/SSN**
 - **SCCP/TCAP Host Configuration**

Next, enter the values for the SCCP/TCAP options you are adding.

-
- 8 Click **OK** to close the **Configure SSN...** dialog box.
-
- 9 To configure a Global Title group, under **GT Group Configuration** click in the **Action** cell and select **Add**.
-
- 10 Enter the **Group ID**. The acceptable range of values is 0-127.
-
- 11 Enter values for the following fields:
- **Global Title Indicator**
 - **Translation Type**
 - **Numbering Plan**
 - **Nature of Address Indicator**
 - **Minimum Digits**
 - **Maximum Digits**
- The range of values for these fields is: 0-15.
-
- 12 To configure the **Group Attribute**, click the browse button.

The **GTT Group Attributes** dialog box opens.



13 You can change the options for the following GT group attributes:

- **Matching**
- **UMTS CG**
- **ANSI TT4**
- **GT**

14 Click **OK** to close the **GTT Group Attribute** dialog box.

15 Click the **Configure GT Group** button.

The **Configure GTT Group...** dialog box opens. See the next screen shot.

Configure GTT Group: Stack 0, Group ID 1

GTT Entry

	Action	GTT Attribute	Global Title Address Information	Translation Result Option	Translation Result 1 (hex values separated by space)	Translation Result 2 (hex values separated by space)
1						
2						
3						
4						
5						
6						
7						
8						
9						

OK Cancel

16 To configure a GT group, under **GT Entry** click in the **Action** cell and select **Add**.

17 Select the **GT Attribute** from the drop-down list.

18 Enter the **Global Title Address Information**.

19 Select the **Translation Result Option** from the drop-down list.

20 Enter the **Translation Result 1** and the **Translation Result 2**.

21 Click **OK** to close the **Configure GT Group...** dialog box.

22 Select **Build Index Table**, if this is required.

-
- 23** Click **OK** to close the **Configure SS7 SCCP.TCAP...** dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configure**→ **Configure Through SwitchMgr**→ **Send Only Modified Configuration to Switch**.

Configuring the SS7 Multi-Protocol I/O Card

Purpose This procedure describes how to configure an SS7 Multi-Protocol I/O card.

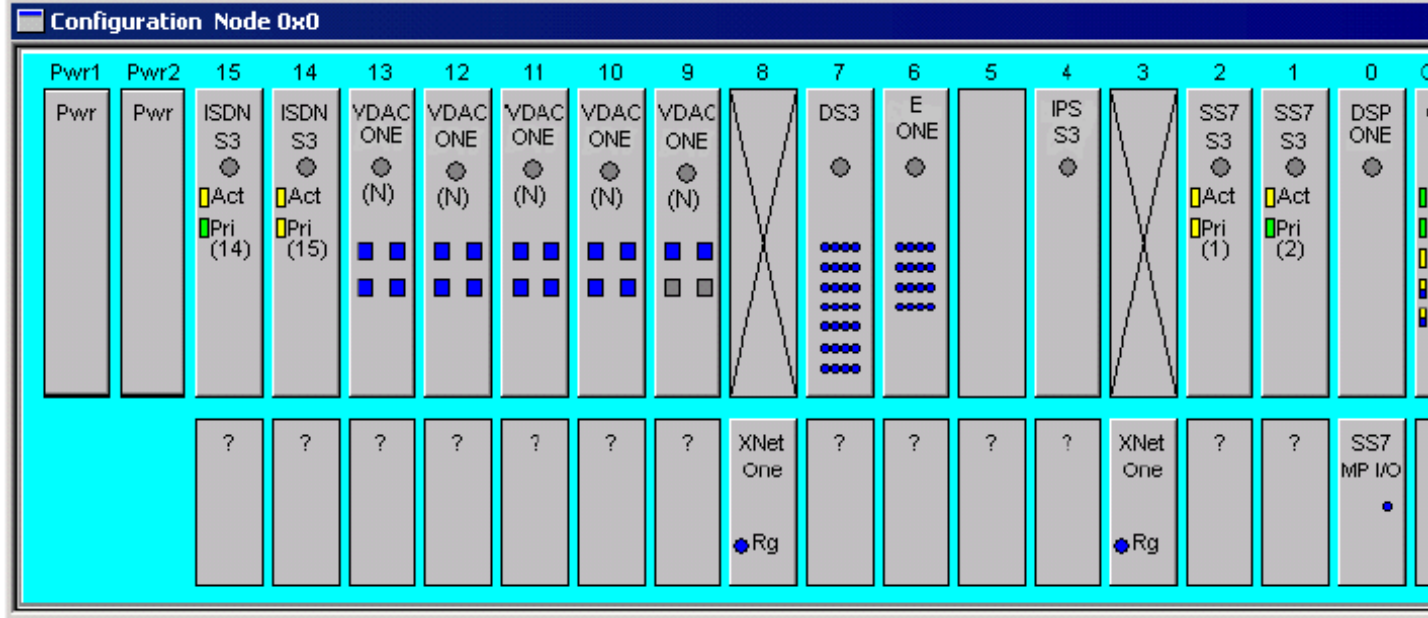
Before You Begin You must have a node view window open in configuration mode. You must have an SS7 card added to the same node as the SS7 Multi-Protocol (MP) I/O card. The SS7 MP I/O card can be configured:

- As an I/O card for the DSP-ONE card.
- Having an empty slot in front of MP I/O card.
- Using any I/O slot EXCEPT behind any card that has an associated I/O card.

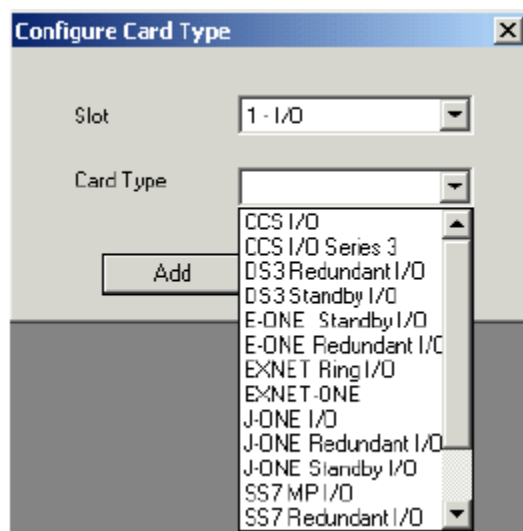
See the *CSP Hardware Installation and Maintenance Guide* for more installation information.

Configuring SS7 MP I/O Cards Follow the steps below for configuring SS7 MP I/O cards:

-
- 1 Right-click in the blue area in your node view window and select **Show Back View** from the pop-up menu.



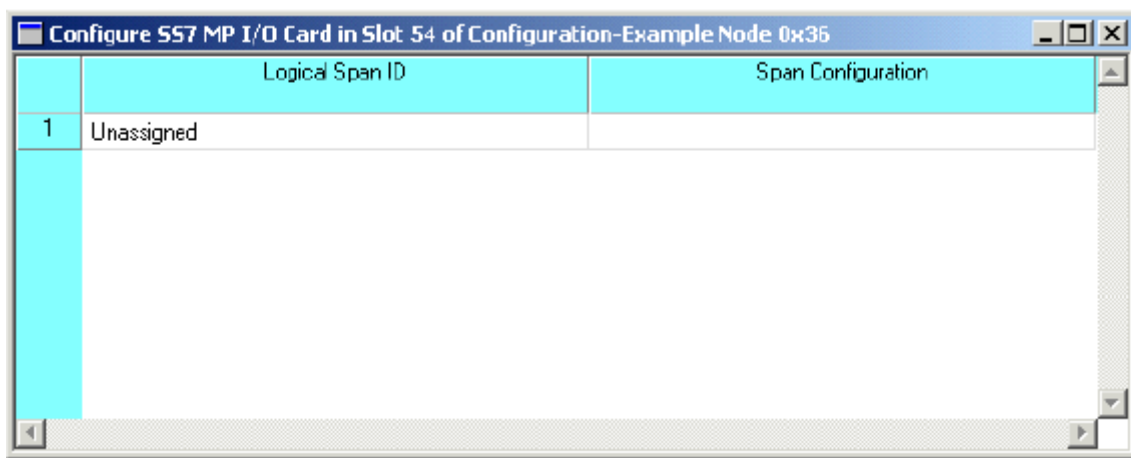
- 2 Right-click in the node view and select **Add Card**. The **Configure Card Type** dialog box opens.



- 3 From the **Slot** drop-down list, select an appropriate I/O slot number.

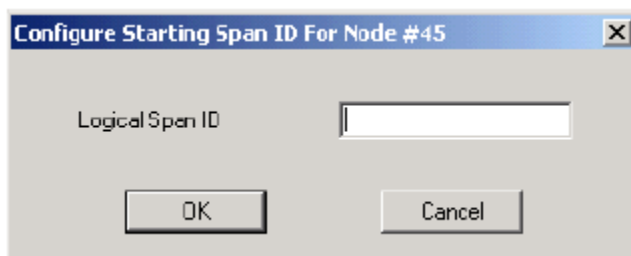
-
- 4 From the **Card Type** drop-down list, select **SS7 MP I/O**.
 - 5 Click **Close**.
 - 6 Right-click the SS7 MP I/O card in the node view and select **Span Configuration**.
-

The **Configure SS7 MP I/O Card...** dialog box opens.



-
- 7 To assign a logical span ID to your SS7 MP I/O card, do one of the following:
 - Right-click the first row of the **Configure SS7 MP I/O Card...** dialog box and select **Assign logical span ID**.
 - Click the first row of the **Configure SS7 MP I/O Card...** dialog box and select from the menu:
Configuration→Span→Assign Logical Span ID.

The **Configure Starting Span ID** dialog box opens.



8 Enter the **Logical Span ID** and click **OK**.

9 Close the **Configure SS7 MP I/O Card...** dialog box.

- 10 Now you are ready to configure your SS7 card. See the procedure, *Configuring the SS7 Card (4-14)*. In this procedure, to configure the ports on the SS7 MP I/O card for SS7 links, you must do the following:
- For *Step 3*, in the text box for **Span** enter the **Logical Span ID** from the **Configure Starting Span ID** dialog box that you used in configuring the SS7 MP I/O card.
 - For *Step 4*, select a **Channel** between zero and three.
 - For *Step 6*, you must set the **Data Rate** to either:
 - V.35, 56 Kbps
 - V.35, 48 Kbps
 - For *Step 7*, you must set the Electrical Interface to either:
 - V.35, DTE
 - V.35, DCE

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configure**→**Configure Through SwitchMgr**→**Send Only Modified Configuration to Switch**.

5 Configuring VoIP Cards and Features

Purpose This chapter contains information on Voice over Internet Protocol (VoIP) modules and feature configuration procedures. Information is provided about configuring the Voice Data Access Concentrator card, (VDAC)-ONE and the IP Network Interface Series 2 card. The VoIP modules included in this chapter are: Session Initiation Protocol (SIP) and H.323. The RFC 2833 feature is also described in this chapter.

Configuring VDAC-ONE

Purpose This procedure describes online configuration of the VDAC-ONE (Voice-Data Access Concentrator) card.

Before you begin For offline configuration, you must have a node view window open in configuration mode. If you want to configure online, make sure that the LLC and SwitchManager are running. For information on running LLC and SwitchManager refer to the SwitchKit documentation. For offline or online configuration, you must enable advanced IP routing in either the SIP configuration or the H.323 IP Signaling Series 3 card resource attributes configuration. See step 15, *Configuring SIP (5-21)* or step 15, *Configuring H.323 (5-29)*.

The VDAC-ONE card The VDAC-ONE card performs two-way conversion between circuit-switched data and packet-switched Ethernet data. The IP Signaling Series 3 card enables the CSP to communicate with H.323 entities in the network architecture. For information beyond the default values provided, please refer to the *Converged Services Platform, Developer's Guide: Internet Protocol*.

Configuring VDAC-ONE The following steps explain the VDAC-ONE configuration.

- 1 From the node view, invoke the VDAC-ONE configuration dialog box by doing one of the following:
 - Double-click the VDAC-ONE card in the node view.
 - Select the VDAC-ONE card in the node view. Go to the **Configuration** menu and select **Card→VDAC Configuration**.
 - Right-click on the VDAC-ONE card in the node view and select **VDAC Configuration** from the menu.

The **Configure VDAC-ONE...** dialog box opens. See the next screen shot.

Configure VDAC-ONE: Slot 0, Node 0x36

Configure Main Board

IP Address

Subnet Mask

Gateway

Ethernet Link Redundancy

Active Ethernet Port

Channel Configuration

Starting Span Number

Ending Span Number

Total Number of Channels

Configure Module

	Module	Module IP Address	Start Channel (Span Channel)	End Channel (Span Channel)	Routing IP Address	Routing Mask
1	Module 0					
2	Module 1					
3	Module 2					
4	Module 3					

Configure Module OK Cancel

- Enter the **IP Address** and **Subnet Mask** of the main board. After these values are entered and you tab to the **Gateway** field, most of the other fields and module configuration become enabled.

Important! If you do not want internal routing tables to be created for this card, you must use the **Configure PPL Tool** dialog box to uncheck this option. See *Specifying PPL Files (2-43)*. The internal routing tables that are enabled by default create your IP-to-span-channel mapping that is installed on the CSP. Also, a separate

config file is added to the SwitchManager file which is also shown in the **Configure PPL Tool** dialog box in *Specifying PPL Files (2-43)*.

- 3 Specify the settings for **Ethernet Link Redundancy** and **Active Ethernet Port**.
-

- 4 To assign all logical span IDs for the VDAC-ONE card, specify the **Starting Span Number**.

Important! The CSA provides default routing by mapping the specified spans with the IP Addresses of the VDAC-ONE modules.

- 5 Specify the IP addresses for each **Module** in the **Configure Module** group. When you click out of the module IP address cell, the **Start Span:Channel** and **End Span:Channel** get populated automatically from having specified the **Starting Span Number** in the **Channel Configuration** group box.
-

- 6 If you are using IP-based routing, enter the **Routing IP Address** and **Routing Mask** of the endpoint that is within or outside the main board network.

These fields are enabled if you have done either of the following:

- Selected **Enable Advanced IP Routing** in the SIP configuration dialog box.
- Selected **Advanced IP Routing** in the H.323 IP Signaling Series 3 card resource attributes configuration dialog box.

See the next screen shot with example data.

Configure VDAC-ONE: Slot 0, Node 0x36

Configure Main Board

IP Address: 135.10.45.121

Subnet Mask: 255.255.255.0

Gateway: 135.10.45.1

Ethernet Link Redundancy: Disabled

Active Ethernet Port: Upper Port

Channel Configuration

Starting Span Number: 1

Ending Span Number: 5

Total Number of Channels: 160

Configure Module

	Module	Module IP Address	Start Channel (Span:Channel)	End Channel (Span:Channel)	Routing IP Address	Routing Mask
1	Module 0	135.10.45.122	1:0	2:7	200.10.40.86	255.255.255.0
2	Module 1	135.10.45.123	2:8	3:15	100.10.40.86	255.255.255.0
3	Module 2	135.10.45.124	3:16	4:23	121.23.45.2	255.255.255.0
4	Module 3	135.10.45.125	4:24	5:31	114.65.89.6	255.255.255.0

Buttons: Configure Module, OK, Cancel

- 7 Select the module you want to configure and click **Configure Module**. The **Configure Resource Attributes VDAC-ONE:...** dialog box opens for the selected module.

The dialog box opens with default values. You can change the values, if required. The valid range of values for the fields, **2833 Dynamic Payload Type** and **2198 Dynamic Payload Type**, is 0-127 except for 102, 103, and 105.

Configure Resource Attributes VDAC-ONE: Module 1, IP Address - 10.10.56.54

Payload Type	G.711 μ -Law	<input checked="" type="checkbox"/> Type of Service	
Payload Size (*20 ms)	1	Precedence	Routine
Silence Suppression	Disable	Delay	Normal
Echo Cancellation	Enable	Throughput	Normal
Fax Type Enable	Disable	Reliability	Normal
Bypass Coder Type	G.711 μ -Law	Cost	Normal
RTP Timer (*10ms)	0	Fax Packet Depth	No Redundancy
Media Inactivity Timer (* 10 ms)	0	Source Port Validation	Yes
Min Jitter Buffer Delay (ms)	75	Max Jitter Buffer Delay (ms)	150
Digit Relay (RFC 2833)	Disable	2833 Dynamic Payload type	96
RTP Packet Depth (RFC 2198)	No Redundancy	2198 Dynamic Payload type	104
Adaptation Rate	7	Fax Compatibility Mode	Interoperability

OK Cancel

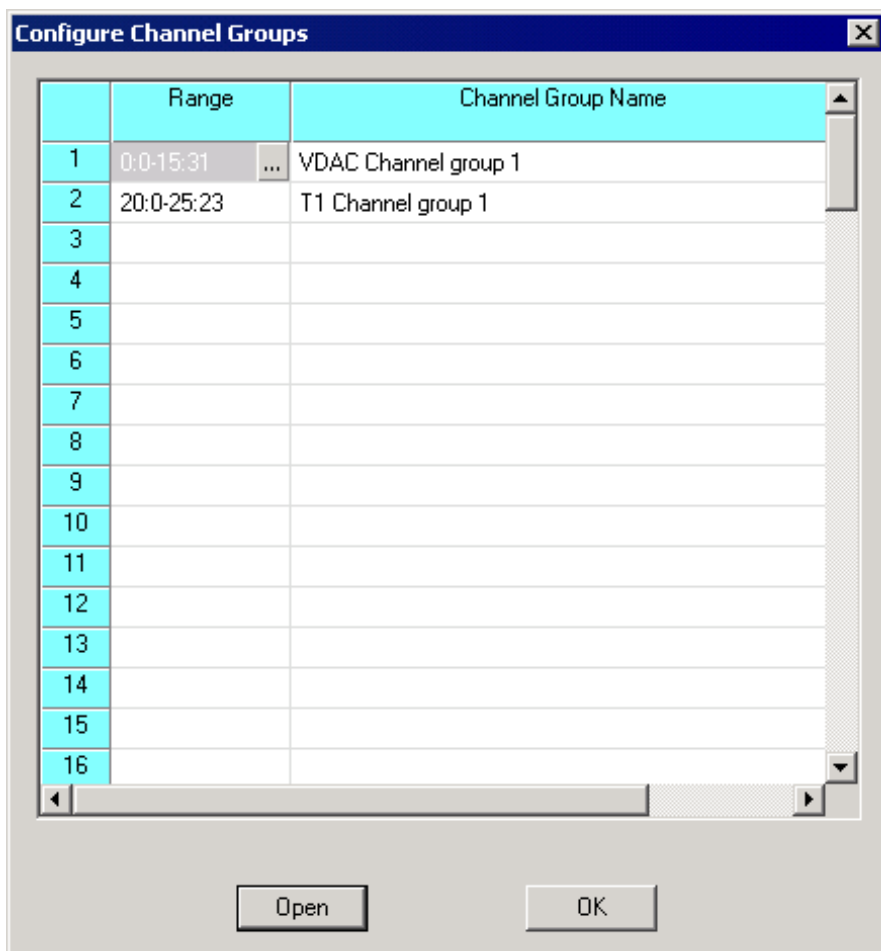
- 8 Click **OK** to close the **Resource Attributes VDAC ONE...** dialog box.
- 9 Click **OK** to close the VDAC-ONE configuration dialog box.
- 10 You may now configure the Channel Group and Range for the VDAC-ONE card.

- 11 To invoke the **Channel Group Configuration** dialog box, do one of the following:

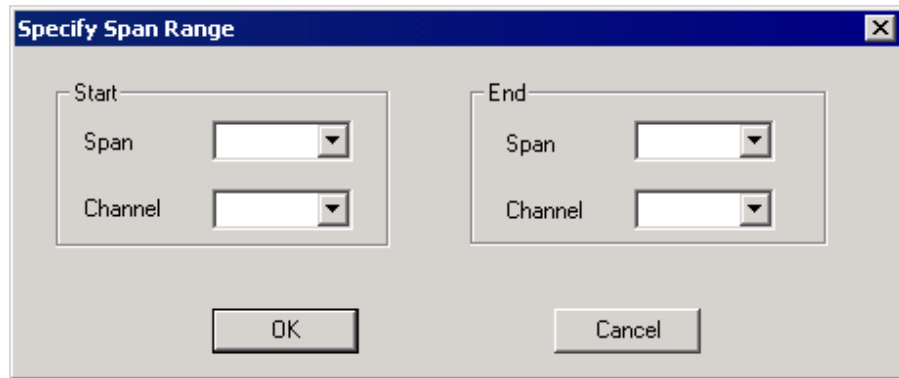
- Right-click the blue area around the card slots and select **Channel Group Configuration** from the menu.
- Go to the **Configuration** menu and select **Node Configuration**→**Channel Group Configuration**.

The **Channel Group Configuration** dialog box opens. If you are configuring the Channel Group for your VDAC-ONE card for the first time, the table cells are empty. See the next screen shot.

The VDAC-ONE configuration shown in the next screen shot includes example values.

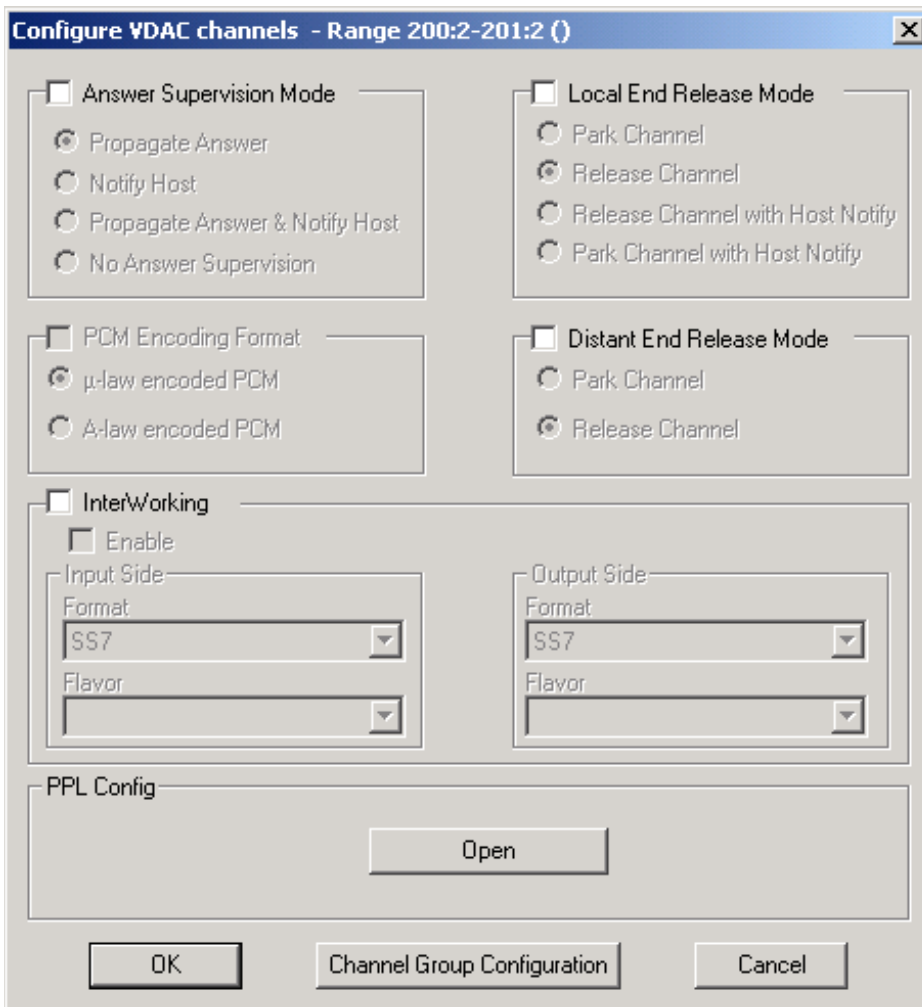


- 12 Double-click the table cell in the Range column, the **Specify Span Range** dialog box opens as shown below:



-
- 13** Specify the range with the drop-down list for the **Start Span** and **Channel**, and **End Span** and **Channel**. Make a selection based on the range of spans generated in *Step 4*.
-
- 14** Click **OK** to close the **Specify Span Range** dialog box.
-
- 15** In the **Channel Group Configuration** dialog box, click **Open** to invoke the **Configure VDAC Channels** dialog box. The dialog box opens with default values. Note that the **Interworking** group box refers to routing.

Dialogic recommends configuring **Answer Supervision Mode** with **Propagate Answer** and **Notify Host** selected as shown in the next example screen shot:



- 16 Specify your settings by marking check boxes and selecting from the drop-down lists.
- 17 Click **OK** to close the **Configure Channel Range Messages** dialog box.
- 18 In the **Configure Channel Groups** dialog box, fill in a name for your channel group.

-
- 19 Click **OK** to close the **Configure Channel Groups** dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→ **Configure Through SwitchMgr**→ **Send Only Modified Configuration To Switch**.

Configuring IP Network Interface Series 2/3 Cards

Purpose This procedure describes the configuration of the IP Network Interface Series 2 (IPN S2) and Series 3 (IPN S3) cards.

Before you begin For offline configuration, you must have a node view window open in configuration mode. If you want to configure online, the LLC and SwitchManager must be running. For information on running LLC and SwitchManager refer to the SwitchKit documentation. You must have a node view window open in configuration mode. If you plan to use IP-based routing, See *Configuring SIP (5-21)* and *Configuring H.323 (5-29)*. Also see the *Developer's Guide: Internet Protocol, Chapter 8, Routing VoIP Calls*.

Before you configure an IP Network Interface Series 2 card, you must locate your license file (license.cfg) which contains a license key. The license file is included on a floppy disk that is shipped with the CSP system software CD. Copy the file to your CSA folder. To install the license key, you must use the General Node Configuration dialog box. See *General Node Configuration (2-30)* for the procedure on opening the license key.

Configuring the IP Network Interface Series 2 card

The following steps explain the IP Network Interface Series 2 card configuration.

- 1 From the node view, invoke the IP Network Interface Series 2 configuration dialog box by doing one of the following:
 - Double-click the IP Network Interface Series 2 (IPN S2) card in the node view.
 - Select the **IPN S2 (or S3)** card in the node view. Go to the **Configuration** menu and select **Card→VDAC/IPN S2 (or S3) Configuration**.
 - Right-click on the **IPN S2 (or S3)** card in the node view and select **VDAC/IPN S2 Configuration** from the menu.

The **Configure IP Network Interface Series 2 (or 3)...** dialog box opens. See the next screen shot.

Configure IP Network Interface Series 2: Slot 4, Node 0x36

Configure Main Board

IP Address:

Subnet Mask:

Gateway:

Resource Profile:

Channel Configuration

Module 0: Start span End span

Module 1: Start span End span

Total Number of Channels:

Configure Module

	Module	Module IP Address	Start Channel (Span Channel)	End Channel (Span Channel)	Routing IP Address	Routing Mask
1	Module 0					
2	Module 1					

Buttons:

- 2 Enter the **IP Address** and **Subnet Mask** of the main board. After these values are entered and you tab to the next field, the **Resource Profile** field and module configuration become enabled.

Important! If you do not want internal routing tables to be created for this card, you must use the **Configure PPL Tool** dialog box to uncheck this option. See *Specifying PPL Files (2-43)*. The internal routing tables that are enabled by default creates your IP-to-span-channel mapping that is installed on the CSP. Also, a separate config file is added to the SwitchManager file which is also shown in the **Configure PPL Tool** dialog box in *Specifying PPL Files (2-43)*.

-
- 3 Enter **Gateway**, if applicable.
-
- 4 Select another **Resource Profile**, if you want to change the default value.
-
- 5 To assign all logical span IDs for the IP Network Interface Series 2 card, specify the **Starting Span Number**.

Important! The CSA provides default routing by mapping the specified spans with the IP Addresses of the IP Network Interface Series 2 modules.

-
- 6 Specify the IP addresses for each **Module** in the **Configure Module** group. When you click out of the module IP address cell, the **Start Span:Channel** and **End Span:Channel** get populated automatically from having specified the **Starting Span Number** in the **Channel Configuration** group box.
-
- 7 If you are using IP-based routing, enter the **Routing IP Address** and **Routing Mask** of the endpoint that is within or outside the main board network.

These fields are enabled if you have done either of the following:

- Selected **Enable Advanced IP Routing** in the SIP configuration dialog box.
- Selected **Enable Advanced IP Routing** in the H.323 IP Signaling Series 3 card resource attributes configuration dialog box.

See the example data in the next screen shot.

Configure IP Network Interface Series 2: Slot 4, Node 0x36

Configure Main Board

IP Address

135.10.45.121

Subnet Mask

255.255.255.0

Gateway

135.10.45.1

Resource Profile

Profile 2

Channel Configuration

Start span

End span

Module 0

1

8

Module 1

9

16

Total Number of Channels

512

Configure Module

	Module	Module IP Address	Start Channel (Span:Channel)	End Channel (Span:Channel)	Routing IP Address	Routing Mask
1	Module 0	135.10.45.122	1:0	8:31	200.10.40.86	255.255.255.0
2	Module 1	135.10.45.123	9:0	16:31	100.10.40.86	255.255.255.0

Configure Module

OK

Cancel

- 8 Select the module you want to configure and click **Configure Module**. A dialog box opens to configure the IP Network Interface Series 2 card resource attributes for the selected module. The dialog box opens with default values. You can change the values, if required. The valid range of values for the fields, **2833 Dynamic Payload Type** and **2198 Dynamic Payload Type**, is 0-127. See the next screen shot.

Configure Resource Attributes IPN Series 2: Module 1, Profile 2, IP Address - 10.10.36.89

Payload Type	G.711 μ -Law	<input checked="" type="checkbox"/> Type of Service	
Payload Size (*5 ms)	4	Precedence	Routine
Silence Suppression	Disable	Delay	Normal
Echo Cancellation	Enable	Throughput	Normal
Fax Type Enable	Disable	Reliability	Normal
Bypass Coder Type	G.711 μ -Law	Cost	Normal
Initial Media Inactivity Timer (* 10 ms)	0	Fax Packet Depth	No Redundancy
Media Inactivity Timer (* 10 ms)	0	Source Port Validation	Yes
Min Jitter Buffer Delay (ms)	75	Max Jitter Buffer Delay (ms)	150
Digit Relay (RFC 2833)	Disable	2833 Dynamic Payload type	96
RTP Packet Depth (RFC 2198)	No Redundancy	2198 Dynamic Payload type	104

OK Cancel

- 9 Click **OK** to close the **Configure Resource Attributes IPN Series 2...** dialog box.

- 10 Click **OK** to close the IP Network Interface Series 2 configuration dialog box. You may now configure the Channel Group and Range for the IP Network Interface Series 2 card. See *Configuring VDAC-ONE (5-2)* and complete steps 9-17.

Important! Even though 512 channels (16 spans, 32 channels per span) can be configured on a single IP Network Interface Series 2 card, only 510 simultaneous calls are allowed when using the default VoIP module resource Profile 2. For VoIP resource Profile

2 on a IP Network Interface Series 2 card, one channel on each
VoIP module is reserved for ICMP support.

Configuring Gateway Mode

Purpose This procedure describes configuring the Gateway Mode on a Converged Services Platform (CSP) node. For more details on the Gateway Mode and the Normal Mode, see the *Developer's Guide: IP, IP Network Interface Series 2 Card* chapter.

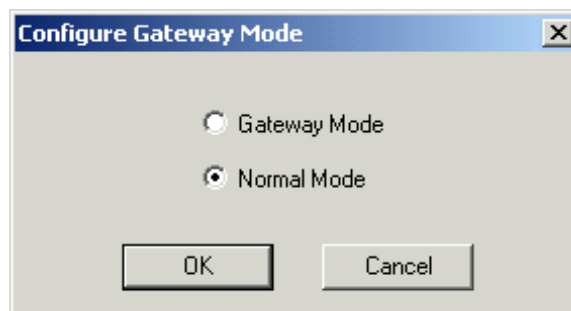
Before you begin You must have a IP Network Interface Series 2 (IPN S2) card added and configured in a node. Gateway Mode cannot be configured if you have a VDAC-ONE card also installed and configured on the same node.

Important! If you edit the configuration file manually to change the gateway mode then you enter TLV 0x01d0 in the following format: 01:0xD0:00:01

Saving a Configuration Do the following to configure Gateway Mode:

- 1 Open the node view.
- 2 Right-click on the IPN S2 card in the node view.
- 3 Select **IPN-S2 Gateway Configuration** from the menu.

The **Configure Gateway Mode** dialog box opens.



- 4 Select the **Gateway Mode** option.

5 Click **OK**.

E N D O F S T E P S

Configuring RFC 2833

Purpose This procedure describes configuration of the RFC 2833 feature.

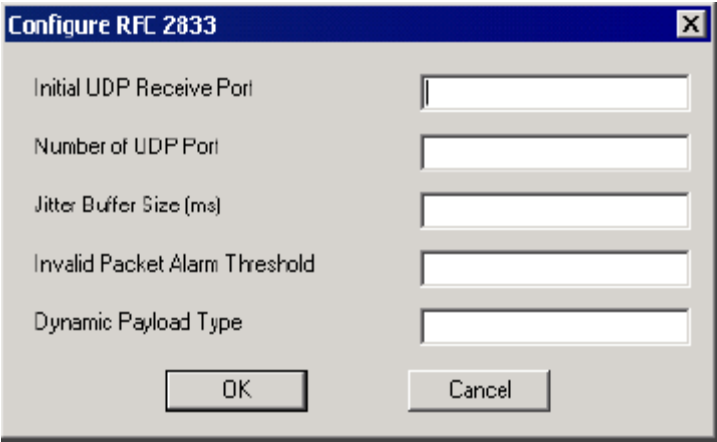
For more information on RFC 2833, see the *Developer's Guide: Internet Protocol, VDAC-ONE Card* chapter.

Before you begin Before you configure RFC 2833, you must locate your license file (license.cfg) which contains a license key. This license file is bundled with the Call Agent feature license. Contact your sales representative for the license. Copy the license file to your CSA folder. To install the license key, you must use the General Node Configuration dialog box. See *General Node Configuration (2-30)* for the procedure on opening the license key.

To configure RFC 2833, you must have a node view window open in configuration mode. You must also have an CSP Matrix Series 3 Card card installed.

Configuring RFC 2833 The following steps explain the RFC 2833 configuration.

- 1 To invoke the **RFC 2833 Configuration** dialog box, do one of the following:
 - Right-click the blue area around the card slots and select **RFC 2833 Configuration** from the menu.
 - Go to the **Configuration** menu and select **RFC 2833 Configuration**.
 - 2 The **RFC 2833 Configuration** dialog box opens.
-

A screenshot of a Windows-style dialog box titled "Configure RFC 2833". The dialog box has a blue title bar with a close button (X) in the top right corner. The main area is light gray and contains five labeled text input fields stacked vertically: "Initial UDP Receive Port", "Number of UDP Port", "Jitter Buffer Size (ms)", "Invalid Packet Alarm Threshold", and "Dynamic Payload Type". At the bottom of the dialog box, there are two buttons: "OK" on the left and "Cancel" on the right.

Configure RFC 2833

Initial UDP Receive Port

Number of UDP Port

Jitter Buffer Size (ms)

Invalid Packet Alarm Threshold

Dynamic Payload Type

OK Cancel

- 3 Enter the following fields according to the range of values indicated in the next table and then click **OK**.

Field	Range of Values
Initial UDP Receive Port	1024 - 65535
Number of UDP Ports	0 - 65535
Jitter Buffer Size (ms)	0 - 400
Invalid Packet Alarm Threshold	0 - 65535
Dynamic Payload Type	96 -127

END OF STEPS

Configuring SIP

Purpose This procedure describes the configuration of the CSP Session Initiation Protocol (SIP) which is embedded in the CSP Matrix Series 3 Card card and interacts with host applications.

Before you begin For offline configuration, you must have a node view window open in configuration mode. If you want to configure online, the LLC and SwitchManager must be running. For information on running LLC and SwitchManager refer to the SwitchKit documentation. If you plan to install VDAC cards, we recommend configuring VDAC parameters, such as IP Addresses and spans before you start configuring CSP SIP.

Before you configure CSP SIP, you must locate your license file (license.cfg) which contains a license key. The license file is included on a floppy disk that is shipped with the CSP system software CD. Copy the file to your CSA folder. To install the license key, you must use the General Node Configuration dialog box. See *General Node Configuration (2-30)* for the procedure on opening the license key. SIP licensing is processed through the CSP Matrix Series 3 card.

Information Source For information beyond the default values provided, please refer to VDAC and CSP SIP information in the *Converged Services Platform, Developer's Guide: Internet Protocol*.

Configuring CSP SIP The following steps explain the CSP SIP configuration.



CAUTION

If you do not want to enable the CSP SIP, you must close the dialog box with the Cancel button. The CSP SIP Configuration dialog box opens with default values assigned. Once you send the configuration to the switch, the CSP SIP will be enabled. Once enabled, there is no user interface to disable the CSP SIP.

-
- 1 To open the CSP SIP Configuration dialog box, do one of the following:
 - Select the CSP Matrix Series 3 card in the node view. Go to the **Configuration** menu and select **SIP→SIP Configuration**.

- Right-click the node view window (outside the card slots) and select **SIP Configuration** from the menu list.

The dialog box opens showing only the common settings and default values. The default values work for many cases. If you need to change any of the default values, please follow the next steps.

- 2 Enable the **Local Outbound Proxy Server** configuration and enter the IP Address and Port information. The IP Address is not mandatory. The **Local Outbound Proxy** configuration is disabled by default.
- 3 Select the **SIP Tunnel Type** from the drop-down list. By default, this field is set to No Tunneling.
- 4 Enter the **Site ID**. This field is limited to 64 characters. The default **Site ID** is Excel-CSP. This is used to create the Call ID header in the CSP SIP message.
- 5 For the Registration Mode, **Enable the Registration Server** is checked by default. You can change the default option Accept by selecting another registration behavior from the drop-down menu.
- 6 If you want to enable **Call Agent Mode**, select the check box. To enable this feature you must have a license. See *Configuring the Call Agent* (5-27).

- 7 If you want to enter the advanced configuration settings, click the **Show Advanced** button. The **SIP Configuration, Advanced** dialog box opens. This dialog box contains all the settings you specified in the **Configure SIP** dialog box and provides more SIP configuration fields which are blank. You can click the **Use Defaults** button to select the default values in each field as shown below. Use the **TAB** key to move through the dialog box.

Configure SIP Advanced

Local Outbound Proxy Server
☐ Enable
 IP Address:
 Domain Name:
 Port:

SIP Tunnel Type
 No Tunneling

Registration Mode
☒ Enable Registration Server
 Accept

Call Agent Mode
☐ Enable Call Agent

Advanced Configuration

T1 Timer Value for INVITE(ms):
 T1 Timer Value for BYE(ms):
 T2 Timer (ms):
 SIP Port:
 Max Retransmissions for INVITE:
 Session Timers (sec):
 Session Interval:
 Min-SE:
☐ Enable Advanced IP Routing

Advanced Registration Settings
 Registration Lookup: ☒ Disable ☐ Enable
 Default Registration Timeout(sec):
 Minimum Registration Timeout(sec):
 Number of Registration Blocks:
 Max Retransmissions for BYE:

DNS Server
☐ Enable
 Domain Name:
 Primary IP:
 Secondary IP:
 Tertiary IP:
 Default Calling Party ID:

TCP Configuration
 Persistent Sockets: ☒ Disabled ☐ Enabled
 Existing Socket Reuse: ☒ Disabled ☐ Enabled
 Outbound Transport Type: ☒ UDP ☐ TCP
 SIP Idle Socket Timeout (sec):

Call Progress Notification
☒ Media changed via re-INVITE ☒ ACK with SDP Received
☒ 200 OK received ☒ Prack
☐ 180 received ☐ Report Info Message
☒ 183 received ☐ 181 Received
☒ 422 Received ☐ 182 Received
☒ Reset to default values ☐ Options message recvd

Reliable Provisional Resp
☐ Reliable Provisional Response
☒ Disable ☐ Supported ☐ Require

T38 Settings
☐ SIP Stack Configuration
☒ Disabled ☐ Enabled
☐ L4 RTR Configuration
☒ Disable ☐ T.38 FAX ☐ Bypass FAX

Additional Host Signalling Parameters
☐ Dialog Information (Call-ID, From Tag and To Tag)
☐ Proxy-Authorization Header ☐ Report Subject Header
☐ Authorization Header ☐ Report Via Header
☐ Request URI Info ☐ Refer Subject Header
☐ Media Connection Address ☐ Refer-To Header
☐ Contact URI Parameters ☐ Contact Username Displayname
☐ Request URI Parameters ☐ SIP Supported
☐ Remote Party ID ☐ Outbound Call-ID
☐ RPID Privacy ☐ To Header Parameter
☐ Report P-Headers and Privacy Header
☐ SDP Non-Audio Media Stream Native Text Propagation in CAM
☐ Referred by Header in Refer and Invite
☐ Subscription State Refer-Notify message
☐ Report MIME data in Incoming messages
☐ Report of Request-URI
☐ Reset to default values

Use Defaults Hide Advanced OK Cancel

- 8 Under **Advanced Configuration**, if you want to use values different from the default ones, enter the following:

- **TI Timer Value for INVITE (ms)**
- **TI Timer Value for BYE (ms)**
- **T2 Timer (ms)**
- **SIP Port**

Important! The value, 5060, specified for **SIP Port** is a well-known UDP SIP port.

9 Enter the **Max Retransmissions for INVITE** value.

10 In the **Advanced Registration Settings** group, you can select **Enable** for **Registration Lookup**. Once the registration server is enabled, you may want to specify the **Registration Timeout** value and the **Number of Registration Blocks**. This number can be 1 or 2. Once you have configured SIP with either 1 or 2, you can change that configuration only when you cycle the power.

11 If you want to use a value different from the default one, enter the **Max Retransmissions for BYE** value.

12 For the DNS Server, enter the **Primary IP**, the **Secondary IP**, and the **Tertiary IP**.

13 Enter the **Default Calling Party ID**. This field needs to contain data. By default, the value is a string of zeros.

14 If you want to use values different from the default ones, enter **Session Timers** for the **Session Interval** and **Min-SE**.

15 Under Advanced IP Routing, if you want to enable this option, select it.

16 If you want to use **Additional Host Signaling Parameters**, you can select any of the following:

- **Dialog Information (Call-ID, From Tag and To Tag)**
-

- **Proxy-Authorization Header**
 - **Authorization Header**
 - **Request URI Info**
 - **Media Connection Address**
 - **Contact URI Parameters**
 - **Request URI Parameters**
 - **Remote Party ID**
 - **RPID Privacy**
 - **Report Subject Header**
 - **Report Via Header**
 - **Report Subject Header**
 - **Refer-to-Header**
 - **Contact Username Display Name**
 - **SIP Supported**
 - **Outbound Call-ID**
 - **Report P-Header and Privacy Header**
 - **SDP Non-Audio Media Stream Native Text Propagation in CAM**
 - **Reset to default values**
-

17 If you want to use **Call Progress Notification**, you can select any of the following:

- **Media changed via re-INVITE**
- **200 OK received**
- **180 received**
- **183 received**
- **422 received**
- **ACK with SDP Received**
- **Prack**
- **Report Info Message**
- **181 Received**
- **182 Received**
- **Options message received**
- **Reset to default values**

-
- 18** Under **TCP Configuration**, for **Persistent sockets**, select **Enabled** if you do not want the default, **Disabled**.
-
- 19** For **Existing Socket Reuse**, select **Enabled** if you do not want the default, **Disabled**.
-
- 20** For the **Outbound Transport Type**, select **TCP** if you do not want the default, **UDP**.
-
- 21** If you want to use a value different from the default one, enter a value for the **SIP Idle Socket Timeout (sec)**.
-
- 22** If you want this option, select **Enable Caller ID in Ack**.
-
- 23** Click **OK** after you have specified all your CSP SIP configuration settings.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→ **Configure Through SwitchMgr**→ **Send Only Modified Configuration To Switch**.

Configuring the Call Agent

Purpose This procedure describes the configuration of the Call Agent feature that is available with the CSP Session Initiation Protocol (SIP) interface. By default, the Call Agent is disabled.

For more information on Call Agent, see the *Developer's Guide: Internet Protocol, Call Agent* chapter.

Before you begin Before you configure the Call Agent, you must locate your license file (license.cfg) which contains a license key. Contact your sales representative for a license. Copy the license file to your CSA folder. To install the license key, you must use the General Node Configuration dialog box. See *General Node Configuration (2-30)* for the procedure on opening the license key.

To enable the Call Agent, you must configure the SIP interface and you can do this using the default values. See *Configuring SIP (5-21)*. You must have virtual RTP line cards (VDAC-ONE or IP Network Interface Series 2) installed and configured with virtual spans. See *Configuring Virtual Cards (3-14)*.

Configuring the Call Agent The following steps explain the Call Agent configuration.

- 1 Open the CSP SIP configuration dialog box by doing one of the following:
 - Select the CSP Matrix Series 3 card in the node view. Go to the **Configuration** menu and select **SIP→SIP Configuration**.
 - Right-click the node view window (outside the card slots) and select **SIP Configuration** from the menu list.

The **Configure SIP** dialog box opens. See the screen shot on the next page.

Configure SIP

Local Outbound Proxy Server

☐ Enable

☒ IP Address

☐ Domain Name

Port: 5060

SIP Tunnel Type: No Tunneling

Registration Mode

☒ Enable Registration Server

Accept

Call Agent Mode

☐ Enable Call Agent

Site ID: EXCEL-CSP

Use Defaults Show Advanced OK Cancel

-
- 2 For the **Call Agent Mode** option, select the check box for **Enable Call Agent**.

Important! To enable this feature, you must have a license.

-
- 3 Click **OK**.

END OF STEPS

Configuring H.323

Purpose	This procedure describes the configuration of the H.323 protocol which is embedded on the IP Signaling Series 3 card.
Before you begin	<p>For offline configuration, you must have a node view window open in configuration mode. If you want to configure online, the LLC and SwitchManager must be running. For information on running LLC and SwitchManager refer to the SwitchKit documentation.</p> <p>When you configure H.323 for the first time you need to add the H.323 IPS Series 3 (IPS S3) card to the node. Dialogic also recommends configuring parameters, such as IP addresses and spans before you start configuring H.323.</p>
Information Source	For information beyond the default values provided, please refer to the <i>Converged Services Platform, Developer's Guide: IP</i> .
IP Signaling Series 3 Card	The CSA shows the IP Signaling Series 3 card as an IPS S3 card.
Configuring H.323	<p>Follow the steps to configure the H.323 protocol on an IP Signaling Series 3 card.</p> <p>Important! The H.323 IP Address, Subnet Mask, and Gateway Address has to be configured using the BOOTP protocol.</p>

-
- 1 To open the H.323 card configuration dialog box, do one of the following:
 - Select the **IPS S3** card. Go to the **Configuration** menu and select **Card→H.323 IP Signaling Series 3 Configuration**.
 - Select the **IPS S3** card. Go to the **Configuration** menu and select **H.323→H.323 IP Signaling Series 3 Configuration**.
 - Right-click the **H.323** card and select **H.323 IP Signaling Series 3 Configuration** from the menu list.
 - Double-click the **H.323** card.

The **Configure H.323 IP Signaling Series 3...** dialog box opens.

Important! It is mandatory to complete all fields.

- 2 In the **H.323 IP Signaling Series 3** group, enter the **ID** (valid values: 0-63) and **IP Address**.
- 3 Enter the **Polls** information. Dialogic recommends you set the poll interval to: 2 seconds (200 in 10-ms units). The range of valid values for **Poll Interval** and **Maximum Missed Polls** is: 1-65535.
- 4 Enter the **Link Down Timer** in 10 millisecond units, if you want to change the default value of two minutes.
- 5 Enter the **Matrix/CPU** primary/shared IP address and port number. The valid values for the port number are: 1-65535. *Note: After clicking **OK** for this configuration, these fields are disabled for subsequent viewings of this dialog box.*

- 6 Click **Configure Attributes**. This opens the **Configure H.323 Attributes** dialog box. The dialog box opens with default settings for the H.323 attributes configuration. The default values work for many scenarios. If you need to change any of the defaults, please follow the next steps.

Configure H.323 Attributes Node 0x36, Slot 2

☐ Gatekeeper IP and Port

☒ Configure ☐ Deconfigure

	IP Address	Port Number
1		
2		
3		
4		
5		

☐ Auto Gatekeeper Discovery and Registration ☒ No ☐ Yes

☐ Auto Gatekeeper Discovery Only ☒ No ☐ Yes

☐ Variant ID

☐ Version Number

☐ Terminal Type

☐ Gateway Technology Prefix

☐ RAS PPL Indication ☒ Send ☐ Do not send

☐ Enable Advanced IP Routing

☐ Enable H245 Tunneling

Gateway Alias Name

☐ E.164

☐ URL

☐ VendorID/H.323 ID

☐ E Mail

H225 Timers (* 10 ms)

☐ T 301

☐ T 303

☐ T 310

H245 Timers (* 10 ms)

☐ T 101

☐ T 103

☐ T 105

☐ T 106

☐ T 108

☐ T 109

Additional Host Signaling Parameters

☐ Media Connection Address

Re-register with Gatekeeper

☐ Enable Cfg Byte 2 (RAS PPL)

Timer 1 value * (10 ms)

RAS Timers (* 10 ms)

☐ GRQ

☐ RRQ

PPL Attributes OK Cancel

- 7 Select **Gatekeeper IP and Port** and specify the **IP Address** and **Port Number**.

-
- 8 Select **Auto Gatekeeper Discovery and Registration** to be able to change from the default setting **No** to **Yes**.
-
- 9 Select **Auto Gatekeeper Discovery only** to be able to change from the default setting **No** to **Yes**.
-
- 10 Select the **Variant ID** to enable the H.323 variant, which currently supports Variant ID: 0 (ITU).
-
- 11 Select **Version Number** to enable the H.323 version, which currently supports version 2.
-
- 12 Select **Terminal Type** to enable the H.323 terminal type, which currently supports GW with No MC.
-
- 13 Select **Gateway Technology Prefix** and type in the numeric value. The pound sign is inserted automatically at the end of the digits (maximum 8 characters).
-
- 14 Select **RAS PPL Indication** and click **Send** or **Do not send**. **Send** means the switch sends RAS PPL event indications to the host. **Do not send** means the switch will not send RAS PPL event indications to the host.
-
- 15 Select **Enable Advanced IP Routing**, if you want this feature enabled.
-
- 16 Select **Enable H245 Tunneling**, if you want this feature enabled.
-
- 17 For the **Gateway Alias Name**, do the following:
- Select **E.164** and type in the numeric value (maximum 31 characters).
-

- Select **Vendor ID/H.323 ID**. Type in the **Vendor ID** (string, maximum 63 characters).
- Select **URL** and type the string in the text box, if you want to provide this (string, maximum 63 characters).
- Select **E-Mail** and type the string in the text box, if you want to provide this (string, maximum 63 characters).

NOTE: All the aliases are null terminated strings and the null character will automatically be inserted at the end of the string.

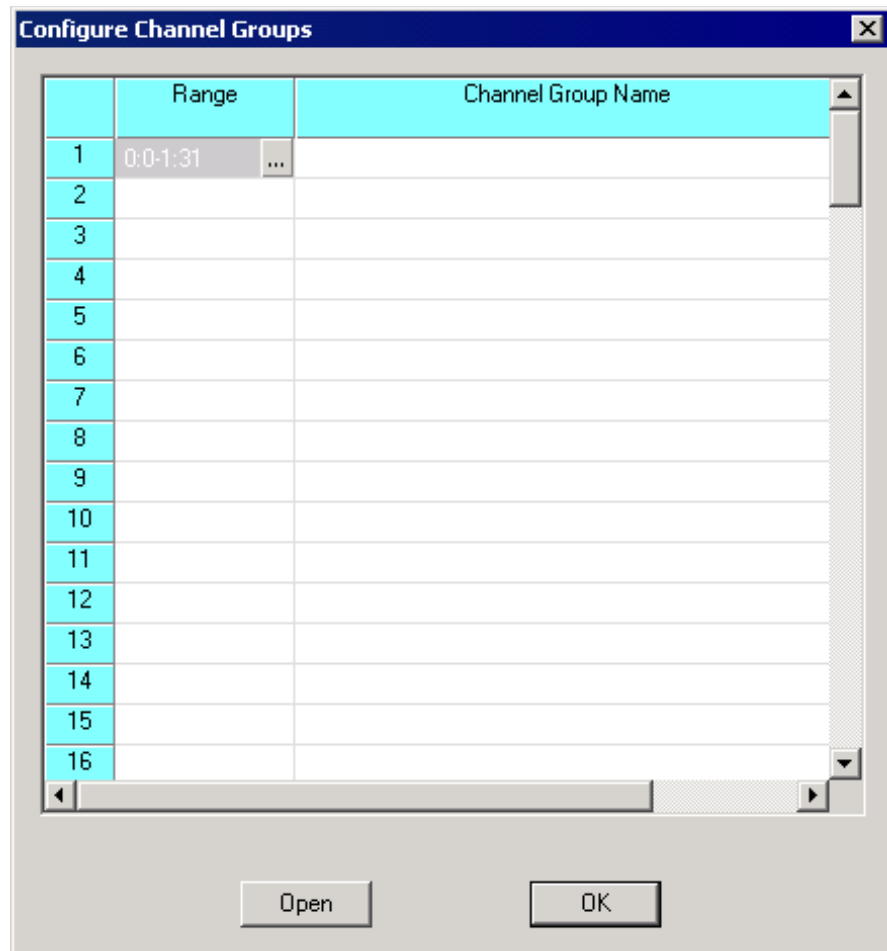
18 Under **Additional Host Signaling Parameters**, you can select **Media Connection Address**.

19 Under **Re-register with Gatekeeper**, you can select **Enable Cfg Byte 2 (RAS PPL)**.

20 Under **RAS Timers (*10 ms)**, you can select **GRQ** or **RRQ**.

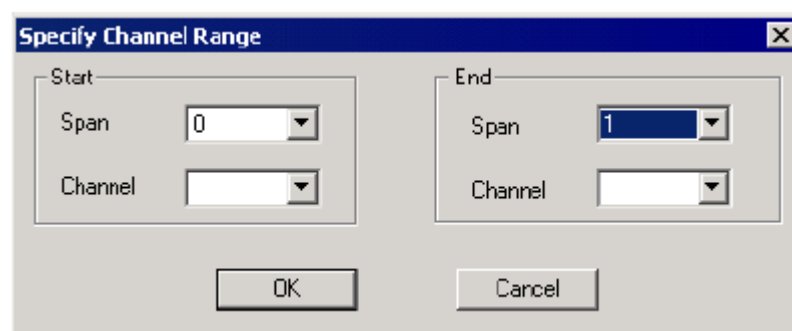
21 Select and enter the **H.225 Timers** in 10 milliseconds (integer), the **H.245 Timers** and **RAS Timers**.

22 Click **PPL Attributes**. The **Configure Channel Groups** dialog box opens.



NOTE: If you have a non-VDAC channel range, that range will be disabled.

- 23 Click  or right-click in the range column and select **Add/Modify Range**. The **Specify Channel Range** dialog box opens.



-
- 24 From the drop-down list, select the **Span** and **Channel** numbers. If you do not specify, the **Start** channel is defaulted to zero. If you do not specify the **End** channel, it is defaulted to the last channel in that specified “end” span.
-
- 25 Click **OK**. The **Configure Channel Groups** dialog box opens again.
-
- 26 Click **Open** or right-click the **Range** column and select **Open Configuration Dialog**.

The **Configure H.323 PPL Attributes** dialog box opens.

Configure H.323 PPL Attributes , Channel Range 10:0-11:23

☐ Configuration Bytes

UI Propagation/Reporting: Prop., Not Rep.

DTMF Digit Propagation/Reporting: Prop., Not Rep.

Round Trip Delay: Do not initiate RTDSE

Send T38 Parameters: Send T.38 Fax

VDAC->HOST ppl event propagation: Disable VDAC->Host propagate

☐ DTMF Timers(* 10 ms)

Digit Duration: 6

Interdigit Duration: 6

Max. 1st Digit Detect: 2000

Min. Receive Digit Duration: 4

Min. Receive Interdigit Timeout: 4

OK Cancel

-
- 27** Click **OK** after you have finished this configuration.
-
- 28** Click **OK** to close the **Configure H.323 Attribute** dialog box and to return to the **Configure H.323 IP Signaling Series 3...** dialog box.
-
- 29** Click **OK** to close the dialog box.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

6 Configuring Resource Cards

Purpose This chapter contains information on the configuration procedures for resource cards.

Configuring the DSP-ONE Card

Purpose This procedure describes configuring the DSP-ONE card.

Before you begin You must have a node view window open in configuration mode.

Configuring the DSP-ONE Card The following steps explain the DSP-ONE card configuration.

- 1 To access the DSP-ONE card configuration dialog box, do one of the following:
 - Select the DSP-ONE card in the node view. Go to the **Configuration** menu and select **Card→DSP Configuration**.
 - Right-click the DSP-ONE card in the node view and select **DSP Configuration** from the menu.
 - Double-click the DSP-ONE card in the node view.

The DSP-ONE configuration dialog opens:

- 2 Type in the values for each DSP-ONE SIMM, if you do not want to use the default values. See the next screen shot.

Configure DSP SIMM: Slot 10, Node 0x0

	DSP 0	DSP 1	DSP 2	DSP 3
Simm 0				
Simm 1				
Simm 2				
Simm 3				

OK

Set Defaults

Recorded Announcement

Cancel

To specify all the default values of all the DSP-ONE SIMMs, click **Set Defaults**. See the next screen shot.

Configure DSP SIMM: Slot 14, Node 0x1

	DSP 0	DSP 1	DSP 2	DSP 3
Sim 0	μ-law DTMF (Rec)	μ-law DTMF (Rec)	μ-law DTMF (Rec)	μ-law DTMF (Rec)
Sim 1	μ-law DTMF (Gen)	μ-law MFR1 (Gen)	μ-law CPT4 (Gen)	μ-law CPA (Rec)
Sim 2	μ-law MFR1 (Rec)	μ-law MFR1 (Rec)	μ-law MFR1 (Rec)	μ-law MFR1 (Rec)
Sim 3	μ-law DTMF (Rec)	μ-law DTMF (Rec)	μ-law DTMF (Rec)	μ-law DTMF (Rec)

OK Set Defaults Recorded Announcement Cancel

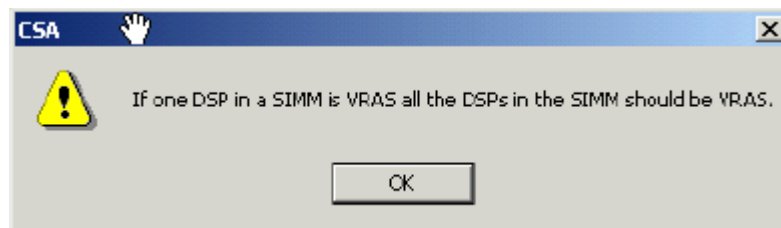
- 3 Change the default configuration settings through the drop-down lists in each table cell. See the next screen shot with example data.

Configure DSP SIMM Slot 0, Node 0x0

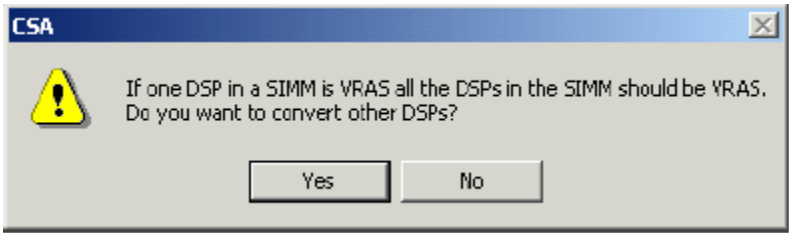
	DSP 0	DSP 1	DSP 2	DSP 3
Simn 0	μ-law Coin Detection (Rec)	μ-law DTMF (Rec)	μ-law DTMF (Rec)	μ-law Coin Detection (Rec)
Simn 1	μ-law DTMF (Gen)	μ-law Coin Detection (Rec)	A-law Coin Detection (Rec)	μ-law CPA (Rec)
Simn 2	μ-law MFR1 (Rec)	μ-law MFR1 (Rec)	μ-law MFR1 (Rec)	μ-law MFR1 (Rec)
Simn 3	A-law Coin Detection (Rec)	μ-law DTMF (Rec)	μ-law DTMF (Rec)	A-law Coin Detection (Rec)

OK Set Defaults Recorded Announcement Cancel

On the DSP-ONE card, SIMM modules zero (0) and two (2) may be populated for a Voice Recorded Announcement System, (VRAS). It is important that the configuration mirror the physical hardware. If configuring VRAS, all DSPs on that SIMM must be configured for VRAS. If you only have one configured when you click **Recorded Announcement**, the following message pops up:

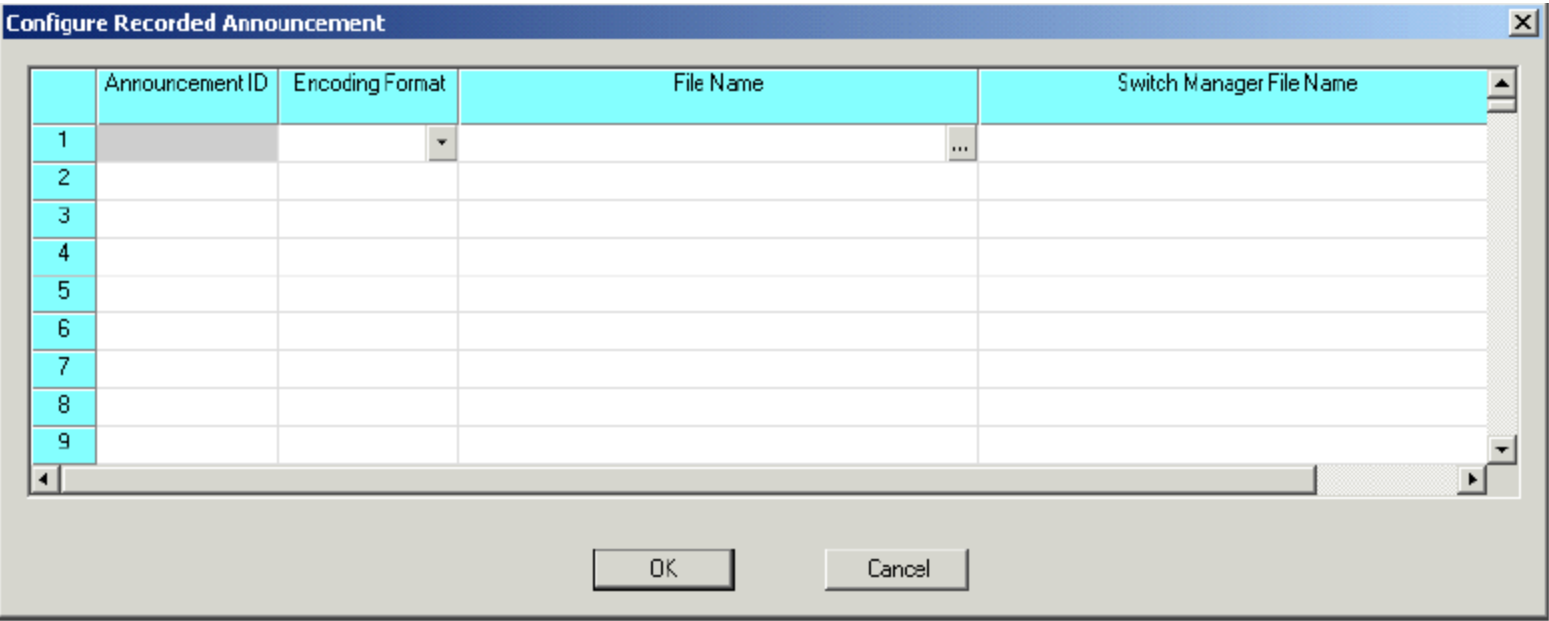


Click **OK**. When you click the next DSP you will get the following message:



Click **Yes** to have VRAS automatically assigned.

- 4 As soon as you select VRAS for SIMM modules 0 and/or 2, the **Recorded Announcement** button becomes enabled. Click **Recorded Announcement** to enter the relevant dialog box. See the next screen shot.



5 Enter the **Announcement ID**.

Important! If the Announcement ID is already allocated on the CSP and you attempt to download it again, the download fails. You must first delete the recorded announcement file that has been previously associated with that Announcement ID.

6 Select the **Encoding Format** from the drop-down menu.

7 Click the **File Name** cell and click **browse** to select a file containing the announcement, or type the path and file name in the table cell. This file should be in a Pulse Code Modulation format such as, *.vox.

8 You do not specify the SwitchManager file name. Click **OK** to close the **Recorded Announcement** dialog box.

9 Click **OK** to close the DSP-ONE card configuration.

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

Configuring a DSP Series 2 Card

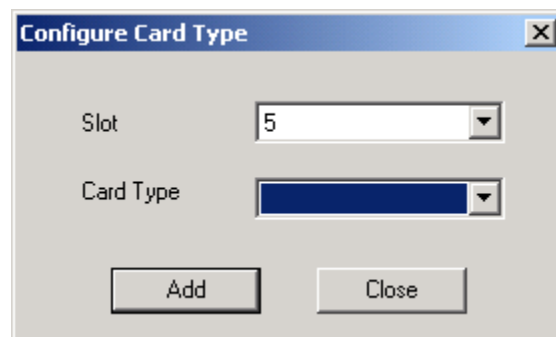
Purpose This procedure describes configuration of a DSP Series 2 card within the CSA graphical user interface.

Before you begin You must have a node view window open in configuration mode.

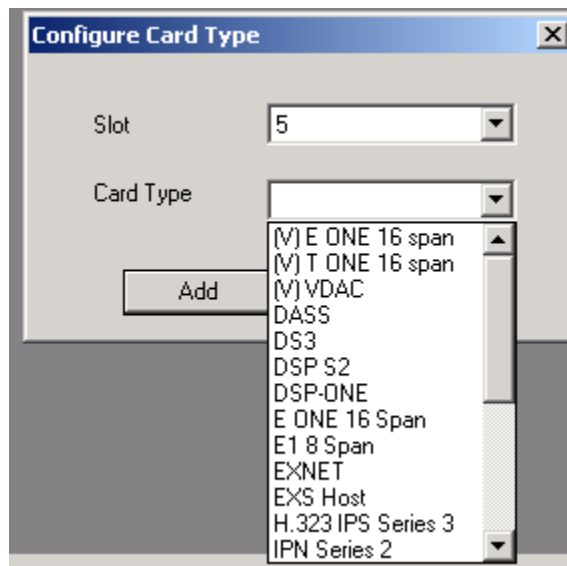
DSP Series 2 Configuration Do the following to configure a DSP Series 2 card.

- 1 To configure a DSP Series 2 card, you must first add the card to the node view. Go to the node view and right-click the slot where you want to add the card, then select **Add Card** from the menu.

The **Configure Card Type** dialog box opens.



- 2 Select **DSP S2** from the drop-down list.



-
- 3 Click **Add** and then **Close**.
-
- 4 Double-click in the **DSP S2** card slot in the node view.

The **Configure DSP Series 2 card...** dialog opens. See the next screen shot.

Configure DSP Series 2 Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

DSP Series 2 IP Address

IP Address

Subnet Mask

Gateway

File Server Type

☐ NFS

☒ None

Card NFS Configuration

Local Name

User ID

Group ID

File Server List

Enabled	Name	IP Address	Mount Point Location
1 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Vocabulary Index File on Mount Point

Primary File Name

Secondary File Name

Clear Cache

ReloadVIF

Ethernet Redundancy

☒ Enable Ethernet Redundancy

☐ NET 1

☒ NET 2

☐ NET 3

OK Cancel

5 If required, select the **File Server Type** other than **None**:

- **NFS** (Network File System)

Selecting **NFS** enables other fields in the dialog box. See the next screen shot with example data entered.

Configure DSP Series 2 Card: Slot 4, Node 0x36

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

DSP Series 2 IP Address

IP Address: 10.10.22.6

Subnet Mask: 255.255.255.0

Gateway: 10.10.22.1

File Server Type

☒ NFS

☐ None

Card NFS Configuration

Local Name: MyCard

User ID: 1001

Group ID: 100

File Server List

Enabled	Name	IP Address	Mount Point Location
<input checked="" type="checkbox"/>	MyHost	10.10.22.240	/share
<input checked="" type="checkbox"/>	YourHost	10.10.22.241	/conference
<input checked="" type="checkbox"/>	host1	10.10.22.242	/conference1
<input checked="" type="checkbox"/>	Host2	10.10.22.243	/conference2
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

Vocabulary Index File on Mount Point

Primary File Name: Vocab.txt Server Location: 1

Secondary File Name: NewVocab.txt Server Location: 4

Clear Cache

ReloadVIF

Ethernet Redundancy

☒ Enable Ethernet Redundancy

☐ NET 1

☒ NET 2

☐ NET 3

OK Cancel

- 6 Enter the **IP Address**, **Subnet Mask** and **Gateway** for the DSP Series 2 card.
- 7 If you select, **NFS**, enter the **Local Name**, **User ID**, and **Group ID**. The valid range for the **User ID** and **Group ID** is 0-65534.

-
- 8** Enter the Vocabulary Index File on Mount Point: **Primary File Name** and **Secondary File Name** (if applicable). You can enter up to 100 alphanumeric characters in these fields.

 - 9** For the **File Server List**, select **Enabled**, and enter the **Name, IP Address, Mount Point Location**. The directory of the file name is the mount point location.

 - 10** Select **Ethernet Link Redundancy** and the port to use for redundancy if you want this feature enabled.

 - 11** Click on the **DSP Modules** tab.

See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | **DSP Modules** | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

	RCV 0	TXMT 0	RCV 1	TXMT 1
Module 0 DSP 0	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 1	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 2	μ-law CPA (Rec)	μ-law Universal (Gen)	μ-law CPA (Rec)	μ-law Universal (Gen)
DSP 3	File Playback/Record		File Playback/Record	
Module 1 DSP 0				
DSP 1				
DSP 2				
DSP 3				

Set Defaults

OK Cancel

For each DSP in each module, you may select from the drop-down lists the receive (RCV) and transmit (TXMT) options for **RCV 0**, **TXMT 0**, **RCV 1**, and **TXMT 1**.

If you click Set Defaults, the receive and transmit fields become populated automatically.

Configure DSP Series 2 Card: Slot 4, Node 0x36

IP Configuration And File Servers | **DSP Modules** | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

	RCV 0	TXMT 0	RCV 1	TXMT 1
Module 0 DSP 0	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 1	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 2	μ-law CPA (Rec)	μ-law Universal (Gen)	μ-law CPA (Rec)	μ-law Universal (Gen)
DSP 3	File Playback/Record		File Playback/Record	
Module 1 DSP 0	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 1	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 2	μ-law MFR1 (Rec)	μ-law Universal (Gen)	μ-law MFR1 (Rec)	μ-law Universal (Gen)
DSP 3	μ-law MFR1 (Rec)	μ-law Universal (Gen)	μ-law MFR1 (Rec)	μ-law Universal (Gen)

Set Defaults

OK Cancel

- 12 Click the **Conferencing Parameters** tab. See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | **Conferencing Parameters** | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

☐ **Noise Gating Parameters**

Time Constant (ms)

Maximum Noise Level (dBm)

Sensitivity

☐ **Echo Suppression Parameters**

Echo Return Loss (dB)

☐ **Automatic Gain Control**

Time Constant (ms)

Input Level (dBm)

Output Gain Control

Output Gain (dB)

Conference Failure Behavior

Behavior

OK Cancel

- 13 If required, you can change the values for **Noise Gating Parameters**, **Echo Suppression Parameters**, and **Automatic Gain Control**, by enabling the fields with the check box and then enter or select values. You can also enter a different value for **Output Gain Control**. If you want to use another option for **Conference Failure Behavior**, select from the drop-down list. See the next table showing the valid range for the fields where you enter values:

Fields	Range of Values
Time Constant (ms)	10 -100
Maximum Noise Level (dBm)	-54 to -20
Echo Return Loss (dB)	-54 to -6
Time Constant (ms)	100 - 20,000
Input Level (dBm)	-54 to -3
Output Gain (dB)	-40 to 10

14 Click **OK**.

15 Click the **T.30 Fax Parameters** tab. See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | **T.30 Fax Parameters** | Echo Cancellation Parameters | PVD and AMD Parameters

Header Parameter	Transmit Parameters	Receive Parameters
Method	Enable ECM	Modem Type
Format String	Add Header	Resolution Type
T.30 Control Parameters	Enable CNG	Encoding Type
Maximum Rate	dBm Level	Bad Line
Transmit Level	Terminal ID	Page Size
ECM Enabled		Enable ECM
Local Session ID		Add Header
		Line Error Threshold (%)
		Timeout (ms)
		Terminal ID

OK Cancel

Under the T.30 Fax Parameters tab, change any of the default settings where necessary. See the next table for the valid range of values for some of the fields:

Fields	Range of Values
Local Session ID	alphanumeric up to 20 characters
Timeout (ms)	15-16777215
dBm Level	-400 to 0
Terminal ID	alphanumeric up to 20 characters

Click the **Echo Cancellation Parameters** tab.

Configure DSP Series 2 Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | **Echo Cancellation Parameters** | PVD and AMD Parameters

Echo Cancellation Parameters

Tap Length: 128ms

NLP Type: Hoth Noise CNG

Adapt Enable: Enable adaptation

CNG Noise Threshold: 160

NLP Threshold: 2578

G165 Detect

☐ Disable

☒ Enable G.165 modem answer tone detector

Bypass Enable

☒ Normal Operation

☐ Bypass the echo canceller

☐ Bypass the echo canceller but still adapt its internal state

OK Cancel

If you want to change the default values for these fields, select from the drop-down lists:

- **Tap Length**
- **NLP** (Non-Linear Processor) **Type**
- **Adapt Enable**

If you want to change the default values for these fields, enter values:

- **CNG** (Comfort Noise Generation) **Noise Threshold** - The valid range is 0 to 32767.

- **NLP Threshold** - The valid range is -32767 to 32767.

If you want to change the default values for these fields, select another:

- **G.165 Detect**
 - **Bypass Enable**
-

- 16** Click the **PVD and AMD Parameters** tab. See the next screen shot.

Configure DSP Series 2 Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | **PVD and AMD Parameters**

Positive Voice Detection Parameters

Time Constant (ms)

Maximum Noise Level (dB)

PVD Sensitivity

PVD and AMD Reports

PVD and AMD Report Bitmask

Silence Reports
PVD Reports
Tone Reports
AMD Reports

Answering Machine Detection Parameters

Detection Frequency (Hz)

	Minimum	Maximum
Band 1	<input type="text" value="350"/>	<input type="text" value="700"/>
Band 2	<input type="text" value="750"/>	<input type="text" value="1600"/>
Band 3	<input type="text" value="1700"/>	<input type="text" value="3000"/>

Minimum Valid Time (10 ms)

Minimum Invalid Time (10 ms)

Minimum Tone Level (dBm)

Minimum Valid Voice (10 ms)

Minimum Invalid Voice (10 ms)

OK Cancel

Under the **PVD and AMD Parameters** tab, change any of the default settings where necessary. See the next table for the valid range of values for some of the fields:

Fields	Range of Values
Time Constant (ms)	10 - 100
Maximum Noise Level (dB)	-54 to -10
Detection Frequency (Hz) Band 1 Band 2 Band 3	200 - 3000
Minimum Valid Time (10ms)	2 - 3000
Minimum Invalid Time (10ms)	2 - 3000
Minimum Tone Level (dB)	-54 to 3
Minimum Valid Voice (10ms)	2 - 3000
Minimum Invalid Voice (10ms)	2 - 3000

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration→ Configure Through SwitchMgr→ Send Only Modified Configuration To Switch.**

To delete DSP configuration, select a cell, right-click, and clear the row. You may now select another option, if desired.

Configuring a DSP Series 2 Plus Card

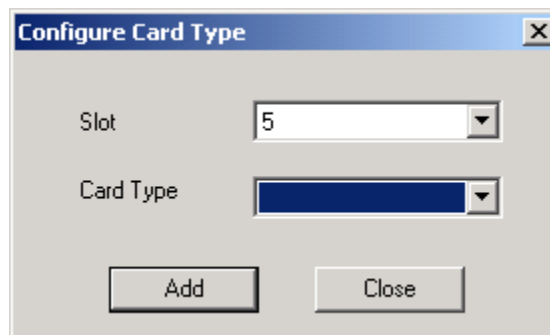
Purpose This procedure describes configuration of a DSP Series 2 Plus card within the CSA graphical user interface.

Before you begin You must have a node view window open in configuration mode.

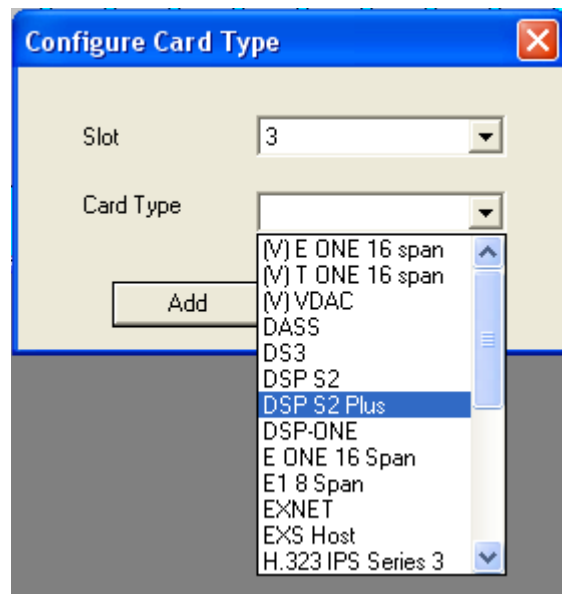
DSP Series 2 Plus Configuration Do the following to configure a DSP Series 2 Plus card.

- 1 To configure a DSP Series 2 Plus card, you must first add the card to the node view. Go to the node view and right-click the slot where you want to add the card, then select **Add Card** from the menu.

The **Configure Card Type** dialog box opens.



- 2 Select **DSP S2** from the drop-down list.



-
- 3 Click **Add** and then **Close**.
 - 4 Double-click in the **DSP S2 Plus** card slot in the node view.
-

The **Configure DSP Series 2 Plus card...** dialog opens. See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

DSP IP Address

IP Address:

Subnet Mask:

Gateway:

File Server Type

☐ NFS

☒ None

Card NFS Configuration

Local Name:

User ID:

Group ID:

File Server List

Enabled	Name	IP Address	Mount Point Location
1 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8 <input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Vocabulary Index File on Mount Point

Primary File Name: Server Location:

Secondary File Name: Server Location:

Clear Cache

OK Cancel

5 If required, select the **File Server Type** other than **None**:

- **NFS** (Network File System)

Selecting **NFS** enables other fields in the dialog box. See the next screen shot with example data entered.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers

DSP Modules

Conferencing Parameters

T.30 Fax Parameters

Echo Cancellation Parameters

PVD and AMD Parameters

DSP IP Address

IP Address10.10.22.6

Subnet Mask255.255.255.0

Gateway10.10.22.1

File Server Type

☒ NFS

☐ None

Card NFS Configuration

Local NameMyCard

User ID1001

Group ID100

File Server List

Enabled	Name	IP Address	Mount Point Location
<input checked="" type="checkbox"/>	MyHost	10.10.22.240	/share
<input checked="" type="checkbox"/>	YourHost	10.10.22.241	/conference
<input checked="" type="checkbox"/>	host1	10.10.22.242	/conference1
<input checked="" type="checkbox"/>	Host2	10.10.22.243	/conference2
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

Vocabulary Index File on Mount Point

Primary File NameVocab.txt

Secondary File NameNewVocab.txt

Clear Cache

Server Location

1

4

OK

Cancel

- 6

Enter the **IP Address**, **Subnet Mask** and **Gateway** for the DSP Series 2 Plus card.
- 7

If you select, **NFS**, enter the **Local Name**, **User ID**, and **Group ID**. The valid range for the **User ID** and **Group ID** is 0-65534.

-
- 8** Enter the Vocabulary Index File on Mount Point: **Primary File Name** and **Secondary File Name** (if applicable). You can enter up to 100 alphanumeric characters in these fields.
-
- 9** For the **File Server List**, select **Enabled**, and enter the **Name, IP Address, Mount Point Location**. The directory of the file name is the mount point location.
-
- 10** Click on the **DSP Modules** tab.

See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

	RCV 0	TXMT 0	RCV 1	TXMT 1
Module 0 DSP 0	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 1	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 2	μ-law CPA (Rec)	μ-law Universal (Gen)	μ-law CPA (Rec)	μ-law Universal (Gen)
DSP 3	File Playback/Record		File Playback/Record	
Module 1 DSP 0				
DSP 1				
DSP 2				
DSP 3				

Set Defaults

OK Cancel

For each DSP in each module, you may select from the drop-down lists the receive (RCV) and transmit (TXMT) options for **RCV 0**, **TXMT 0**, **RCV 1**, and **TXMT 1**.

If you click Set Defaults, the receive and transmit fields become populated automatically.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | **DSP Modules** | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

	RCV 0	TXMT 0	RCV 1	TXMT 1
Module 0 DSP 0	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 1	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 2	μ-law CPA (Rec)	μ-law Universal (Gen)	μ-law CPA (Rec)	μ-law Universal (Gen)
DSP 3	File Playback/Record		File Playback/Record	
Module 1 DSP 0	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 1	μ-law DTMF (Rec)	μ-law Universal (Gen)	μ-law DTMF (Rec)	μ-law Universal (Gen)
DSP 2	μ-law MFR1 (Rec)	μ-law Universal (Gen)	μ-law MFR1 (Rec)	μ-law Universal (Gen)
DSP 3	μ-law MFR1 (Rec)	μ-law Universal (Gen)	μ-law MFR1 (Rec)	μ-law Universal (Gen)

Set Defaults

OK Cancel

- 11 Click the **Conferencing Parameters** tab. See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

☐ **Noise Gating Parameters**

Time Constant (ms)

Maximum Noise Level (dBm)

Sensitivity

☐ **Echo Suppression Parameters**

Echo Return Loss (dB)

☐ **Automatic Gain Control**

Time Constant (ms)

Input Level (dBm)

Output Gain Control

Output Gain (dB)

Conference Failure Behavior

Behavior

OK Cancel

- 12 If required, you can change the values for **Noise Gating Parameters**, **Echo Suppression Parameters**, and **Automatic Gain Control**, by enabling the fields with the check box and then enter or select values. You can also enter a different value for **Output Gain Control**. If you want to use another option for **Conference Failure Behavior**, select from the drop-down list. See the next table showing the valid range for the fields where you enter values:

Fields	Range of Values
Time Constant (ms)	10 -100
Maximum Noise Level (dBm)	-54 to -20
Echo Return Loss (dB)	-54 to -6
Time Constant (ms)	100 - 20,000
Input Level (dBm)	-54 to -3
Output Gain (dB)	-40 to 10

13 Click **OK**.

14 Click the **T.30 Fax Parameters** tab. See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | **T.30 Fax Parameters** | Echo Cancellation Parameters | PVD and AMD Parameters

Header Parameter	Transmit Parameters	Receive Parameters
Method	Enable ECM: No	Modem Type: V27, V29, V17
Format String	Add Header	Resolution Type: 200 x 200, 300 x 300, 400 x 400
T.30 Control Parameters	Enable CNG: Yes	Encoding Type: MH, MR, MMR
Maximum Rate: 14400 bps	dBm Level: -135	Bad Line: Repeat last good line
Transmit Level: -135	Terminal ID	Page Size: ISO A4, JIS B4, ISO A3
ECM Enabled: No		Enable ECM: No
Local Session ID		Add Header
		Line Error Threshold (%): 10
		Timeout (ms): 35000
		Terminal ID

OK Cancel

Under the T.30 Fax Parameters tab, change any of the default settings where necessary. See the next table for the valid range of values for some of the fields:

Fields	Range of Values
Local Session ID	alphanumeric up to 20 characters
Timeout (ms)	15-16777215
dBm Level	-400 to 0
Terminal ID	alphanumeric up to 20 characters

Click the **Echo Cancellation Parameters** tab.

The screenshot shows a configuration window titled "Configure DSP Series 2 Plus Card: Slot 2, Node 0x1". It has several tabs: "IP Configuration And File Servers", "DSP Modules", "Conferencing Parameters", "T.30 Fax Parameters", "Echo Cancellation Parameters" (which is selected), and "PVD and AMD Parameters".

Under the "Echo Cancellation Parameters" tab, there are two main sections:

- Echo Cancellation Parameters:** This section contains five fields:
 - Tap Length:** A dropdown menu with "128ms" selected.
 - NLP Type:** A dropdown menu with "Hoth Noise CNG" selected.
 - Adapt Enable:** A dropdown menu with "Enable adaptation" selected.
 - CNG Noise Threshold:** A text box containing the value "160".
 - NLP Threshold:** A text box containing the value "2578".
- Options:** This section contains two groups of radio buttons:
 - G165 Detect:** Two options: "Disable" (unselected) and "Enable G.165 modem answer tone detector" (selected).
 - Bypass Enable:** Three options: "Normal Operation" (selected), "Bypass the echo canceller" (unselected), and "Bypass the echo canceller but still adapt its internal state" (unselected).

At the bottom right of the dialog are "OK" and "Cancel" buttons.

If you want to change the default values for these fields, select from the drop-down lists:

- **Tap Length**
- **NLP** (Non-Linear Processor) **Type**
- **Adapt Enable**

If you want to change the default values for these fields, enter values:

- **CNG** (Comfort Noise Generation) **Noise Threshold** - The valid range is 0 to 32767.

- **NLP Threshold** - The valid range is -32767 to 32767.

If you want to change the default values for these fields, select another:

- **G.165 Detect**
- **Bypass Enable**

- 15 Click the **PVD and AMD Parameters** tab. See the next screen shot.

Configure DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | **PVD and AMD Parameters**

Positive Voice Detection Parameters

Time Constant (ms)

Maximum Noise Level (dB)

PVD Sensitivity

Answering Machine Detection Parameters

Detection Frequency (Hz)		
	Minimum	Maximum
Band 1	<input type="text" value="350"/>	<input type="text" value="700"/>
Band 2	<input type="text" value="750"/>	<input type="text" value="1600"/>
Band 3	<input type="text" value="1700"/>	<input type="text" value="3000"/>

Minimum Valid Time (10 ms)

Minimum Invalid Time (10 ms)

Minimum Tone Level (dBm)

Minimum Valid Voice (10 ms)

Minimum Invalid Voice (10 ms)

PVD and AMD Reports

PVD and AMD Report Bitmask

Silence Reports
PVD Reports
Tone Reports
AMD Reports

OK Cancel

Under the **PVD and AMD Parameters** tab, change any of the default settings where necessary. See the next table for the valid range of values for some of the fields:

Fields	Range of Values
Time Constant (ms)	10 - 100
Maximum Noise Level (dB)	-54 to -10
Detection Frequency (Hz) Band 1 Band 2 Band 3	200 - 3000
Minimum Valid Time (10ms)	2 - 3000
Minimum Invalid Time (10ms)	2 - 3000
Minimum Tone Level (dB)	-54 to 3
Minimum Valid Voice (10ms)	2 - 3000
Minimum Invalid Voice (10ms)	2 - 3000

.....
E N D O F S T E P S

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration→ Configure Through SwitchMgr→ Send Only Modified Configuration To Switch.**

To delete DSP configuration, select a cell, right-click, and clear the row. You may now select another option, if desired.

Configuring DSP Alarm Thresholds

Purpose This procedure describes how to configure the DSP alarm thresholds.

Before you begin You must have a node view window open in configuration mode.

Steps to Configure DSP alarm thresholds Do the following to configure DSP alarm thresholds:

Right-click the slot containing the DSP S2 card in the node view and select **Configure Alarm Thresholds** from the menu. The **Configure DSP S2 Alarm Thresholds ...** dialog box opens.

Parameter ID - Severity	Number of Hits per Window	Window Size	Threshold Value
Number of Reads - Minor	255	255	0
Number of Reads - Major	255	255	0
Total Bytes Read - Minor	255	255	0
Total Bytes Read - Major	255	255	0
Average Read Delay - Minor	255	255	0
Average Read Delay - Major	255	255	0
Maximum Read Delay - Minor	255	255	0
Maximum Read Delay - Major	255	255	0
Number of Writes - Minor	255	255	0
Number of Writes - Major	255	255	0

Change the values for the **Number of Hits per Window**, **Window Size**, and **Threshold Value** where required and then click **OK**.

The valid range of values for these fields are

Field	Range of Values
Number of Hits per Window	1-16
Window Size	1-16
Threshold Value	Variable. (microseconds or percentage)

END OF STEPS

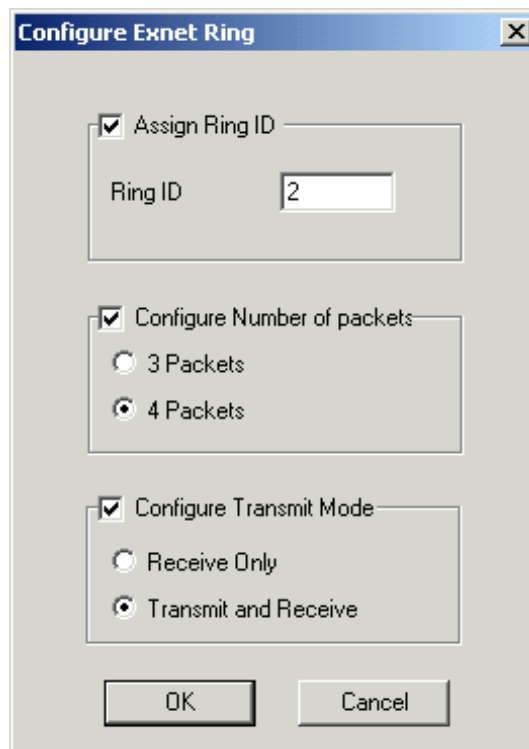
Configuring an EXNET-ONE

Purpose This procedure describes how to configure an EXNET-ONE.

Before you begin You must have a node view window open in configuration mode.

Configuring an EXNET-ONE card Follow the steps for configuring an EXNET-ONE:

- 1 To access the EXNET-ONE card configuration dialog box, do one of the following:
 - Right-click on the EXNET-ONE (**XNet**) card in the node view and select **Ring Configuration** from the menu.
 - Double-click the **XNet** card in your node view. The **Configure EXNET Ring** dialog opens. The settings shown in the screen below are example configuration settings.



-
- 2 Enable the **Assign Ring ID** field by checking the box and filling in the **Ring ID** (0-63).
 - 3 Enable the **Configure Number of Packets** field. Select **3 Packets** or **4 Packets**.
 - 4 Enable the **Configure Transmit Mode** field and select either **Receive Only** or **Transmit and Receive** (default).
 - 5 Click **OK** to close the **Configure EXNET Ring** dialog.
-

END OF STEPS

Note Configuration changes are not sent to the CSP until you select the menu: **Configuration**→**Configure Through SwitchMgr**→**Send Only Modified Configuration To Switch**.

Adding an EXNET Connect® Node Online

Purpose This procedure describes the online configuration of an EXNET Connect® node within the CSA graphical user interface.

Before you begin The node to be added must already have system software downloaded through a TFTP server. The LLC and SwitchManager must be running. For information on starting the LLC and SwitchManager, refer to the *SwitchKit* documentation set.

Configuring the Node Online The following steps explain the online configuration of a node.

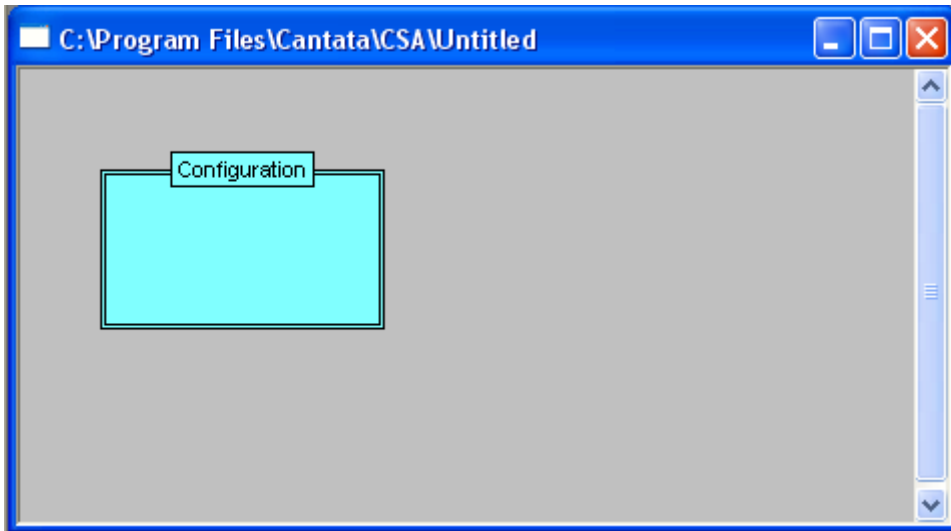


CAUTION

*If you already have other nodes configured, selecting the menu option **Configure→ Configure Through SwitchMgr→ Send All Configurations to Switch** takes those nodes out-of-service. Use **Send All Configurations to Switch** only when creating a new system configuration. **Send All Configurations to Switch** replaces any previous configuration. When adding a node to an already-configured system, select the menu option **Configure→ Configure Through SwitchMgr→ Send Only Modified Configuration to the Switch**.*

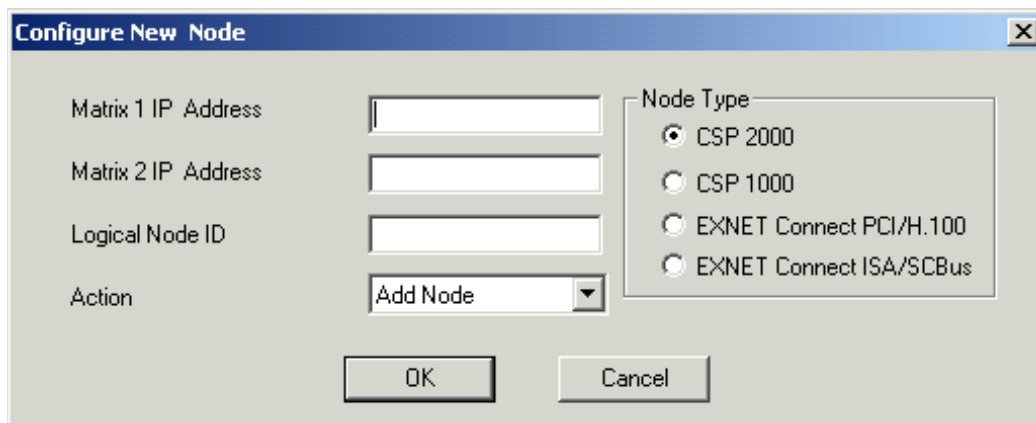
-
- 1 Go to the **File** menu, select **New Configuration**.

The **Configuration** icon opens in the global view.



- 2 When the **Configuration** icon appears, you can access the configuration menus. To access the configuration menus, do one of the following:
 - Right-click the **Configuration** icon and select **Add New Node**.
 - Left-click the **Configuration** icon to activate it (an activated configuration box has a double-line border). On the menu, go to **Configuration**→**System**→**Add New Node**.

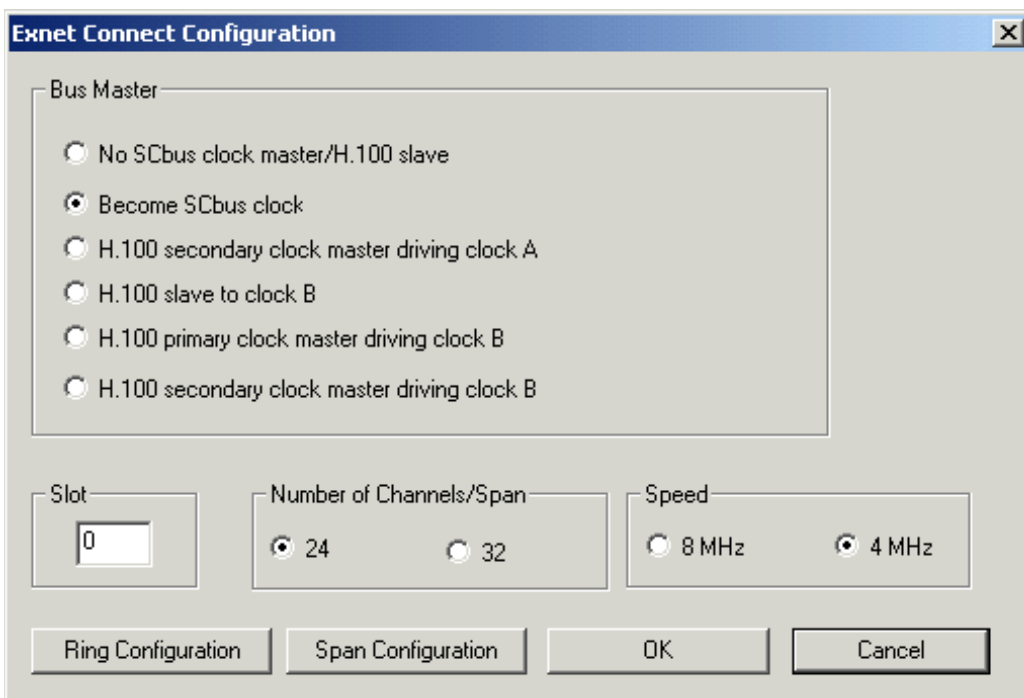
The **Configure New Node** dialog box opens.



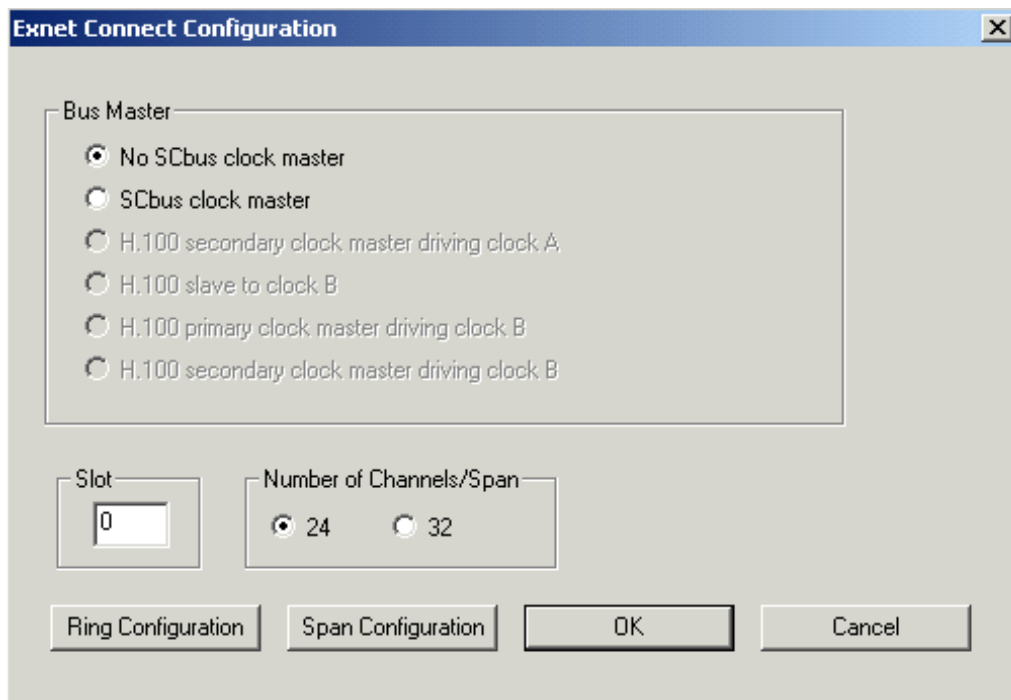
- 3 Enter the **IP Address** and **Node ID**. The valid range of logical node IDs is: 0-254. Select the node type you want to add by clicking the corresponding radio button.

Important! The EXNET Connect® card does not support redundancy.

- 4 Click **OK** in the **Configure New Node** dialog box. When you select **EXNET Connect PCI/H100** as the node type, the CSA displays an EXNET Connect® node beside an existing node.
- 5 The screen shows the **Exnet Connect ISA/SC** node, if you selected that as the node type.
- 6 Double-click the EXNET node. If you selected the EXNET- PCI/H100 node, the **Exnet Connect Configuration** dialog box opens, showing that node's configuration dialog box.



If you selected the EXNET - ISA/SC bus node, the **Exnet Connect Configuration** dialog box opens, showing that node's configuration dialog box.



-
- 7 Select the **Bus Master**. Enter the **Slot** number (The valid range is 0-31). Select the **Number of Channels/Spans** and the **Speed** when configuring an EXNET - PCI/H100 node.

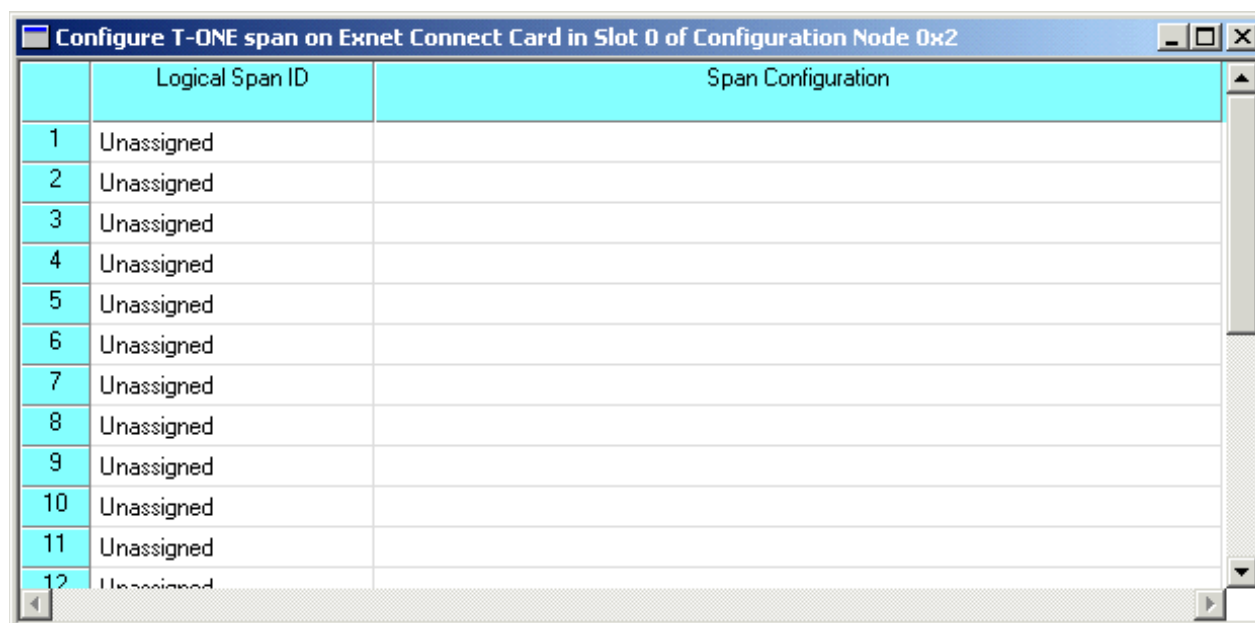
Important! When configuring spans for a T1 format, select **24** for the **Number of Channels/Span** field. When configuring spans for an E1 format, select **32** for this field.

-
- 8 After configuring the EXNET Connect® node, you must configure this node to connect to a ring. Click **Ring Configuration**. The **Configure Exnet Ring Interface** dialog box opens.



-
- 9 Select **Assign Ring ID** and enter the **Ring ID**.
-
- 10 Select **Configure Transmit Mode** and select the option you want to use. Click **OK**.

-
- 11 When the focus returns to the **Exnet Connect Configuration** dialog box, click the **Span Configuration** button. The **Configure T-ONE span on Exnet Connect Card ...** dialog box opens. Or, if you selected **32** channels in the **Exnet Connect Configuration** dialog box, the **Configure E-ONE span on Exnet Connect Card...** will open. For more information on configuring these line cards, see the procedures on *Configuring the T-ONE Card* or *Configuring the E-ONE Card* in the Converged Services Administrator User's Guide, release 8.1.1 CI. See the next screen shot for an example of a **Configure T-ONE span...** dialog box.



	Logical Span ID	Span Configuration
1	Unassigned	
2	Unassigned	
3	Unassigned	
4	Unassigned	
5	Unassigned	
6	Unassigned	
7	Unassigned	
8	Unassigned	
9	Unassigned	
10	Unassigned	
11	Unassigned	
12	Unassigned	

For more details on span configuration see the table on the next page.

Depending on the bus configuration, the actual number of spans displayed will differ. See the next table.

Node Type	Span Configuration
ISA/SC bus clock speed = 4 MHz	Maximum of 21 T1 spans OR Maximum of 16 E1 spans
PCI/H100 bus clock speed = 4 MHz	Maximum of 21 T1 spans OR Maximum of 16 E1 spans
PCI/H100 bus clock speed = 8 MHz	Maximum of 80 T1 spans OR Maximum of 64 E1 spans

END OF STEPS

Note You can now make changes to your system configuration or do any provisioning that is required. Remember that changes under all menus other than the configuration menus are executed immediately. Configuration changes are not sent to the EXS® CSP until you select the menu: **Configuration→ Configure Through SwitchMgr→ Send All Configurations To Switch** or **Configuration→ Configure Through SwitchMgr→ Send Only Modified Configuration To Switch**.

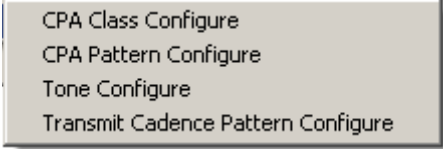
Configuring Call Progress Tones and Attributes

Purpose Use this procedure to configure call progress analysis (CPA) tones related to the following elements:

- CPA Class
 - CPA Pattern
 - Tone
 - Transmit Cadence Pattern
-

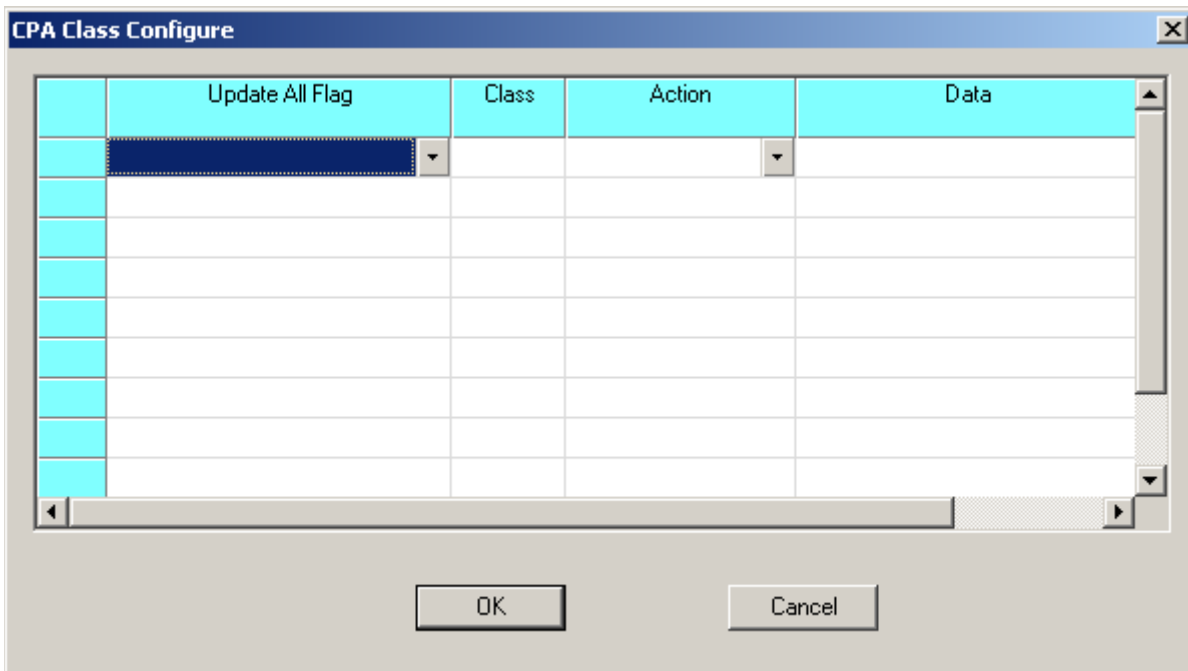
1 Go to the menu **Configuration→Node Configuration→DSP configuration**.

2 Select one of the following menu choices:



CPA Class Configure
CPA Pattern Configure
Tone Configure
Transmit Cadence Pattern Configure

If you selected CPA Class Configure, enter the information in the next dialog box.

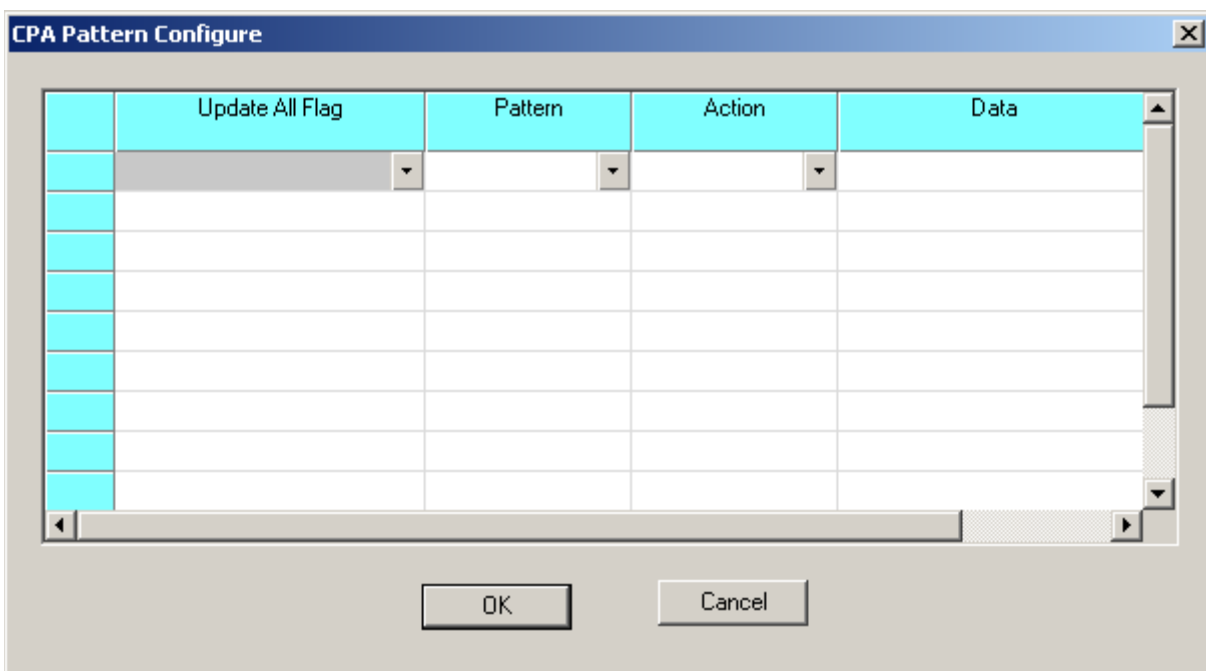


The CPA Class Configure dialog box features a table with four columns: Update All Flag, Class, Action, and Data. The first row is highlighted in blue. Below the table are OK and Cancel buttons.

Update All Flag	Class	Action	Data

OK Cancel

If you selected CPA Pattern Configure, enter the information in the next dialog box.



The CPA Pattern Configure dialog box features a table with four columns: Update All Flag, Pattern, Action, and Data. The first row is highlighted in blue. Below the table are OK and Cancel buttons.

Update All Flag	Pattern	Action	Data

OK Cancel

If you selected Tone Configure, enter the information in the next dialog box.

The screenshot shows a dialog box titled "Tone Configure". It contains a table with four columns: "Update All Flag", "Tone Type", "Action", and "Data". The first row of the table has dropdown arrows in the "Update All Flag", "Tone Type", and "Action" columns. Below the table are "OK" and "Cancel" buttons.

	Update All Flag	Tone Type	Action	Data
	▼	▼	▼	

If you selected Transmit Cadence Pattern Configure, enter the information in the next dialog box.

The screenshot shows a dialog box titled "Transmit Cadence Pattern Configure". It contains a table with three columns: "Update All Flag", "Action", and "Data". The first row of the table has dropdown arrows in the "Update All Flag" and "Action" columns. Below the table are "OK" and "Cancel" buttons.

	Update All Flag	Action	Data
	▼	▼	

7 System Provisioning and Monitoring


Purpose This chapter provides information on the provisioning and monitoring features of the Converged Services Administrator.

Connecting to the LLC

Purpose This procedure describes connecting the CSA to the LLC. In order to be able to provision or configure the CSP, you need to establish a connection between the CSA and the LLC.

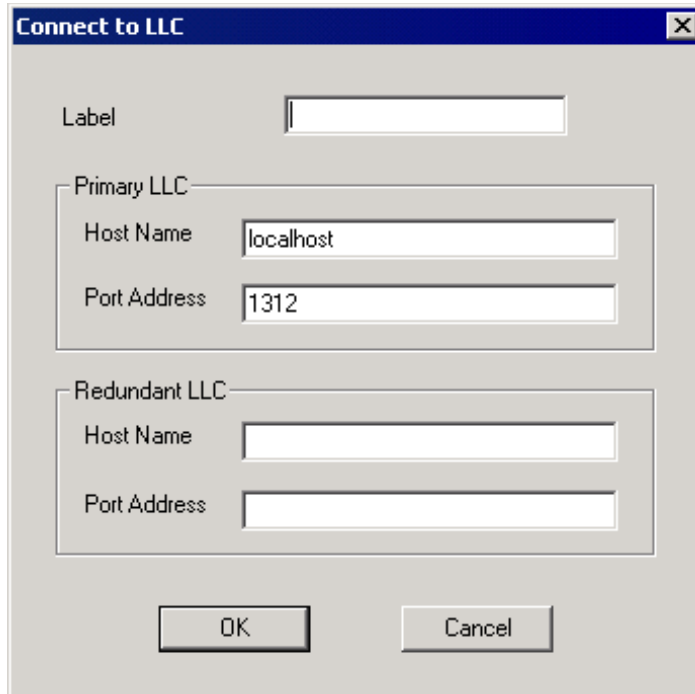
Before you begin Make sure the LLC and SwitchManager are started. For information on starting the LLC and SwitchManager refer to the *SwitchKit Installation and Maintenance Guide*.

Connecting to the LLC Do the following to connect to the LLC.

- 1 To invoke the LLC connection dialog box, do one of the following:
 - From the tool bar use the Connect to the LLC button .
 - Go to the menu **LLC Connection**, select **New**.

The **Connect to LLC** dialog box opens:

-
- 2 Enter the **Label**. This can be alphanumeric and must contain no spaces.

A screenshot of a Windows-style dialog box titled "Connect to LLC". The dialog has a blue title bar with a close button (X) in the top right corner. Inside the dialog, there is a "Label" text box at the top. Below it, there are two grouped sections. The first group is labeled "Primary LLC" and contains two text boxes: "Host Name" with the value "localhost" and "Port Address" with the value "1312". The second group is labeled "Redundant LLC" and contains two empty text boxes for "Host Name" and "Port Address". At the bottom of the dialog are two buttons: "OK" and "Cancel".

Important! When opening a connection to the LLC, you are required to provide a label to uniquely identify that connection. If you then try to read a configuration from SwitchManager, you must provide the same label to indicate the already open connection to the LLC.

-
- 3 For the **Primary LLC**, enter the **Host Name**. Use either the IP Address or the computer name.
-
- 4 For the **Primary LLC**, enter the **Port Address**.
-
- 5 If you have a system set-up with redundant LLCs, enter the Host Name and Port Address for the redundant LLC also.

-
- 6** Click **OK** to close the dialog box and to connect to the LLC.

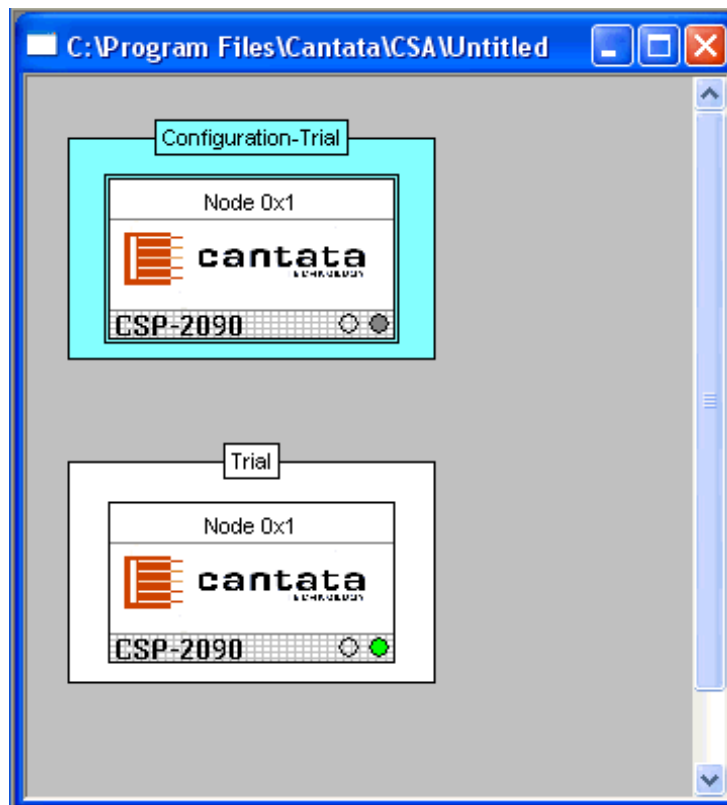
END OF STEPS

Multiple Connections You can connect the CSA to multiple LLCs and nodes. For each connection you want to establish, you need to invoke the Connection dialog box. A redundant pair of LLCs does not qualify as multiple LLC connections.

Global View

Global View The CSA graphically displays each node in a CSP system. The view also shows the assigned logical node ID, user-defined display node name, and chassis type. It flashes to show receipt of a poll message. You can see the nodes as monitoring icon and/or configuration icon. All configuration icons are indicated with a blue background.

This screen shot shows the global view.



Status Indicators A flashing green Light Emitting Diode (LED) at the node in the monitoring dialog box indicates that the node is active (responding with Poll messages). A red LED indicates the node has stopped polling the host.

The Ring Status is represented by the color of the bar connecting the nodes.

- Green - All rings configured on the node are in-service.
- Blue - At least one of the rings configured on the node is in-service and at least one is out-of-service.

- Red - All of the rings assigned to the node are out-of-service or no rings have been assigned.
- Gray - There are no EXNET cards present in the node.

The EXNET card is represented by the color of the bar connecting the nodes.

Changing Environment Variables at Run-time

Procedure Do the following to change environment variables at run-time.

Important! Each time the LLC is restarted all environment variables will be reset to the values in the *defaults* file or the operating system settings.

- 1 Open the node view in monitoring mode.
- 2 Go to the menu: **Provisioning** → **System** → **LLC Control Variables**. The next dialog box opens.

Variable Name	Current Value	New value	Action
APP_DISABLED_TIMEOUT	Value Not Set		
FILE_LIFETIME	1		
FILE_CLOSEOUT_HOUR	Value Not Set		
WARN_ORPHAN_RFS	Value Not Set		
LOG_LEVEL	<input type="checkbox"/> Socket On <input type="checkbox"/> Messages On <input type="checkbox"/> Screen Output Off	<input type="checkbox"/> Socket On <input type="checkbox"/> Messages On <input type="checkbox"/> Screen Output Off	

Revert All OK Cancel

-
- 3** Where you enter a value under **New Value** for **APP_DISABLED_TIMEOUT**, **FILE_LIFETIME**, **FILE_CLOSEOUT_HOUR**, **WARN_ORPHAN_RFS**, you must select an **Action**. For **LOG_LEVEL**, if you select a value under **New Value**, you must select an **Action**. See the next table.

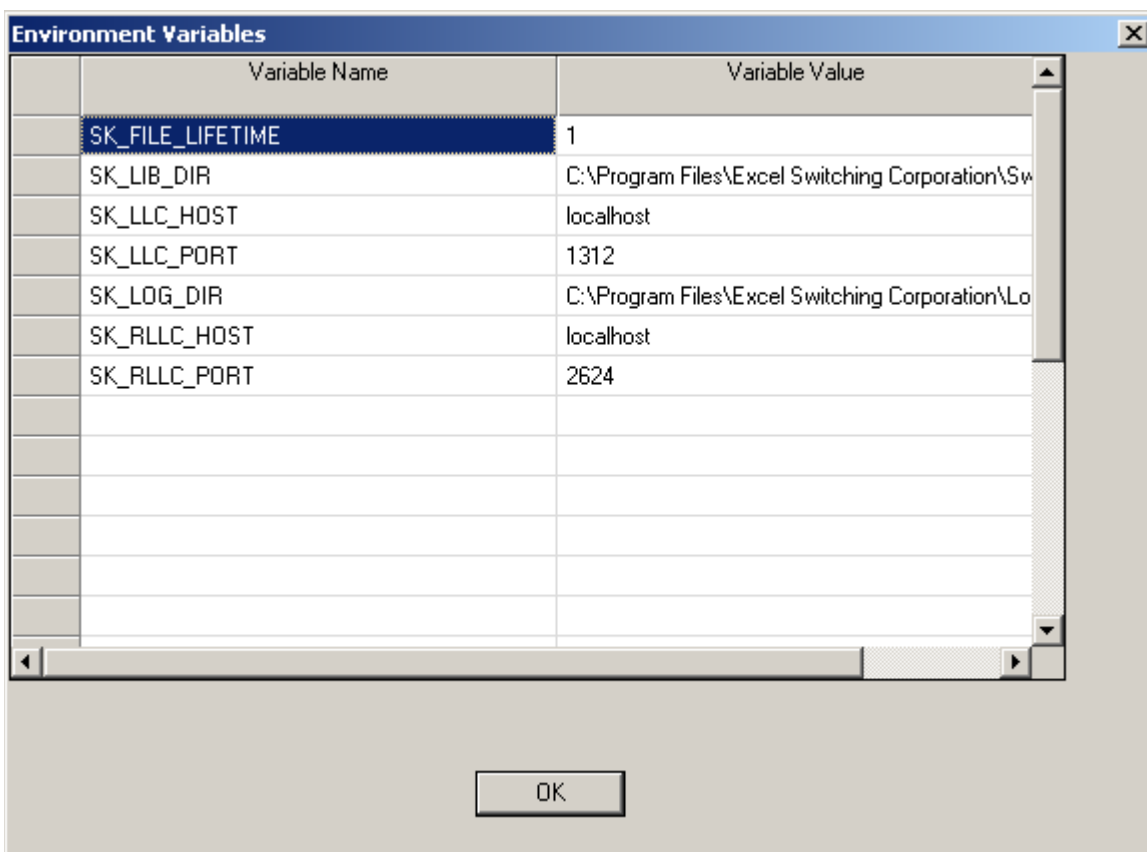
Action	Description
Clear Variable	Returns to the default value, as if never set.
Set to New	Changes to the new value entered in the text box.
Revert Variable	Reverts to the value at LLC startup.
No Action	No changes are implemented.

-
- 4** Click **OK** to save your changes.
-
- 5** If you want to change the environment variables to their values at the startup of LLC, select **Revert All** and click **OK**.

Querying Environment Variables

Procedure Do the following to query environment variables.

- 1 Open the node view in monitoring mode.
 - 2 Go to the menu: **Provisioning** → **System** → **LLC Query All Variables**. The next dialog box opens. Click **OK**.
-



Refreshing a Configuration from SwitchManager

Purpose This procedure describes how to refresh an existing configuration from SwitchManager.

Before you begin The LLC and SwitchManager must be running and a configuration must be applied to your CSP. Open the CSA.

Refresh Configuration Do the following to refresh the configuration from SwitchManager.

1 Go to the monitoring mode of your configured node.

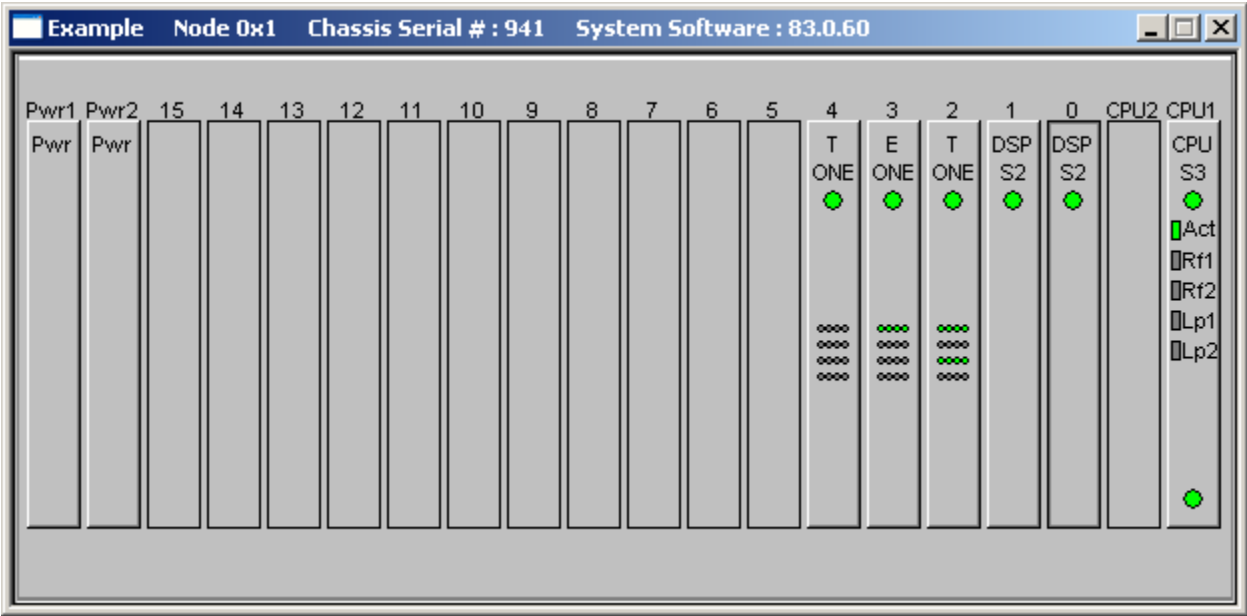
2 Go to the **File** menu, select **Refresh Configuration from SwitchManager**. CSA will close the current configuration file and re-read the configuration file from switchmgr to reflect any changes from dynamic configuration files.

CSA will close the current configuration file and read a fresh configuration file from SwitchManager.

Card Views in Monitoring Mode

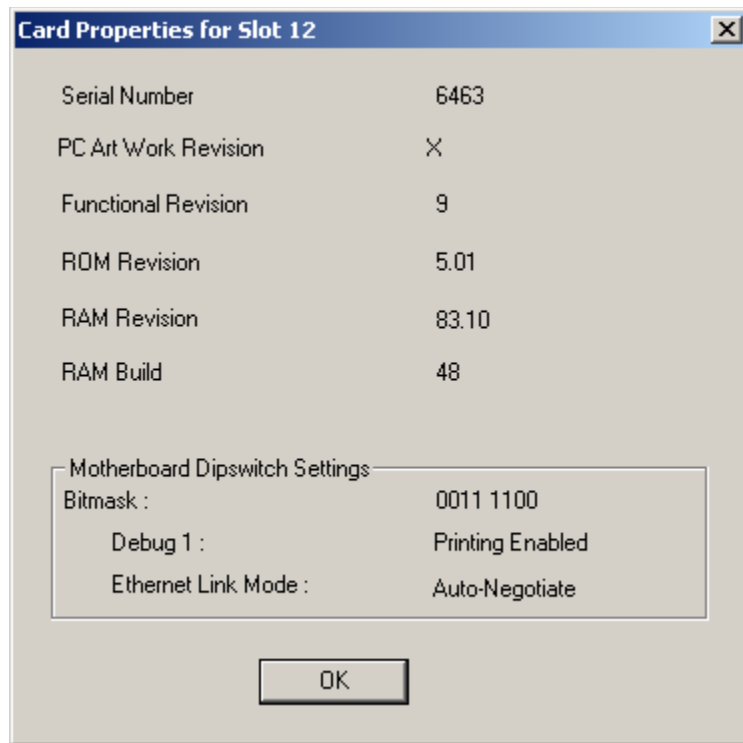
Overview The CSA offers different card views for the different card types in your system.

Open Card Views Double-click the card you want to view in the node view window to open a card view. See the next screen shot of a node view in monitoring mode.



Card Properties The **Card Properties...** window contains information about the slot where the selected card is located. To get to a card's properties, right-click the slot of a card in the node view in monitoring mode, and then select **Card Properties** from the pop-up menu. You will see information such as, the Serial Number, PC Art Work Revision, Functional Revision, ROM Revision, RAM Revision, and RAM Build. The properties' windows are view-only. You

cannot change any settings. As an example, the card properties for the IP Network Series 2 card are shown in the screen shot. This card also shows the Motherboard DIP Switch Settings.



DSP Card Views

Double-click the DSP Card in the monitoring mode node view to open this card's view.

In the DSP card view you see the configured SIMM numbers, Status, SIMM Type, DSP number, and DSP Function.

Viewing DSP ONE Card in Slot 0 of Node 0x0

	Sim #	Status	Sim Type	DSP #	DSP Function
1	0	Out of Service	C31	0	μ-law Coin Detection (Tone Reception)
2		Out of Service		1	μ-law DTMF (Tone Reception)
3		Out of Service		2	μ-law DTMF (Tone Reception)
4		Out of Service		3	μ-law Coin Detection (Tone Reception)
5	1	Out of Service	C31	0	μ-law DTMF (Tone Generation)
6		Out of Service		1	μ-law Coin Detection (Tone Reception)
7		Out of Service		2	A-law Coin Detection (Tone Reception)
8		Out of Service		3	μ-law CPA (Tone Reception)
9	2	Out of Service	C31	0	μ-law MFR1 (Tone Reception)
10		Out of Service		1	μ-law MFR1 (Tone Reception)
11		Out of Service		2	μ-law MFR1 (Tone Reception)
12		Out of Service		3	μ-law MFR1 (Tone Reception)
13	3	Out of Service	C31	0	A-law Coin Detection (Tone Reception)
14		Out of Service		1	μ-law DTMF (Tone Reception)
15		Out of Service		2	μ-law DTMF (Tone Reception)
16		Out of Service		3	A-law Coin Detection (Tone Reception)

Viewing Resource Thresholds on DSP card

To view the resource thresholds on a DSP card, do the following:

Go to the menu, select **Monitor**→**Resource Thresholds**. The **Viewing Resources Thresholds on Node** window opens. See the next screen shot.

Viewing Resource Thresholds in Node [X]

DSP Resources

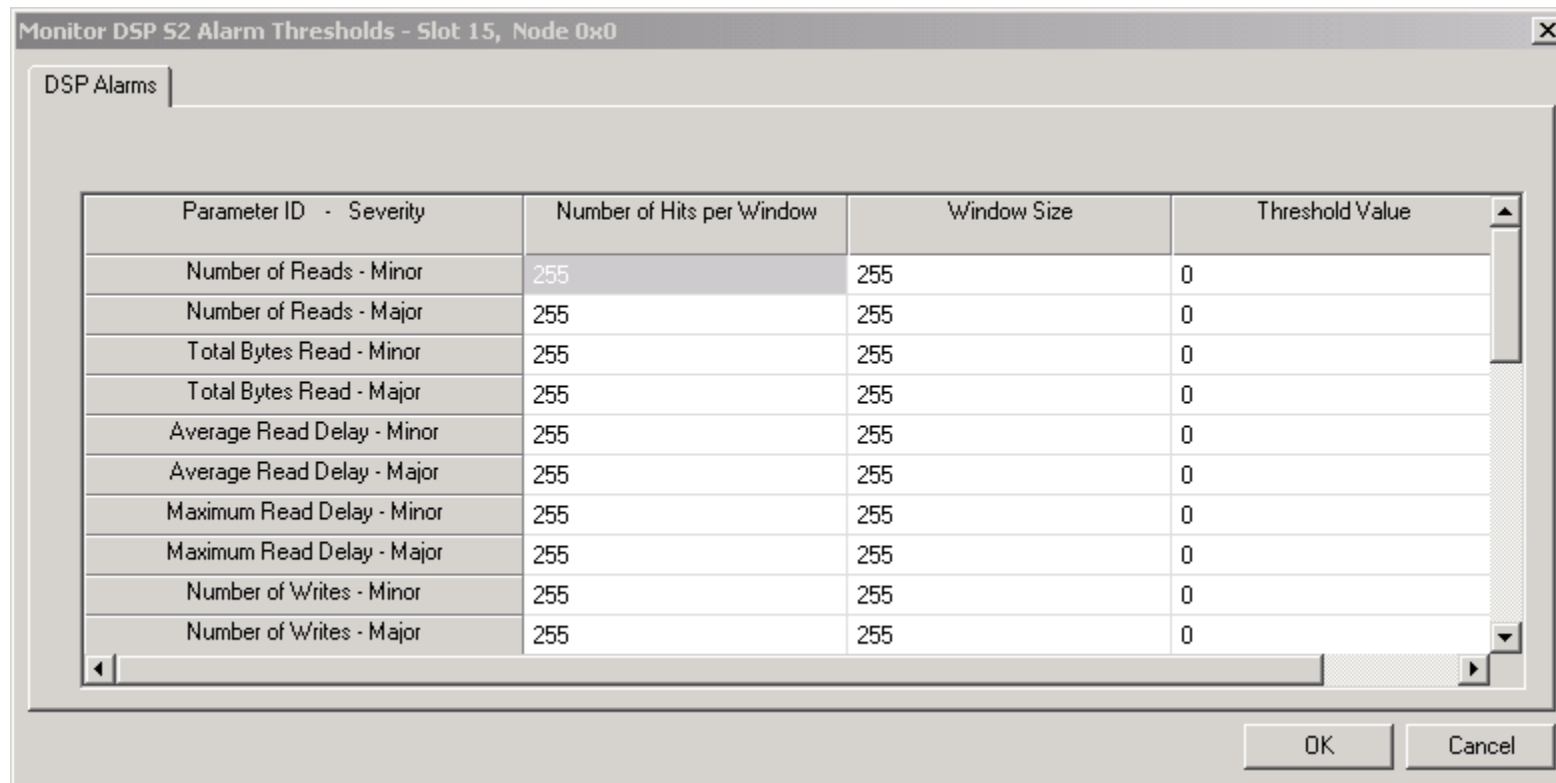
Function Type	Alarm Set Threshold (%)	Alarm Clear Threshold (%)
μ-law DTMF (Rec)	100	0
μ-law MFR1 (Rec)	100	0
A-law DTMF (Rec)	100	0
A-law MFR1 (Rec)	100	0
A-law MFR2 (Rec)	100	0
μ-law MFR2 (Rec)	100	0
A-law CPA (Rec)	100	0
μ-law CPA (Rec)	100	0
E1 Dial Pulse (Rec)	100	0
Energy Detection (Rec)	100	0
μ-law DTMF High Pass Filter (Rec)	100	0

OK Cancel

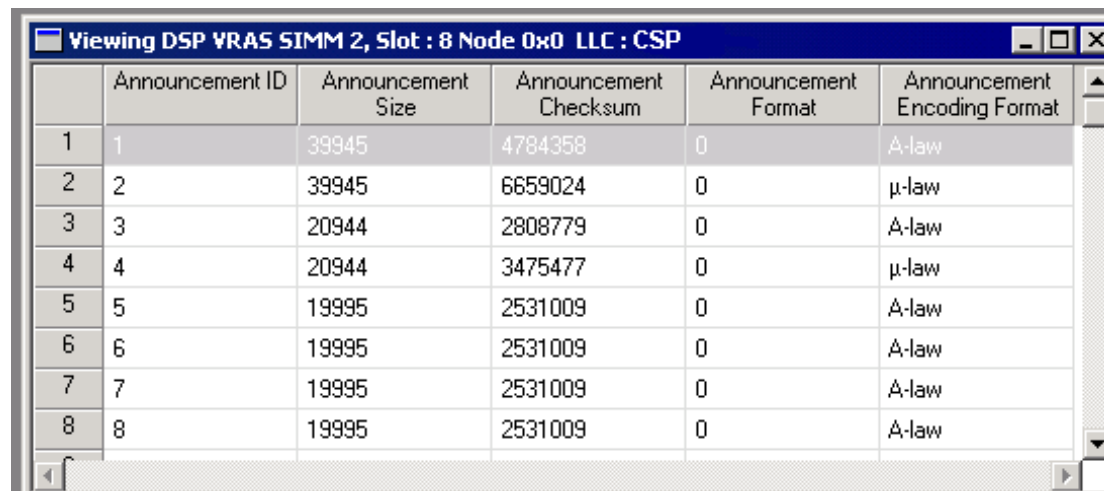
**Viewing Alarm Thresholds
on DSP S2 card**

To view the alarm thresholds on a DSP S2 card, do the following:

Go to the node view, select **Monitor Alarm Thresholds**. The **Monitor DSP S2 ...** window opens. See the next screen shot.



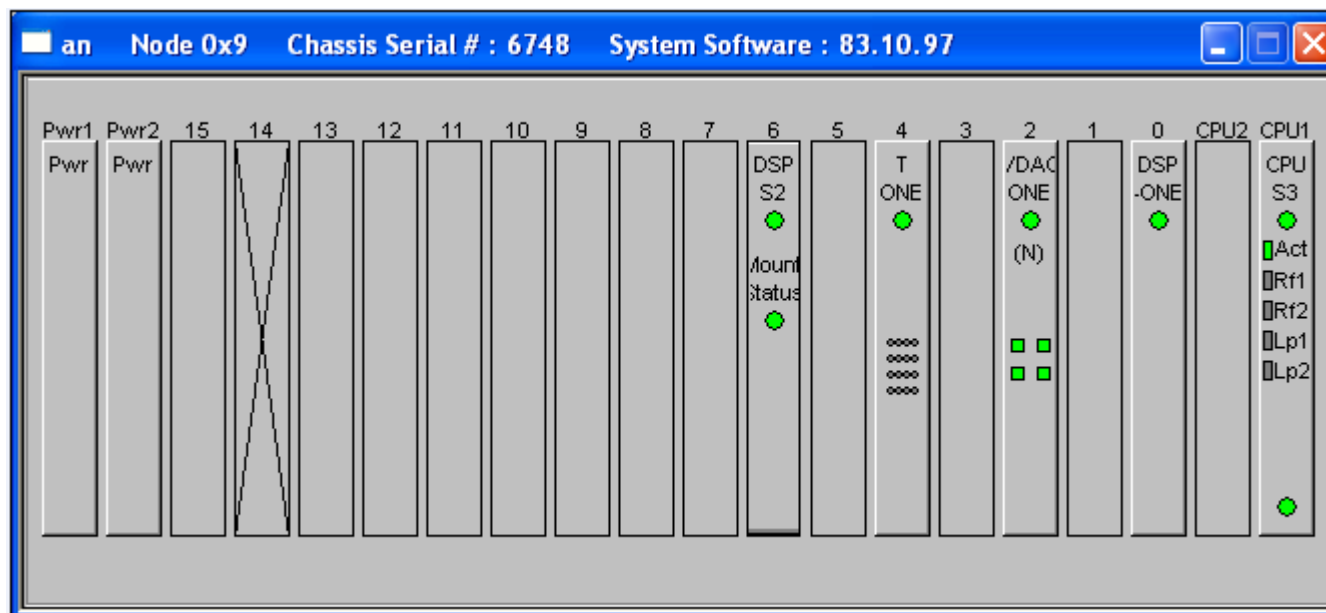
In the DSP VRAS card view you see the configured announcement ID, size, checksum, format and encoding format.



	Announcement ID	Announcement Size	Announcement Checksum	Announcement Format	Announcement Encoding Format
1	1	39945	4784358	0	A-law
2	2	39945	6659024	0	μ-law
3	3	20944	2808779	0	A-law
4	4	20944	3475477	0	μ-law
5	5	19995	2531009	0	A-law
6	6	19995	2531009	0	A-law
7	7	19995	2531009	0	A-law
8	8	19995	2531009	0	A-law

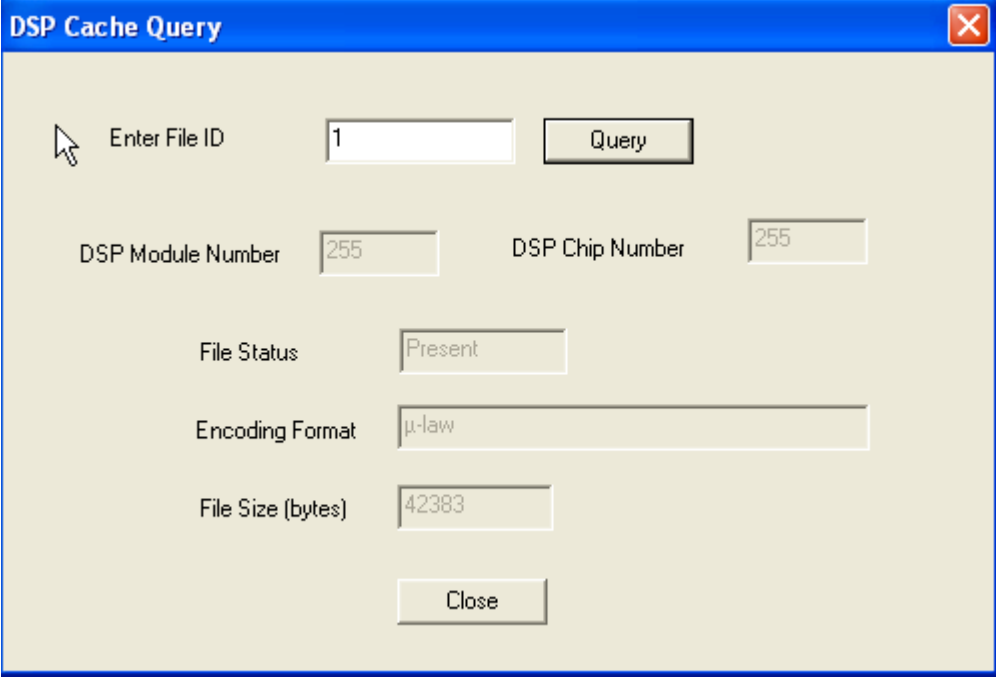
Querying the NFS Mount Status

Right-click the DSP-S2 card and select the menu option, **Query NFS Mount Status**. The node view will then show the mount status on the DSP S2 card.



Querying DSP S2 Cache

Right-click the DSP-S2 card and select the menu option, **Cache Query**. Enter a File ID number (decimal or hexadecimal). After you click **Query**, the other fields in the dialog box become populated. In the next example dialog box, the file resides on the motherboard cache, so the CSP returns a value of 255 (decimal) or 0xff (hexadecimal). If the file resides on a DSP chip, then the dialog box will show the corresponding DSP Module Number and DSP Chip Number.

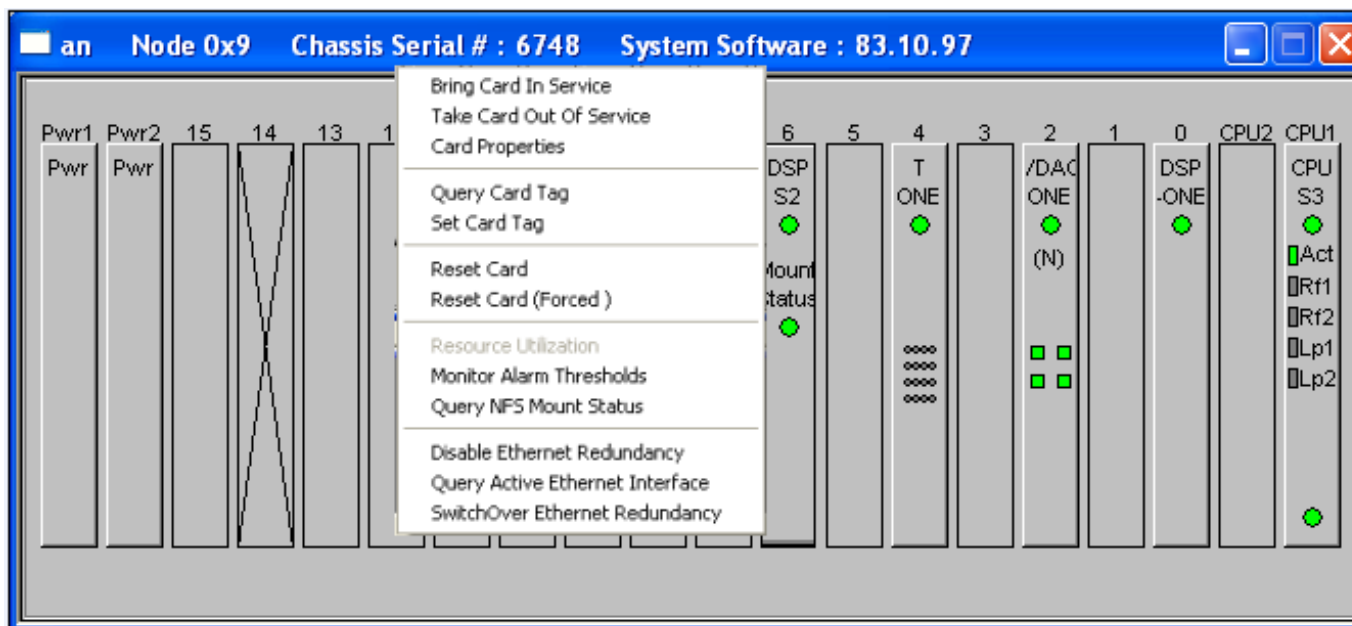


The screenshot shows a dialog box titled "DSP Cache Query" with a blue title bar and a red close button. The dialog box has a light beige background. It contains the following fields and buttons:

- Enter File ID:** A text input field containing the value "1". A mouse cursor is pointing at the input field.
- Query:** A button located to the right of the "Enter File ID" field.
- DSP Module Number:** A text input field containing the value "255".
- DSP Chip Number:** A text input field containing the value "255".
- File Status:** A text input field containing the value "Present".
- Encoding Format:** A text input field containing the value "μ-law".
- File Size (bytes):** A text input field containing the value "42383".
- Close:** A button located at the bottom center of the dialog box.

Querying Active Ethernet Interface

Right-click the DSP-S2 card and select the menu option, **Query Active Ethernet Interface**.

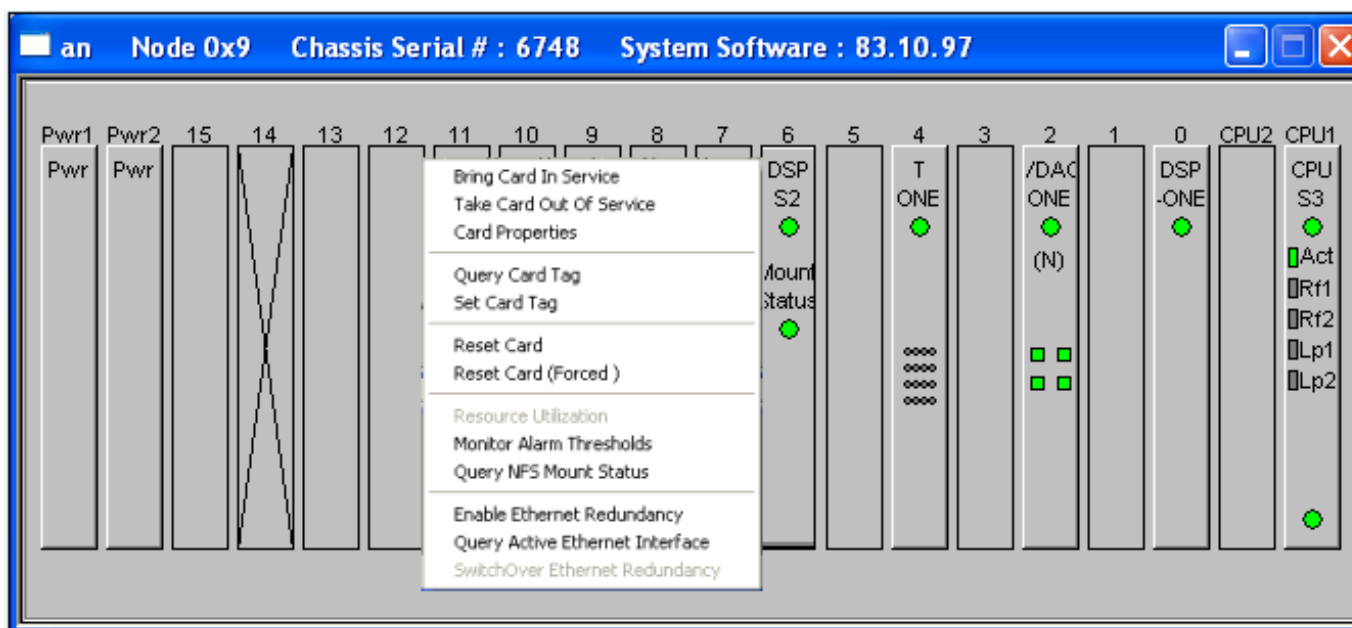


The node view will then confirm that Ethernet redundancy is enabled and no Ethernet links are available. This is indicated in the next message:

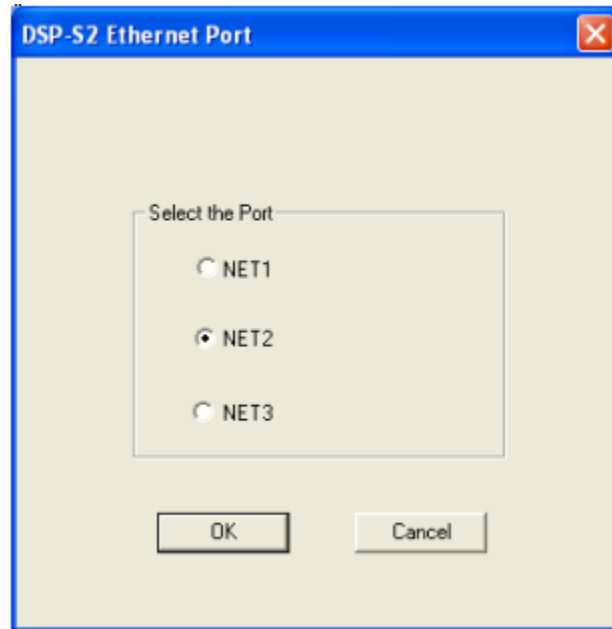


Enable/Disable Ethernet Redundancy

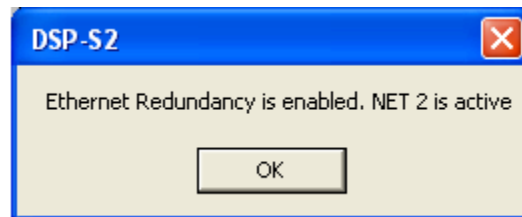
Right-click the DSP-S2 card and select the menu option, **Enable Ethernet**.



Select the port you want to use for Ethernet redundancy in the next dialog box and then click **OK**..



The node view will then confirm that Ethernet redundancy is enabled. This is indicated in the next message:

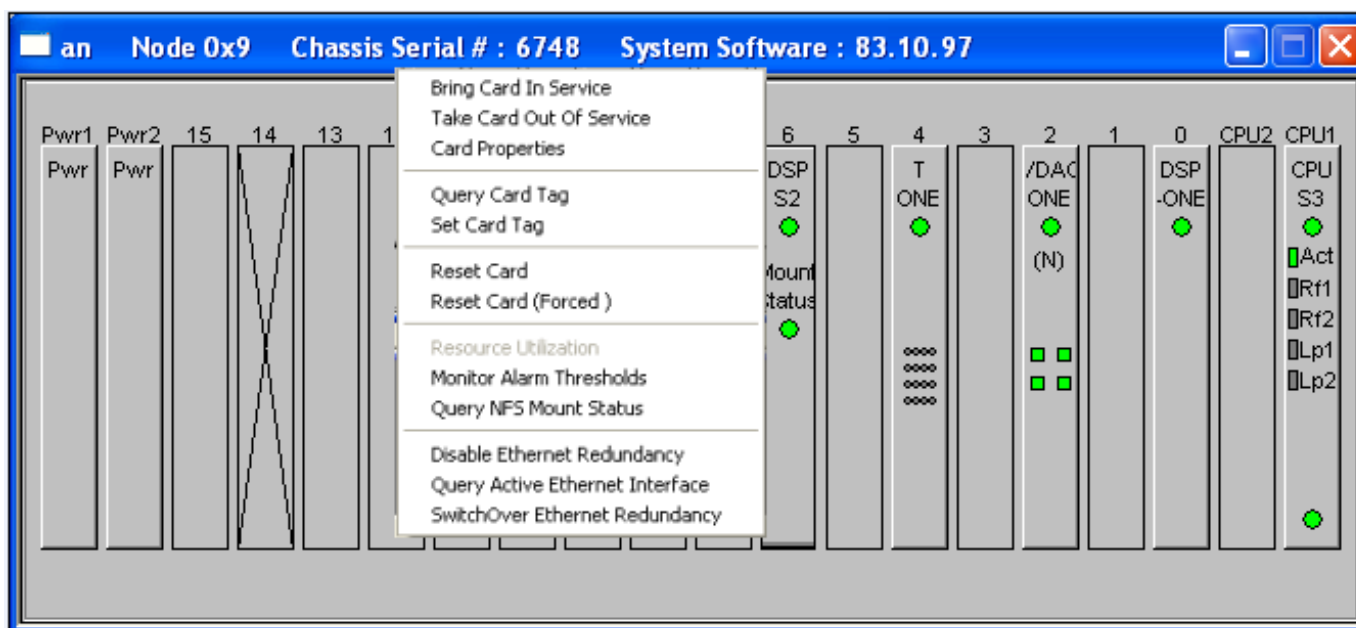


If you select a port that is not available, the next available port is automatically selected. If no ports are available the next message appears:

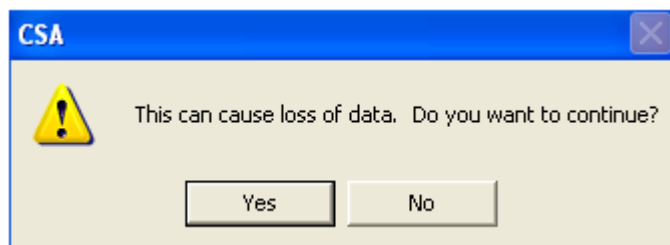


SwitchOver Ethernet Redundancy

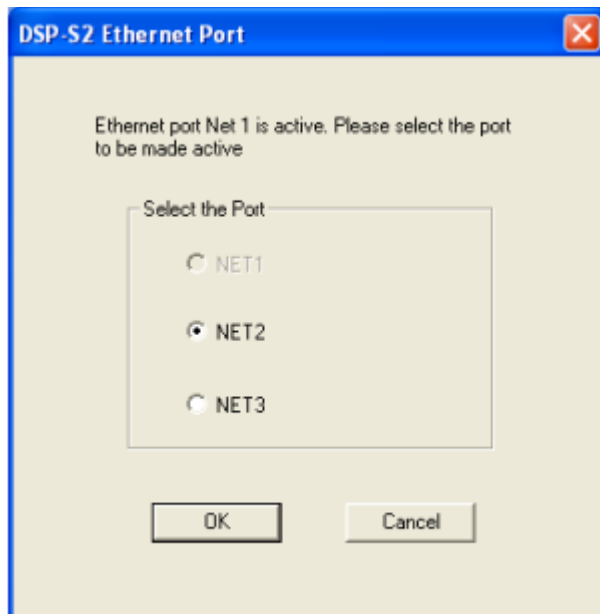
Right-click the DSP-S2 card and select the menu option, **SwitchOver Ethernet Redundancy**.



Next, a warning message appears.



If you select **Yes**, then the next dialog box opens. Select the port for which the switchover is to be performed. Note that the current active port is disabled in the dialog box.



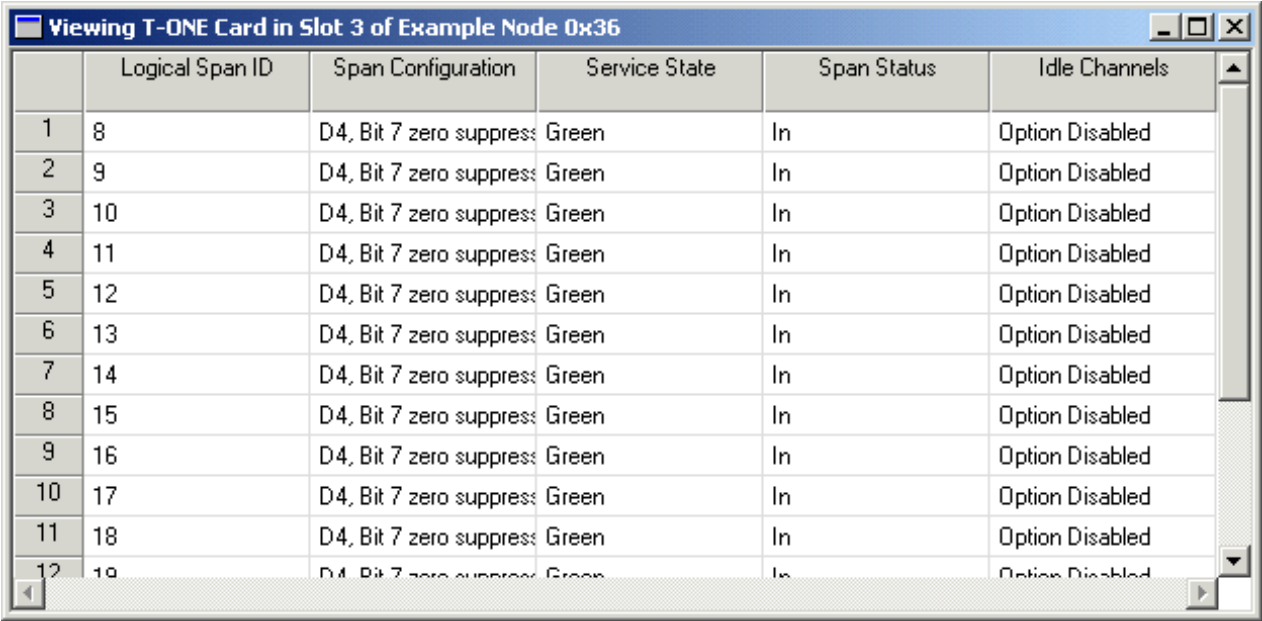
If you select the port and click **OK**, a message confirms ethernet redundancy is enabled on the port, indicating the switchover was successful.

Line Card Views

The card view for all line card types is similar. You can see the assigned Logical Span IDs, Span Configuration, Service State, Span Status, and whether any channels are idle.

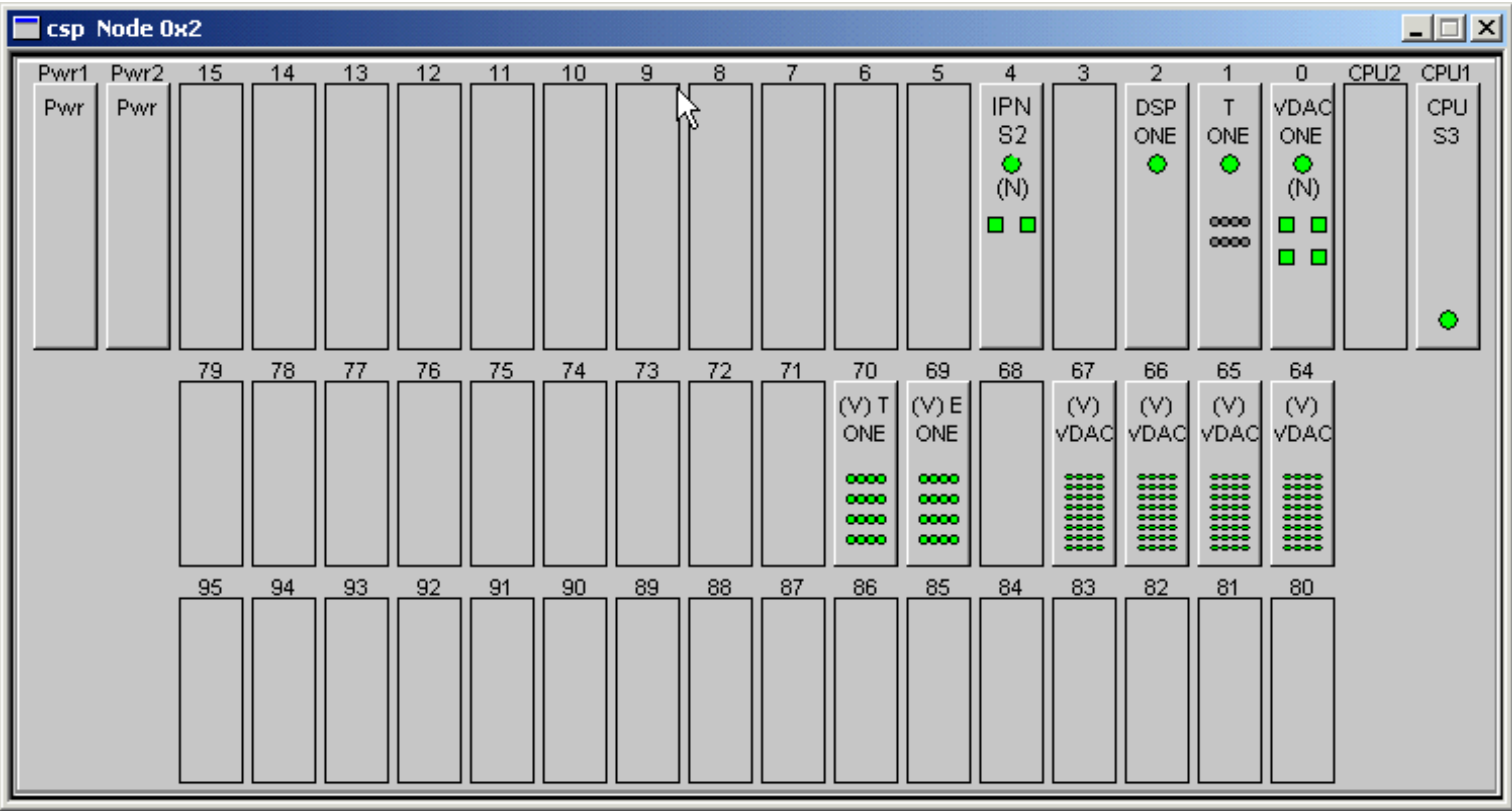
A Service State Green indicates a span is in service. Red indicates a span is out-of-service. Yellow indicates a span is being initialized.

T-ONE Card View Double-click the T-ONE Card in the monitoring mode node view to open this card’s view. You see information related to Logical Span ID, span configuration, service state, span status and idle channels.



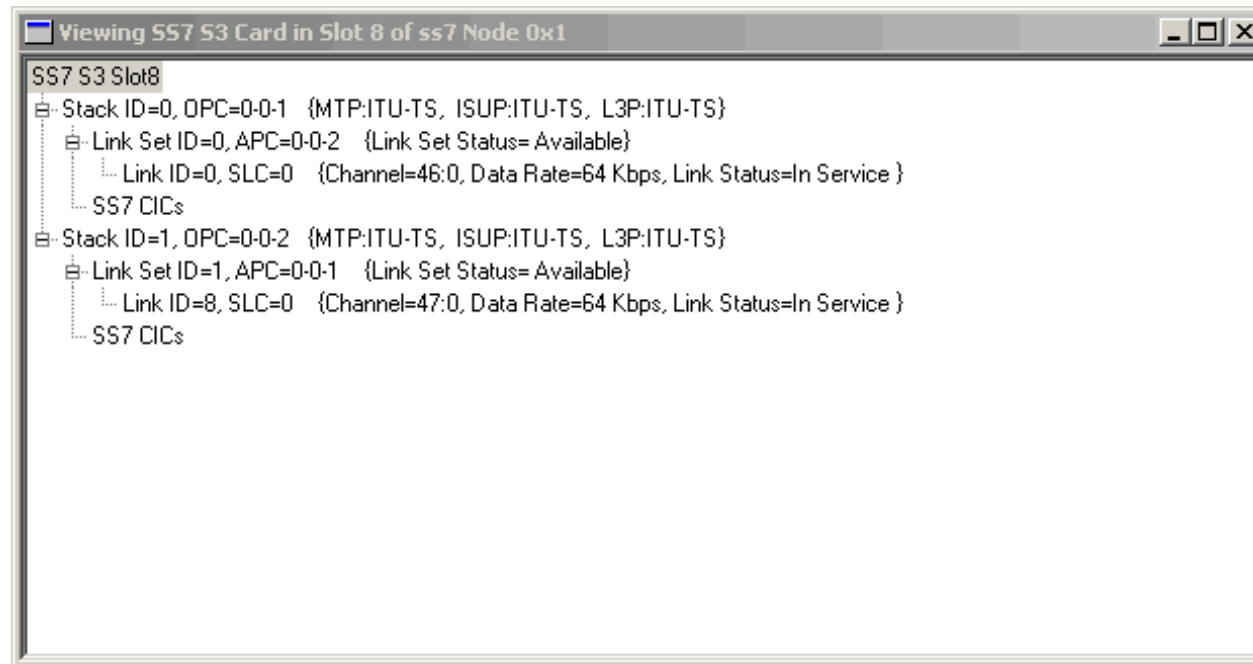
	Logical Span ID	Span Configuration	Service State	Span Status	Idle Channels
1	8	D4, Bit 7 zero suppress	Green	In	Option Disabled
2	9	D4, Bit 7 zero suppress	Green	In	Option Disabled
3	10	D4, Bit 7 zero suppress	Green	In	Option Disabled
4	11	D4, Bit 7 zero suppress	Green	In	Option Disabled
5	12	D4, Bit 7 zero suppress	Green	In	Option Disabled
6	13	D4, Bit 7 zero suppress	Green	In	Option Disabled
7	14	D4, Bit 7 zero suppress	Green	In	Option Disabled
8	15	D4, Bit 7 zero suppress	Green	In	Option Disabled
9	16	D4, Bit 7 zero suppress	Green	In	Option Disabled
10	17	D4, Bit 7 zero suppress	Green	In	Option Disabled
11	18	D4, Bit 7 zero suppress	Green	In	Option Disabled
12	19	D4, Bit 7 zero suppress	Green	In	Option Disabled

Viewing Virtual Line Cards The card view for all virtual line card types is similar. Green indicates a span is in-service.



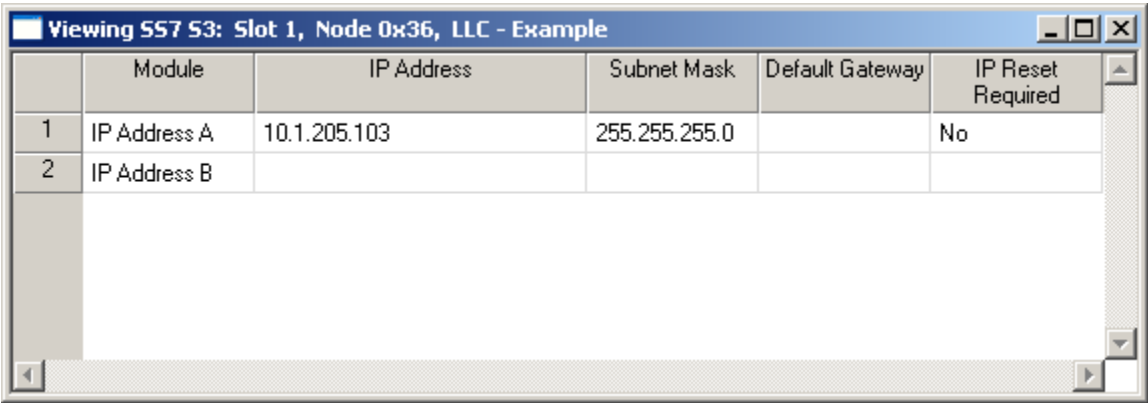
SS7 Card View

When you open the SS7 card view, you see the SS7 ID and the Stack ID. In front of the Stack ID is an addition sign, which indicates that at least one Link Set is configured on your card. Click the addition sign to open the tree under the Stack ID. You see all link sets and link IDs.



Query IP Addresses To view the IP information for the SS7 ports, in the monitoring mode of the node view, right click the SS7 Series 3

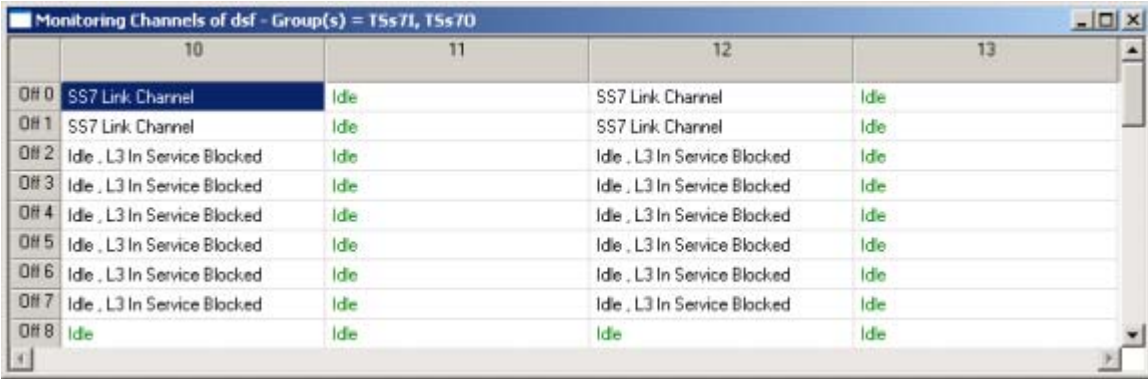
card and select **IP address Information** from the menu. **IP Address A** is Port A. **IP Address B** is Port B.



	Module	IP Address	Subnet Mask	Default Gateway	IP Reset Required
1	IP Address A	10.1.205.103	255.255.255.0		No
2	IP Address B				

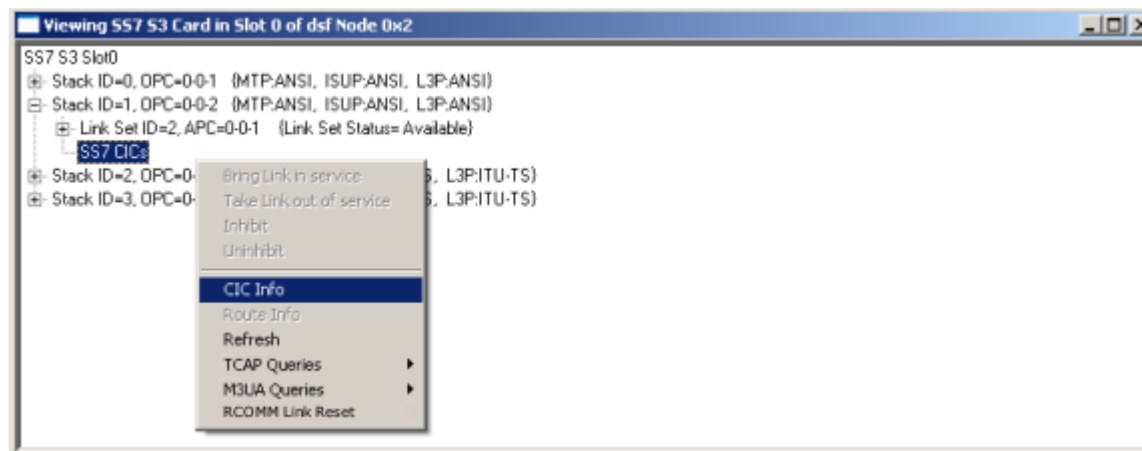
Block and Unblock CICs

You can block and unblock CICs from the monitoring mode window, but the status shown here is the same whether the CIC is blocked locally or remotely.

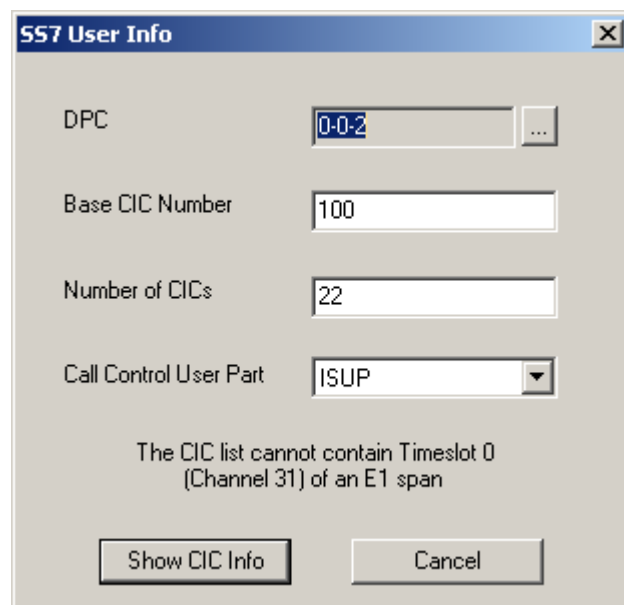


	10	11	12	13
Q# 0	SS7 Link Channel	Idle	SS7 Link Channel	Idle
Q# 1	SS7 Link Channel	Idle	SS7 Link Channel	Idle
Q# 2	Idle , L3 In Service Blocked	Idle	Idle , L3 In Service Blocked	Idle
Q# 3	Idle , L3 In Service Blocked	Idle	Idle , L3 In Service Blocked	Idle
Q# 4	Idle , L3 In Service Blocked	Idle	Idle , L3 In Service Blocked	Idle
Q# 5	Idle , L3 In Service Blocked	Idle	Idle , L3 In Service Blocked	Idle
Q# 6	Idle , L3 In Service Blocked	Idle	Idle , L3 In Service Blocked	Idle
Q# 7	Idle , L3 In Service Blocked	Idle	Idle , L3 In Service Blocked	Idle
Q# 8	Idle	Idle	Idle	Idle

To get more detailed CIC information, from the SS7 card view, either right-click the **SS7 CIC**, or select the stack of interest and select **Provisioning** → **SS7** → **CIC Info**.



The **SS7 User Info** dialog box opens.



Enter the DPC & CIC info precisely as the SS7 card is configured and then click **Show CIC Info**.

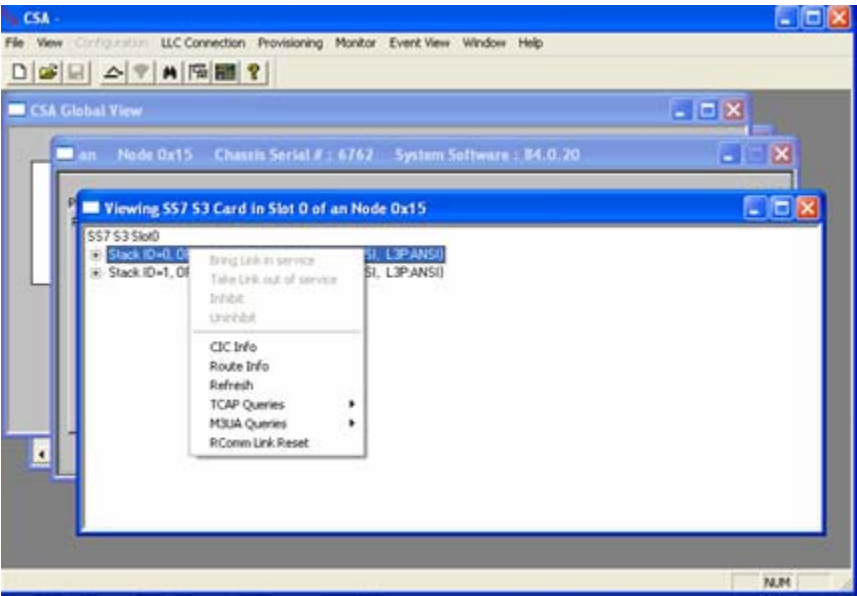
.Now the CIC information is shown with specific block status information related to local and remote.

SS7 CIC Info for LLC dsf; DPC = 0x2; Base CIC = 0x64 Base Channel: 10:2

	CIC Num	CIC Status	Local Rel Mode	Distant Rel Mode	Answer Sup	PCM Encoding	Continuity Test
1	0x64	Block Status(Lcl Maint) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
2	0x65	Block Status(Lcl Maint) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
3	0x66	Block Status(Rem Maint) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
4	0x67	Block Status(Rem Maint) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
5	0x68	Block Status(Lcl Maint) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
6	0x69	Block Status(Lcl Maint) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
7	0x6a	Block Status(None) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
8	0x6b	Block Status(None) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	
9	0x6c	Block Status(None) , CPC status=Idle, Circuit Transient State=0, Equipped	Release	Release	Propagate	µ-law	

Remote Communication
Link Reset

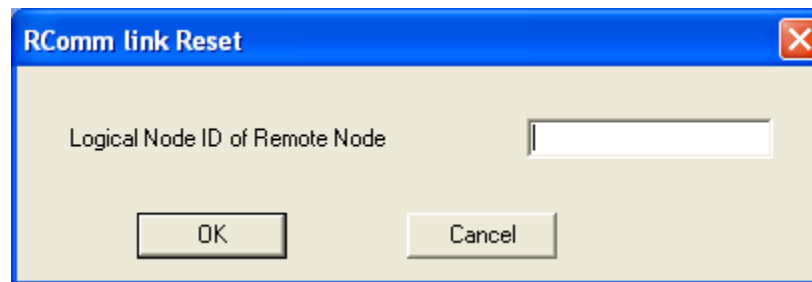
To reset a remote node in an SS7/EXS® multi-node system, right-click an SS7 stack in the SS7 monitoring view and select **RComm Link Reset** from the menu. See the next screen shot.



Next, the following message will pop up for confirmation. Click **OK**:



In the next dialog box, enter the **Logical Node ID** of the remote node that you want to reset:



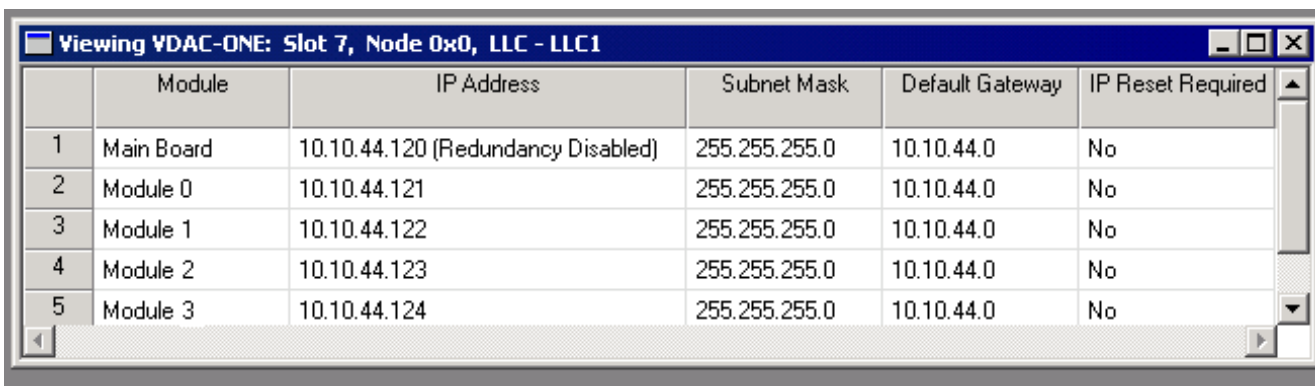
If the correct **Logical Node ID** is entered then the remote node is taken out-of-service and then brought back in-service.

VoIP Card Views

VDAC-ONE Card View

In the VDAC-ONE card view, you see the **Module** information. Note that the Main Board is listed as a module also. Further on you see the **IP Addresses, Subnet Mask, Default Gateway** configuration if applicable, and **IP Reset Required** specification.

Important! In order for certain queries to be accurate, if you have sent the configuration for some modules on your VDAC-ONE card and then later added a module using **Send Modified Configuration to Switch**, you must query the IP addresses of the already configured modules. To do this, go to the monitoring mode node view, right click on the VDAC-ONE card, and select **IP address Info**. Now you can send queries that use IP addresses of the modules; for example, ARP cache information and resource attributes queries.



The screenshot shows a window titled "Viewing VDAC-ONE: Slot 7, Node 0x0, LLC - LLC1". Inside the window is a table with the following data:

	Module	IP Address	Subnet Mask	Default Gateway	IP Reset Required
1	Main Board	10.10.44.120 (Redundancy Disabled)	255.255.255.0	10.10.44.0	No
2	Module 0	10.10.44.121	255.255.255.0	10.10.44.0	No
3	Module 1	10.10.44.122	255.255.255.0	10.10.44.0	No
4	Module 2	10.10.44.123	255.255.255.0	10.10.44.0	No
5	Module 3	10.10.44.124	255.255.255.0	10.10.44.0	No

VDAC-ONE Resource Attributes

Select a Module in the VDAC-ONE Card view and right-click to open a view of the VDAC-ONE resource attributes. You can also right-click on a VDAC channel and get the resource attributes associated with that selected channel.

Resource Attributes VDAC-ONE: Module 1, IP Address - 208.209.43.101

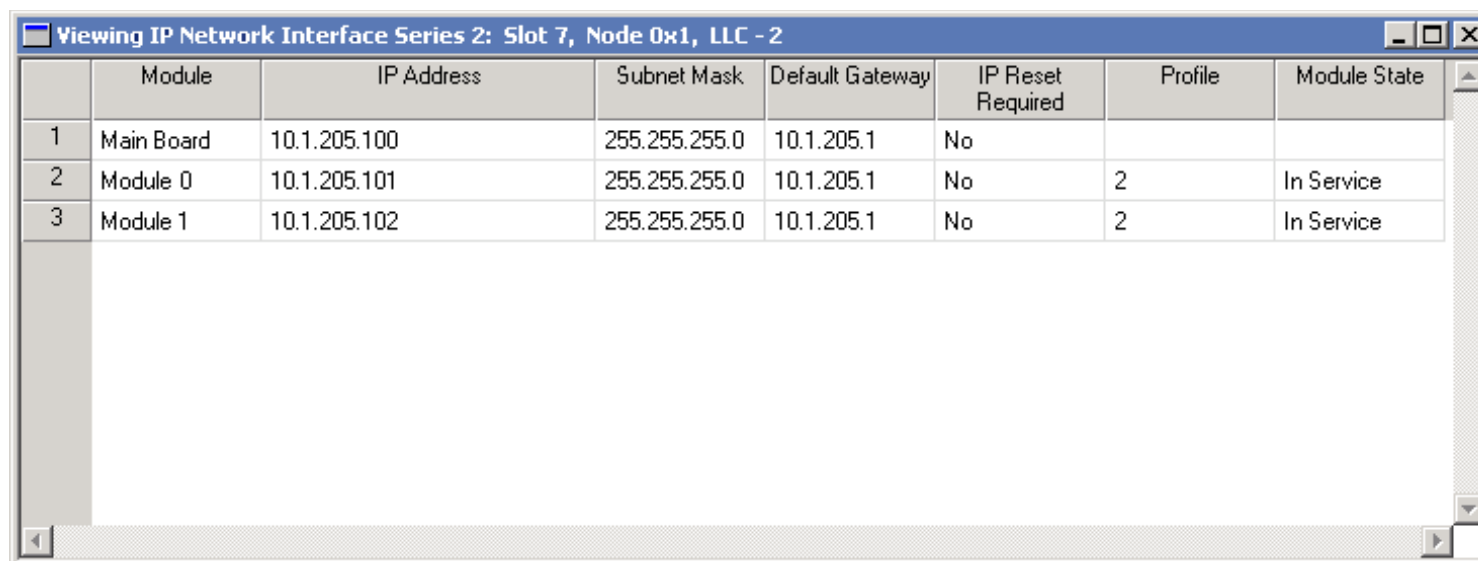
Payload Type	G.711 μ-Law	Type of Service	
Payload Size (*20 ms)	1	Precedence	Routine
Silence Suppression	Disable	Delay	Normal
Echo Cancellation	Enable	Throughput	Normal
Fax Type Enable	Disable	Reliability	Normal
Bypass Coder Type	G.711 μ-Law	Cost	Normal
RTP Timer (*10ms)	0	Fax Packet Depth	No Redundancy
Media Inactivity Timer (* 10 ms)	0	Source Port Validation	Yes
Minimum JB delay (ms)	75	Maximum JB Delay (ms)	150
Digit Relay (RFC 2833)	Disable	2833 Dynamic Payload type	96
RTP Packet Depth (RFC 2198)	No Redundancy	2198 Dynamic Payload type	104
Adaptation Rate	7	Fax Compatibility Mode	Backward Compatible
Connection Mode			

OK

IP Network Interface Series 2 Card View

In the IP Network Interface Series 2 card view you see the module information. Note that the Main Board is listed as a module also. You see the **IP Address**, **Subnet Mask**, and **Default Gateway** that have been configured for each module. The specifications for the **IP Reset Required**, **Profile** and **Module State** are also shown.

Important! In order for certain queries to be accurate, if you have sent the configuration for some modules on your IP Network Interface Series 2 card and then later added a module using **Send Modified Configuration to Switch**, you must query the IP addresses of the already configured modules. To do this, go to the monitoring mode node view, right click on the IPN Series 2 card, and select **IP address Info**. Now you can send queries that use IP addresses of the modules; for example, ARP cache information and resource attributes queries.



	Module	IP Address	Subnet Mask	Default Gateway	IP Reset Required	Profile	Module State
1	Main Board	10.1.205.100	255.255.255.0	10.1.205.1	No		
2	Module 0	10.1.205.101	255.255.255.0	10.1.205.1	No	2	In Service
3	Module 1	10.1.205.102	255.255.255.0	10.1.205.1	No	2	In Service

IP Network Interface Series 2 Resource Attributes

Select a module in the **Viewing IP Network Interface Series 2...** card view and right-click to open a view of the module's resource attributes. See the next screen shot.

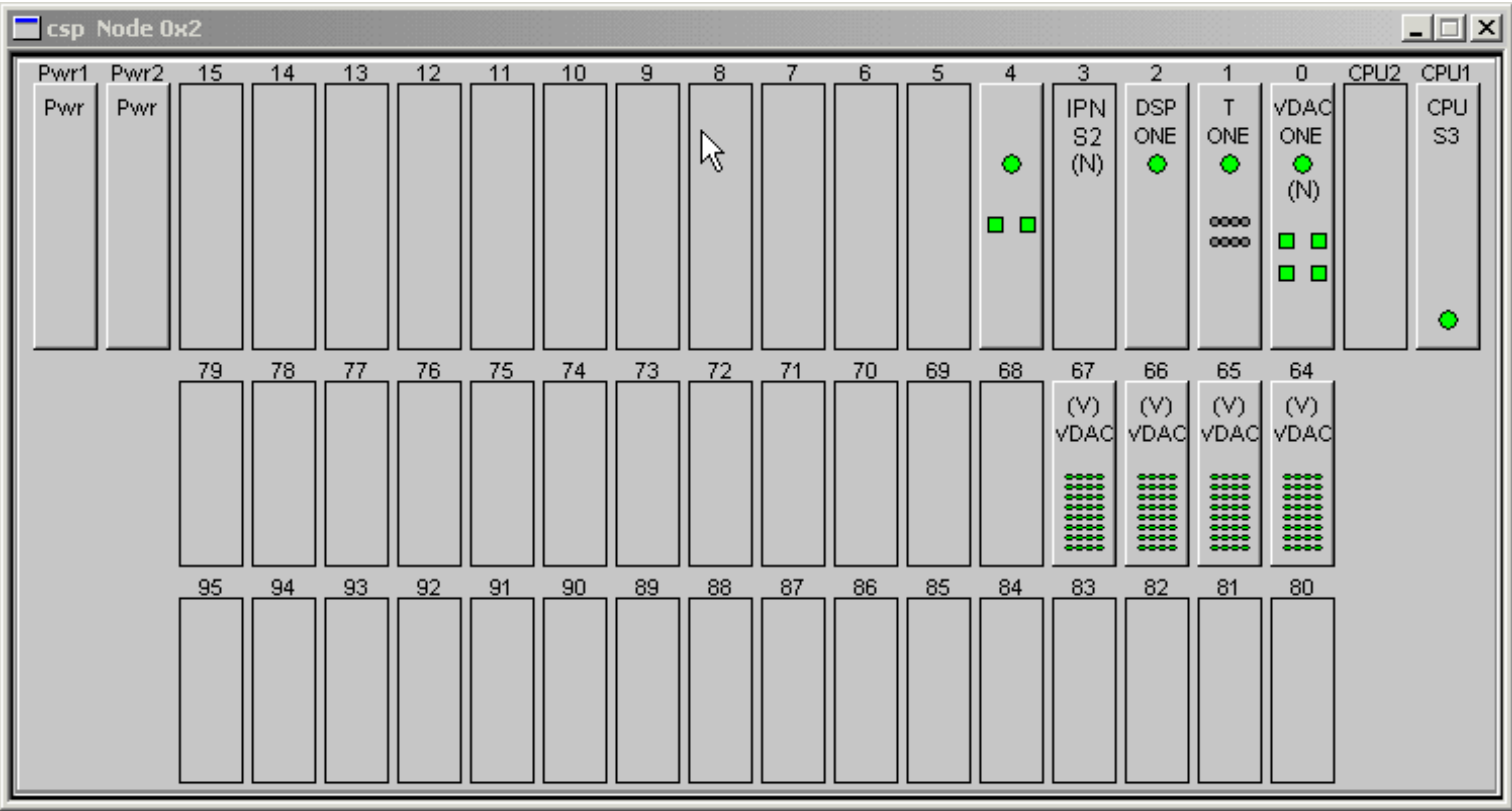
Resource Attributes IPN Series 2: Module 1, Profile 2, IP Address - 10.10.44.101 [X]

Payload Type	G.711 μ -Law	Type of Service	
Payload Size (*5 ms)	4	Precedence	Routine
Silence Suppression	Disable	Delay	Normal
Echo Cancellation	Disable	Throughput	Normal
Fax Type Enable	Disable	Reliability	Normal
Bypass Coder Type	G.711 μ -Law	Cost	Normal
Initial Media Inactivity Timer (* 10 ms)	0	Fax Packet Depth	No Redundancy
Media Inactivity Timer (* 10 ms)	0	Source Port Validation	No
Minimum JB delay (ms)	75	Maximum JB Delay (ms)	150
Digit Relay (RFC 2833)	Disable	2833 Dynamic Payload type	96
RTP Packet Depth (RFC 2198)	No Redundancy	2198 Dynamic Payload type	104

OK

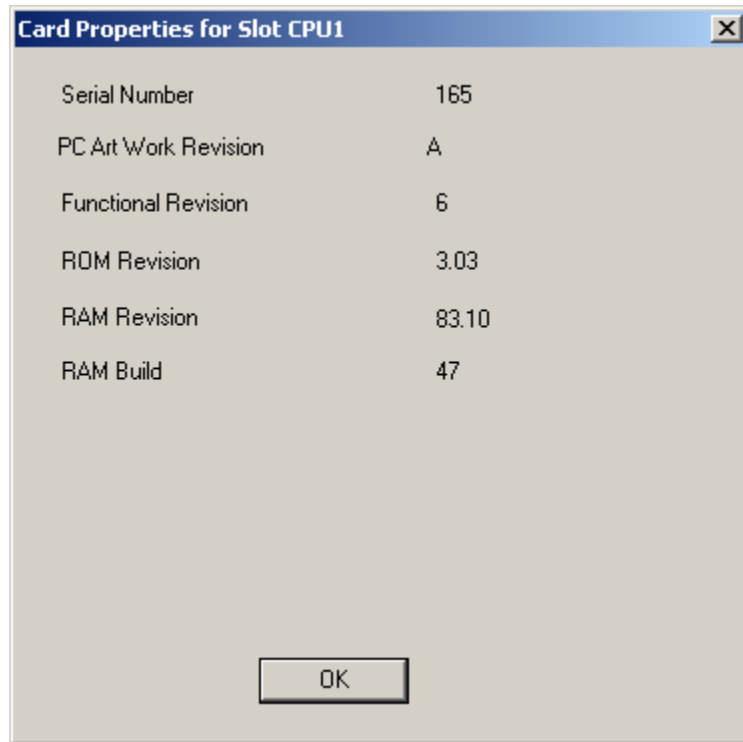
Virtual VDAC Card View

In the monitoring mode you can see the virtual VDAC cards that are configured. A service state green indicates a span is in service.



CSP Matrix Series 3 Card View

The CSP Matrix Series 3 card view shows information about the system software applied and whether the card is active.



Viewing Line Card Resource Utilization

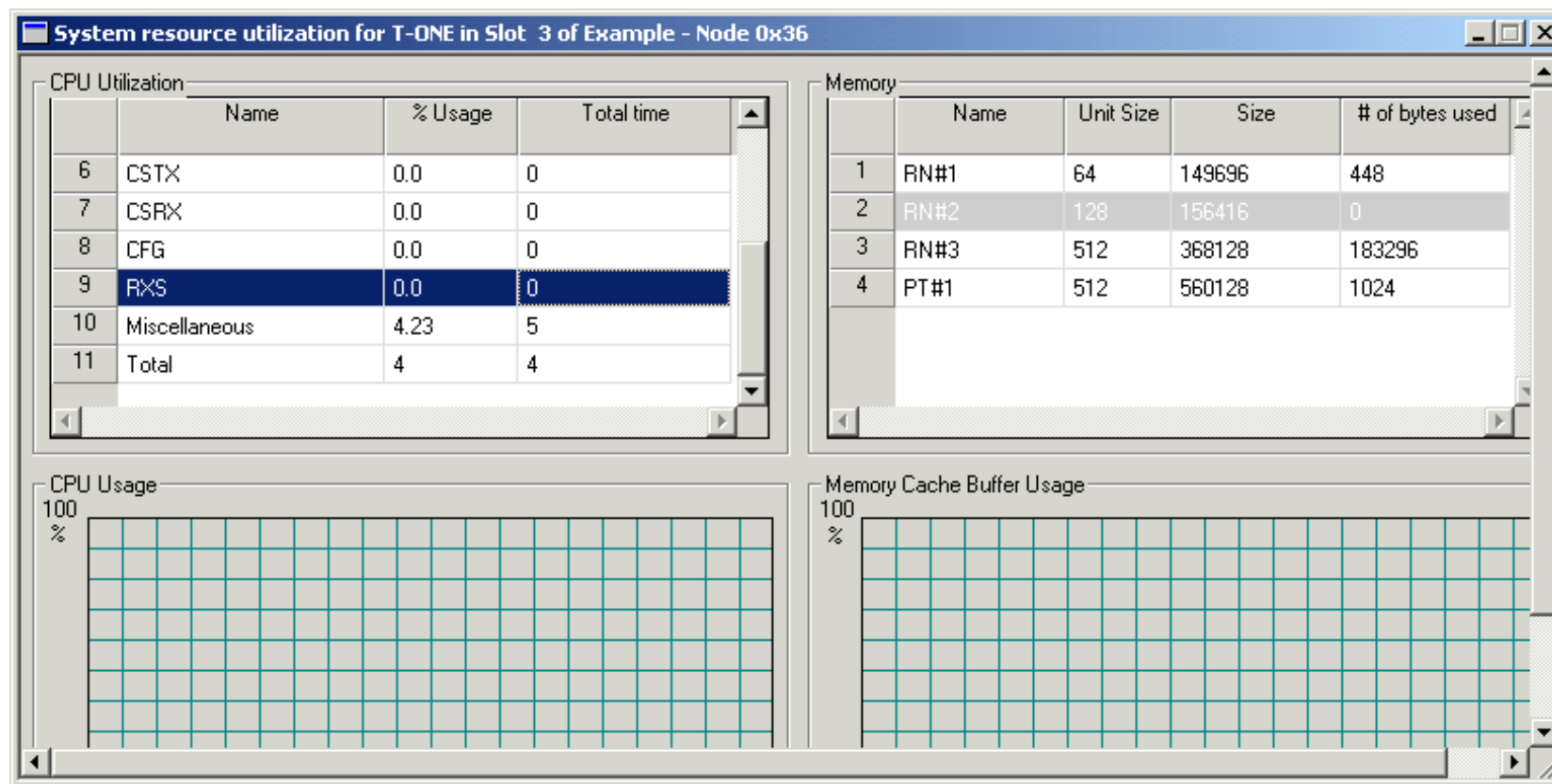
Overview The CSA allows you to view the resource utilization of line cards, T-ONE, E-ONE and J-ONE.

Before you begin Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager, refer to the *SwitchKit* documentation.

Viewing Resource Utilization Do the following to access the resource utilization window:

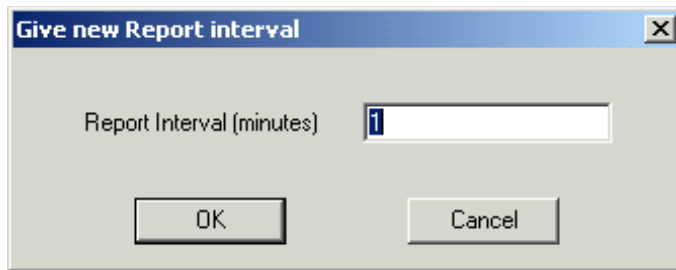
-
- 1** In the monitoring mode of the node view, right click on a line card.
-
- 2** Select **Resource Utilization** from the pop-up menu.

The **System resource utilization...** window opens. The next screen shot provides some example data showing CPU utilization, CPU usage, memory and memory cache buffer usage. Use the scroll bars to view more of the information.



- 3 If you want to change the frequency of a report, right-click in the **CPU Usage** or **Memory Cache Buffer Usage** graph, then click **Change report interval**.

The **Give new Report interval** dialog box opens.



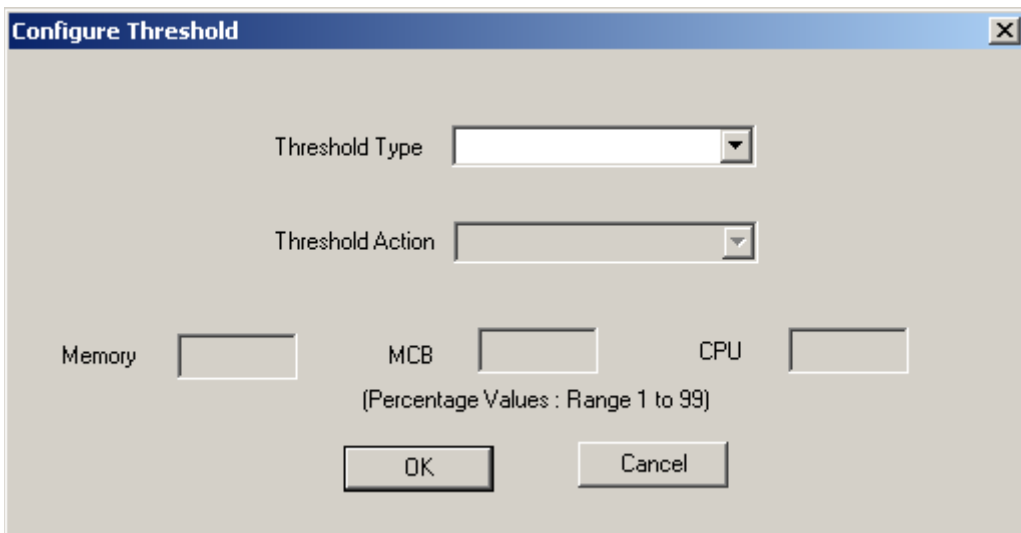
-
- 4** Enter a value from the range of 1-254 and click **OK**.

END OF STEPS

Setting Line Card Resource Thresholds

Procedure To set a line card resource threshold, do the following:

- 1 Open a node view in monitoring mode.
- 2 Right-click a line card.
- 3 Select **Configure Threshold** from the menu. The **Configure Threshold** dialog box opens.



- 4 Select a **Threshold Type**.
- 5 In the **Threshold Action** field select **Enable** or **Disable**.
- 6 Click **OK**.

Viewing a DSP Series 2 Card

Purpose	You can view current information by querying your DSP Series 2 card using the CSA.
Before you begin	Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager, refer to the <i>SwitchKit</i> documentation.
Opening a Card View	In the node view window, double-click the DSP Series 2 card.
DSP Series 2 Card View	On the IP Configuration and File Servers tab in the monitoring view of the DSP Series 2 card you can see the configured IP address, subnet mask, gateway, file server type, the Vocabulary Index File on the mount point, the file server list, and the index location. You can clear the cache using Clear Cache . See the next screen shot.

Viewing DSP Series 2 Card in Slot 0, Node 0x2

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

DSP Series 2 IP Address

IP Address: 135.119.44.183

Subnet Mask: 255.255.255.0

Gateway: 135.119.44.161

File Server Type

☒ NFS

☐ None

Card NFS Configuration

Local Name: Dsp2-1

User ID: 2002

Group ID: 101

File Server List

Enabled	Name	IP Address	Mount Point Location
1 <input checked="" type="checkbox"/>	75swlab-7	135.119.44.164	/SHARE1/AMD
2 <input type="checkbox"/>			
3 <input type="checkbox"/>			
4 <input type="checkbox"/>			
5 <input type="checkbox"/>			
6 <input type="checkbox"/>			
7 <input type="checkbox"/>			
8 <input type="checkbox"/>			

Vocabulary Index File on Mount Point

Primary File Name: /VocabNewFormat.dat

Secondary File Name:

Server Location: 1

Clear Cache

OK Cancel

On the **DSP Modules** tab in the monitoring view of the DSP Series 2 card you can see the DSP number, Transmit/Receive number, status and function for each DSP in a module. See the next screen shot.

Viewing DSP Series 2 Card in Slot 0, Node 0x2

IP Configuration And File Servers DSP Modules Conferencing Parameters T.30 Fax Parameters Echo Cancellation Parameters PVD and AMD Parameters

DSP #	Txmt/Rcv #	Status	Function
Module 0 DSP 0	Rcv0	In Service	
	Txmt0	In Service	
	Rcv1	In Service	
	Txmt1	In Service	
DSP 1	Rcv0	In Service	
	Txmt0	In Service	
	Rcv1	In Service	
	Txmt1	In Service	
DSP 2	Rcv0	In Service	
	Txmt0	In Service	
	Rcv1	In Service	

OK Cancel

On the **Conference Parameters** tab in the monitoring view of the DSP Series 2 card you can see the noise gating parameters, echo suppression parameters, automatic gain control, output gain control and conference failure behavior. See the next screen shot.

Viewing DSP Series 2 Card in Slot 0, Node 0x2

IP Configuration And File Servers | DSP Modules | **Conferencing Parameters** | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

☐ Noise Gating Parameters

Time Constant (ms)

Maximum Noise Level (dBm)

Sensitivity

☐ Echo Suppression Parameters

Echo Return Loss (dB)

☐ Automatic Gain Control

Time Constant (ms)

Input Level (dBm)

Output Gain Control

Output Gain (dB)

Conference Failure Behavior

Behavior

OK Cancel

On the **T.30 Fax Parameters** tab in the monitoring view of the DSP Series 2 card you can see the parameters related to the header, T.30 control, transmitting and receiving. The **Modem Type**, **Resolution Type**, **Encoding Type** and **Page Size** show multiple options that are configured. See the next screen shot.

Viewing DSP Series 2 Card in Slot 0, Node 0x2

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | **T.30 Fax Parameters** | Echo Cancellation Parameters | PVD and AMD Parameters

Header Parameter	Transmit Parameters	Receive Parameters
Method	Enable ECM	Modem Type
Format String	Add Header	Resolution Type
	Enable CNG	Encoding Type
T.30 Control Parameters	dBm Level	Bad Line
Maximum Rate	Terminal ID	Page Size
Transmit Level		Enable ECM
ECM Enabled		Add Header
Local Session ID		Line Error Threshold (%)
		Timeout (ms)
		Terminal ID

OK Cancel

On the **Echo Cancellation Parameters** tab in the monitoring view of the DSP Series 2 card you can see the parameters related to the tap length, NLP (Non-Linear Processor) type, and CNG (Comfort Noise Generation) noise threshold. You can also see whether adaptation is enabled, G.165 modem answer tone detection is enabled, and bypass is enabled. See the next screen shot.

Viewing DSP Series 2 Card in Slot 0, Node 0x2

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | **Echo Cancellation Parameters** | PVD and AMD Parameters

Echo Cancellation Parameters

Tap Length: 128ms

NLP Type: Hoth Noise CNG

Adapt Enable: Enable adaptation

CNG Noise Threshold: 160

NLP Threshold: 2578

G165 Detect

☐ Disable

☒ Enable G.165 modem answer tone detector

Bypass Enable

☒ Normal Operation

☐ Bypass the echo canceller

☐ Bypass the echo canceller but still adapt its internal state

OK Cancel

On the **PVD and AMD Parameters** tab in the monitoring view of the DSP Series 2 card you can see the parameters related to voice detection, PVD (Positive Voice Detection) and AMD (Answering Machine Detection) reports, and answering machine detection. See the next screen shot.

Viewing DSP Series 2 Card in Slot 0, Node 0x2

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | **PVD and AMD Parameters**

Positive Voice Detection Parameters

Time Constant (ms)

Maximum Noise Level (dB)

PVD Sensitivity

PVD and AMD Reports

PVD and AMD Report Bitmask

- Silence Reports
- PVD Reports**
- Tone Reports
- AMD Reports

Answering Machine Detection Parameters

Detection Frequency (Hz)

	Minimum	Maximum
Band 1	<input type="text" value="350"/>	<input type="text" value="700"/>
Band 2	<input type="text" value="750"/>	<input type="text" value="1600"/>
Band 3	<input type="text" value="1700"/>	<input type="text" value="3000"/>

Minimum Valid Time (10 ms)

Minimum Invalid Time (10 ms)

Minimum Tone Level (dBm)

Minimum Valid Voice (10 ms)

Minimum Invalid Voice (10 ms)

OK Cancel

Viewing a DSP Series 2 Plus Card

Purpose You can view current information by querying your DSP Series 2 Plus card using the CSA.

Before you begin Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager, refer to the *SwitchKit* documentation.

Opening a Card View In the node view window, double-click the DSP Series 2 Plus card.

DSP Series 2 Plus Card View On the **IP Configuration and File Servers** tab in the monitoring view of the DSP Series 2 Plus card you can see the configured IP address, subnet mask, gateway, file server type, the Vocabulary Index File on the mount point, the file server list, and the index location. You can clear the cache using **Clear Cache**. See the next screen shot.

Viewing DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

DSP IP Address

IP Address: 135.119.44.183

Subnet Mask: 255.255.255.0

Gateway: 135.119.44.161

File Server Type

☒ NFS

☐ None

Card NFS Configuration

Local Name: Dsp2-1

User ID: 2002

Group ID: 101

File Server List

Enabled	Name	IP Address	Mount Point Location
1 <input checked="" type="checkbox"/>	75swlab-7	135.119.44.164	/SHARE1/AMD
2 <input type="checkbox"/>			
3 <input type="checkbox"/>			
4 <input type="checkbox"/>			
5 <input type="checkbox"/>			
6 <input type="checkbox"/>			
7 <input type="checkbox"/>			
8 <input type="checkbox"/>			

Vocabulary Index File on Mount Point

Primary File Name: /vocabNewFormat.dat

Secondary File Name:

Server Location: 1

Clear Cache

OK Cancel

On the **DSP Modules** tab in the monitoring view of the DSP Series 2 Plus card you can see the DSP number, Transmit/Receive number, status and function for each DSP in a module. See the next screen shot.

Viewing DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | **DSP Modules** | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | PVD and AMD Parameters

DSP #	Txmt/Rcv #	Status	Function
Module 0 DSP 0	Rcv0	In Service	
	Txmt0	In Service	
	Rcv1	In Service	
	Txmt1	In Service	
DSP 1	Rcv0	In Service	
	Txmt0	In Service	
	Rcv1	In Service	
	Txmt1	In Service	
DSP 2	Rcv0	In Service	
	Txmt0	In Service	
	Rcv1	In Service	

OK Cancel

On the **Conferencing Parameters** tab in the monitoring view of the DSP Series 2 Plus card you can see the noise gating parameters, echo suppression parameters, automatic gain control, output gain control and conference failure behavior. See the next screen shot.

The screenshot shows a window titled "Viewing DSP Series 2 Card in Slot 0, Node 0x2". It has several tabs: "IP Configuration And File Servers", "DSP Modules", "Conferencing Parameters" (which is selected), "T.30 Fax Parameters", "Echo Cancellation Parameters", and "PVD and AMD Parameters".

Under the "Conferencing Parameters" tab, there are several sections:

- Noise Gating Parameters** (indicated by a checkbox):
 - Time Constant (ms): 35
 - Maximum Noise Level (dBm): -20
 - Sensitivity: 3 - Default (dropdown menu)
- Echo Suppression Parameters** (indicated by a checkbox):
 - Echo Return Loss (dB): -10
- Automatic Gain Control** (indicated by a checkbox):
 - Time Constant (ms): 2000
 - Input Level (dBm): -22
- Output Gain Control**:
 - Output Gain (dB): 0
- Conference Failure Behavior**:
 - Behavior: Purge Channel - Default (dropdown menu)

At the bottom right of the window are "OK" and "Cancel" buttons.

On the **T.30 Fax Parameters** tab in the monitoring view of the DSP Series 2 Plus card you can see the parameters related to the header, T.30 control, transmitting and receiving. The **Modem Type**, **Resolution Type**, **Encoding Type** and **Page Size** show multiple options that are configured. See the next screen shot.

The screenshot shows a software window titled "Viewing DSP Series 2 Plus Card: Slot 2, Node 0x1". It has several tabs: "IP Configuration And File Servers", "DSP Modules", "Conferencing Parameters", "T.30 Fax Parameters" (which is selected), "Echo Cancellation Parameters", and "PVD and AMD Parameters".

The "T.30 Fax Parameters" tab is divided into three main sections:

- Header Parameter:** Includes a "Method" dropdown menu and a "Format String" text field.
- T.30 Control Parameters:** Includes "Maximum Rate" (14400 bps), "Transmit Level" (-135), "ECM Enabled" (No), and "Local Session ID" (empty).
- Transmit Parameters:** Includes "Enable ECM" (No), "Add Header" (empty), "Enable CNG" (Yes), "dBm Level" (-135), and "Terminal ID" (empty).
- Receive Parameters:** Includes "Modem Type" (V27, V29, V17), "Resolution Type" (200 x 200, 300 x 300, 400 x 400), "Encoding Type" (MMR), "Bad Line" (Repeat last good line), "Page Size" (ISO A4, JIS B4, ISO A3), "Enable ECM" (No), "Add Header" (empty), "Line Error Threshold (%)" (10), "Timeout (ms)" (35000), and "Terminal ID" (empty).

At the bottom right of the window are "OK" and "Cancel" buttons.

On the **Echo Cancellation Parameters** tab in the monitoring view of the DSP Series 2 Plus card you can see the parameters related to the tap length, NLP (Non-Linear Processor) type, and CNG (Comfort Noise Generation) noise threshold. You can also see whether adaptation is enabled, G.165 modem answer tone detection is enabled, and bypass is enabled. See the next screen shot.

Viewing DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | **Echo Cancellation Parameters** | PVD and AMD Parameters

Echo Cancellation Parameters

Tap Length: 128ms

NLP Type: Hoth Noise CNG

Adapt Enable: Enable adaptation

CNG Noise Threshold: 160

NLP Threshold: 2578

G165 Detect

☐ Disable

☒ Enable G.165 modem answer tone detector

Bypass Enable

☒ Normal Operation

☐ Bypass the echo canceller

☐ Bypass the echo canceller but still adapt its internal state

OK Cancel

On the **PVD and AMD Parameters** tab in the monitoring view of the DSP Series 2 Plus card you can see the parameters related to voice detection, PVD (Positive Voice Detection) and AMD (Answering Machine Detection) reports, and answering machine detection. See the next screen shot.

Viewing DSP Series 2 Plus Card: Slot 2, Node 0x1

IP Configuration And File Servers | DSP Modules | Conferencing Parameters | T.30 Fax Parameters | Echo Cancellation Parameters | **PVD and AMD Parameters**

Positive Voice Detection Parameters

Time Constant (ms)

Maximum Noise Level (dB)

PVD Sensitivity

PVD and AMD Reports

PVD and AMD Report Bitmask

- Silence Reports
- PVD Reports**
- Tone Reports
- AMD Reports

Answering Machine Detection Parameters

	Detection Frequency (Hz)	
	Minimum	Maximum
Band 1	<input type="text" value="350"/>	<input type="text" value="700"/>
Band 2	<input type="text" value="750"/>	<input type="text" value="1600"/>
Band 3	<input type="text" value="1700"/>	<input type="text" value="3000"/>

Minimum Valid Time (10 ms)

Minimum Invalid Time (10 ms)

Minimum Tone Level (dBm)

Minimum Valid Voice (10 ms)

Minimum Invalid Voice (10 ms)

OK Cancel

Querying DSP Series 2 Statistics

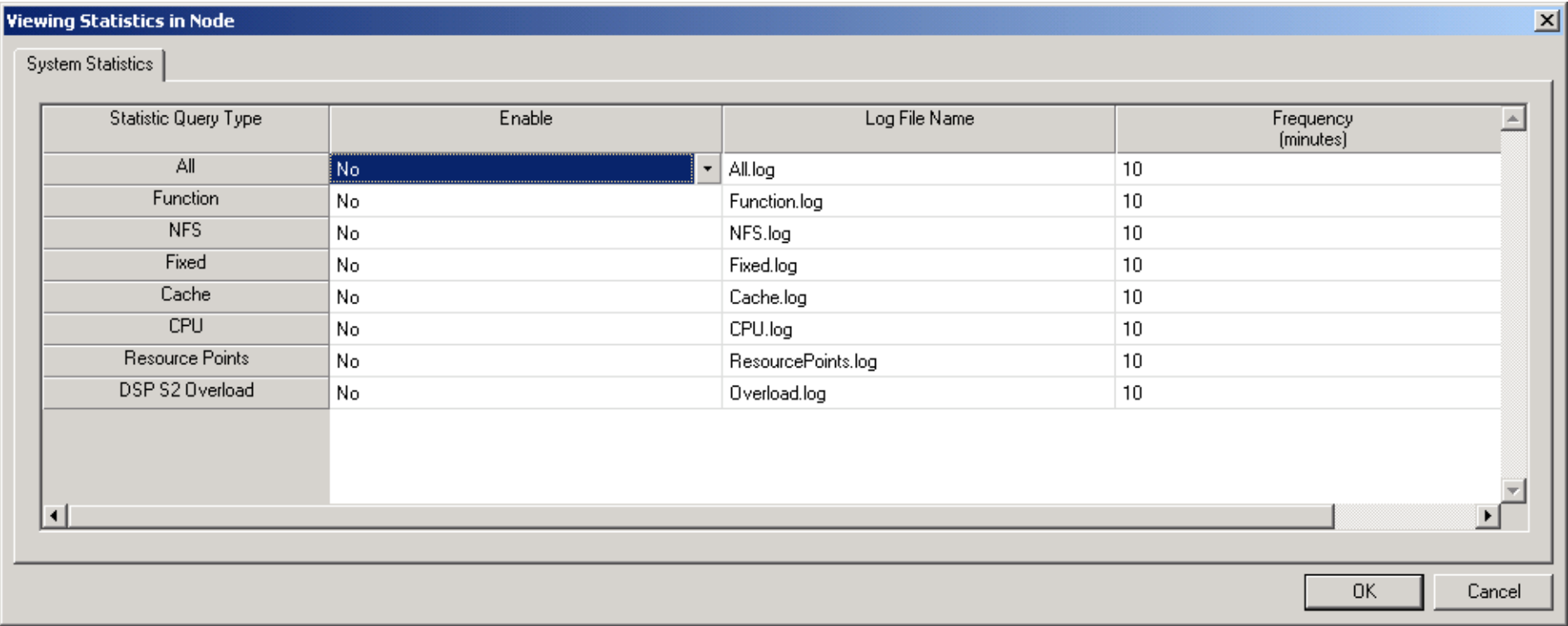
Purpose This procedure describes how to query statistics and generate log files related to DSP Series 2 usage.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation. Select the monitor icon in the global view.

Viewing Statistics To query the CSP system statistics, do the following:

- 1 Go to the menu, **Monitor** → **Statistics**. See the next screen shot.

The **Viewing Statistics in...** dialog box opens:



For descriptions of the statistic query types, see the *Developer’s Guide: Overview, DSP Resources* chapter.

- 2 To make modifications to DSP Series 2 entities after you query, select a row and then either choose from the drop-down list for **Enable** or delete and enter new text in the **Log File Name** and **Frequency** fields. Click **OK**.

END OF STEPS

Querying Parent Conferences

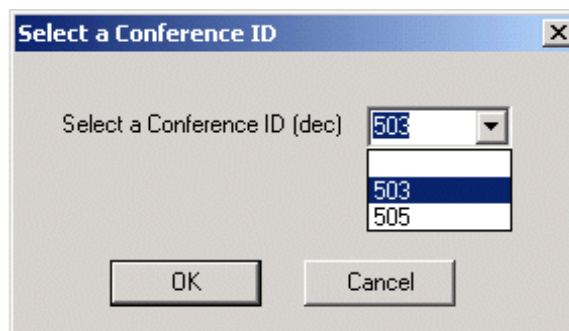
Purpose This procedure describes how to query parent conference speakers, participants and advanced parameters related to DSP Series 2 usage.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation. Select the monitor icon in the global view.

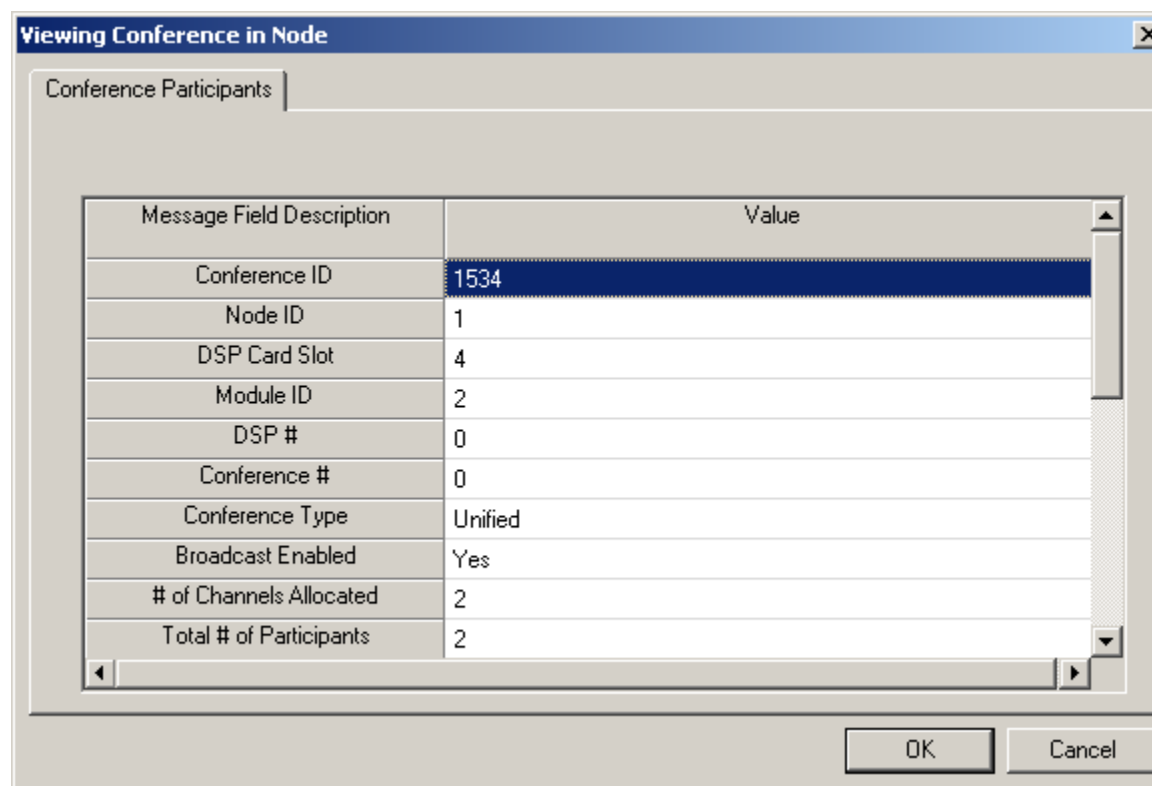
Querying Conference Participants To query parent conference participants, do the following:

- 1 Go to the menu, **Monitor** → **Parent Conference Info** → **Detailed Conference Information**.

The next dialog box opens:



- 2 Select a conference ID and click OK to open the **Viewing Conference in Node** window. See the next screen shot.



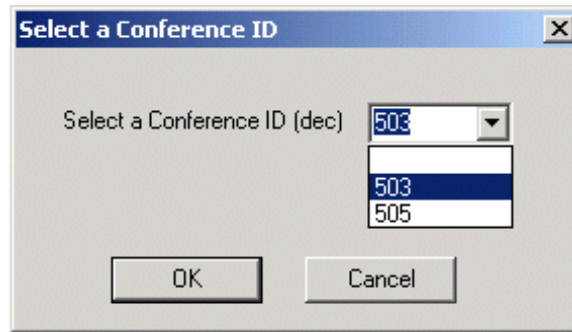
Click **OK** to close the window.

Querying Conference Speakers

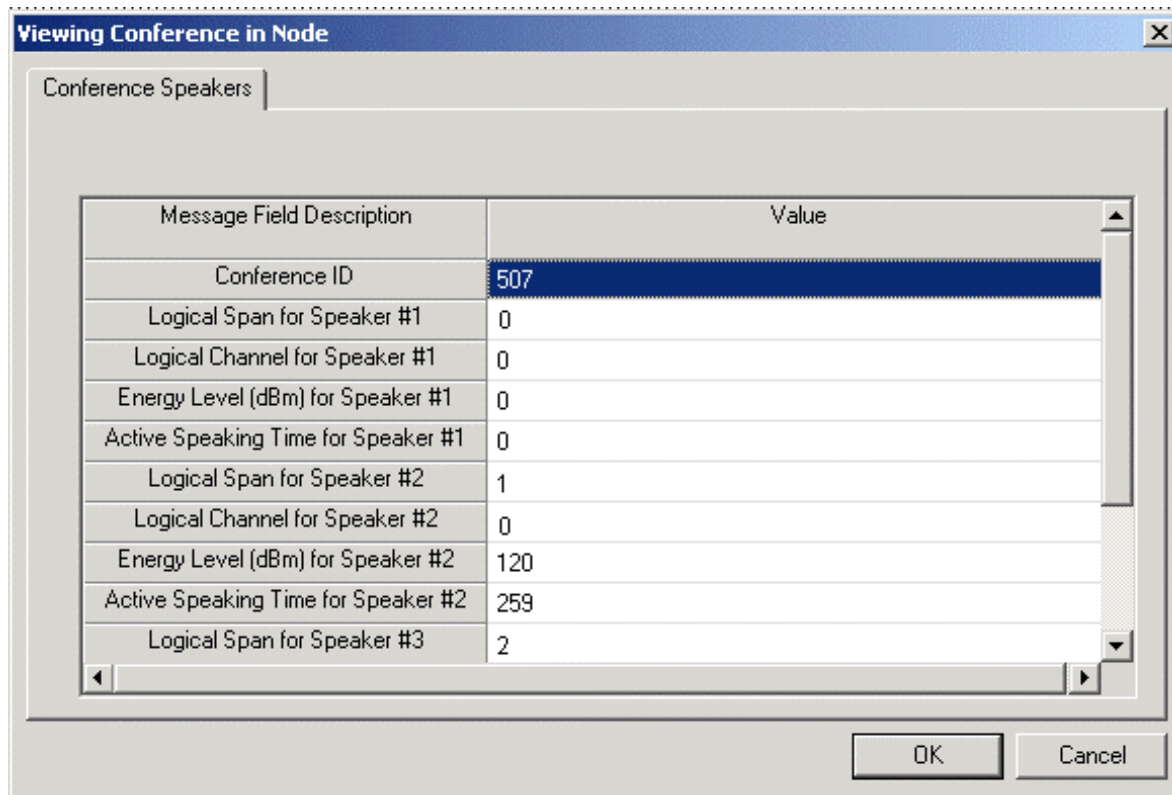
To query parent conference speakers, do the following:

- 1 Go to the menu, **Monitor** → **Parent Conference Info** → **Conference Speakers**.

The next dialog box opens:



- 2 Select a conference ID and click OK to open the **Viewing Conference in Node** window. See the next screen shot.



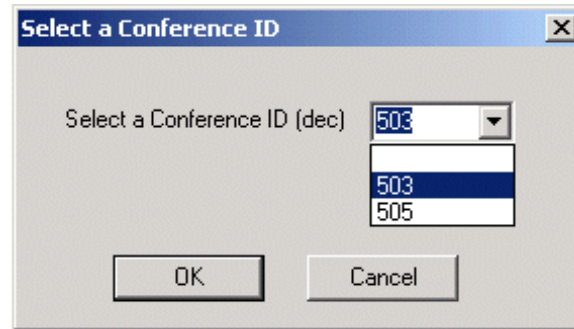
- 3 Click **OK** to close the window.

Querying Conference Advanced Parameters

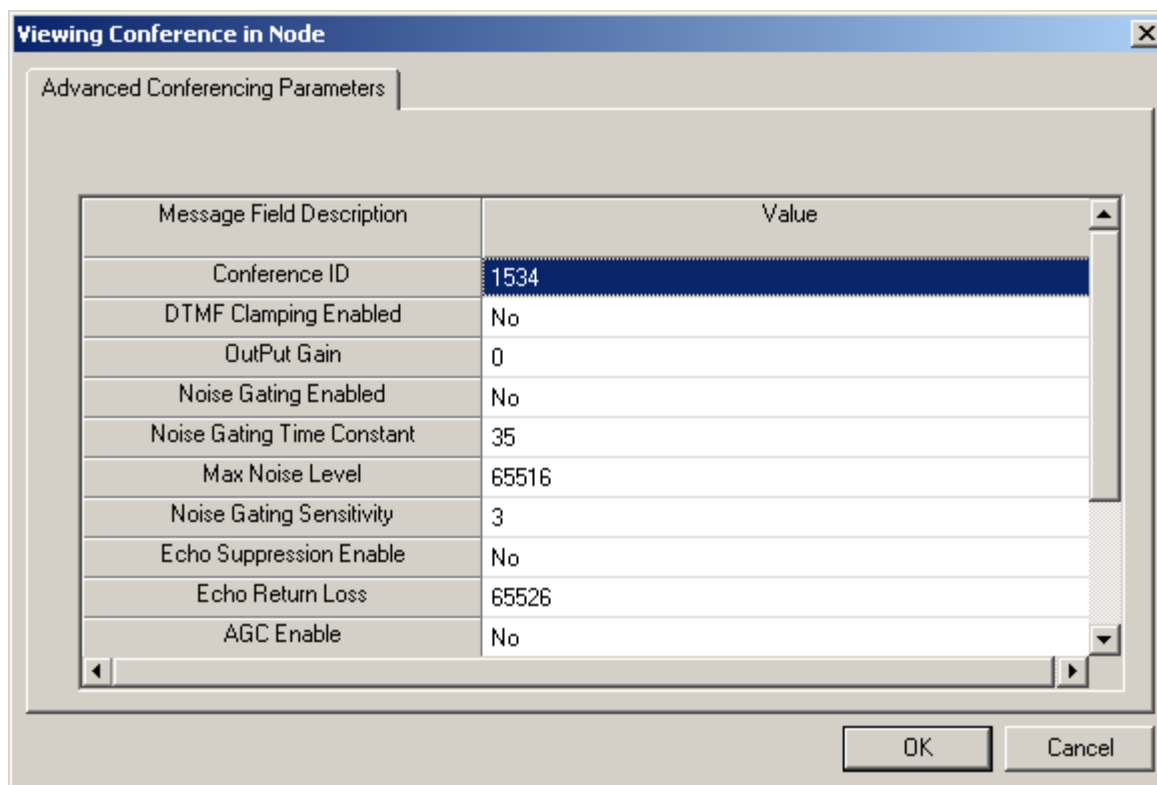
To query parent conference advanced parameters, do the following:

- 1 Go to the menu, **Monitor** → **Parent Conference Info** → **Advanced Conferencing Parameters**.

The next dialog box opens:



- 2 Select a conference ID and click OK to open the **Viewing Conference in Node** window.



Querying Child Conferences

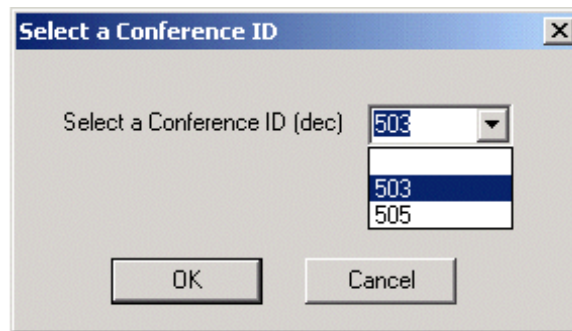
Purpose This procedure describes how to query child conference speakers, participants and advanced parameters related to DSP Series 2 usage.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation. Select the monitor icon in the global view.

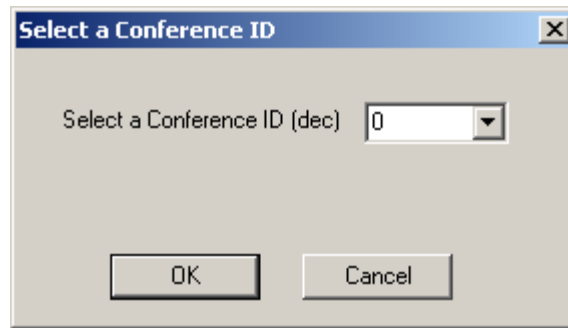
Querying Conference Participants To query child conference participants, do the following:

- 1 Go to the menu, **Monitor** → **Child Conference Info** → **Detailed Conference Information**.

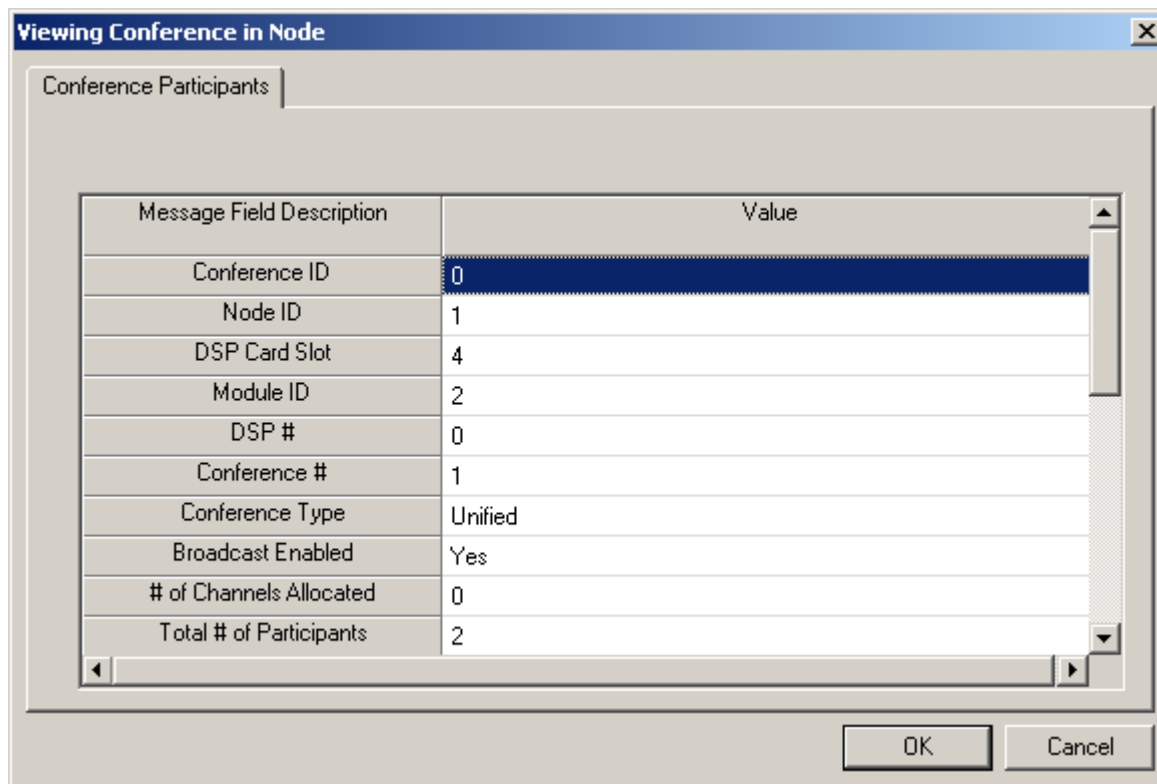
The next dialog box opens:



- 2 Select a conference ID and click OK.
- 3 A similar dialog box opens again for you to select a child conference ID.



- 4 Click OK to open the **Viewing Conference in Node** window.



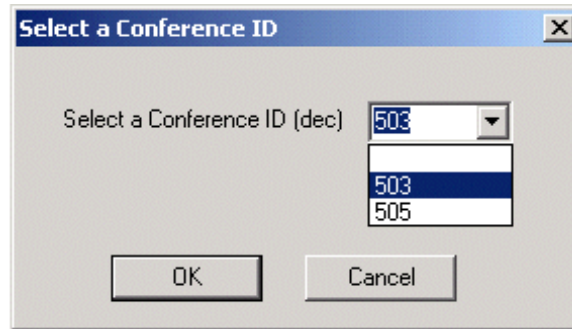
- 5 Click **OK** to close the window.

Querying Conference Speakers

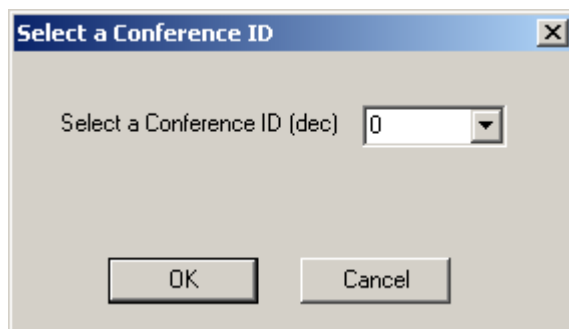
To query child conference speakers, do the following:

-
- 1 Go to the menu, **Monitor** → **Child Conference Info** → **Conference Speakers**.

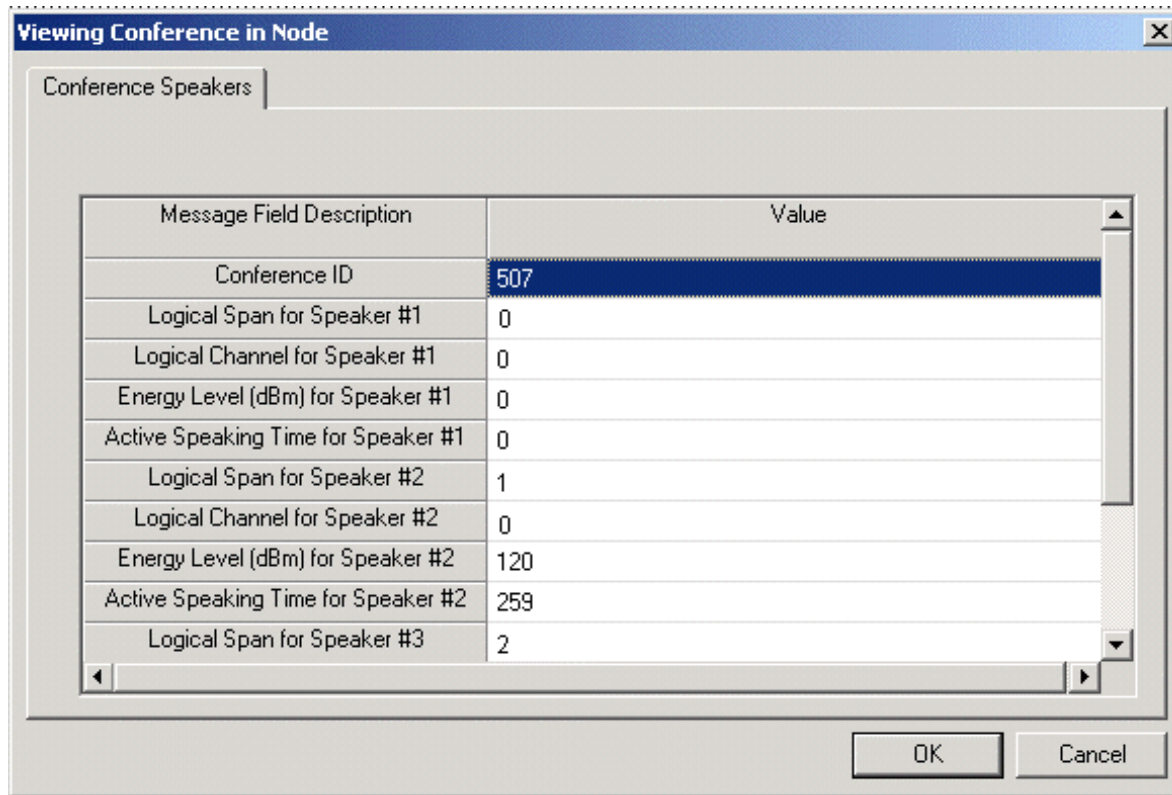
The next dialog box opens:



-
- 2 Select a conference ID and click OK.
-
- 3 A similar dialog box opens again for you to select a child conference ID.



-
- 4 Select a conference ID and click OK to open the **Viewing Conference in Node** window.



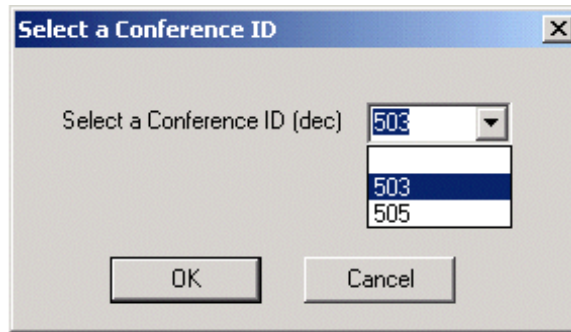
-
- 5 Click **OK** to close the window.

Querying Conference Advanced Parameters

To query conference advanced conference parameters, do the following:

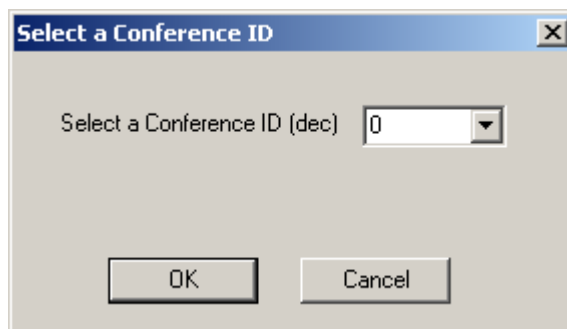
-
- 1 Go to the menu, **Monitor** → **Child Conference Info** → **Advanced Conferencing Parameters**.

The next dialog box opens:



-
- 2 Select a conference ID and click OK.

- 3 A similar dialog box opens again for you to select a child conference ID.



-
- 4 Select a conference ID and click OK to open the **Viewing Conference in Node** window.

Viewing Conference in Node

Advanced Conferencing Parameters

Message Field Description	Value
Conference ID	1534
DTMF Clamping Enabled	No
OutPut Gain	0
Noise Gating Enabled	No
Noise Gating Time Constant	35
Max Noise Level	65516
Noise Gating Sensitivity	3
Echo Suppression Enable	No
Echo Return Loss	65526
AGC Enable	No

OK

Cancel

Querying M3UA Properties

Purpose In this section you will see how to query MTP3 User Adaptation Layer (M3UA) properties in monitoring mode:

- Protocol
- Signaling Gateway/Signaling Gateway Process
- Route Sets
- Application Server Process (ASP)
- Application Server (AS)
- Connections

Protocol

To query the protocol, in the node view, double-click the SS7 card. After the **Viewing SS7 S3 Card...** opens, right-click the stack with M3UA configured and then select **M3UA Queries**→**Protocol** from the drop-down list.

Viewing M3UA Protocol in Slot 0 of Example Node 0x3

Default Parameters

Default Standard: ITU

Default Network Identity: International

MAP Parameters

Map ID: 0

Network Appearance: 1

Standard: ITU

Network Identity: International

Buttons: Add, OK, Cancel

Signaling Gateway/Signaling Gateway Process

To query the SG/SGP, in the node view, double-click the SS7 card. After the **Viewing SS7 S3 Card...** opens, right-click the stack with M3UA configured and then select **M3UA Queries**→**SG/SGP** from the drop-down list.

The screenshot shows a dialog box titled "Viewing M3UA Remote SG in Slot 0 of Example Node 0x3". It contains the following sections:

- Remote SG Table:** A list box showing "1" and "2" with "Add" and "Remove" buttons.
- Parameters:**
 - Traffic Mode Type:** A dropdown menu set to "Override".
 - Remote SGP Parameters:**
 - SGP IDs:** A list box showing "1" with an "Add" button.
 - IP Addresses:** A list box showing "10.1.226.40" with an "Add" button.
 - Port:** A text box containing "2905".
 - Primary SGP:** A dropdown menu set to "1".

At the bottom are "OK" and "Cancel" buttons.

Route Sets

To query the **Route Sets**, in the node view, double-click the SS7 card. After the **Viewing SS7 S3 Card...** opens, right-click the stack with M3UA configured and then select **M3UA Queries**→**Route Sets** from the drop-down list.

Viewing M3UA Route Sets in Slot 0 of Example Node 0x3

Route Set Table

Route Set ID:

Parameters

DPC:

Associated Routes

Route ID:

SG ID:

Net Appr:

Priority:

Application Server Process (ASP)

To query the ASP, in the node view, double-click the SS7 card. After the **Viewing SS7 S3 Card...** opens, right-click the stack with M3UA configured and then select **M3UA Queries→ASP** from the drop-down list.

Viewing M3UA Local ASP in Slot 0 of Example Node 0x3

Local ASP Table

ASP ID
0
1

Add Remove

Local ASP Parameters

Primary IP Address: 135.119.48.82

Secondary IP Address:

OK Cancel

Application Server (AS)

To query the AS, in the node view, double-click the SS7 card. After the **Viewing SS7 S3 Card...** opens, right-click the stack with M3UA configured and then select **M3UA Queries→AS** from the drop-down list.

Viewing M3UA Local AS in Slot 0 of Example Node 0x3 [X]

Local AS Table

AS ID:

Local AS Parameters

Routing Key

Type:
Point Code:
Net Appr:

Range Definition

Range Index:
OPC:
SID:
SSN:
Low CIC:
High CIC:

Traffic Mode Type:

Associated Entities

Local ASP IDs:
Routing Context:
Remote SG Table:

Logical Connection

Service State:
Status:

Connections

To query the connections, in the node view, double-click the SS7 card. After the **Viewing SS7 S3 Card...** opens, right-click the stack with M3UA configured and then select **M3UA Queries→Connections** from the drop-down list.

The screenshot shows a dialog box titled "Viewing M3UA Connections in Slot 0 of Example Node 0x3". It contains two main sections: "Connection Table" and "Parameters".

Connection Table: This section includes a "Connection ID" field with a dropdown menu showing values 0 and 1. To the right of the dropdown are "Add" and "Remove" buttons.

Parameters: This section includes two input fields: "ASP ID" and "SGP ID", both containing the value 0.

At the bottom of the dialog are "OK" and "Cancel" buttons.

Resetting a Module on a VDAC card

Purpose This procedure describes how to reset a module on a VDAC card in the monitoring mode.

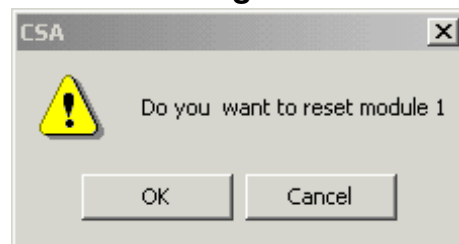
Before you begin Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager, refer to the *SwitchKit* documentation.

Resetting a Module To reset a module on a VDAC card, in a live system do the following:

1 Open the **Viewing VDAC card** window. See *Open Card Views (7-11)*.

2 To get to the **Reset Module** menu, do one of the following:

- Right-click the module you want to reset and select: **Reset Module**.
- Click on the module you want to reset; and then go to the menu and select:
Provisioning→Card→VDAC→Reset Module.



Click **OK**.

END OF STEPS

Setting Ethernet Link Redundancy on a DSP Series 2 card

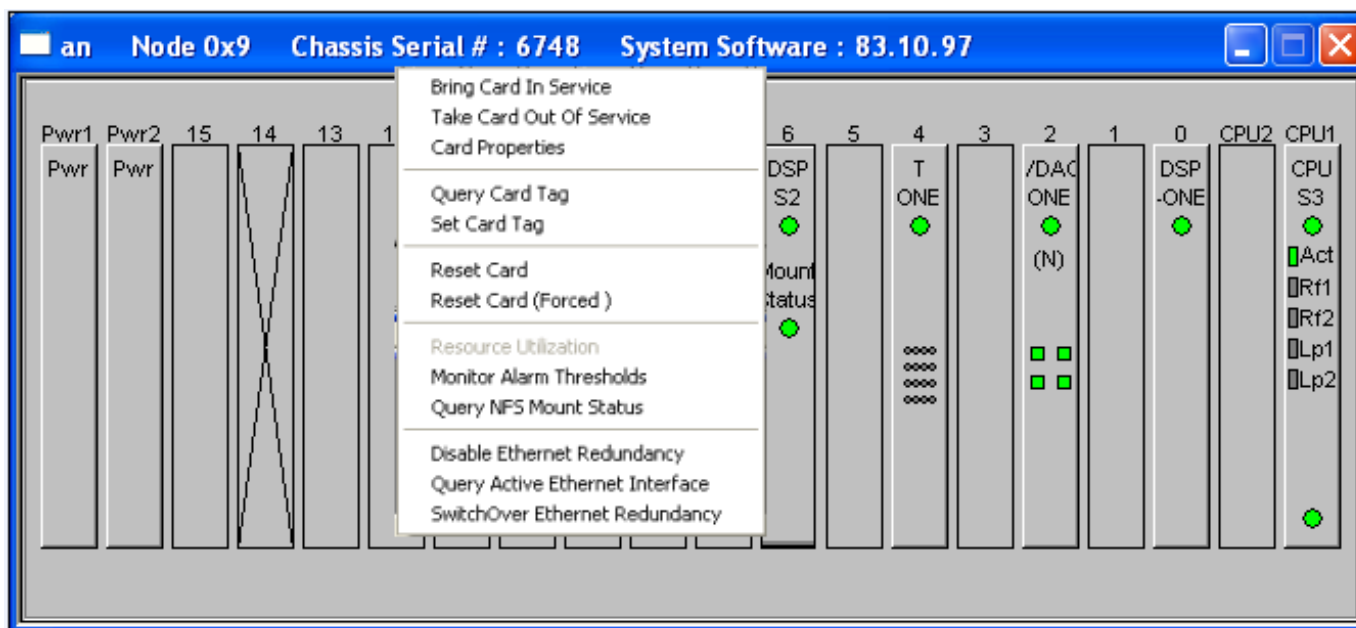
Purpose You can provision and monitor the DSP Series 2 card ethernet redundancy options using the Converged Services Administrator.

The following topics relate to the card updates and ethernet link redundancy feature:

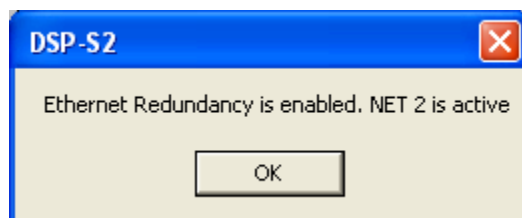
Querying Active Ethernet Interface	7-75
Enable Ethernet Redundancy	7-77
Disable Ethernet Redundancy	7-79
Performing an Ethernet Redundancy SwitchOver	7-81

Querying Active Ethernet Interface

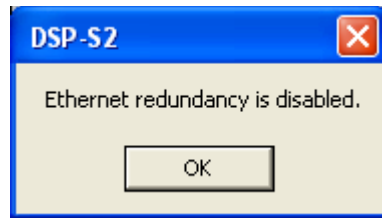
Right-click the DSP-S2 card and select the menu option, **Query Active Ethernet Interface**.



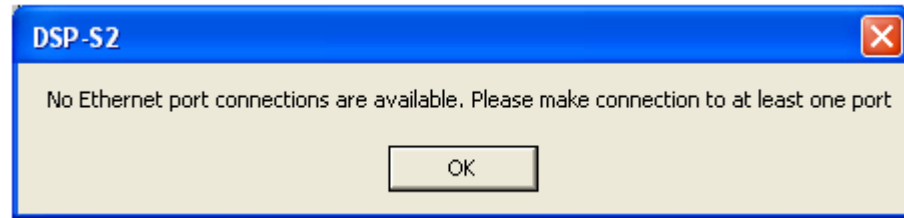
If redundancy is enabled, then a message will display what port is active.



If redundancy is disabled, then the next dialog opens.

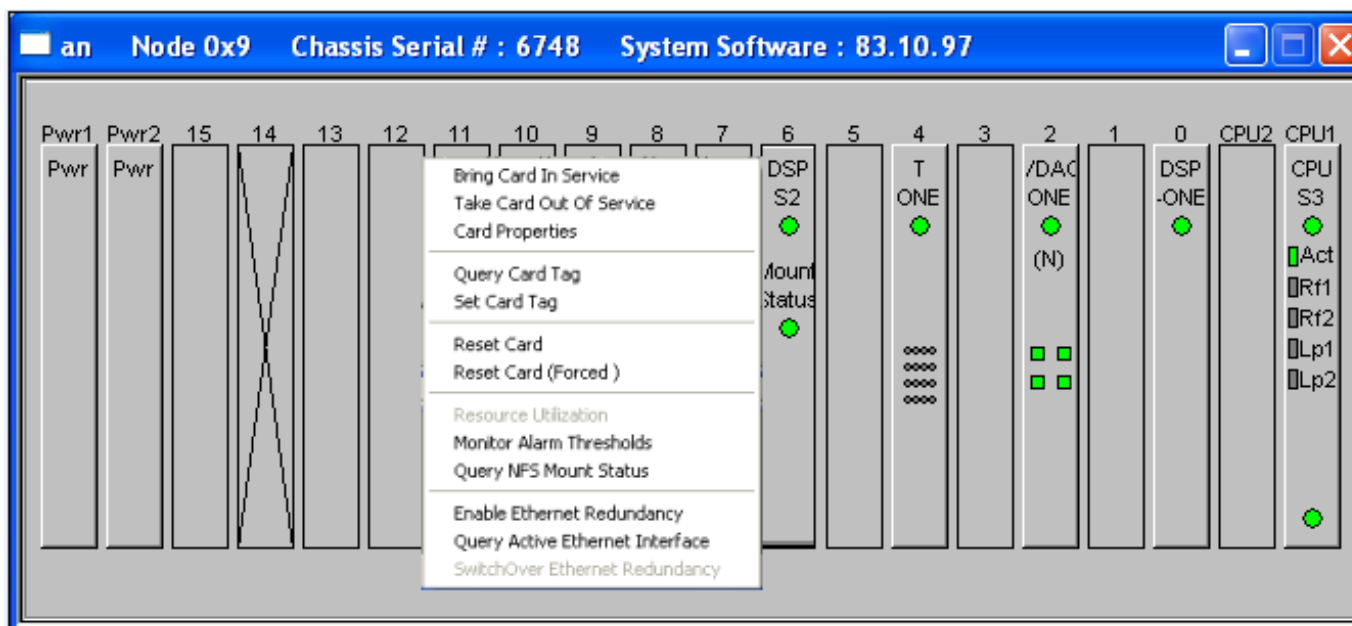


No cables If there are no cables connected to the DSP-S2 ethernet ports on the I/O card, the next dialog box is displayed:

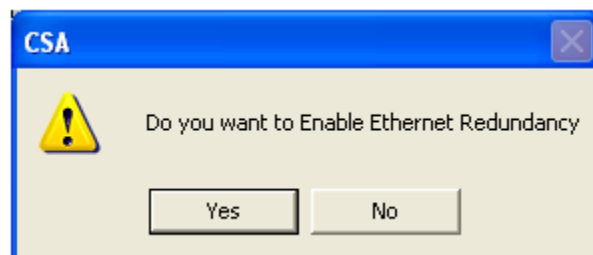


Enable Ethernet Redundancy

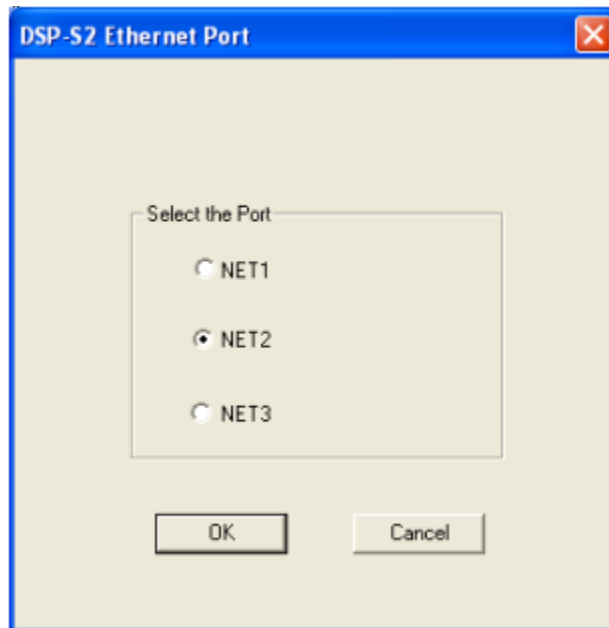
Right-click the DSP-S2 card and select the menu option, **Enable Ethernet Redundancy**.



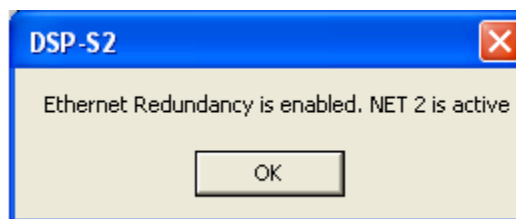
If redundancy is disabled and you select to enable redundancy, the next dialog box opens:



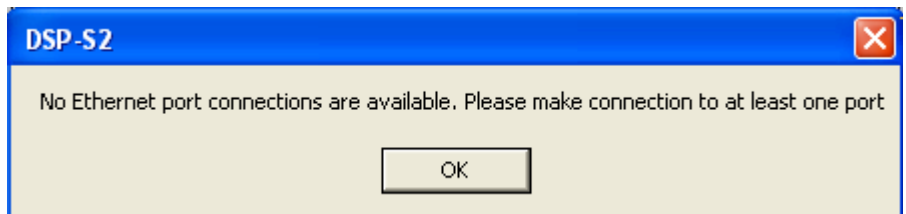
Select the port you want to use for Ethernet redundancy in the next dialog box and then click **OK**..



The node view will then confirm that Ethernet redundancy is enabled. This is indicated in the next message:

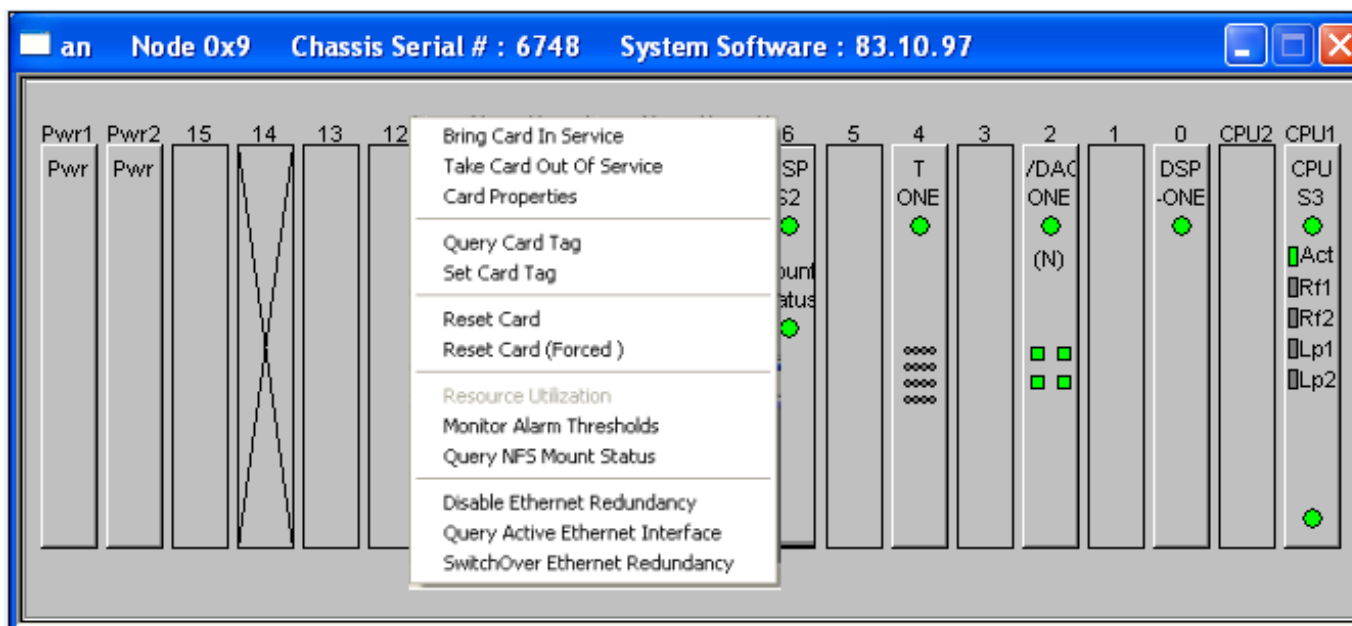


If you select a port that is not available, the next available port is automatically selected. If no ports are available the next message appears:

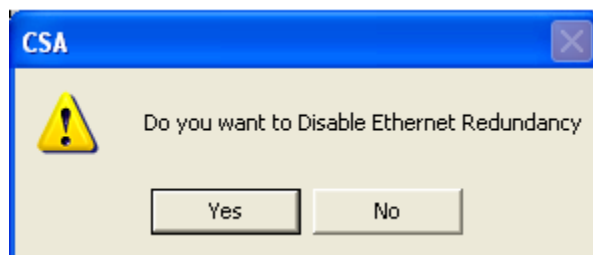


Disable Ethernet Redundancy

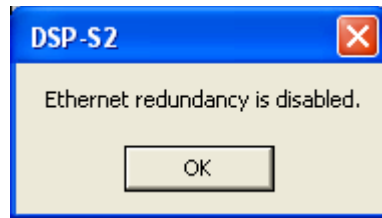
Right-click the DSP-S2 card and select the menu option, **Disable Ethernet Redundancy**.



Click **Yes** in the next dialog box.

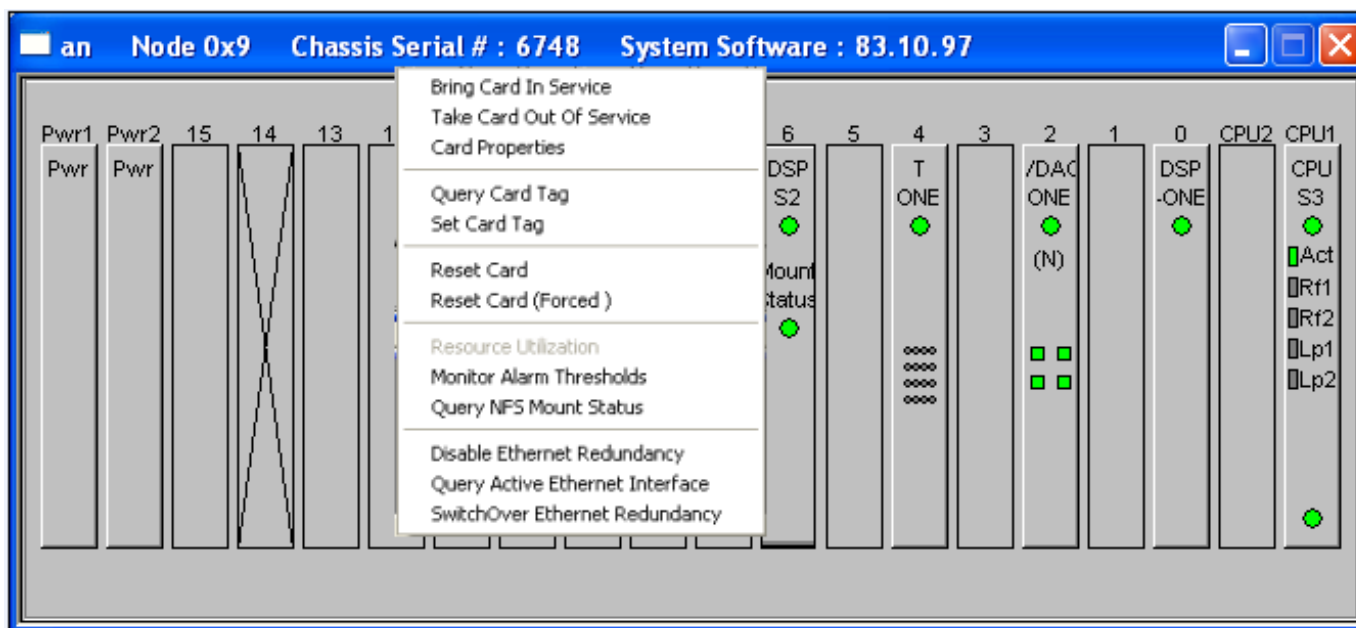


The next dialog box confirms that Ethernet Redundancy is disabled.

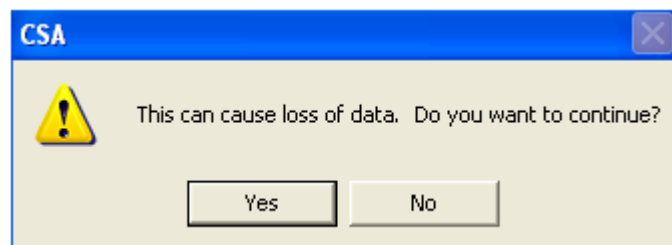


Performing an Ethernet Redundancy SwitchOver

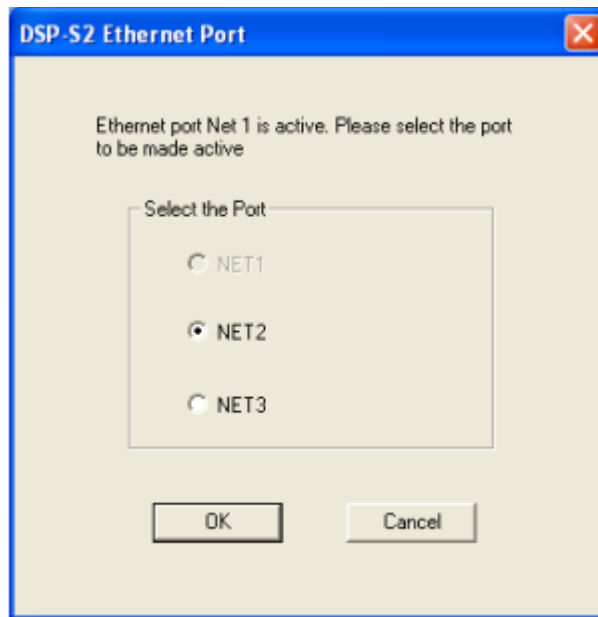
Right-click the DSP-S2 card and select the menu option, **SwitchOver Ethernet Redundancy**.



Next, a warning message appears.



If you select **Yes**, then the next dialog box opens. Select the port for which the switchover is to be performed. Note that the current active port is disabled in the dialog box.



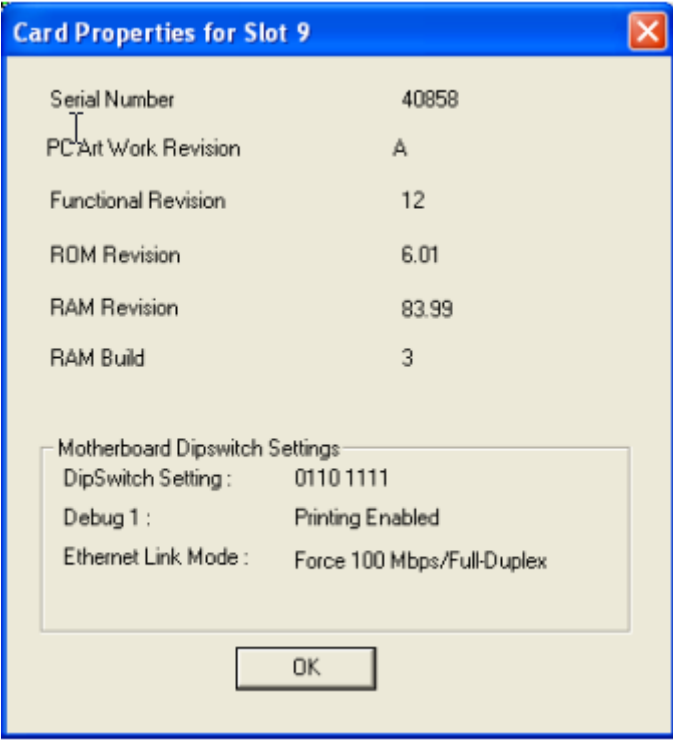
If you select the port and click **OK**, a message confirms ethernet redundancy is enabled on the port, indicating the switchover was successful.

Querying Card Properties

The motherboard dipswitch settings are displayed for these cards:

- DSP Series 2
- SS7 Series 3
- ISDN Series 3
- IP Signaling Series 3
- CSP Matrix Series 3 Card

Important! Refer to the Hardware Product Descriptions for information on setting the required DIP switch functionality.

DSP Series 2

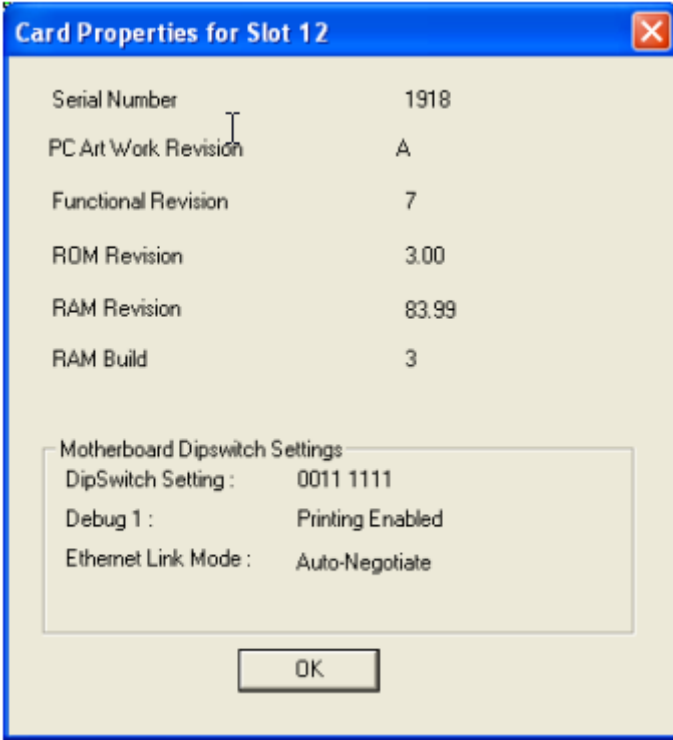
A screenshot of a Windows-style dialog box titled "Card Properties for Slot 9". The dialog has a blue title bar with a close button (X) in the top right corner. The main area is light beige and contains a list of card properties on the left and their corresponding values on the right. Below this list is a smaller, rounded rectangle containing "Motherboard Dipswitch Settings". At the bottom center is an "OK" button.

Property	Value
Serial Number	40858
PC Art Work Revision	A
Functional Revision	12
ROM Revision	6.01
RAM Revision	83.99
RAM Build	3

Motherboard Dipswitch Settings

DipSwitch Setting :	0110 1111
Debug 1 :	Printing Enabled
Ethernet Link Mode :	Force 100 Mbps/Full-Duplex

OK

SS7 Series 3

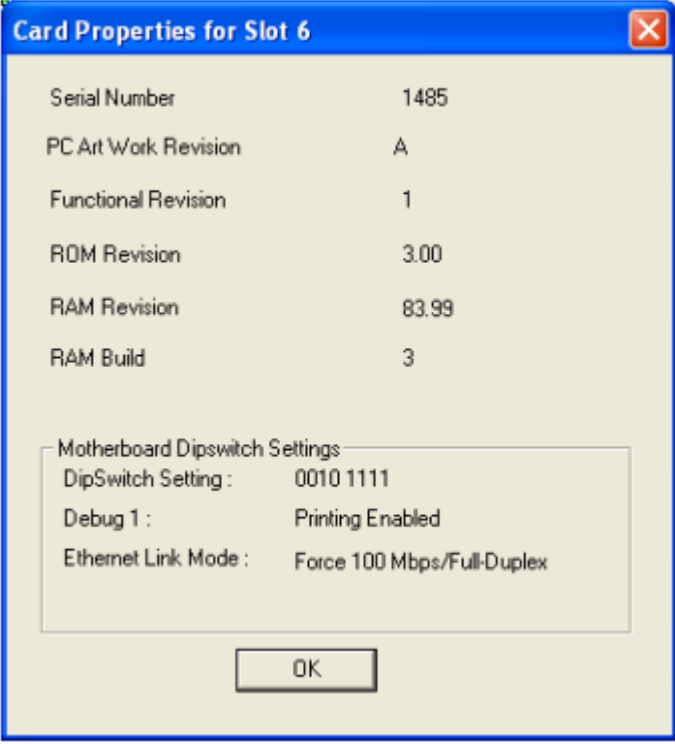
A screenshot of a Windows-style dialog box titled "Card Properties for Slot 12". The dialog has a blue title bar with a close button (X) in the top right corner. The main area is light beige and contains a list of card properties on the left and their corresponding values on the right. Below this list is a smaller, rounded rectangle containing "Motherboard Dipswitch Settings". At the bottom center is an "OK" button.

Property	Value
Serial Number	1918
PC Art Work Revision	A
Functional Revision	7
ROM Revision	3.00
RAM Revision	83.99
RAM Build	3

Motherboard Dipswitch Settings

DipSwitch Setting :	0011 1111
Debug 1 :	Printing Enabled
Ethernet Link Mode :	Auto-Negotiate

OK

ISDN Series 3

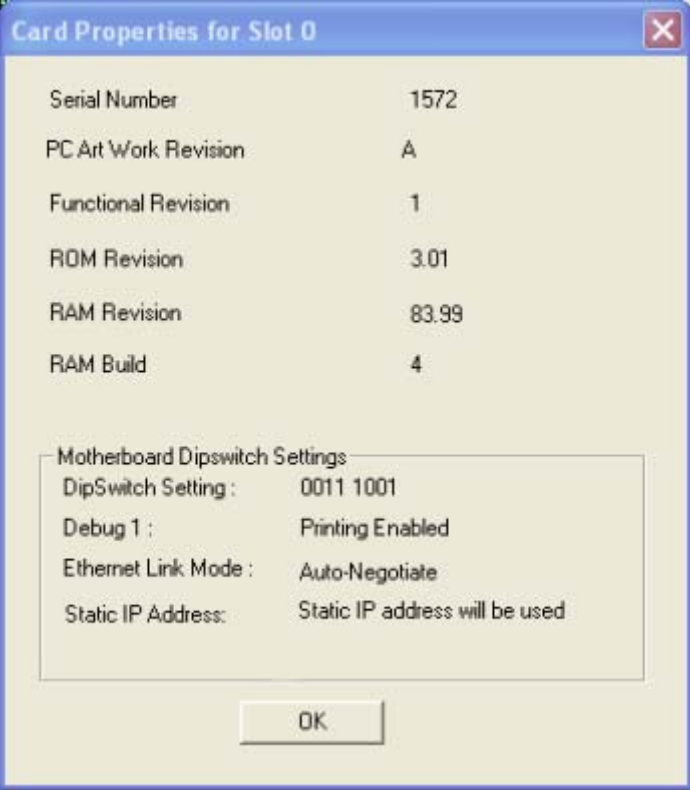
A screenshot of a Windows-style dialog box titled "Card Properties for Slot 6". The dialog has a blue title bar with a close button (X) in the top right corner. The main area is light beige and contains a list of card properties. Below this list is a smaller, bordered box titled "Motherboard Dipswitch Settings" containing four settings. At the bottom center is an "OK" button.

Serial Number	1485
PC Art Work Revision	A
Functional Revision	1
ROM Revision	3.00
RAM Revision	83.99
RAM Build	3

Motherboard Dipswitch Settings

DipSwitch Setting :	0010 1111
Debug 1 :	Printing Enabled
Ethernet Link Mode :	Force 100 Mbps/Full-Duplex

OK

IP Signaling Series 3

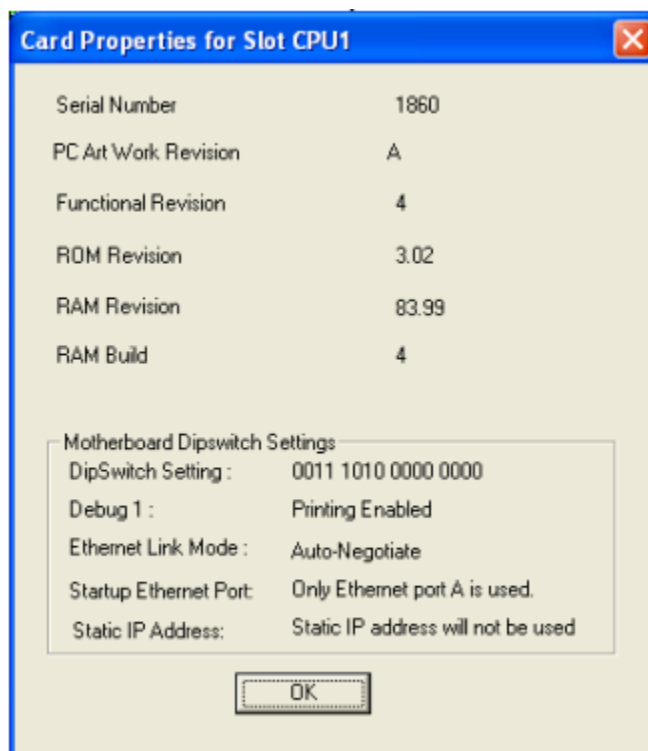
A screenshot of a Windows-style dialog box titled "Card Properties for Slot 0". The dialog has a blue title bar with a close button (X) in the top right corner. The main area is light beige and contains a list of card properties. Below this list is a smaller, bordered box titled "Motherboard Dipswitch Settings" containing five settings. At the bottom center is an "OK" button.

Serial Number	1572
PC Art Work Revision	A
Functional Revision	1
ROM Revision	3.01
RAM Revision	83.99
RAM Build	4

Motherboard Dipswitch Settings

DipSwitch Setting :	0011 1001
Debug 1 :	Printing Enabled
Ethernet Link Mode :	Auto-Negotiate
Static IP Address :	Static IP address will be used

OK

CSP Matrix Series 3 Card

Resetting a Card

Purpose This procedure describes how to reset a card in the monitoring mode. See also *Resetting an EXNET Connect Card* (7-88).

Before you begin Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager, refer to the *SwitchKit* documentation.

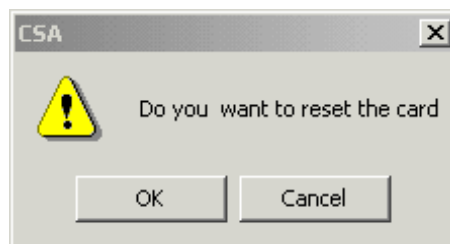
Resetting a Card To reset a card in a live system do the following:

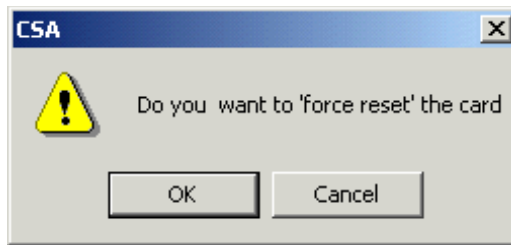
-
- 1 In the global view, double-click on the monitor icon to display the populated node view.
-
- 2 To get to the **Reset Card** menu, do one of the following:
 - Right-click the card you want to reset and select either: **Reset Card** or **Reset Card (Forced)**.
 - Click on the card you want to reset, go to the menu and select: **Provisioning**→**Card**→**Reset Card** or **Provisioning**→**Card**→**Reset Card (Forced)**.

Important! Forced mode causes a card's configuration to be reset even if it has spans in service.

To reset an IP Signaling Series 3 card, right click the card and select **Reset H.323 Card**.

-
- 3 When either of the following dialog boxes open, click **OK**.





END OF STEPS

**Resetting an EXNET
Connect Card**

To reset an EXNET Connect card, right click the monitor icon and select either **Reset EXNET Connect** or **Reset EXNET Connect (forced)**.

Querying and Setting a Tag on a Card

Purpose This procedure describes how to query and set a tag on a card in the monitoring mode.

Before you begin Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager, refer to the *SwitchKit* documentation.

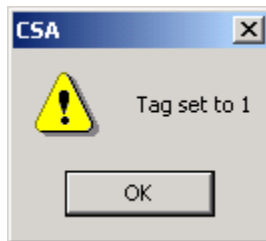
Querying a Tag To query a card in a live system do the following:

-
- 1** In the global view, double-click on the monitor icon to display the populated node view.
 - 2** To get to the **Query Card Tag** menu, do the following:
 - Right-click the card you want to query and select: **Query Card Tag**.
 - 3** After the next dialog box opens, click **OK**.
-

Important! A tag value of one indicates the card is configured.

Setting a Tag This option may be used, for example, in a case when the tag has been lost during a switchover. To set a card tag in a live system do the following:

- 1 In the global view, double-click on the monitor icon to display the populated node view.
 - 2 To get to the **Set Card Tag** menu, do the following:
 - Right-click the card you want to set and select: **Set Card Tag**.
After the next dialog box opens, click **OK**:
-



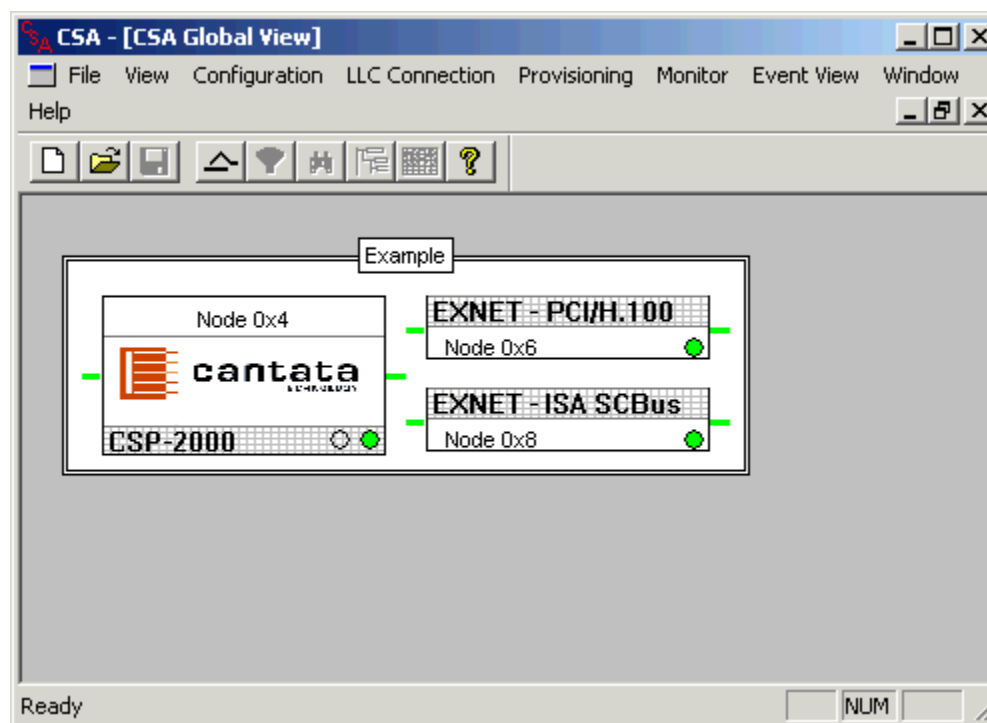
The tag for the card has now been set.

Viewing an EXNET Connect Node on a Ring

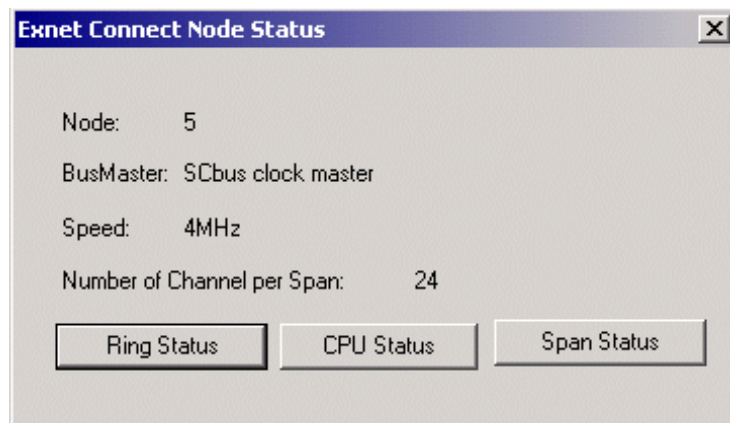
Purpose	You can view information about your EXNET Connect node on a CSP ring using the CSA. For each node, information such as the ring ID, the status of the ring, the transmit mode, the source packet, the multi-node ring ID, IP address, and system software version are shown in one window.
Before you begin	Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager, refer to the <i>SwitchKit</i> documentation.

Viewing an EXNET Connect Node To view information about an EXNET Connect node on a CSP ring, do the following:

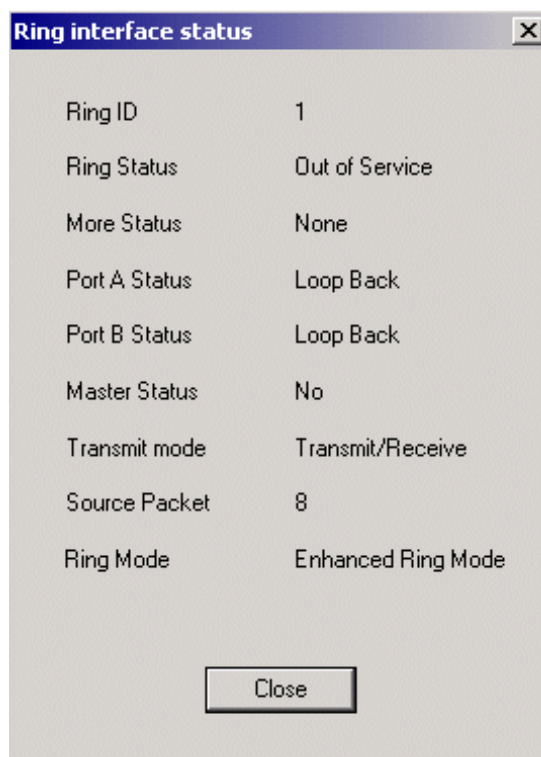
- 1 Go to the **CSA** global view. You will see icons of nodes with a white background, which indicates that the nodes are in the monitoring mode. These icons also have green status indicators, showing that the nodes are connected to the LLC. See the next example screen shot.



- 2 Double-click the icon of an EXNET node in the monitoring mode. The **Exnet Connect Node Status** window opens:

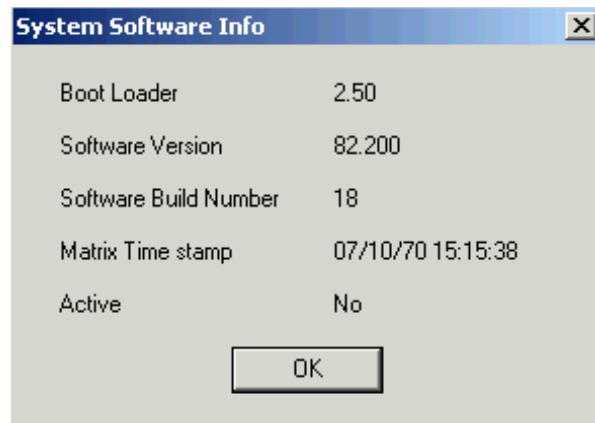


- Click the **Ring Status** button to open a view of the **Ring interface status**



- Click **Close** to bring the focus back to the node information in the **Exnet Connect Node Status** window.

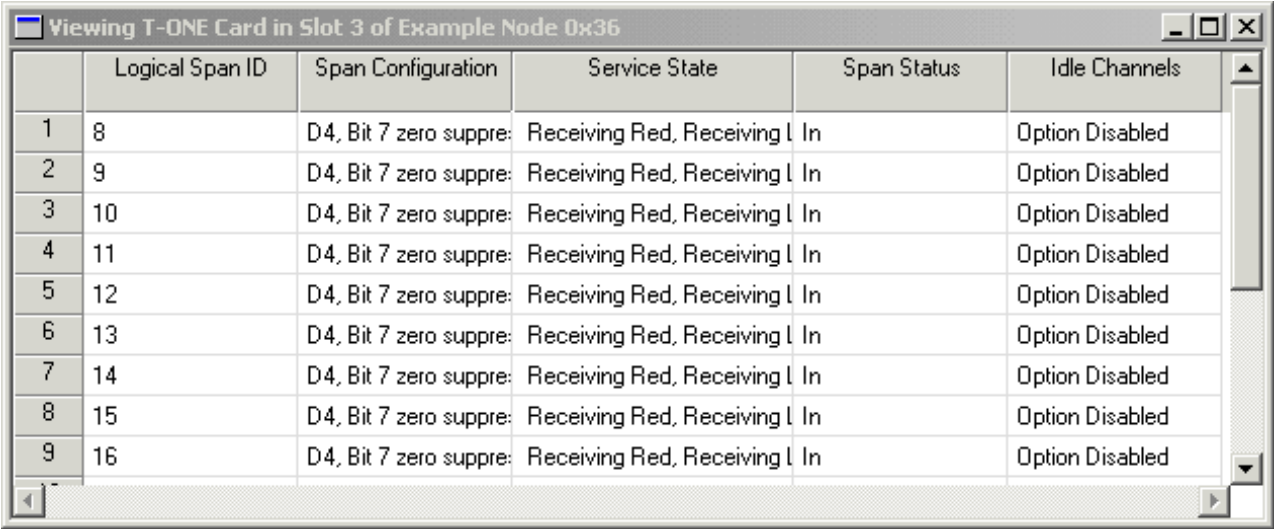
-
- 5 Click the **CPU Status** button. The **System Software Info** view opens.



Click **OK** to bring the focus back to the node information in the **Exnet Connect Node Status** window.

- 6 Click **Span Status** to view the line card information on your EXNET Connect Card. The **Viewing T-ONE span on Exnet Connect**

Card... opens. If you configured 32 channels for your EXNET node, the **Viewing E-ONE span on Exnet Connect Card...** opens.



	Logical Span ID	Span Configuration	Service State	Span Status	Idle Channels
1	8	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
2	9	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
3	10	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
4	11	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
5	12	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
6	13	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
7	14	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
8	15	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled
9	16	D4, Bit 7 zero suppre:	Receiving Red, Receiving L In		Option Disabled

Viewing the ring status To view the status of a ring that includes an EXNET Connect node, double-click in the area between two nodes in the monitoring mode. The data in **Viewing the Rings** gets refreshed only after you re-open the dialog box.

The **Viewing the rings in...<LLC Name>** window opens.

	Ring ID	Logical Node ID	Ring Status	Port A Status	Port B Status	Physical Node ID	Transmit Mode	Source Packet	Redundancy State	IP Address	Master Node	System software
1	0x01	0x04	In Ser	Normal	Normal	0x1757	Transmit	12	Non Redunc	10.1.10	4	82.20.18
2	0x01	0x06	In Ser	Normal	Normal	0x1025b	Transmit	20	Non Redunc	10.1.10	4	82.20.18
3	0x01	0x08	In Ser	Normal	Normal	0x10177	Transmit	11	Non Redunc	10.1.10	4	82.20.18

Querying ISDN D Channels

Purpose This procedure describes how to query D channels related to the ISDN interface configuration.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Do the following to query ISDN D Channels:

-
- 1** Go to the monitoring mode node view.
-
- 2** Click on the ISDN Series 3 Card to open the **Viewing Channels of...** dialog box.

3 Right-click the span with D channels.

Viewing Channels of Logical spanID - 20 of a

	Span	Offset	Trunk Type	Trunk Group	Channel Type	Connection state	Last Purge	Last Alarm
8	20	7	Unknown	TlsFO	B	Idle		
9	20	7	Unknown	TlsFO	B	Idle		
10	20	8	Unknown	TlsFO	B	Idle		
11	20	9	Unknown	TlsFO	B	Idle		
12	20	10	Unknown	TlsFO	B	Idle		
13	20	11	Unknown	TlsFO	B	Idle		
14	20	12	Unknown	TlsFO	B	Idle		
15	20	13	Unknown	TlsFO	B	Idle		
16	20	14	Unknown	TlsFO	B	Idle		
17	20	15	Unknown	TlsFO	B	Idle		
18	20	17	Unknown	TlsFO	B	Idle		
19	20	18	Unknown	TlsFO	B	Idle		
20	20	19	Unknown	TlsFO	B	Idle		
21	20	20	Unknown	TlsFO	B	Idle		
22	20	21	Unknown	TlsFO	B	Idle		
23	20	22	Unknown	TlsFO	B	Idle		
24	20	23	Unknown		D	ISDN D Channel		

4 From the menu, select **Query L3 D Channel SM** or **Query L3P D Channel SM**.

Viewing Channels of Logical spanID - 20 of a

	Span	Offset	Trunk Type	Trunk Group	Channel Type	Connection state	Last Purge	Last Alarm
8	20	7	Unknown	TIsFO	B			
9	20	8	Unknown	TIsFO	B			
10	20	9	Unknown	TIsFO	B			
11	20	10	Unknown	TIsFO	B			
12	20	11	Unknown	TIsFO	B			
13	20	12	Unknown	TIsFO	B			
14	20	13	Unknown	TIsFO	B			
15	20	14	Unknown	TIsFO	B			
16	20	15	Unknown	TIsFO	B			
17	20	16	Unknown	TIsFO	B			
18	20	17	Unknown	TIsFO	B			
19	20	18	Unknown	TIsFO	B			
20	20	19	Unknown	TIsFO	B			
21	20	20	Unknown	TIsFO	B			
22	20	21	Unknown	TIsFO	B			
23	20	22	Unknown	TIsFO	B			
24	20	23	Unknown		D	ISDN D Channel		

Bring Channel into Service

Take Channel out of Service

Busy Out Channel

Reset Busied Out Channel

Reset Channel

Query Channel Status

Query Channel Type

Query Trunk Type

Set Channel Type

Circuit (ISUP ITU)

Circuit (TUP)

Resource Attribute

Advanced Conferencing Parameters

Query L3 D Channel SM

Query L3P D Channel SM

Query ISDN Channels

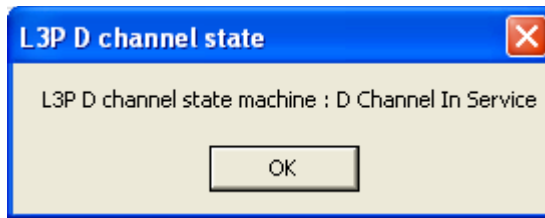
If you selected L3 D channel state, that state is displayed.

L3 D channel state

L3 D channel state machine : Established

OK

If you selected L3P D channel state, that state is displayed.



Click **OK** to close the D channel state window.

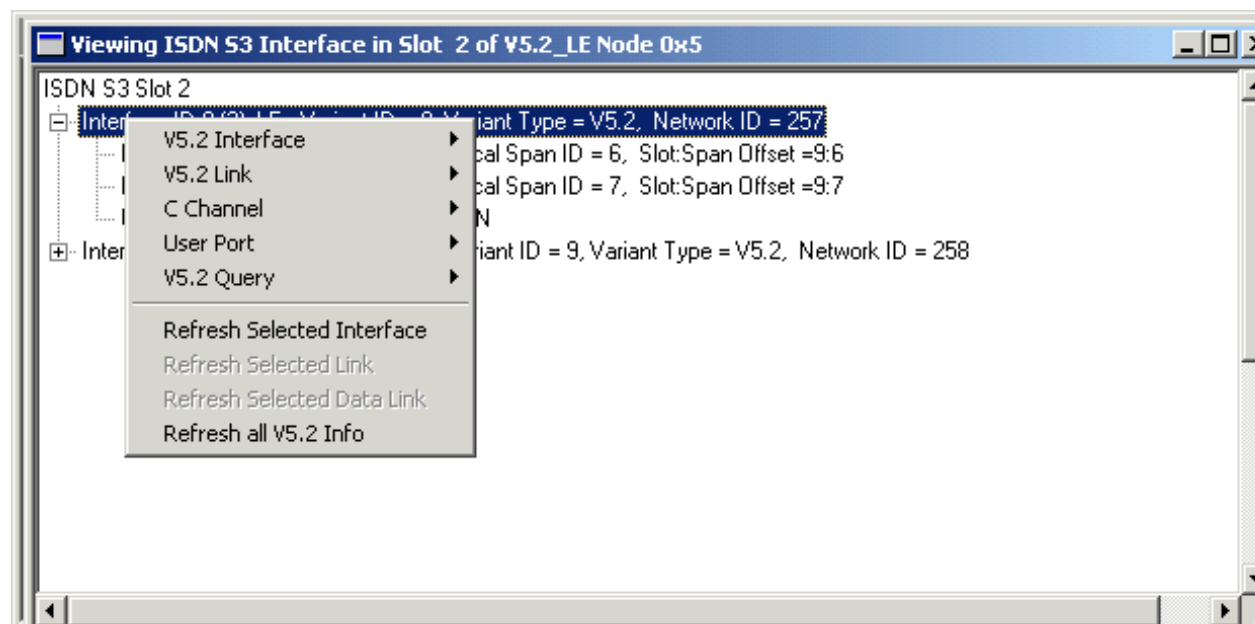
Monitoring, Removing & Querying V5.2 Entities

Purpose This procedure describes how to monitor, remove, and query entities related to the V5.2 interface configuration.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

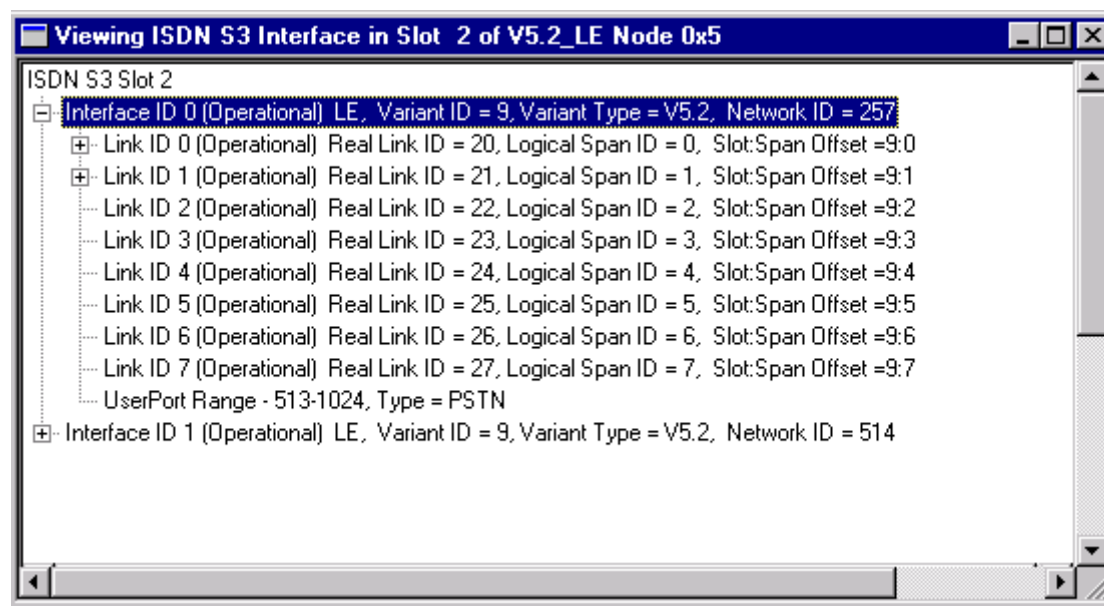
When viewing the V5.2 interface entities in the monitoring mode, the title bar of the related dialog box indicates that you are viewing the ISDN Series 3 interface.

Viewing the V5.2 Interface To view the V5.2 interface configuration, double-click the ISDN Series 3 card (labelled ISDN S3) for the V5.2 interface in the node view window. The next dialog box opens:



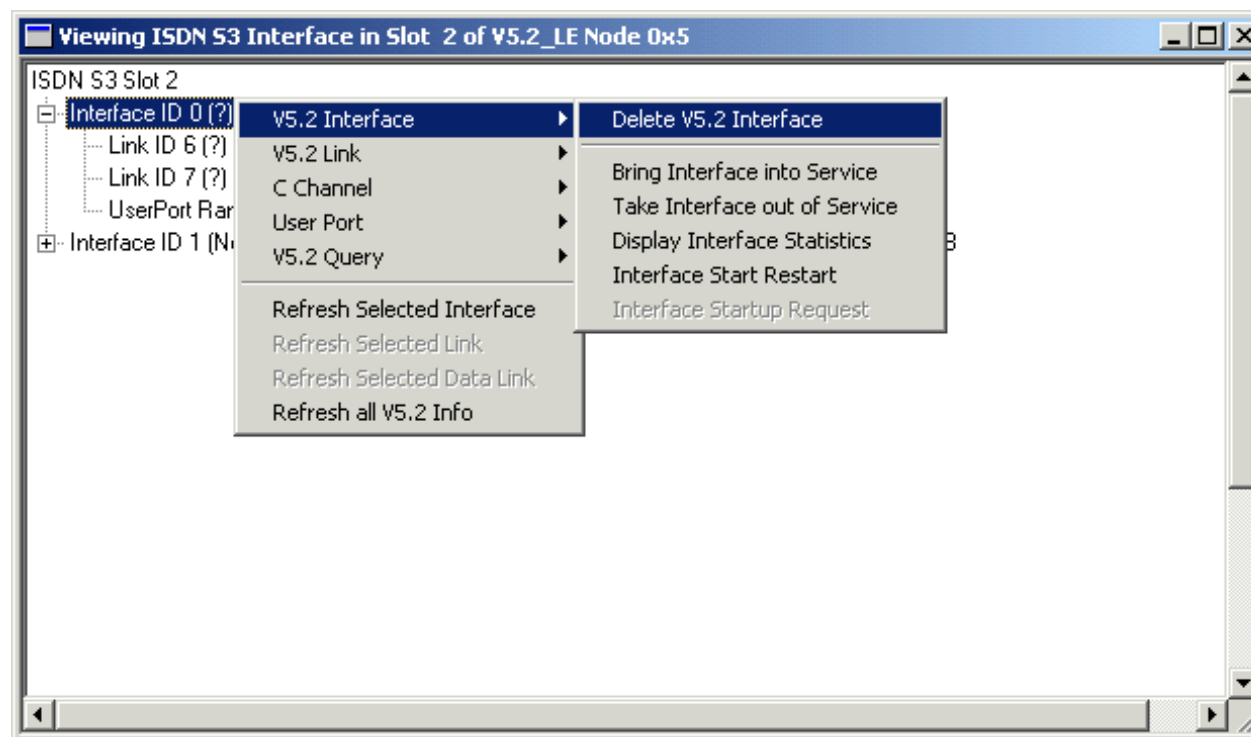
- Menu Options**
- The following options are available in the monitoring view of the V5.2 interface from the menu, **Provisioning→ V5.2:**
 - **V5.2 Interface**
 - **V5.2 Link**
 - **C Channel**
 - **User Port**
 - **V5.2 Query**

You can also find these menu items by right clicking in the **Viewing ISDN S3 Interface...** dialog box as shown in the next screen shot:

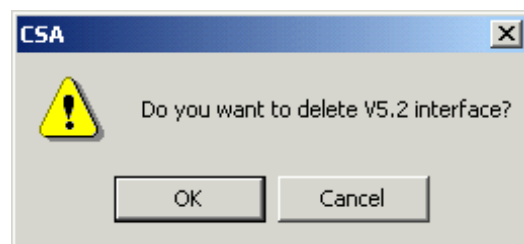


V5.2 Interface Deleting a V5.2 Interface

To delete a V5.2 interface, select **Delete V5.2 Interface** from the menu.



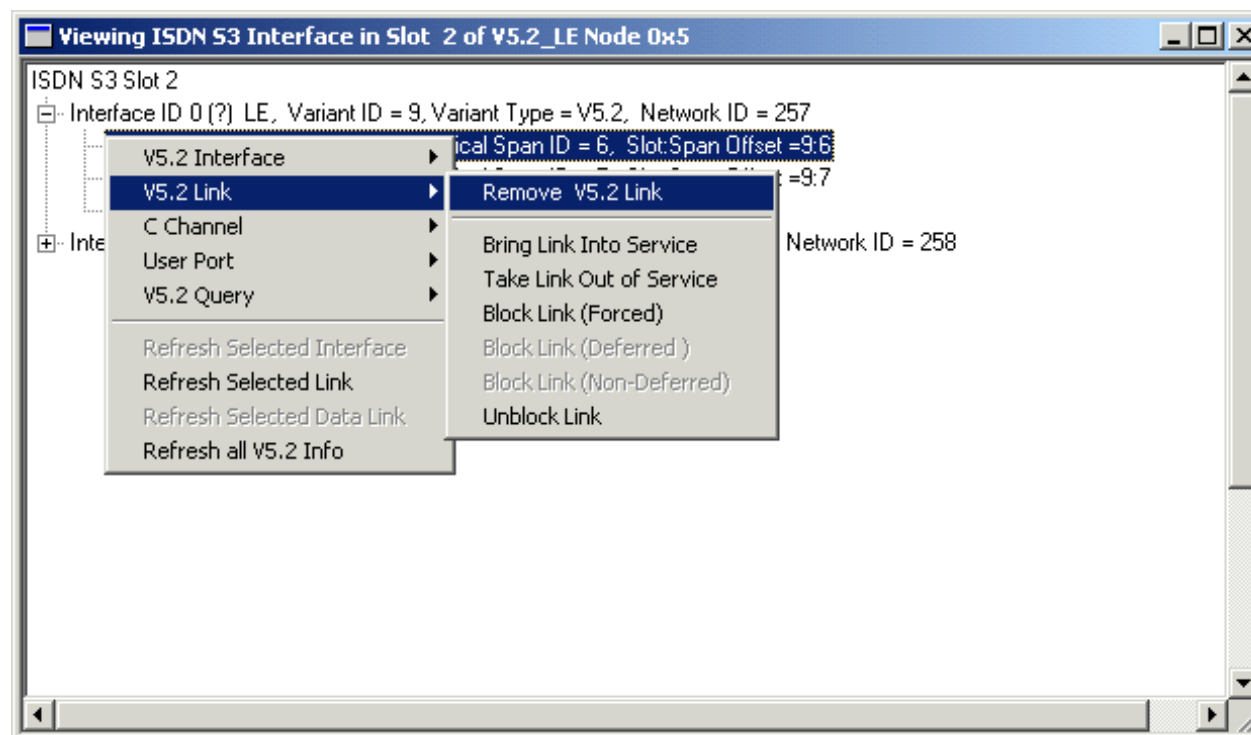
The next dialog box opens:



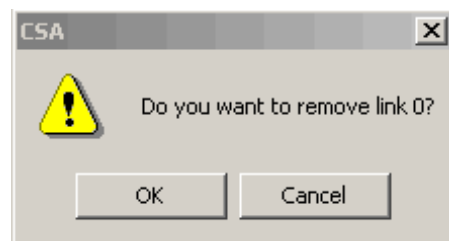
Click **OK**.

V5.2 Link Removing a V5.2 Link

To remove a link, in the **Viewing ISDN S3 Interface...** dialog box select the link you want to remove, right-click, and then from the menu select, **V5.2 Link→Remove V5 Link**.



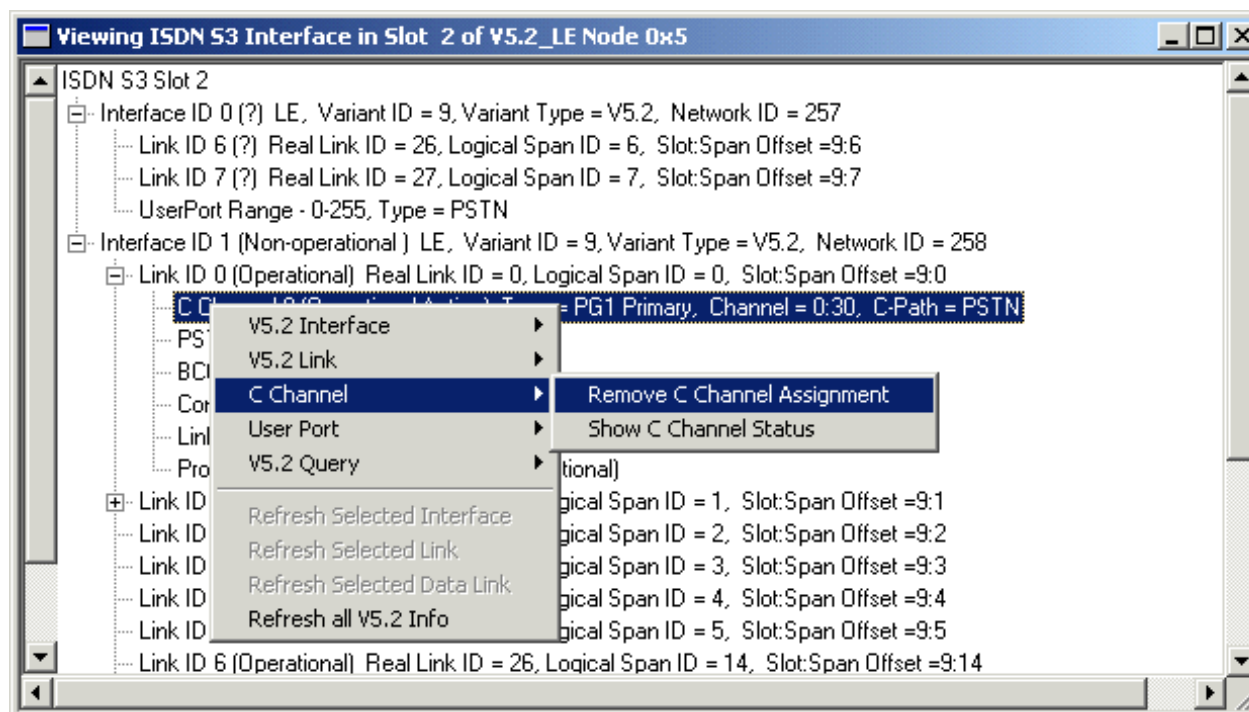
The next dialog box opens:



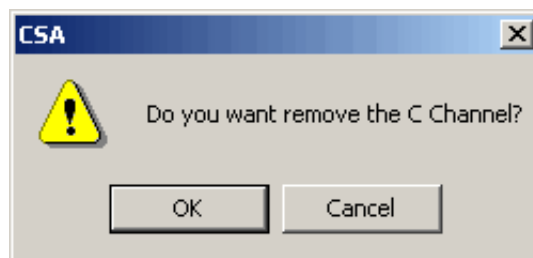
Click **OK**.

C Channel Removing a C Channel

To remove a C Channel assignment, select a C Channel in the **Viewing V5 Interface...** dialog box, right-click, and then select the menu, **C Channel**→**Remove C Channel Assignment**.

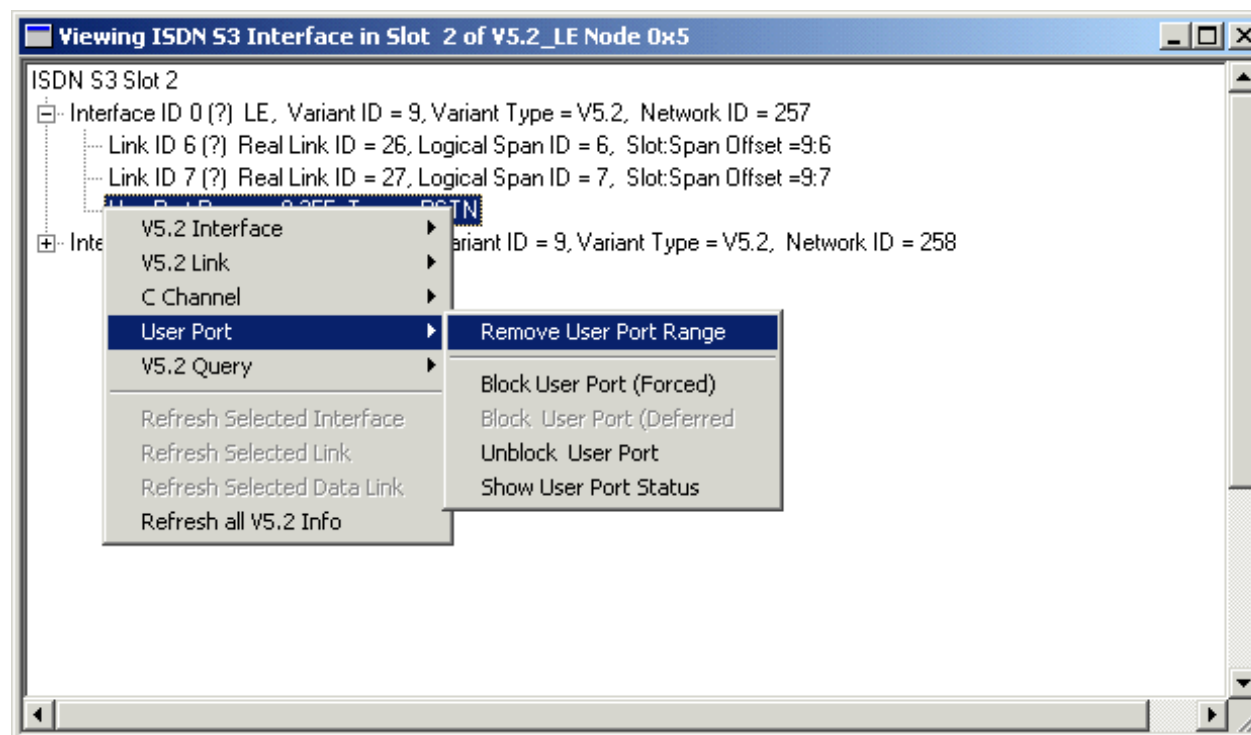


After the next dialog box opens, click **OK**.

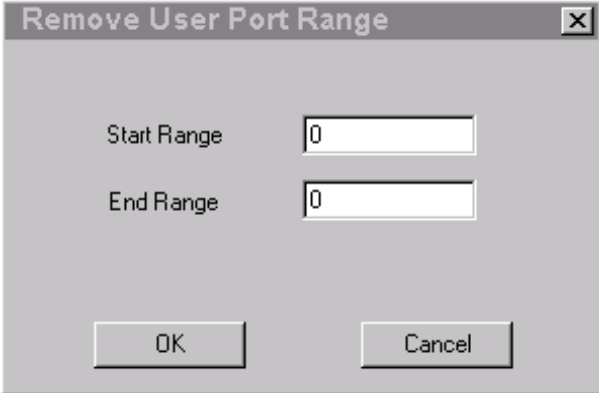


User Port Removing a User Port

To remove a user port range, highlight the user port, right-click, and then select the menu, **User Port→Remove User Port Range**.



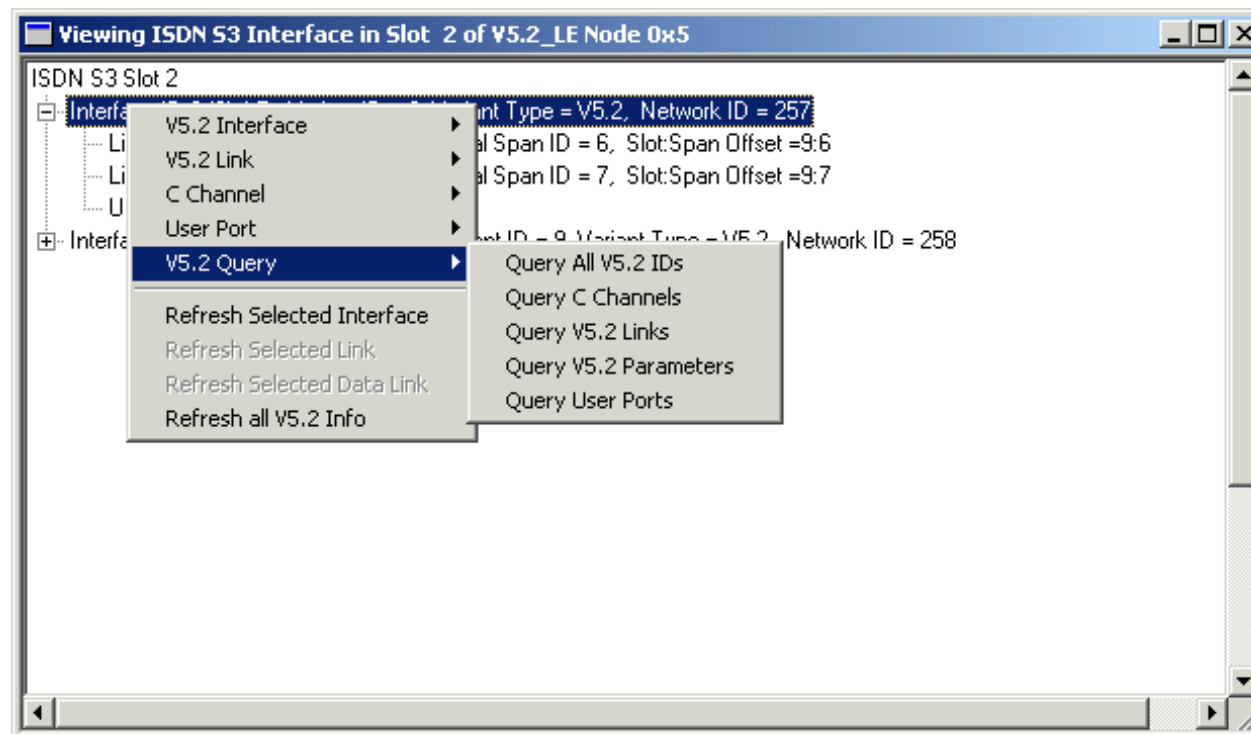
The next dialog box opens.



A screenshot of a dialog box titled "Remove User Port Range". The dialog box has a title bar with a close button (X). Inside, there are two input fields: "Start Range" and "End Range", both containing the value "0". At the bottom, there are two buttons: "OK" and "Cancel".

If applicable, change the **Start Port ID**, and **End Port ID**, and then click **OK**.

V5.2 Query To perform a query of the V5.2 interface configuration, select the menu, **Provisioning**→**V5.2**→**V5.2 Query** or right-click in the **Viewing ISDN S3 Interface...** dialog box.



The submenu items under **V5.2 Query** are:

- **Query All V5.2 IDs**
- **Query C Channels**
- **Query V5.2 Links**
- **Query V5.2 Parameters**
- **Query User Ports**

The results of these queries are presented in the **Viewing V5 Interface...** dialog box.

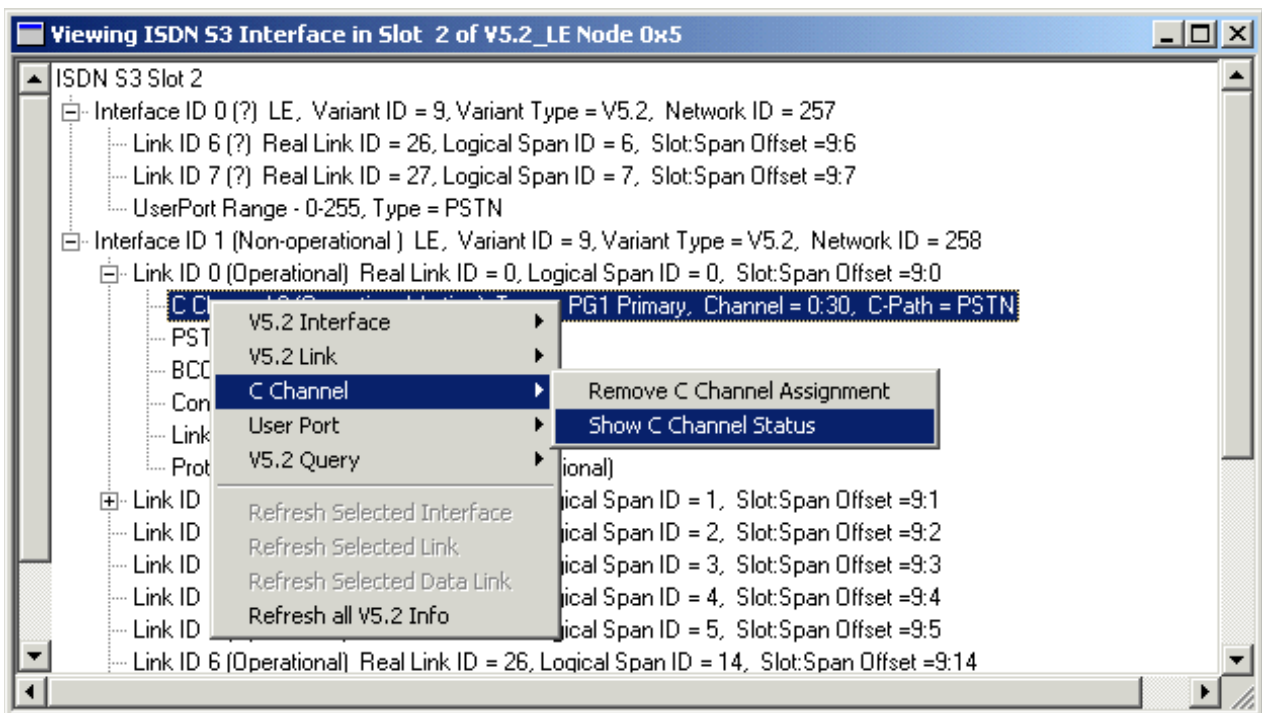
Querying the Status of a V5.2 C Channel

Purpose This procedure describes how to check the status of a V5.2 C Channel.

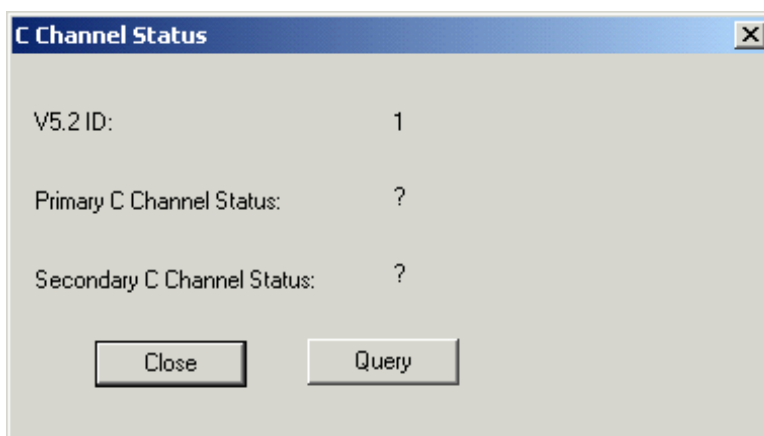
Before you begin LLC and SwitchManager must be running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Querying User Port Status Follow the steps below to check the status of a C Channel.

- 1 In the dialog box, **Viewing ISDN S3 Interface...**, highlight the C Channel that you want to check.
- 2 Right-click the C Channel and then select **C Channel**→ **Show C Channel Status**.

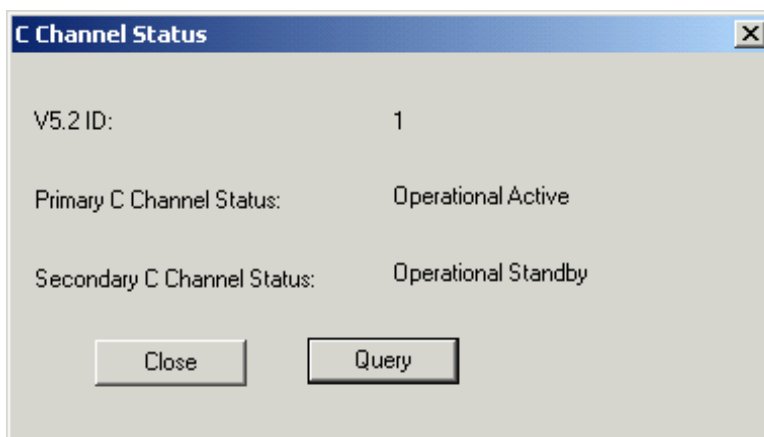


The **C Channel Status** dialog box opens:



3 Click **Query**.

The **C Channel Status** dialog box opens again. After you have viewed the information, click **Close**.



END OF STEPS

Querying the Status of a V5.2 User Port

Purpose This procedure describes how to check the status of a V5.2 user port.

Before you begin LLC and SwitchManager must be running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Querying User Port Status Follow the steps below to check the status of a user port.

-
- 1** In the dialog box, **Viewing ISDN S3 Interface...**, highlight the user port that you want to check.
-
- 2** Right-click the user port and then select **User Port→ Show User Port Status**.

The **User Port Status** dialog box opens:

[illegible]

Important! The maximum user port range that you can enter at a given time is 50. For example, you could use 1100 as the **Start User Port** and 1149 as the **End User Port**.

- 3** Enter the **Start User Port** and the **End User Port** that you want to check.

.....

4 Click **Query**.

The next dialog box opens:

User Port Status

Start User Port

100

End User Port

149

	V5 Port ID	Maintenance Status	Call Status
	100	Unblocked	Idle
	101	Unblocked	Idle
	102	Unblocked	Idle
	103	Unblocked	Idle
	104	Unblocked	Idle
	105	Unblocked	Idle
	106	Unblocked	Idle
	107	Unblocked	Idle
	108	Unblocked	Idle
	109	Unblocked	Idle
	110	Unblocked	Idle

Query

Close

-
- 5** You may enter another range for the **Start User Port** and **End User Port**, and continue to query. If you are finished querying, click **Close**.

END OF STEPS

Blocking/Unblocking V5.2 Links & User Ports

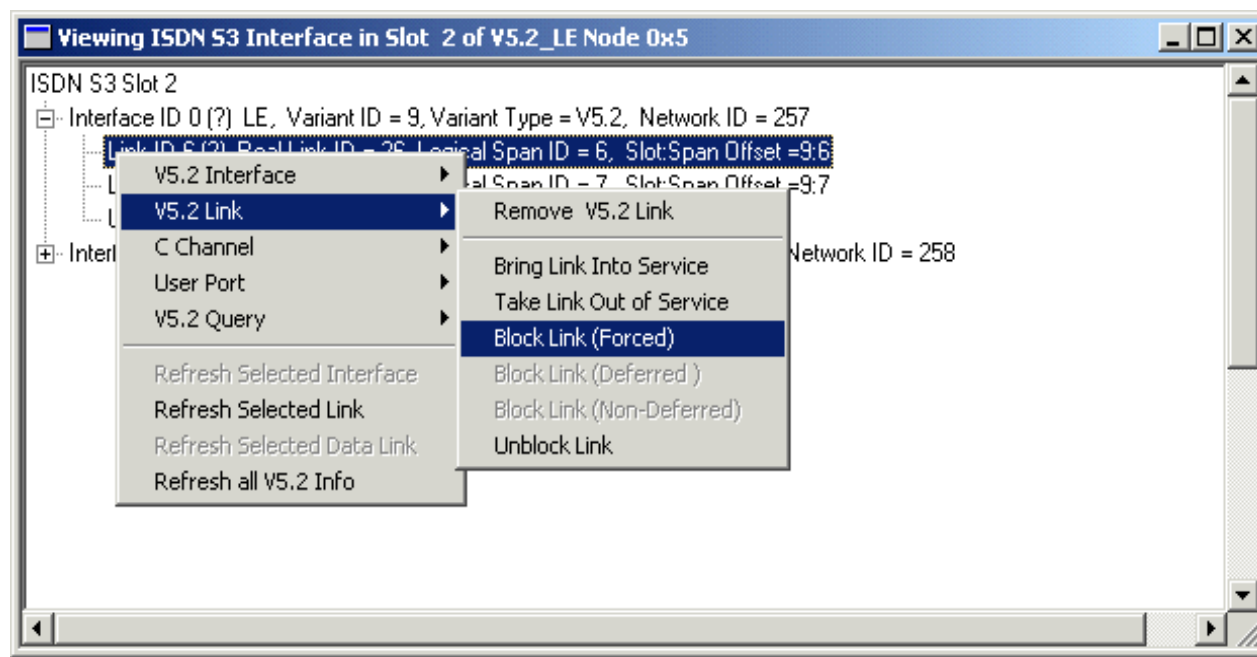
Purpose This procedure describes how to block and unblock V5.2 links and user ports.

Before you begin LLC and SwitchManager must be running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

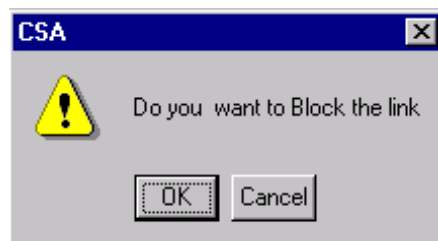
Blocking a Link Follow the steps below to block a link.

1 In the dialog box, **Viewing ISDN S3 Interface...**, highlight the link that you want to block.

2 Right-click the link and select **V5.2 Link**→ **Block Link (Forced)** as shown in the next screen shot:



-
- 3 The next dialog box opens.

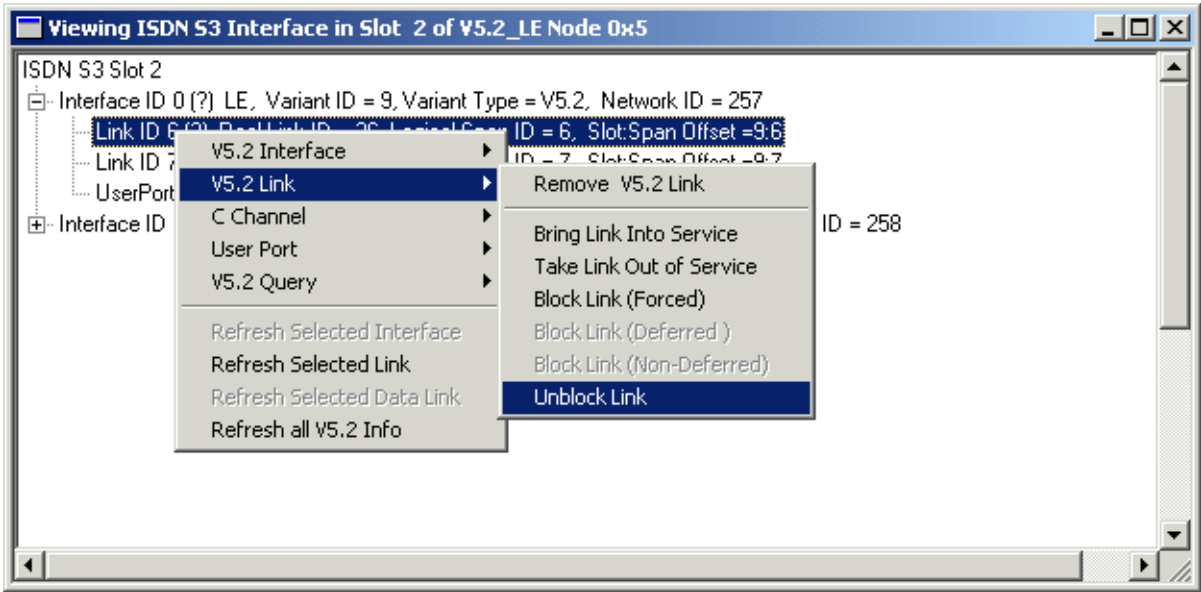


-
- 4 Click **OK**.

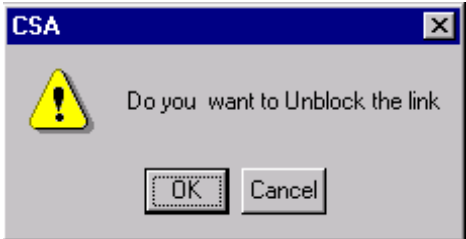
END OF STEPS

Unblocking a Link Follow the steps below to unblock a link.

- 1 In the dialog box, **Viewing ISDN S3 Interface...**, highlight the blocked link that you want to unblock.
-
- 2 Right-click the blocked link and select **V5.2 Link**→ **Unblock Link** as shown in the next screen shot.



3 The next dialog box opens.

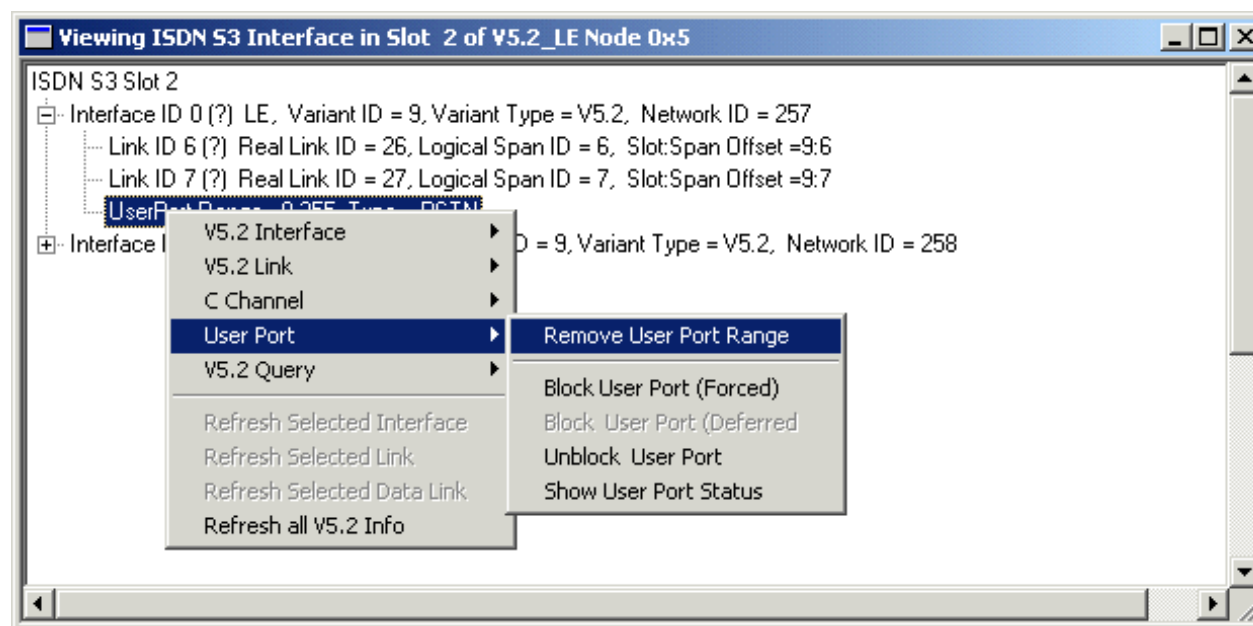


4 Click **OK**.

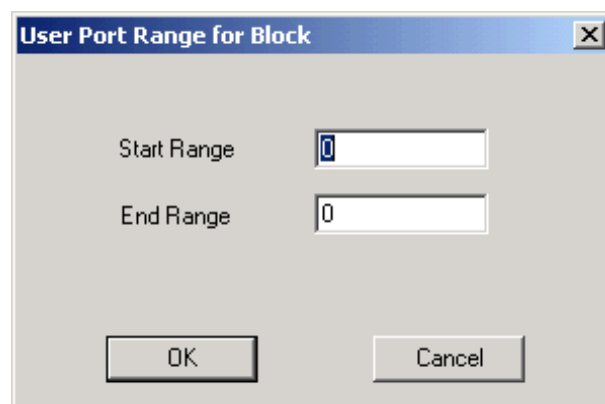
END OF STEPS

Blocking a User Port Follow the steps below to block a user port.

- 1 In the dialog box, **Viewing ISDN S3 Interface...**, highlight the user port that you want to block.
- 2 Right-click the link and select **User Port**→ **Block User Port (Forced)** as shown in the next screen shot.



- 3 The next dialog box opens.



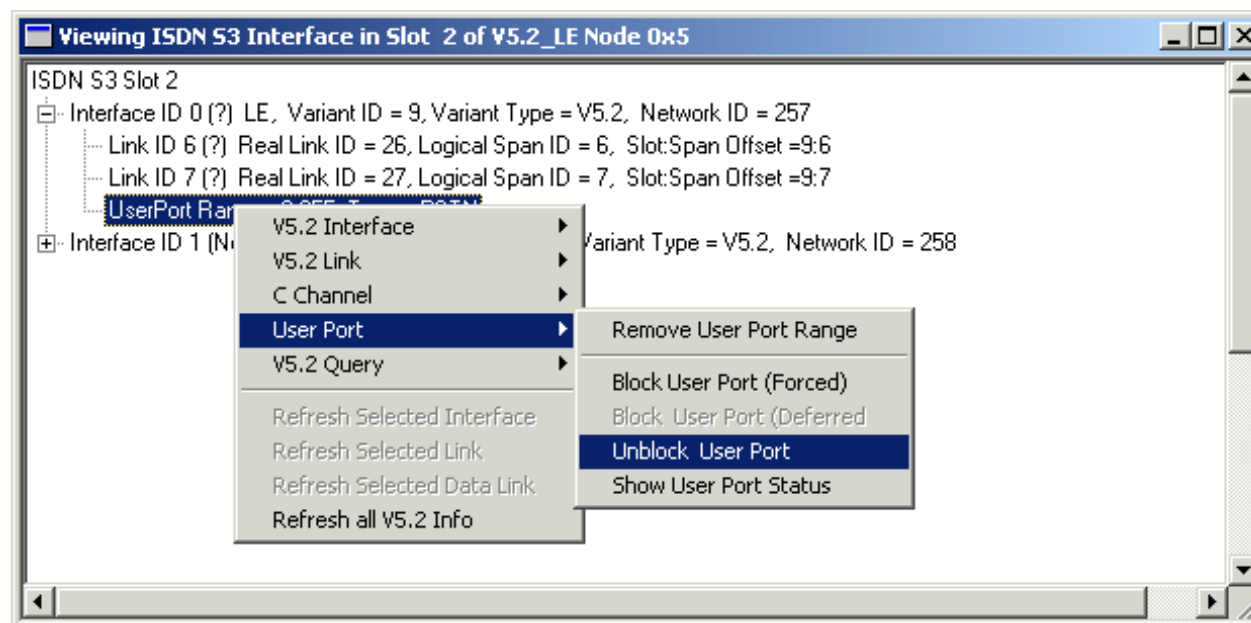
-
- 4 Enter the **Start Range** and **End Range** of the user port range you want to block. Click **OK**.

END OF STEPS

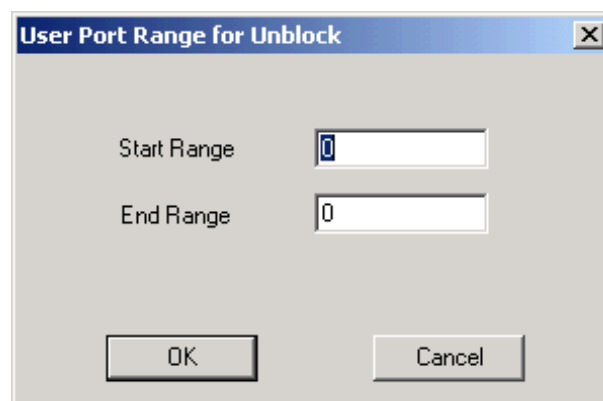
Unblocking a User Port Follow the steps below to unblock a user port.

-
- 1 In the dialog box, **Viewing ISDN S3 Interface...**, highlight the blocked user port that you want to unblock.
 - 2 Right-click the link and select **User Port**→ **Unblock User Port** as shown in the next screen shot
-

:



- 3 After the next dialog box opens, enter the **Start Range** and **End Range** of the user port range you want to unblock. Click **OK**.



Changing the Event View

Purpose This section explains the Event View and how to use the Event Filter to change the Event View window.

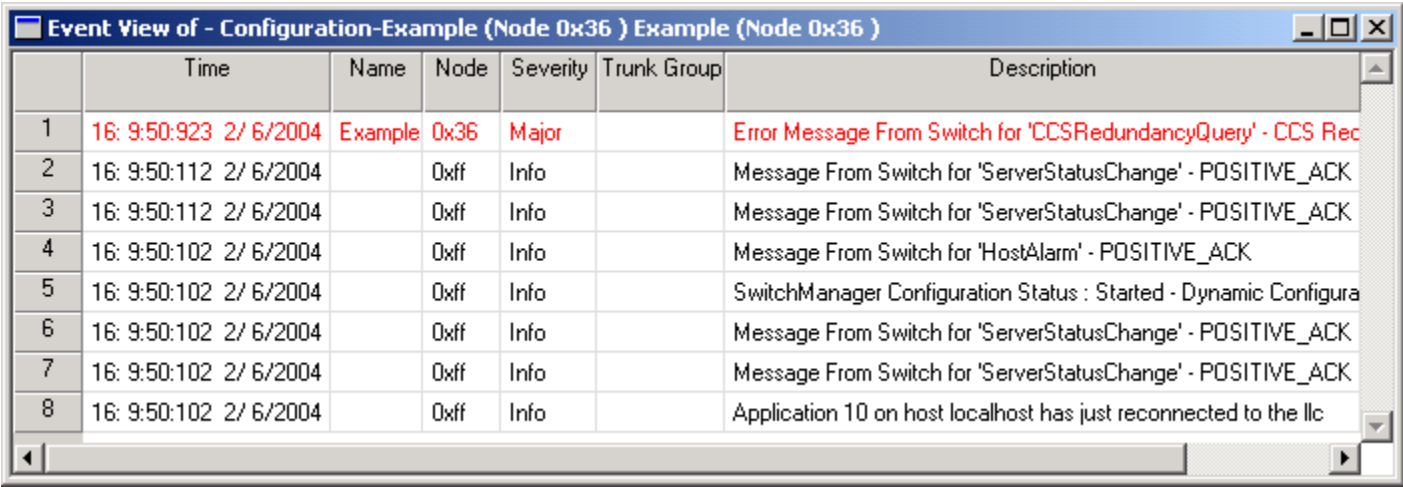
Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation set. To enable the Event View menu, you must select a monitor icon of a node in the global view.

Event View When you connect to an LLC, the CSA opens, by default, an **Event View** window for that connection. Major events are shown in red in the **Event View** window, other events are shown in black.

The CSA stores event view and filter settings in a default file. When you restart the CSA, it opens all the event views with the corresponding filters.

Events are added every two seconds to the **Event View** window. By default, up to 250 events are displayed in an **Event View** window at a time. The **Event View** displays a maximum of 2,500 events. The CSA stores events in memory using the first-in, first-out (FIFO) principle.

If you close this window and then want to re-open it, on the menu, select **Event View**→**New Event View**. The settings for the default filter are all events selected, except for PPL Events:



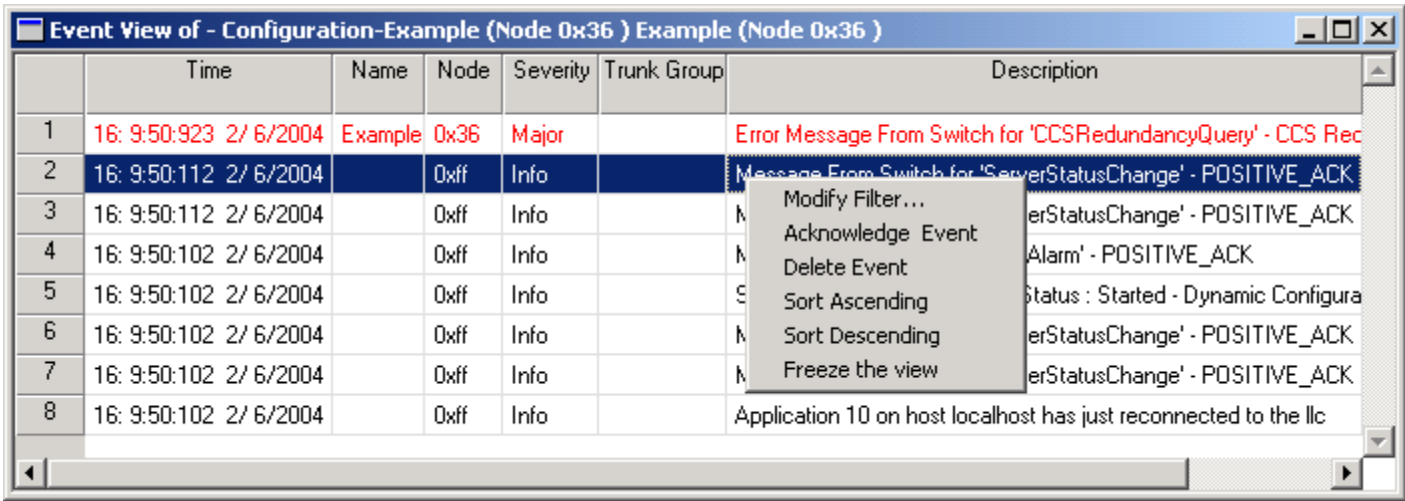
The screenshot shows a window titled "Event View of - Configuration-Example (Node 0x36) Example (Node 0x36)". It contains a table with 7 columns: an index column, Time, Name, Node, Severity, Trunk Group, and Description. The first row is highlighted in red, indicating a major event. The other rows are in black, indicating info events.

	Time	Name	Node	Severity	Trunk Group	Description
1	16: 9:50:923 2/ 6/2004	Example	0x36	Major		Error Message From Switch for 'CCSRedundancyQuery' - CCS Rec
2	16: 9:50:112 2/ 6/2004		0xff	Info		Message From Switch for 'ServerStatusChange' - POSITIVE_ACK
3	16: 9:50:112 2/ 6/2004		0xff	Info		Message From Switch for 'ServerStatusChange' - POSITIVE_ACK
4	16: 9:50:102 2/ 6/2004		0xff	Info		Message From Switch for 'HostAlarm' - POSITIVE_ACK
5	16: 9:50:102 2/ 6/2004		0xff	Info		SwitchManager Configuration Status : Started - Dynamic Configura
6	16: 9:50:102 2/ 6/2004		0xff	Info		Message From Switch for 'ServerStatusChange' - POSITIVE_ACK
7	16: 9:50:102 2/ 6/2004		0xff	Info		Message From Switch for 'ServerStatusChange' - POSITIVE_ACK
8	16: 9:50:102 2/ 6/2004		0xff	Info		Application 10 on host localhost has just reconnected to the llc

When the **Event View** is open, you can do the following:

- Modify Filter
- Acknowledge Event
- Delete Event
- Sorting
- Freeze the View

The above tasks are described in more detail in the next few pages. To access the relevant menus, in the **Event View**, you right-click one of the events and make a selection. See the next screen shot:



Modify Filter

You can open more than one **Event View** window with different event filter settings. However, when you open a new **Event View** window, it always opens with the default event filter settings. You can change the default filters.

In the **Event Filter** dialog box, you can change filters for a node selected in the global view. The filter options relate to:

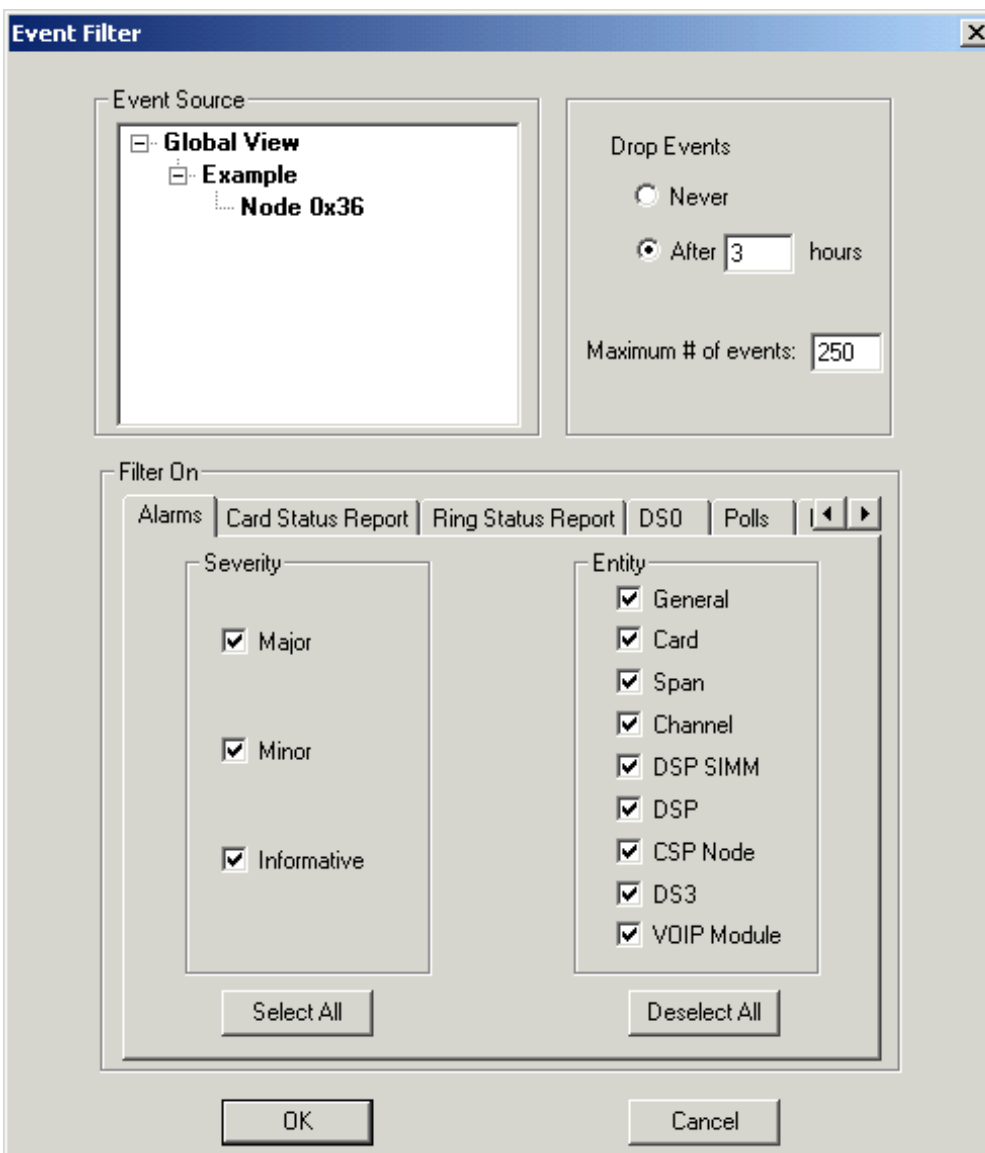
- Alarms
- Card Status Report
- Ring Status Report
- DSO

- Polls

Follow the next steps to change filters for an **Event View**.

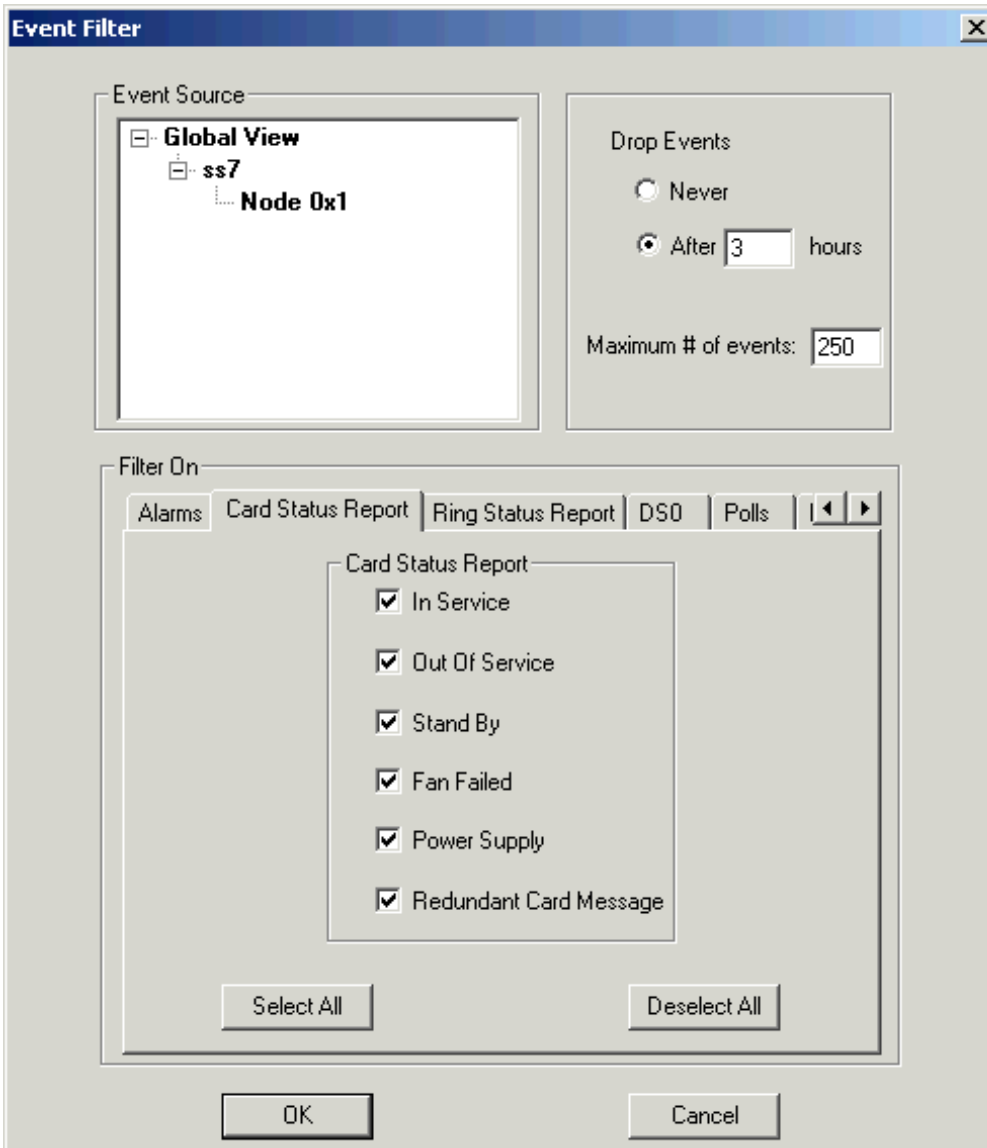
- 1 With the monitor icon selected in the global view, go to the **Event View** menu and select **Event Filter**.

The **Event Filter** dialog box opens with the default settings selected, as shown in the next screen shot:



-
- 2 To change when events are dropped from your event view, select **Never**, or change the numbers of hours you want to see events before they are dropped. You can change the number of events that will be stored before they are dropped. You can store a maximum of 2,500 events.
 - 3 You can change the **Severity** and **Entity** settings for **Alarms** by deselecting the relevant check boxes or using the buttons.
 - 4 To change the filters on the **Card Status Report**, click on the tab and deselect the appropriate check boxes or use the **Select All** or **Deselect All** buttons.
-

The next screen shot shows the default settings selected.



The **Event Filter** dialog box is used to configure event filtering. It features a tree view for **Event Source** showing a hierarchy from **Global View** to **ss7** to **Node 0x1**. To the right, the **Drop Events** section allows selecting between **Never** and **After 3 hours**, with a **Maximum # of events** set to 250. The **Filter On** section contains tabs for **Alarms**, **Card Status Report**, **Ring Status Report**, **DSO**, and **Polls**. The **Card Status Report** tab is active, displaying a list of status items with checkboxes: **In Service**, **Out Of Service**, **Stand By**, **Fan Failed**, **Power Supply**, and **Redundant Card Message**. **Select All** and **Deselect All** buttons are provided for this list. **OK** and **Cancel** buttons are at the bottom.

Event Filter

Event Source

- Global View
 - ss7
 - Node 0x1

Drop Events

☐ Never

☒ After 3 hours

Maximum # of events: 250

Filter On

Alarms | Card Status Report | Ring Status Report | DSO | Polls

Card Status Report

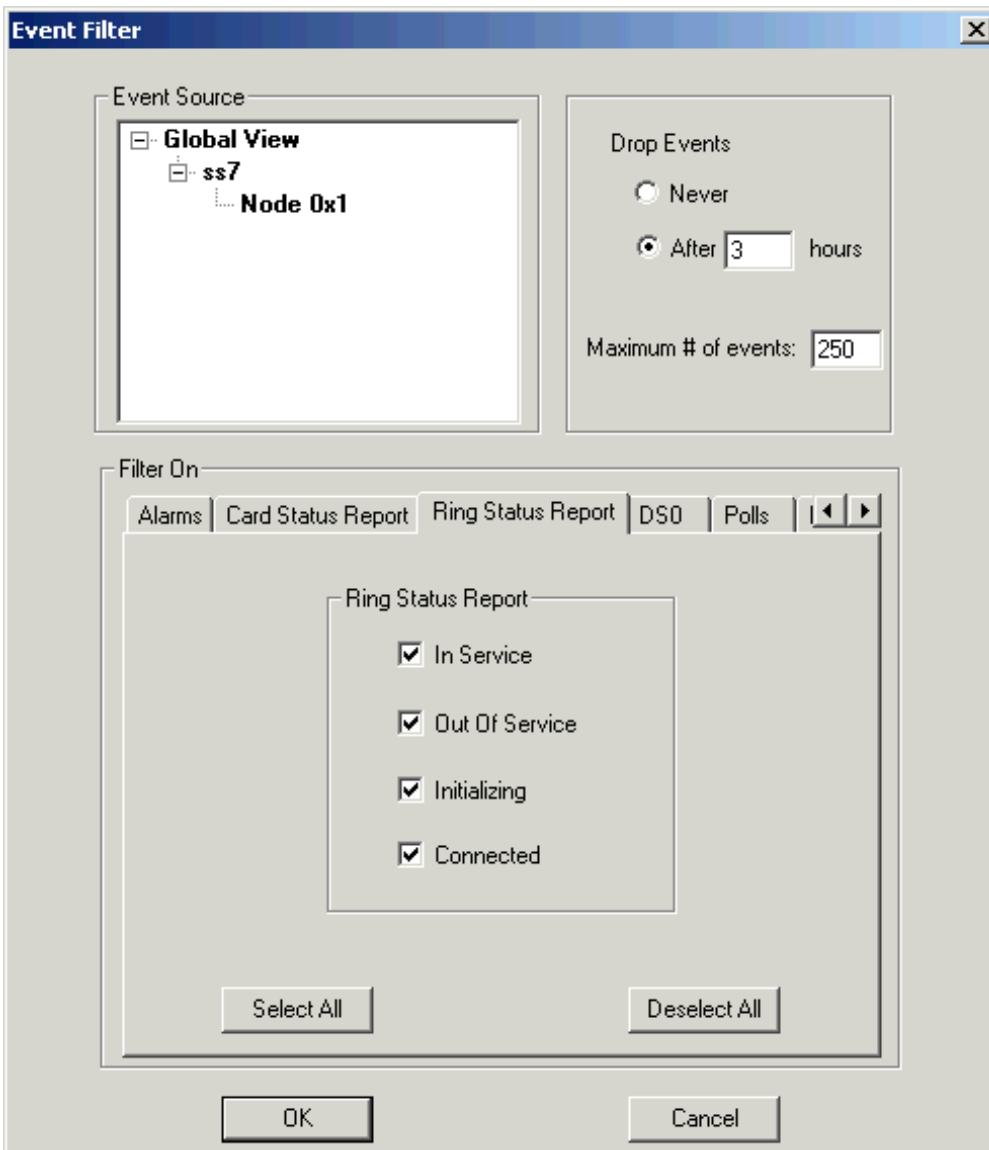
- ☒ In Service
- ☒ Out Of Service
- ☒ Stand By
- ☒ Fan Failed
- ☒ Power Supply
- ☒ Redundant Card Message

Select All | Deselect All

OK | Cancel

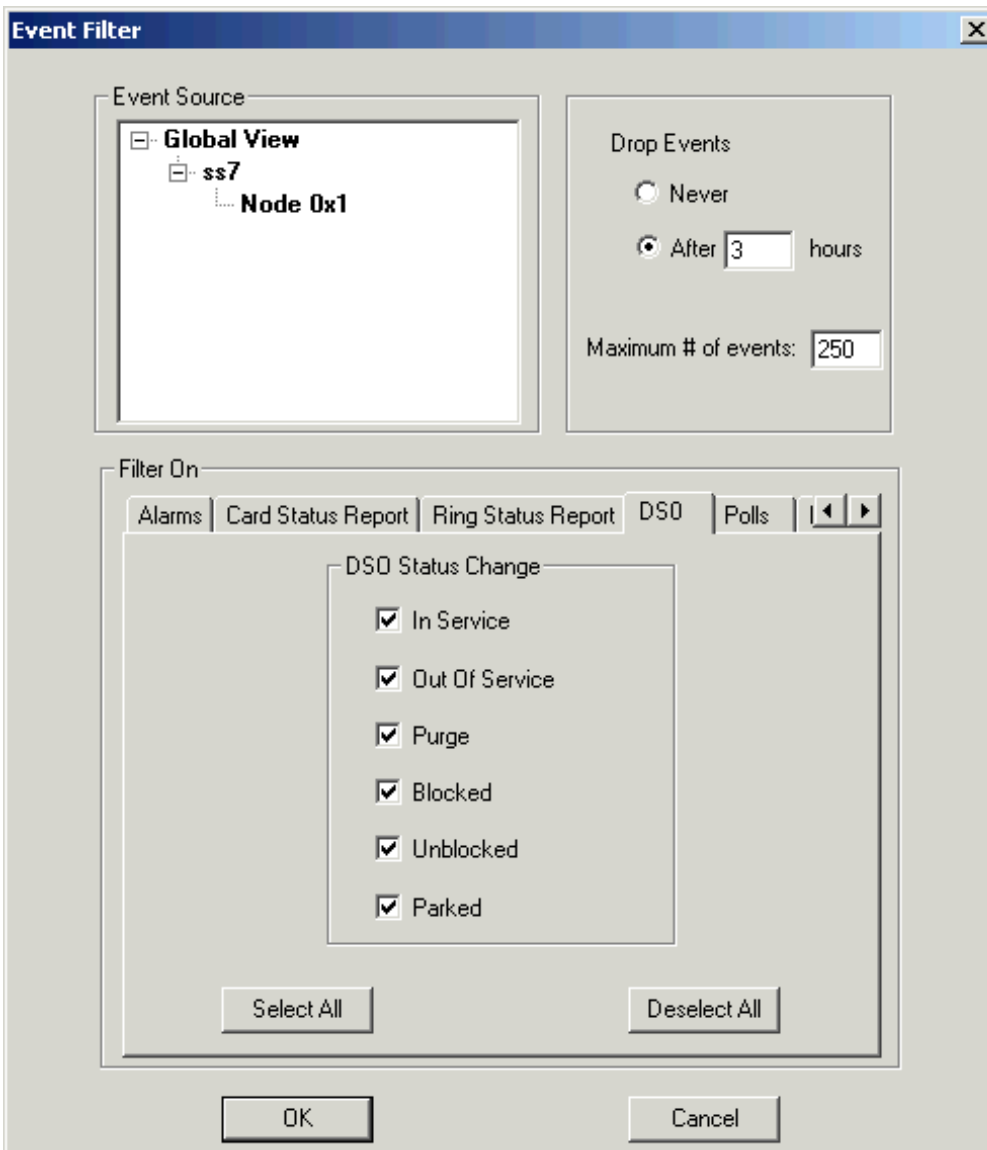
-
- 5 To change the **Ring Status Report** filters, click on the tab and deselect the appropriate check boxes or use the **Select All** or **Deselect All** buttons.

The next screen shot shows the default settings selected.



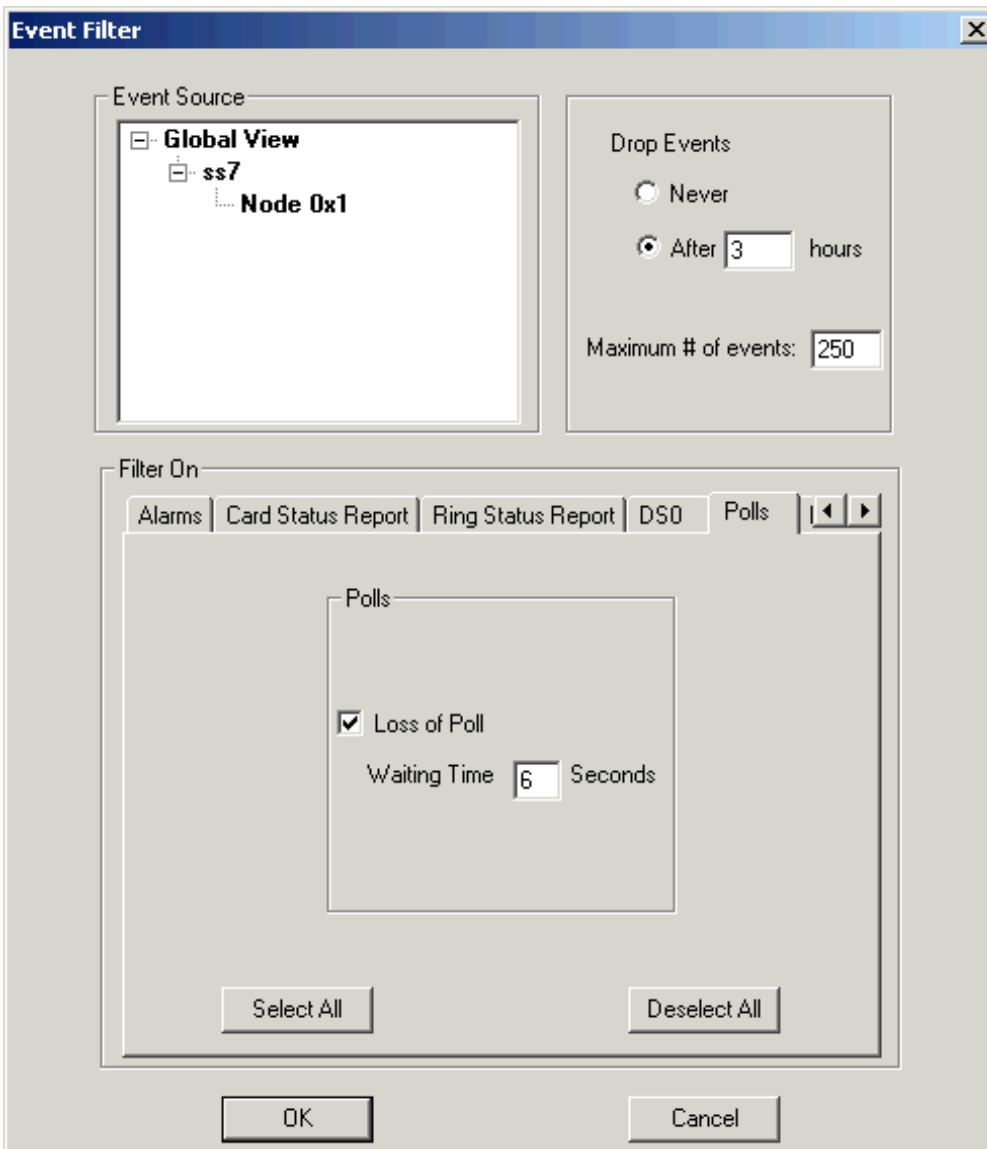
- 6 To change the DSO Status Change filters, click on the **DSO** tab and deselect the appropriate check boxes or use the **Select All** or **Deselect All** buttons.

The next screen shot shows the default settings selected.



- 7 To change the filters on polls, click on the **Polls** tab and deselect **Loss of Poll**.

The next screen shot shows the default settings selected.



To save all changes to the event filters, click **OK**.

END OF STEPS

Delete Event You can delete one event or several events at one time by selecting the rows in the **Event View**. Right-click on the selected events and then select **Delete Event** from the pop-up menu.

Sorting You can sort the view based on any field of the grid in ascending or descending order. However, the sorting only applies to events currently in the table. New events always get added at the top of the table.

To sort the events you right-click in the column of the field you want to sort in the **Event View** window, select **Sort Ascending** or **Sort Descending** from the pop-up menu.

Freeze the View You can freeze the view so that no more events are added to the view.

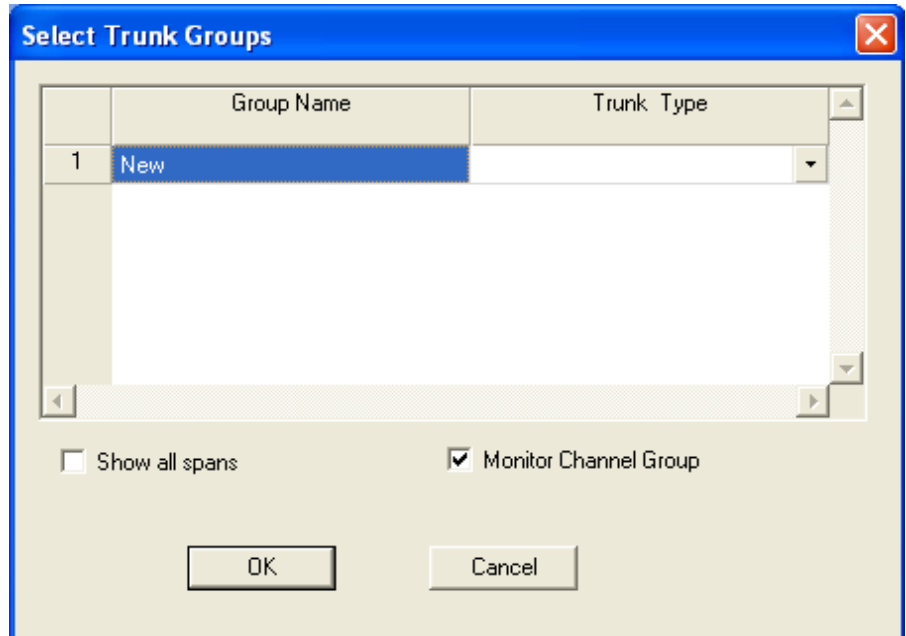
To do this, right-click in the **Event View** window, select **Freeze the View** from the pop-up menu.

Menu for Monitoring Channels

Monitor Channel

You can monitor channels by selecting the menu:

Monitor→Channel→New Window or **Monitor→Trunk Group→New Window**. In the **Select Trunk Groups** dialog box, ensure that the **Monitor Channel Group** option is checked. Highlight a trunk group you want to monitor and then, in the **Trunk Type** column, make a selection.



Click **OK** and the **Monitoring Channels** window opens.

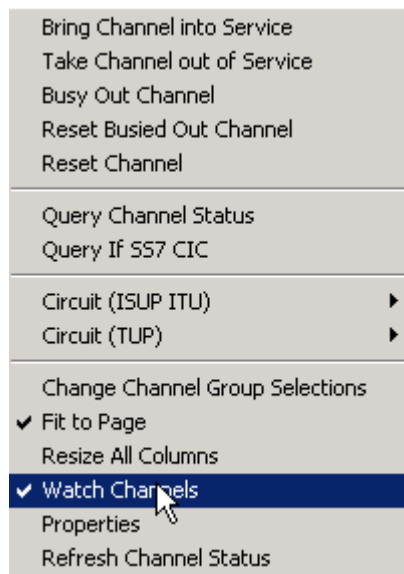
Important! When **Show all Spans** is checked, then all the trunk groups will be disabled and queries will not be sent on any of the trunk groups.

See the example screen shot on the next page.

Monitoring Channels of Sample						
	0	1	2	3	4	
Off 0	Idle	Idle	SS7 Link Channel	SS7 Link Channel	Idle	Idle
Off 1	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 2	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 3	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 4	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 5	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 6	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 7	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 8	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 9	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 10	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 11	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 12	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 13	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 14	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 15	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 16	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 17	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 18	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 19	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 20	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 21	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 22	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 23	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 24	Idle	Idle	Out of Service	Out of Service	Idle	Idle
Off 25	Idle	Idle	Out of Service	Out of Service	Idle	Idle

Related Menu Items

To access the following menu items, right-click the **Monitoring Channels of ...** window and select an option. See the next screen shot.

**Circuit (ISUP ITU)**

You may choose to block, unblock, or reset the selected circuit.

Circuit (TUP)

You may choose to block, unblock or reset on the selected circuit.

Change Channel Group Selections

Use the **Change Channel Group Selections** menu to change the selected channel group for the current monitor channel view.

Specify Channel Range

Use this menu to specify the channel range to be viewed.

Fit to Page

Use the **Fit to Page** menu to specify the monitor channel window size specifications.

Resize all Columns

Use this menu to resize all columns to the size of the current selection.

Watch Channels

Use the **Watch Channels** menu to see the call processing status of the channels. This feature affects the LLC performance because it displays the entire events associated with call processing.

Properties

Use this menu to view the properties of the current selection.

Refresh Channel Status

Use this menu to update the status of the channels by sending a System Configuration Query message. The message always returns the status of a span. Sending this message to one channel updates all channels in the span.

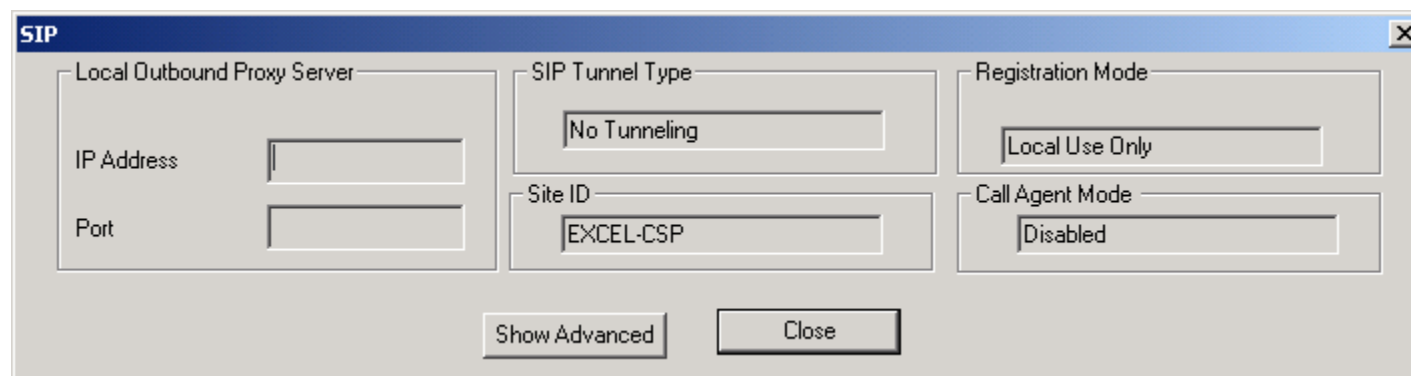
Querying SIP Configuration

Purpose This procedure describes how to query the SIP configuration.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Querying procedure Follow the steps below to query the SIP configuration.

- 1 Right-click in the node view window (outside the card slots) and select **Query SIP Configuration** or select the menu **Provisioning**→**SIP**→**Query SIP Configuration**. The next window opens:



The screenshot shows a window titled "SIP" with a close button in the top right corner. The window is divided into three main sections. The first section, "Local Outbound Proxy Server", contains two input fields: "IP Address" and "Port". The second section, "SIP Tunnel Type", contains a dropdown menu showing "No Tunneling" and a "Site ID" field showing "EXCEL-CSP". The third section, "Registration Mode", contains a dropdown menu showing "Local Use Only" and a "Call Agent Mode" dropdown menu showing "Disabled". At the bottom of the window are two buttons: "Show Advanced" and "Close".

- 2 Click **Show Advanced** to see the current SIP configuration. The **SIP Advanced** window opens. See the screen shot on the next page.

SIP Advanced ✕

Local Outbound Proxy Server Domain Name <input type="text"/> Port <input type="text"/>	SIP Tunnel Type <input type="text" value="No Tunneling"/> Site ID <input type="text" value="EXCEL-CSP"/>	Registration Mode <input type="text" value="Local Use Only"/> Call Agent Mode <input type="text" value="Disabled"/>
---	---	--

Advanced Configuration

T1 Timer Value for INVITE(ms) <input type="text" value="500"/> T1 Timer Value for BYE(ms) <input type="text" value="500"/> T2 Timer (ms) <input type="text" value="4000"/> SIP Port <input type="text" value="5060"/> Max Retransmissions for INVITE <input type="text" value="7"/>	Advanced Registration Settings Registration Lookup <input type="text" value="Disabled"/> Default Registration Timeout(sec) <input type="text" value="3600"/> Minimum Registration Timeout(sec) <input type="text" value="0"/> Number of Registration Blocks <input type="text" value="1"/> Max Retransmissions for BYE <input type="text" value="11"/>	DNS Server Domain Name <input type="text"/> Primary IP <input type="text"/> Secondary IP <input type="text"/> Tertiary IP <input type="text"/> Default Calling Party ID <input type="text" value="00000000"/>
--	---	--

Session Timers (sec) Session Interval <input type="text" value="1800"/> Min-SE <input type="text" value="300"/>	Advanced IP Routing <input type="checkbox"/> Enable Advanced IP Routing
--	---

Additional Host Signalling Parameters

- ☐ Dialog Information (Call-ID, From Tag and To Tag)
- ☐ Proxy-Authorization Header
- ☐ Authorization Header
- ☐ Request URI Info
- ☐ Media Connection Address
- ☐ Contact URI Parameters
- ☐ Request URI Parameters
- ☐ Remote Party ID
- ☐ RPID Privacy
- ☐ Report Subject Header
- ☐ Outbound Call-ID
- ☐ Reset to default values

TCP Configuration
Persistent Sockets ☒ Disabled ☐ Enabled
Existing Socket Reuse ☒ Disabled ☐ Enabled
Outbound Transport Type ☒ UDP ☐ TCP
SIP Idle Socket Timeout (sec)

Call Progress Notification

- ☒ Media changed via re-INVITE ☐ 180 received
- ☒ 200 OK received ☐ Reset to default values
- ☒ 183 received

Querying SIP Registrations

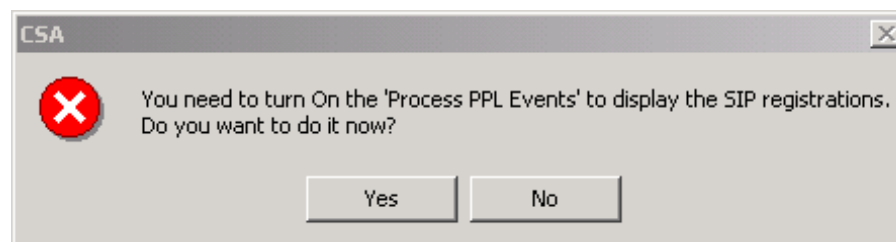
Purpose This procedure describes how to query the SIP registrations. This query allows you to find out what users are registered and how many users are registered.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Querying procedure Follow the steps below to query the SIP Registrations.

1 Right click in the node view window (outside the card slots) and select **SIP Registrations** or select the menu, **Provisioning**→**SIP- SIP Registrations**.

2 If you have not already turned on process PPL Events from the menu under **Monitor**, you will be prompted to turn on process PPL events.



Click **Yes**. If you click **No**, you will not be able to send a query.

3 After the **SIP Registrations** window opens, select either of the two query options:

- **Query All Registration**

- **Query Based on User Name**

Dialogic recommends using **Query Based on User Name** to avoid performance issues for a fully-loaded system.

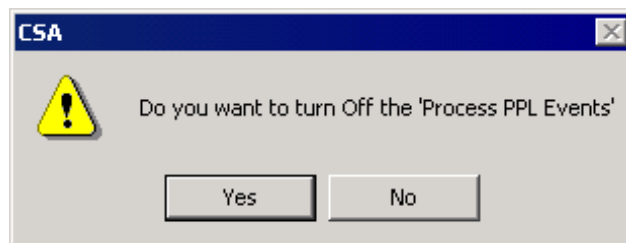
Click **Query** and the table will show the **Query Result**. By right-clicking in the table, you can sort the query results by column. You can do multiple queries and the results will be added to the existing ones in the table. If you want to start with an empty table for each query, right-click in the table and select **Clear All Query Result**.

The screenshot shows a window titled "SIP Registrations". Inside, there is a "Query" section with two radio buttons: "Query All Registration" (unselected) and "Query Based on User Name" (selected). To the right of the selected radio button is a "User Name" label and a text input field containing "Exceluser". Below this is a "Query" button. Below the "Query" section is a "Query Result" section containing a table. The table has six columns: "User Name", "Contact Name", "Host Name", "Port", and "Expires in (sec)". The first two rows of the table are populated with data. The first row shows "2222" for both User Name and Contact Name, "10.1.205.133" for Host Name, "5060" for Port, and "3600" for Expires in (sec). The second row shows "lucentuser" for User Name, "Exceluser" for Contact Name, "10.1.205.190" for Host Name, "5060" for Port, and "3600" for Expires in (sec). The table has 12 rows in total, with rows 3 through 12 being empty. There are scroll bars on the right and bottom of the table.

	User Name	Contact Name	Host Name	Port	Expires in (sec)
1	2222	2222	10.1.205.133	5060	3600
2	lucentuser	Exceluser	10.1.205.190	5060	3600
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

END OF STEPS

Note Dialogic recommends you turn off 'Process PPL Events' when you have finished displaying SIP registrations.



Querying H.323 Configuration

Purpose This procedure describes how to query the H.323 configuration.

Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Querying procedure Follow the steps below to query the H.323 configuration.

- 1 Right-click the IPS S3 card in the node view window and select **H.323 Status**, or select the menu item **Provisioning→H.323 →H.323 Status**. The **H.323 IP Signaling Series 3...** monitoring window opens.

The screenshot shows a window titled "H.323 IP Signaling Series 3, Node 0x15, Slot 0". It contains several sections with input fields and buttons:

- H.323 IP Signaling Series 3**: ID (45), IP Address (10.10.1.62).
- Matrix/CPU**: Primary/Shared IP address (10.10.1.176), Primary/Shared Port Number (12800).
- Polls**: Poll Interval (*10 ms) (100), Max Missed Polls (10).
- Link Down Timer**: Timer Value (*10ms) (12000).
- GK**: GK Status (Discovered & Registered), GK IP Address (10.10.1.252), and an UnRegister GK button.

At the bottom right, there are two buttons: "Show Attribute" and "Close".

- 2 To unregister the gatekeeper, click **UnRegister GK**.

If the gatekeeper status is not discovered or registered and you would like to do so, click **GateKeeper Request**. Enter values in the **GK Status** and **GK IP Address** fields.

H.323 IP Signaling Series 3, Node 0x2, Slot 2

H.323 IP Signaling Series 3

ID: 3

IP Address: 135.119.45.17

Matrix/CPU

Primary/Shared IP address: 135.119.45.7

Primary/Shared Port Number: 14749

Polls

Poll Interval (*10 ms): 100

Max Missed Polls: 10

Link Down Timer

Timer Value (*10ms): 12000

GK

GK Status: Undiscovered

GK IP Address:

GateKeeper Request

Show Attribute Close

3 Click **Show Attribute**.

The **H.323 Attributes...** window opens.

H.323 Attributes, Node 0xf, Slot 8

Gatekeeper IP and Port

	IP Address	Port Number
1	224.0.1.41	1718
2		
3		
4		
5		

☒ Auto Gatekeeper Discovery and Registration

No

☐ Auto Gatekeeper Discovery Only

No

☒ Variant ID

0 (ITU)

☒ Version Number

H.323 V2

☒ Terminal Type

GW with No MC

☒ Gateway Technology Prefix

1

☐ RAS PPL Indication

☐ Enable Advanced IP Routing

☐ Enable H245 Tunneling

Gateway Alias Name

☒ E.164

☒ URL

☒ VendorID/H.323 ID

EXCEL-CSP

☒ E Mail

Additional Host Signaling Parameters

☐ Media Connection Address

Re-register with Gatekeeper

☐ Enable Cfg Byte 2 (RAS PPL)

Timer 1 value * (10 ms)

300

RAS Timers (* 10 ms)

☒ GRQ

100

☒ RRQ

100

H225 Timers (* 10 ms)

☒ T_301

18000

☒ T_303

3000

☒ T_310

6000

H245 Timers (* 10 ms)

☒ T_101

3000

☒ T_103

3000

☒ T105

500

☒ T_106

3000

☒ T_108

3000

☒ T_109

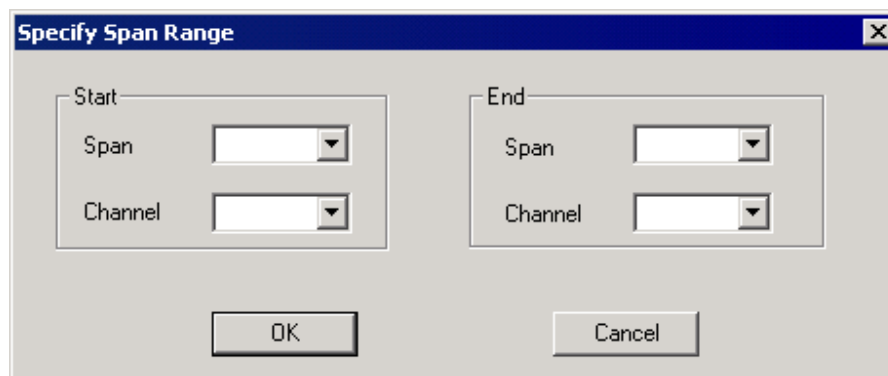
3000

PPL Attributes

Close

4 To view the PPL attributes, click **PPL Attributes**.

The **Specify Span Range** dialog box opens..



-
- 5 From the drop-down list, select the span and channel you want to query. If you do not specify, the **Start** channel is defaulted to zero. If you do not specify, the **End** channel is defaulted to the last channel in that specified end span.

Important! When querying PPL attributes, you may notice slower system performance if your call processing application is running. We recommend you use smaller channel ranges to have less impact on your system performance.

- 6 Click **OK**.

The **H.323 PPL Attributes** monitoring window opens.

H323 PPL Attributes, Range -0:0-4:31												
Configuration Bytes							DTMF Timers (* 10 ms)					
	Channel (Sp:ch)	UII Propagation / Reporting	Round Trip Delay	DTMF Digit Propagation / Reporting	T-38 Send Parameters	VDAC->HD: ppl event propagation		Channel (Sp:ch)	DTMF Digit Duration	DTMF Max. 1st Digit Detect	DTMF Min. Receive Digit Duration	In D
1	0:0	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	1	0:0	6	2000	4	6
2	0:1	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	2	0:1	6	2000	4	6
3	0:2	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	3	0:2	6	2000	4	6
4	0:3	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	4	0:3	6	2000	4	6
5	0:4	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	5	0:4	6	2000	4	6
6	0:5	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	6	0:5	6	2000	4	6
7	0:6	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	7	0:6	6	2000	4	6
8	0:7	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	8	0:7	6	2000	4	6
9	0:8	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	9	0:8	6	2000	4	6
10	0:9	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	10	0:9	6	2000	4	6
11	0:10	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	11	0:10	6	2000	4	6
12	0:11	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	12	0:11	6	2000	4	6
13	0:12	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	13	0:12	6	2000	4	6
14	0:13	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	14	0:13	6	2000	4	6
15	0:14	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	15	0:14	6	2000	4	6
16	0:15	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	16	0:15	6	2000	4	6
17	0:16	Not Prop., Rep.	Init. RTDSE	Not Prop., Rep	Send	Enabled	17	0:16	6	2000	4	6

END OF STEPS

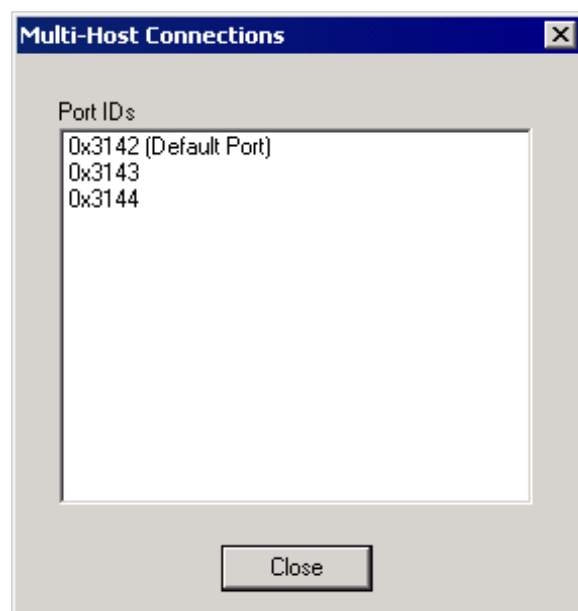
Querying Multi-Host Connections

Purpose This procedure describes how to query multi-host connections on a CSP. This query allows you to find out the ports being used and the list of messages registered on those ports. The default port on a CSP is 0x3142.

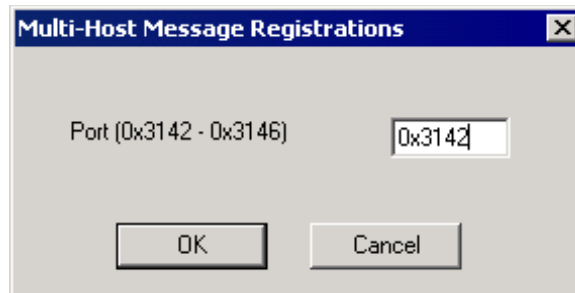
Before you begin Make sure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

How to query for Multi-Host information Follow the steps below to query the multi-host connections.

- 1 Select the menu item, **Provisioning**→**Node**→**Query Multi-Host Connections**.

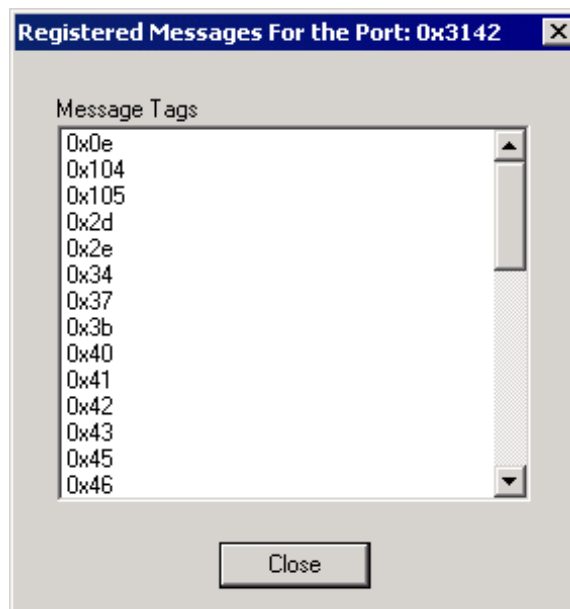


-
- 2 To query the list of messages registered to the ports, select the menu, **Provisioning→ Node→ Query Multi-Host Message Registrations**.



- 3 After the **Multi-Host Message Registrations** dialog box is displayed, type in the text box the Port ID that you want to query. Click **OK**.

-
- 4 The window for the registered messages for the queried port opens.



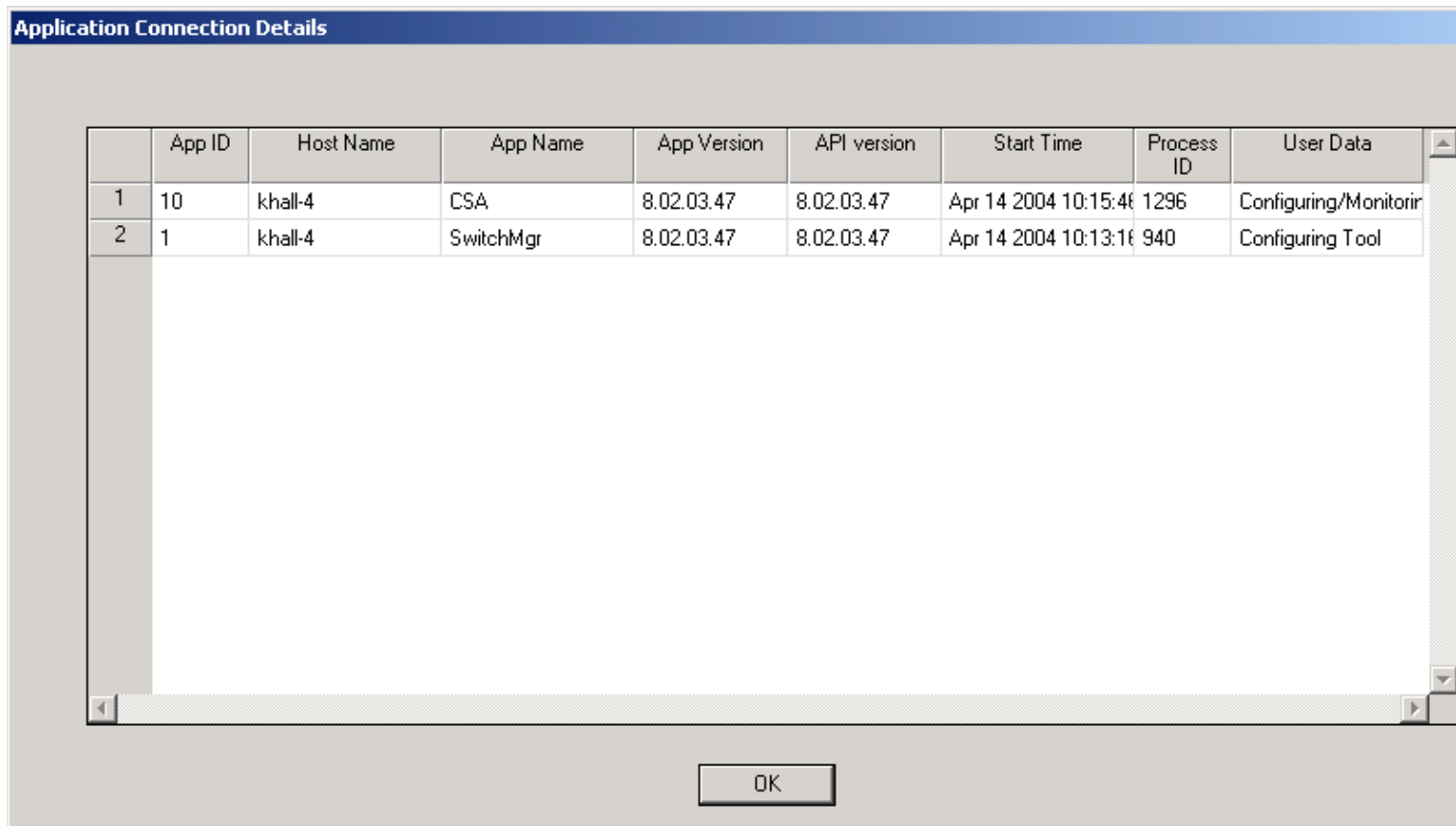
END OF STEPS

Monitor Menus

Purpose This section describes some of the sub-menu items under the **Monitor** menu.

Before you begin The LLC and SwitchManager must be running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Applications To monitor the SwitchKit applications select **Monitor**→ **SwitchKit Applications**. The **Application Connection Details** window opens showing the application ID, host name, application name, application version, start time, process ID and user data.

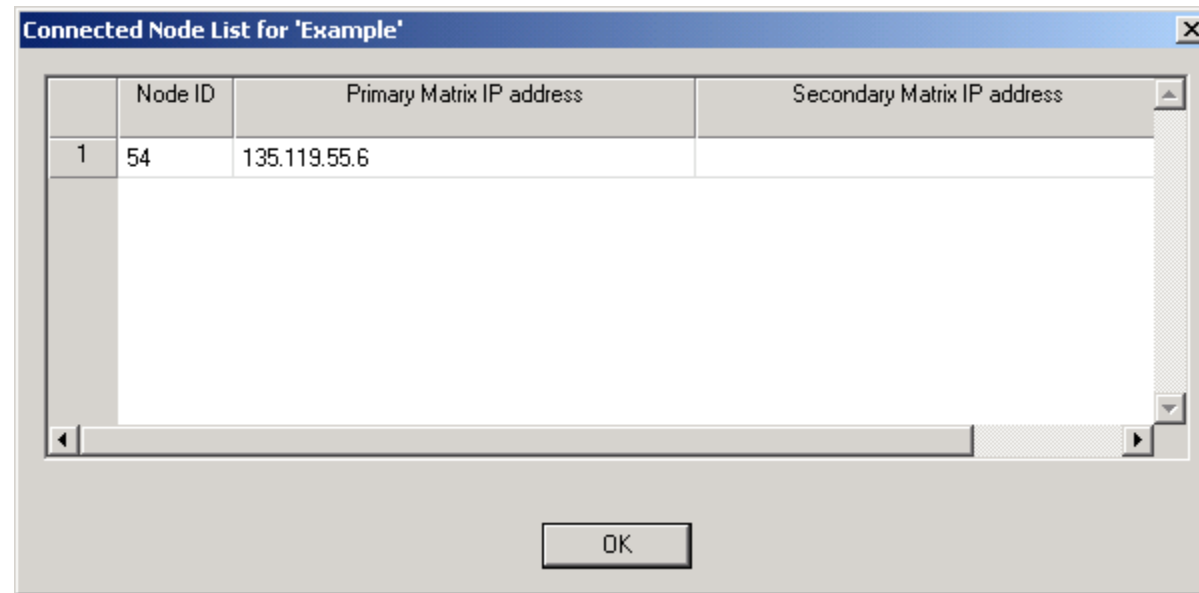


The screenshot shows a window titled "Application Connection Details" with a table containing the following data:

	App ID	Host Name	App Name	App Version	API version	Start Time	Process ID	User Data
1	10	khall-4	CSA	8.02.03.47	8.02.03.47	Apr 14 2004 10:15:46	1296	Configuring/Monitoring
2	1	khall-4	SwitchMgr	8.02.03.47	8.02.03.47	Apr 14 2004 10:13:16	940	Configuring Tool

An "OK" button is located at the bottom center of the window.

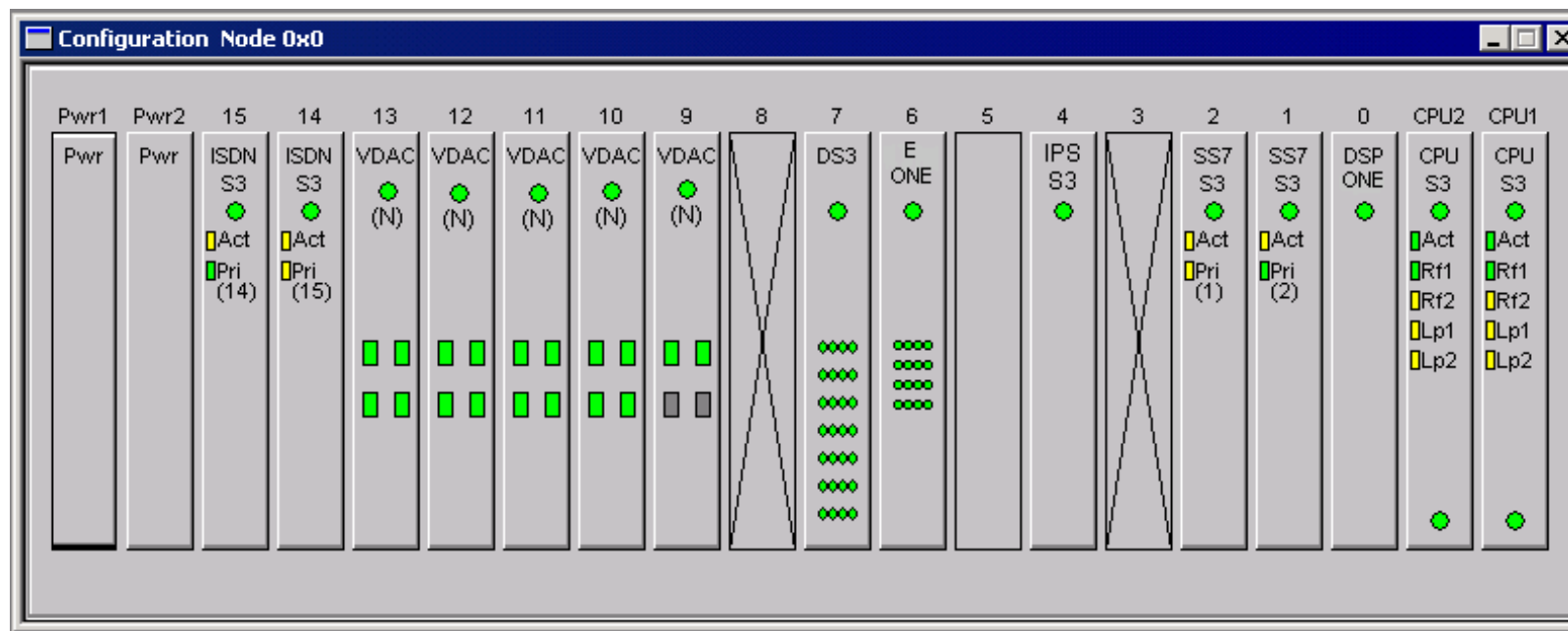
Nodes To monitor the nodes that the CSA is connected to select **Monitor**→ **Connected Node List**. The **Connected Node List for....** opens showing the Node ID, primary Matrix IP address, and the secondary Matrix IP address (if applicable).



Node View In the node view window you see the real-life provisioning of the CSP. You can display only the front view or you can change from the default setting to display the front and back of your CSP.

Front Node View

This screen shot shows the node view in monitoring mode with only the front displayed.



Back View

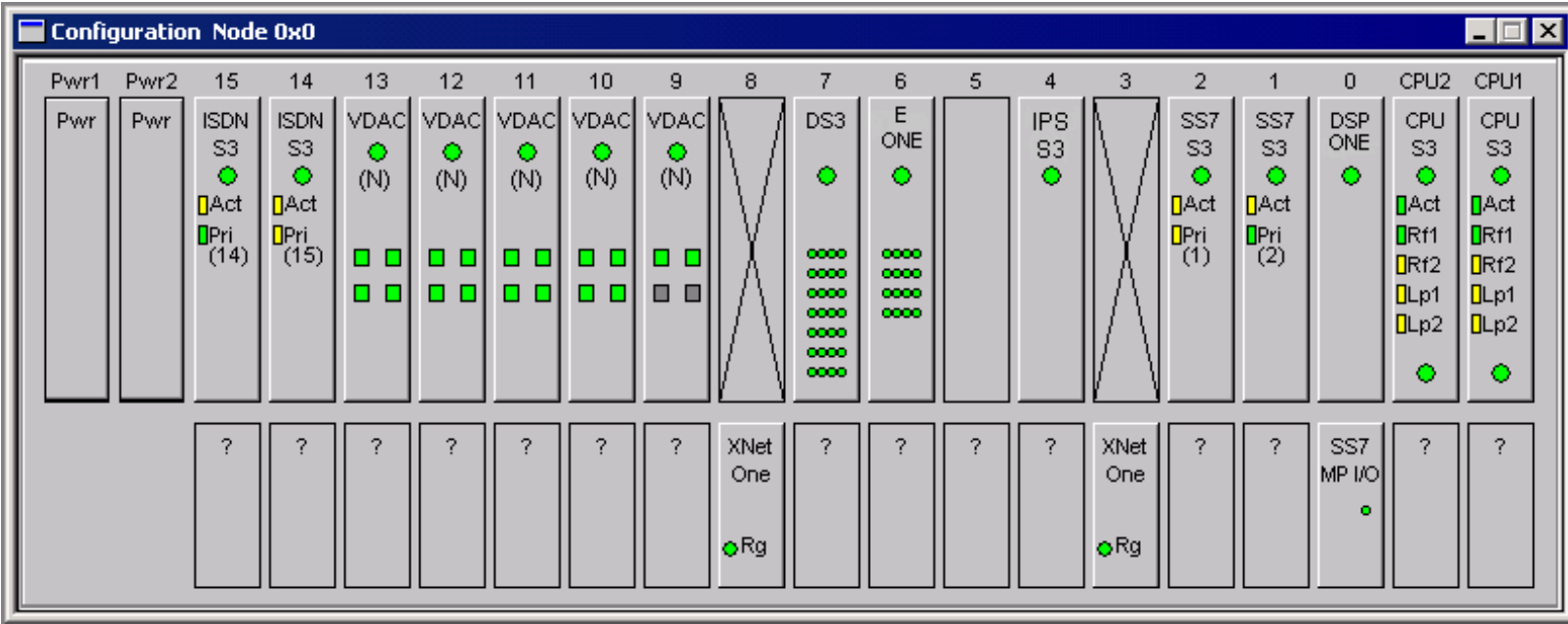
The next screen shot shows the node view in the monitoring mode with front and back displayed. To display the back panel view do one of the following:

- Right-click within the node view area and selecting **Show Back View** from the pop-up menu.
- From the menu select **Monitor**→ **Show Back View**

Monitoring Mode Status Indicators

Purpose This section describes status indicators in the monitoring mode of each node. The status of each installed card is indicated by LEDs in the monitoring mode.

The LED immediately below the card name indicates whether the card is in-service (green) or out-of-service (red).



Line Cards Flashing green on spans indicates a standby line card.

Line cards have indicators for:

- Primary and secondary, where:
 - Green indicates the card is the primary card;
 - Yellow indicates the card is the secondary; and
 - Gray indicates the card is not configured in redundant mode.

Spans are indicated by groups of eight or sixteen (dependent upon the card LEDs located under the card status LED).

- Green indicates the span is in-service.
- Flashing green indicates the span is in standby mode.
- Yellow indicates the span is being initialized.
- Red indicates the span is out-of-service.
- Gray indicates the span is unassigned.

DS3 Card The DS3 card has 28 span indicators.

- Green indicates the span is in service.
- Flashing green indicates the span is in standby mode.
- Yellow indicates the span is being initialized.
- Red indicates the span is out-of-service.
- Gray indicates the span is unassigned.

DS3 Card Status

A DS3 signal button shows the DS3 signal status. Also the DS3 signal status is displayed on the DS3 card view on each span configured. The status displayed for the DS3 status does not indicate the span status. There are separate LEDs for the status of a span.

- Gray indicates the card is ready for configuration.
- Red or Yellow indicates a DS3 alarm has been received.
- Green indicates any alarms have been cleared. It also indicates that the DS3 connection with the remote DS3 is established and is receiving valid data from remote end.

DSP S2 Card The DSP S2 card has the following indicators:

- Green indicates the NFS Server Mount is a success.

- Red indicates the NFS Server Mount is a failure.

**VDAC-ONE and IP Network
Interface Series 2 Cards**

These cards have indicators for four modules.

- Green indicates the module is configured.
- Yellow indicates the IP address is not configured.
- Gray indicates the module is not present.

SS7/ISDN Cards

SS7/ISDN cards have indicators for active and standby as well as primary or secondary. SS7/ISDN cards are usually deployed as redundant pairs, where one card is the primary SS7 or ISDN card and the other is the secondary. Redundant **SS7** or **ISDN** cards should always reside in adjacent slots.

The SS7/ISDN indicators are:

- Active or standby, where:
 - Green is active; and
 - Yellow is standby.
- Primary or secondary, where:
 - Green is primary; and
 - Yellow is secondary.

Gray when nothing is configured.

IP Signaling Series 3 Card

The status indicator for the IP Signaling Series 3 card is:

- Gray if undiscovered or invalid
- Red if discovered and unregistered
- Green if discovered and registered

ARP Cache Menu

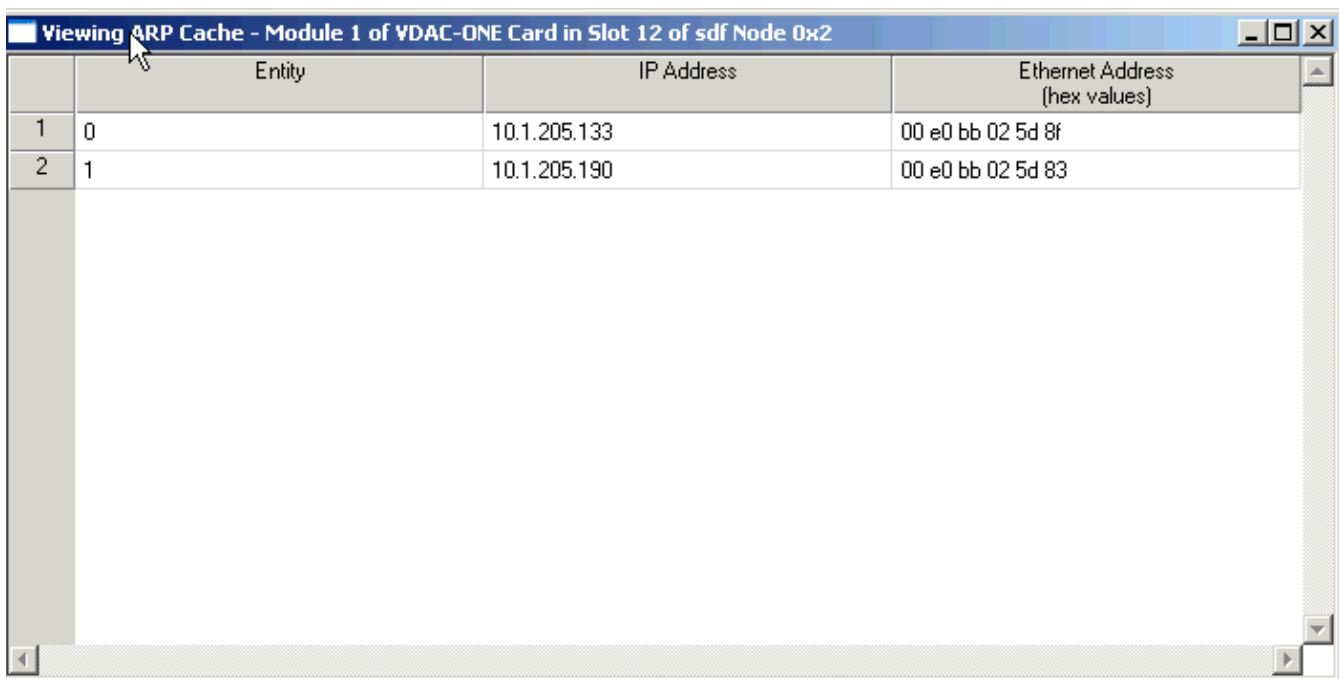
Description The ARP cache menus are related to the VDAC-ONE or IP Network Interface Series 2 cards in your system. If you do not have a these cards provisioned, these menus are disabled.

ARP Cache Viewing ARP Cache

You can view the ARP Cache by doing the following:

1. Right-click a card in the node view.
2. Select ARP Cache Information from the pop-up menu.
3. Select the module for which you want to view the ARP cache.

The Viewing ARP Cache window opens:



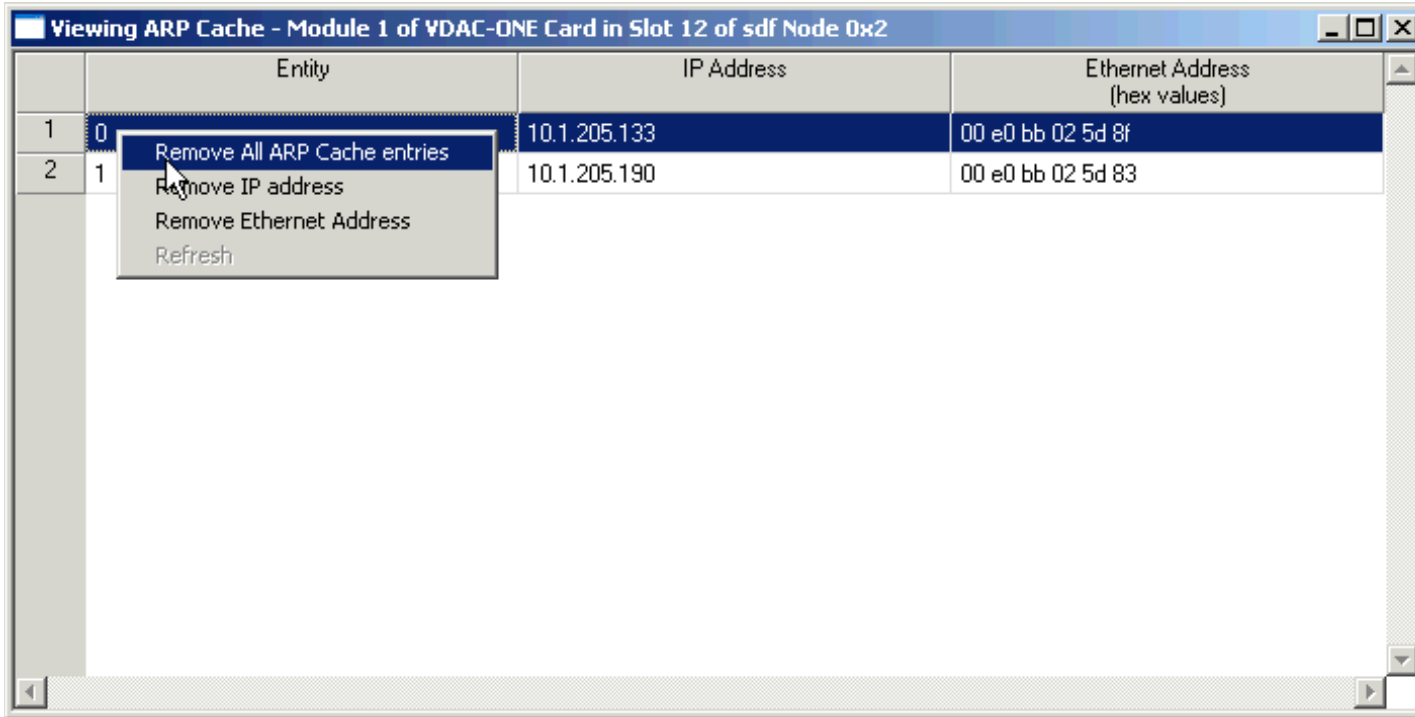
	Entity	IP Address	Ethernet Address (hex values)
1	0	10.1.205.133	00 e0 bb 02 5d 8f
2	1	10.1.205.190	00 e0 bb 02 5d 83

Remove all ARP Cache Entries

If you choose the Remove all ARP Cache Entries menu, the CSA sends the *ARP Cache Query* message with the Remove Entries TLV to the node. This message removes all the entries in the ARP Cache table immediately. Usually the Cache is cleared every five minutes by default.

Remove IP Address / Remove Ethernet Address

The menus clear the entries in the particular VoIP Module that has that IP Address or MAC Address.



Viewing ARP Cache - Module 1 of VDAC-ONE Card in Slot 12 of sdf Node 0x2

	Entity	IP Address	Ethernet Address (hex values)
1	0	10.1.205.133	00 e0 bb 02 5d 8f
2	1	10.1.205.190	00 e0 bb 02 5d 83

Context Menu Options:

- Remove All ARP Cache entries
- Remove IP address
- Remove Ethernet Address
- Refresh

Refresh

The Refresh menu causes the CSA to query the node for the ARP Cache information and displays the new values.

Viewing a Multi-Node Ring

Purpose You can view information about a CSP ring using the CSA. For each node, information such as, the ring ID, the status of the ring, the transmit mode, the source packet, the multi-node ring ID, IP address and system software version are shown in one window.

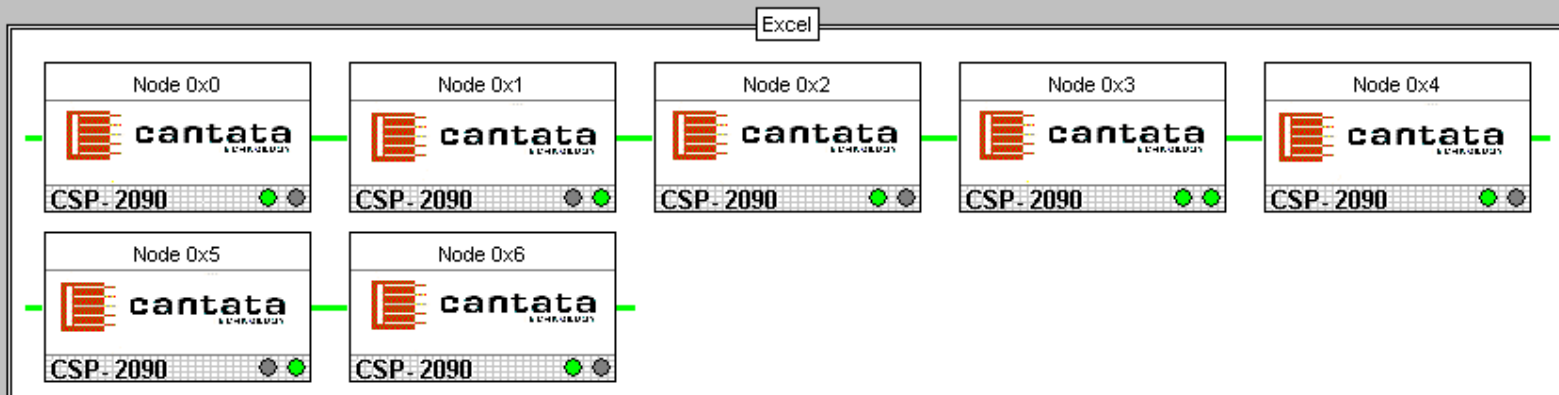
Before you begin Open the CSA. Ensure that the LLC and SwitchManager are running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Viewing the ring Follow the steps below to view information about a CSP ring.

- 1 Go to the **CSA Global View**. You will see green lines connecting the icons of the nodes. See the next example screen shot.

Important! The green lines connecting the nodes in the ring or rings indicate that all the rings are in-service. If one ring but not all rings are in-service the lines connecting the nodes are blue. If the rings are out-of-service the lines are red.

CSA Global View



- 2 Double-click one of the green lines between the icons of the nodes. The **Viewing the rings in ...<LLC Name>** window opens:

Viewing the rings in Excel												
	Ring ID	Logical Node ID	Ring Status	Port A Status	Port B Status	Physical Node ID	Transmit Mode	Source Packet	Redundancy State	IP Address	Master Node ID	System software
1	0x01	0x00	In Service	Normal	Normal	0x1502	Transmit/Receive	4	Non Redundant	10.1.100.101	6	82.30.74
2	0x01	0x01	In Service	Normal	Normal	0x1878	Transmit/Receive	24	Non Redundant	10.1.100.112	6	82.30.74
3	0x01	0x02	In Service	Normal	Normal	0x17f0	Transmit/Receive	16	Non Redundant	10.1.100.121	6	82.30.74
4	0x01	0x03	In Service	Normal	Normal	0x187f	Transmit/Receive	0	Non Redundant	10.1.100.132	6	82.30.74
5	0x01	0x04	In Service	Normal	Normal	0x1883	Transmit/Receive	20	Non Redundant	10.1.100.141	6	82.30.74
6	0x01	0x05	In Service	Normal	Normal	0x187d	Transmit/Receive	8	Non Redundant	10.1.100.151	6	82.30.74
7	0x01	0x06	In Service	Normal	Normal	0x1772	Transmit/Receive	12	Non Redundant	10.1.100.161	6	82.30.74
8	0x02	0x00	In Service	Normal	Normal	0x1502	Transmit/Receive	24	Non Redundant	10.1.100.101	5	82.30.74
9	0x02	0x01	In Service	Normal	Normal	0x1878	Transmit/Receive	4	Non Redundant	10.1.100.112	5	82.30.74
10	0x02	0x02	In Service	Normal	Normal	0x17f0	Transmit/Receive	0	Non Redundant	10.1.100.121	5	82.30.74
11	0x02	0x03	In Service	Normal	Normal	0x187f	Transmit/Receive	12	Non Redundant	10.1.100.132	5	82.30.74
12	0x02	0x04	In Service	Normal	Normal	0x1883	Transmit/Receive	8	Non Redundant	10.1.100.141	5	82.30.74
13	0x02	0x05	In Service	Normal	Normal	0x187d	Transmit/Receive	20	Non Redundant	10.1.100.151	5	82.30.74
14	0x02	0x06	In Service	Normal	Normal	0x1772	Transmit/Receive	16	Non Redundant	10.1.100.161	5	82.30.74

END OF STEPS

Loopback Options on a DS3 or T-ONE Card

Accessing the loopback options

To access the loopback options on a DS3 card, right click the card in the node view. Select one of the loopback-related options. For the DS3 card, the following loopback options are available in CSA Query Loopback Status

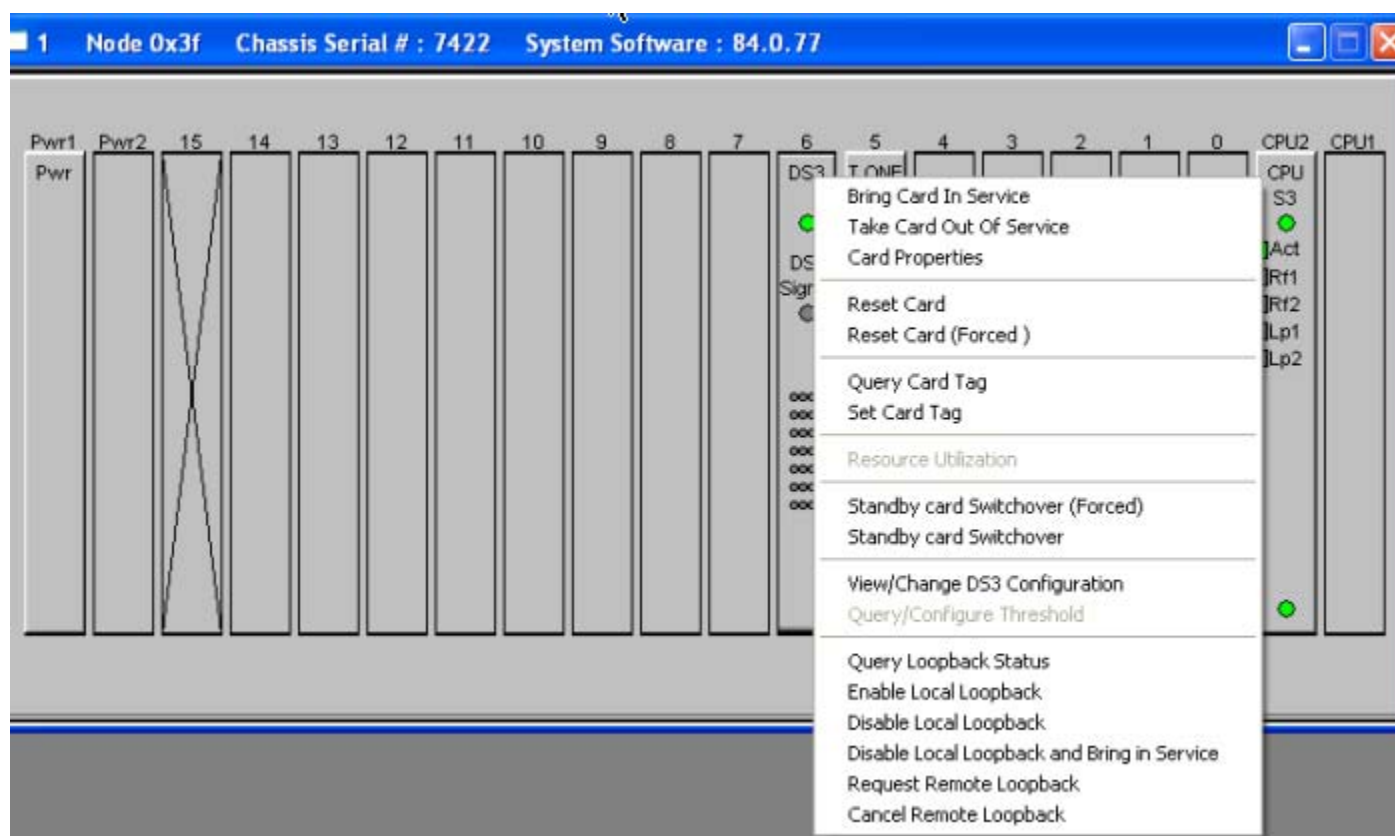
Enable Local Loopback

Disable Local Loopback

Disable Local Loopback and Bring into service

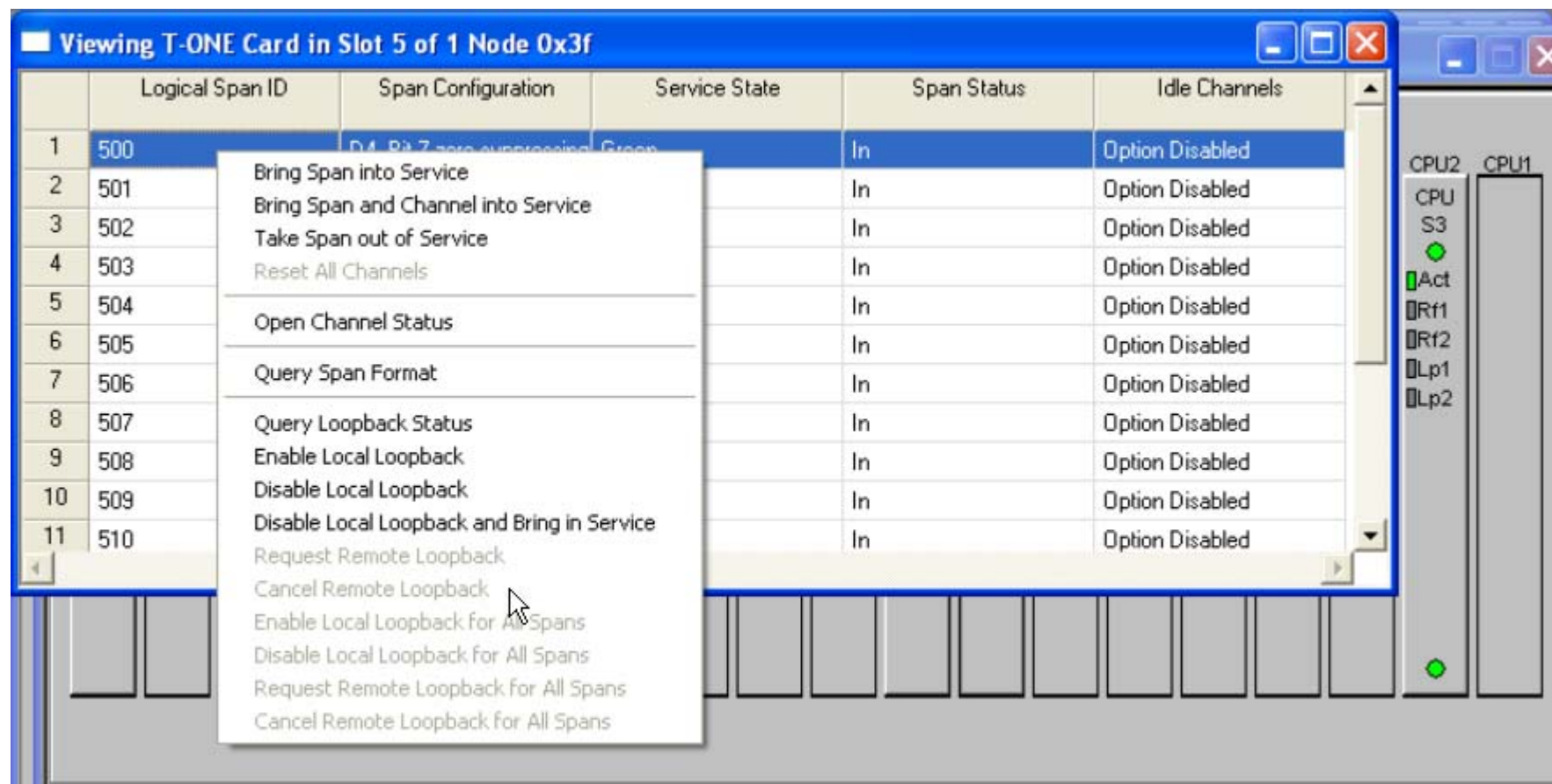
Request Remote Loopback

Cancel Remote Loopback



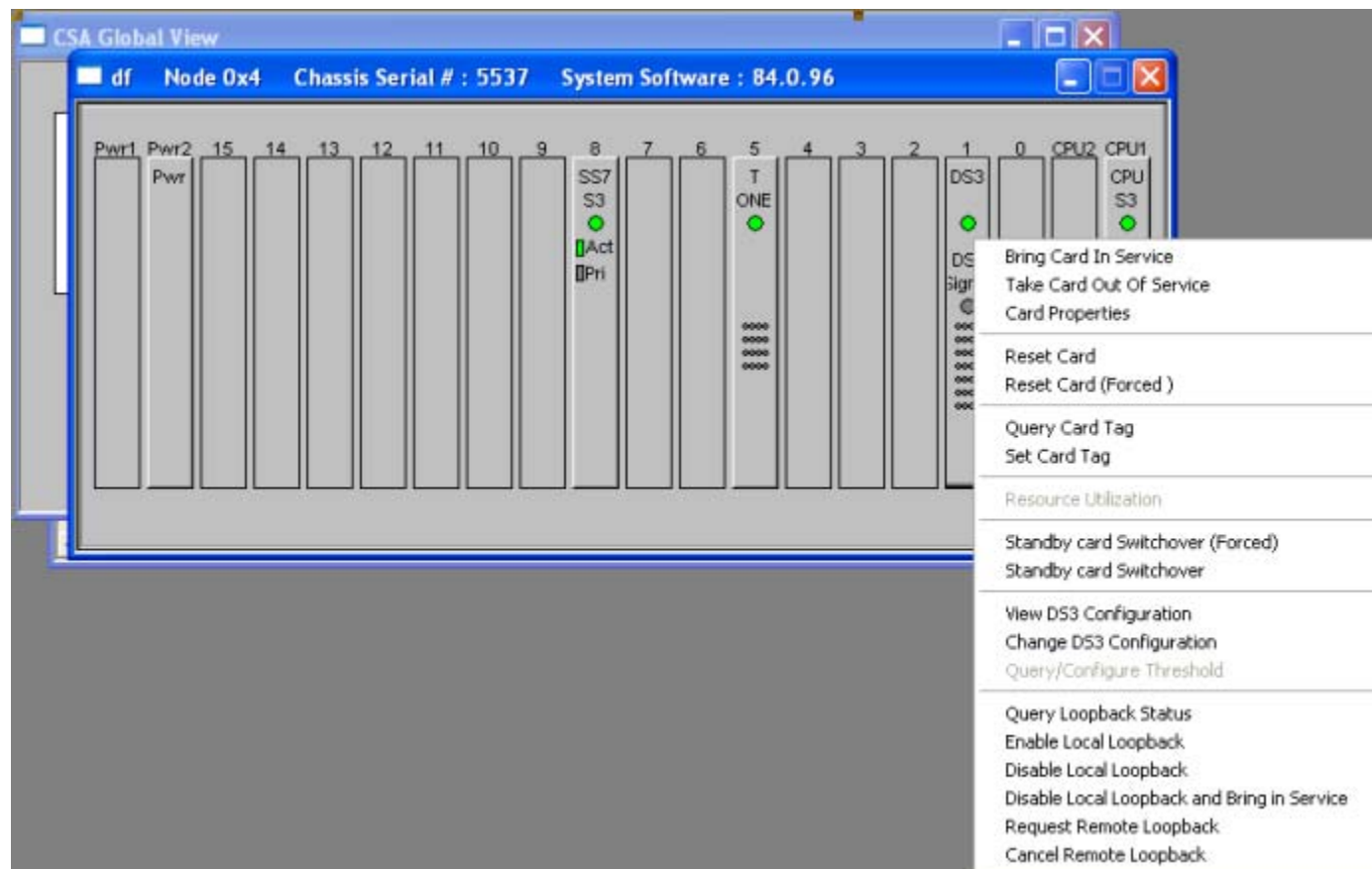
For the T-ONE, the following loopback are available:

- Query Loopback Status
- Enable Local Loopback
- Disable Local Loopback
- Disable Local Loopback and Bring into service

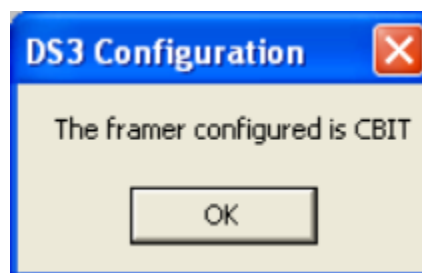


Viewing or Changing DS3 Configuration

Viewing Configuration You can query the framer used on the DS3 card. The framer is either CBIT or M13. To view the DS3 framer configuration, in the node view right-click on the DS3 card and select **View DS3 Configuration**.

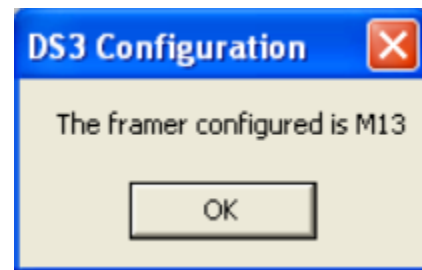


A message box displays the current DS3 framer, which would be CBIT or M13. Click OK to close the message box..



Changing Configuration

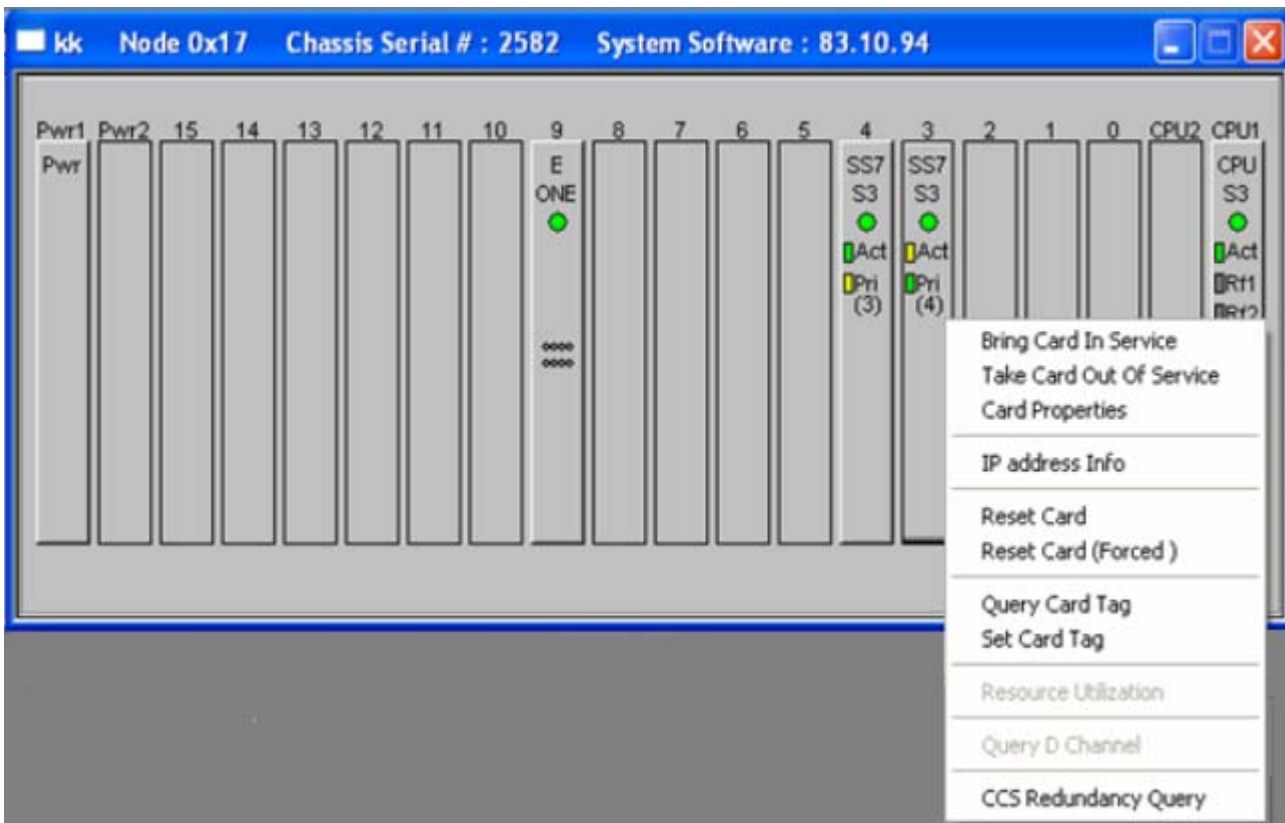
To change the DS3 framer, right-click the DS3 card in the node view and select **Change DS3 Configuration**. A message box pops up to confirm that the framer changed. For example, if the framer was previously CBIT, then after you select **Change DS3 Configuration** the message box would be as shown in the next screen shot.



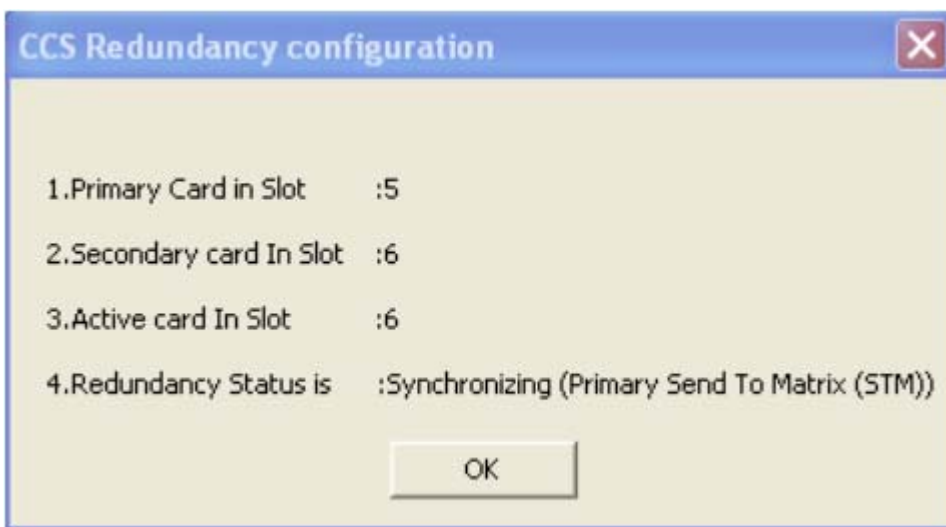
Click **OK** to close the message box and set the framer as shown in the message box. Cancel will not do anything.

Querying SS7 Redundancy

Steps To query the redundancy of an SS7 card, right-click the SS7 card in a node view and select **CCS Redundancy Query**.



Next, a message opens displaying the results of the query:



If SS7 redundancy is not configured, then the next message will open:



Sending Messages to the CSP

Purpose This procedure describes how you can send a single message to the CSP.

Before you begin The LLC and SwitchManager must be running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation set. You must also click on the monitoring view icon to enable the **Provisioning** menu.

Important! When sending a message from CSA to the CSP directly using the dialog box, **Send Message to Switch** and entering hexadecimal data, SwitchManager is not involved. This means that the change will impact tag values and will not be persistent in SwitchManager's memory. You should not use this option for configuration or provisioning messages.

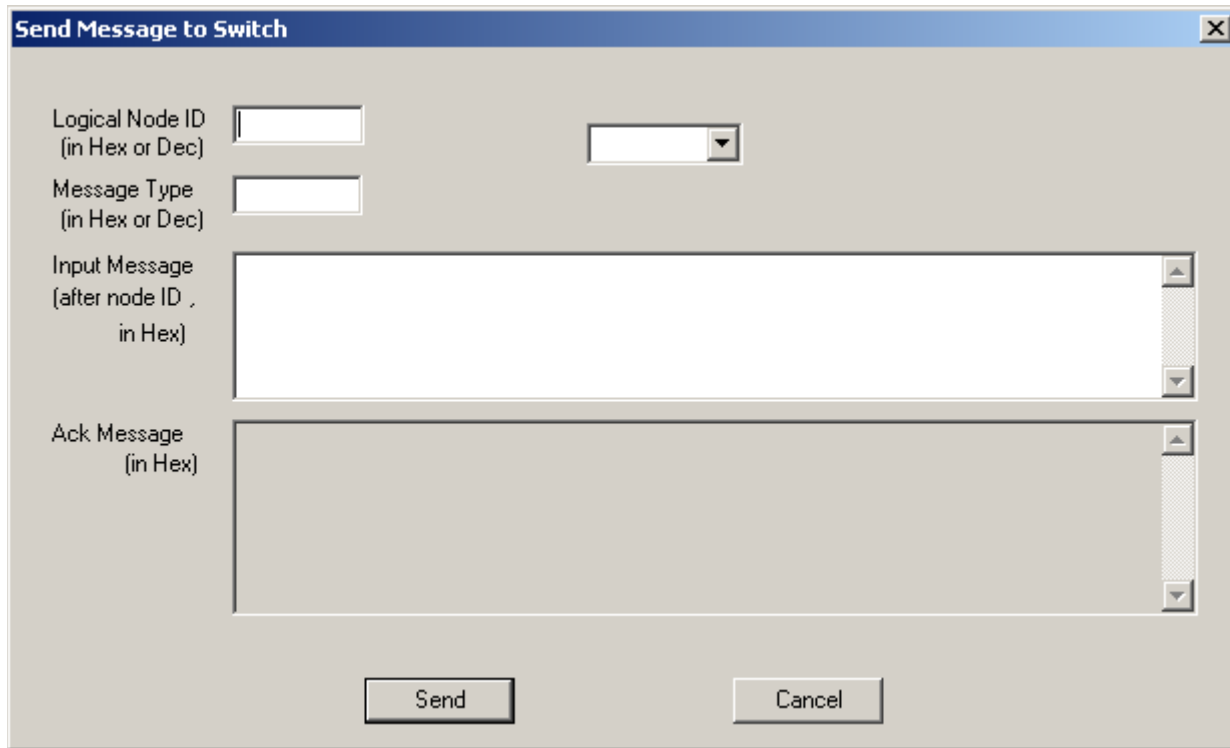
Sending Message Follow the steps below to send a single message to the CSP.



CAUTION

Configuration messages sent in this manner are not recorded in the configuration file and for that they are not contained.

-
- 1 Select the **Provisioning → System → Send Message to Switch**. The **Send Message to Switch** dialog box opens. If you have previously sent messages to the switch in your current CSA session, a drop-down list of messages is provided for messages you want to resend.

A screenshot of a Windows-style dialog box titled "Send Message to Switch". The dialog has a blue title bar with a close button (X) in the top right corner. The main area is light gray and contains four input fields on the left, each with a label and a description in parentheses: "Logical Node ID (in Hex or Dec)" with a small text box and a dropdown arrow; "Message Type (in Hex or Dec)" with a small text box; "Input Message (after node ID , in Hex)" with a large text area; and "Ack Message (in Hex)" with a large text area. At the bottom of the dialog are two buttons: "Send" and "Cancel".

- 2 Enter the **Logical Node ID** of the node to which you want the message sent. Enter this as a decimal value.
- 3 Enter the **Message Type** as a decimal value.
- 4 Enter the **Input Message**.
- 5 Click **Send**. A message box pops up informing you about a dynamic configuration.

END OF STEPS

Note This feature is different from the other configuration features. *This message is sent to the CSP immediately and is not received or stored by SwitchManager. Therefore, any message sent in this manner will not be persistent in SwitchManager's memory.*

Performing Standby Card Switchover

Purpose This procedure describes how to perform a standby card switchover. A line card that is in standby is indicated in the CSA by flashing span lights.

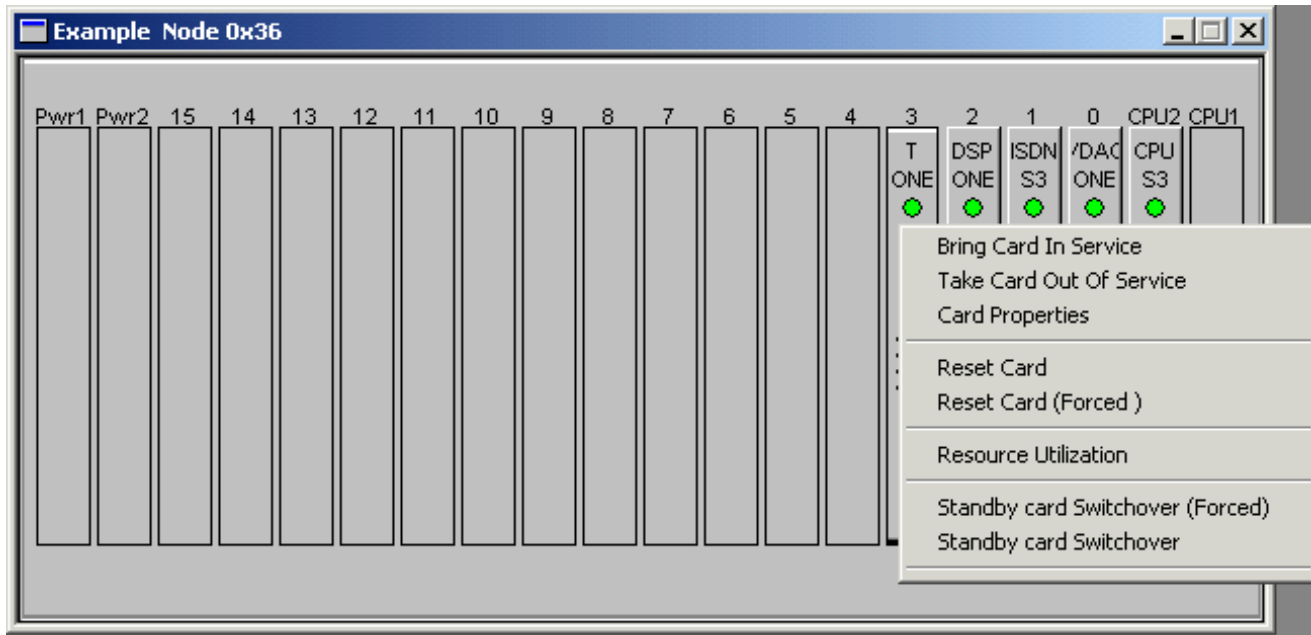
Important! After a switchover, selecting the **Standby card Switchover** or **Standby card Switchover (Forced)** options will switchback to the originating line card. See the *SwitchKit Installation and Maintenance Guide, Chapter 9, Controlled Line Card Switchover* for more information on switchovers.

Before you begin The LLC and SwitchManager must be running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Standby Switchover Follow the steps below to perform a standby switchover.

-
- 1** Open a node view in monitoring (or provisioning) mode.
-
- 2** Right-click the card you want to switchover in the node view window.

The menu shown in the next screen shot opens:



- 3 If you want to initiate a switchover immediately, select **Standby card Switchover (Forced)**. You will see the span lights of the new standby card start flashing.

If you want to initiate a graceful switchover (when there are no active calls being processed), select **Standby card Switchover**.

END OF STEPS

Performing an LLC Switchover

Purpose This procedure describes how to perform a switchover of the active LLC. When you initiate a switchover of the current active LLC this causes the current standby to become active and the current active to become the standby LLC.

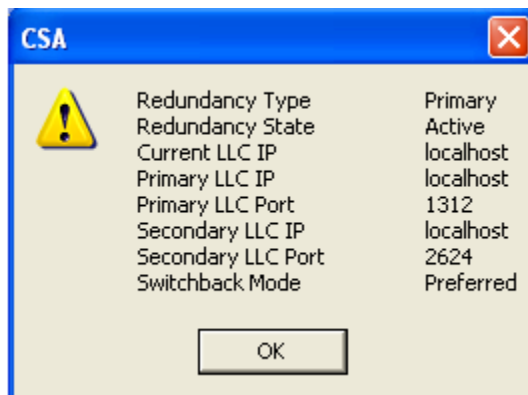
Before you begin The LLC and SwitchManager must be running. For information on running the LLC and SwitchManager refer to the *SwitchKit* documentation.

Standby Switchover Follow the steps below to perform an LLC switchover.

1 Open a node view in monitoring (or provisioning) mode.

2 Go to the menu, **Provisioning** → **System** → **Initiate LLC Switchover**.

3 To confirm that the switchover was successful, select **Provisioning** → **System** → **Query LLC Redundancy**.



Using Dynamic Configuration

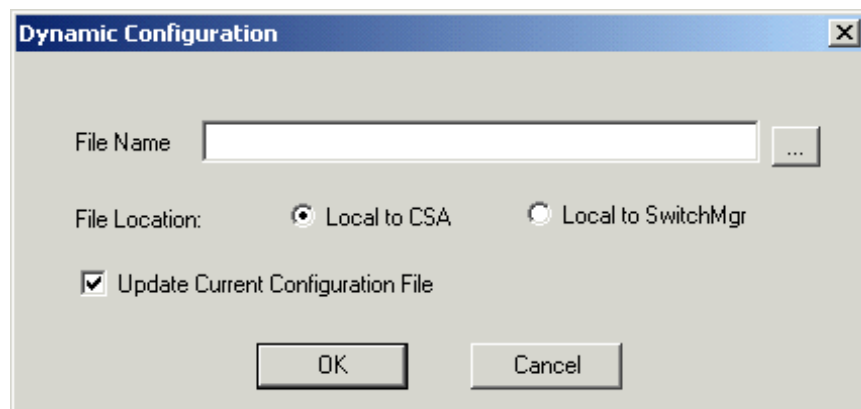
Purpose You use the dynamic configuration feature to send configuration messages without having to stop SwitchManager.

Before you begin You must select an LLC before you perform the dynamic configuration.

Important! If you uncheck **Update Current Configuration File**, the setting is maintained for future CSA sessions unless you recheck it.

Steps for Dynamic Configuration The following procedure describes how to send a configuration message to the switch using dynamic configuration.

- 1 To access the **Dynamic Configuration** dialog box, from the menu select **Provisioning**→**System**→**Dynamic Configuration**. The **Dynamic Configuration** dialog box opens.



- 2 Type the path and file name, or use the browse button to locate the configuration file that you want to send to the switch.
-

- 3 If you want to change the file location from the default selection of **Local to CSA**, click **Local to SwitchMgr**.

Local to CSA - The file is located on the machine where CSA is running.

Local to SwitchMgr - The file is located on the machine where SwitchManager is running, such as in a UNIX environment

- 4 If you do not want to **Update the Current Configuration File**, uncheck this option. If you uncheck the **Update Current Configuration File**, then new configuration does not append to the SwitchManager configuration file.
-

- 5 Click **OK**.

END OF STEPS

Adding a Node to a Multi-Node System

Purpose SwitchKit and the Converged Services Administrator (CSA) allow you to passively add a node in a multi-node, production environment with no disruption to service. The steps defined in this procedure must be followed exactly to perform this upgrade. Review the steps beforehand to ensure that you can swiftly complete the procedure.

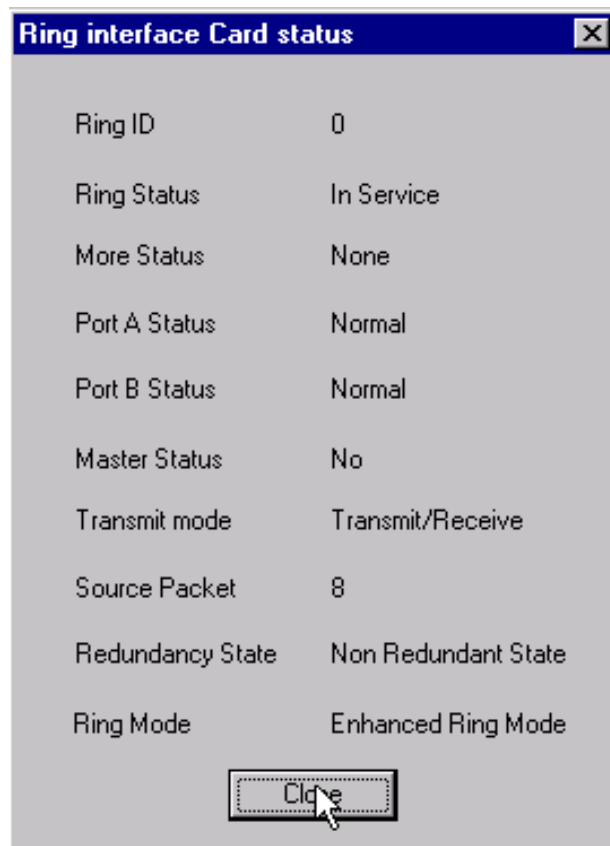
Important! You cannot add a node when there is only one node installed, that is, when only one EXNET-ONE card is installed. See the *CSP Developer's Guide:Overview*.

- Before you begin**
1. Obtain a new multi-node SwitchKit license that will include the existing nodes and all new nodes.
 2. Verify there are enough Ethernet ports available on the hub prior to the upgrade.
 3. Create and test a separate configuration file for each node to be added. Include the configuration for the EXNET-ONE cards in this test. The new license file can also be tested at this time. The new nodes should be tested on an isolated network, so you will not interfere with the production system prior to the upgrade.
 4. Verify the IP address for each CSP Matrix Series 3 in each new node is on the same subnet as the existing nodes and can be accessed. If BootP and TFTP are in use, these processes should be updated for each new CSP Matrix Series 3.
 5. Load the new SwitchKit license.dat file in the SwitchKit directory (specified by the SK_LIB_DIR environment variable). Archive the old license file.
 6. Power cycle the new nodes that are to be added, to clear any configuration that was done during the testing.
 7. Start the LLC and the SwitchManager.

8. Open the CSA online to the node view and double-click on each EXNET-ONE card to verify the rings are in-service. Also, verify Port A and Port B on all nodes are in the normal mode and not looped back. If any ports are looped back, this upgrade will fail.

Checking the Ring Status

In the CSA's node view, check the status of the ring by double-clicking on each EXNET-ONE card. The **Ring interface Card status** window opens.

**Steps for Adding a Node**

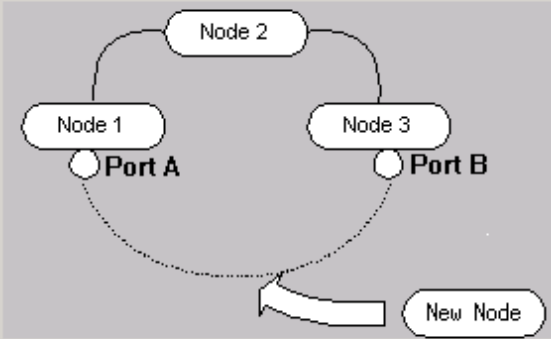
Follow the steps below to passively add a node to a multi-node system in a single-ring.

- 1 Connect the Ethernet cables of the new nodes to be added to the existing system.
- 2 Open the CSA.

- 3 In the node view, go to the menu and select **Provisioning→System→Passive Node Addition**. The **Passive Upgrade** dialog box opens. See the next screen shot.

Passive Upgrade

Matrix 1 IP Address	<input type="text"/>	Adjacent Node ID1 (Node 1)	<input type="text" value="0"/>
Matrix 2 IP Address	<input type="text"/>	Adjacent Node ID2 (Node 3)	<input type="text" value="0"/>
Ring Card Slot	<input type="text" value="0"/>	Number of Packets	<input type="text" value="0"/>
Standby Ring Card Slot (Optional)	<input type="text"/>	Transmit Mode	<input type="text" value="Receive Only"/>
Logical Node ID	<input type="text" value="0"/>	Enhanced Mode	<input type="text" value="NO"/>
Logical Ring ID	<input type="text" value="0"/>		



- 4 Enter the **Ring Card Slot** and **Standby Ring Card Slot** (if applicable) of the EXNET-ONE cards. You use the front slot number even though the card sits in the I/O slot of the chassis.

-
- 5 Enter the **Logical Node ID**.

 - 6 Enter the **Logical Ring ID**.

 - 7 Enter the **Adjacent Node ID 1 (Node 1)**.

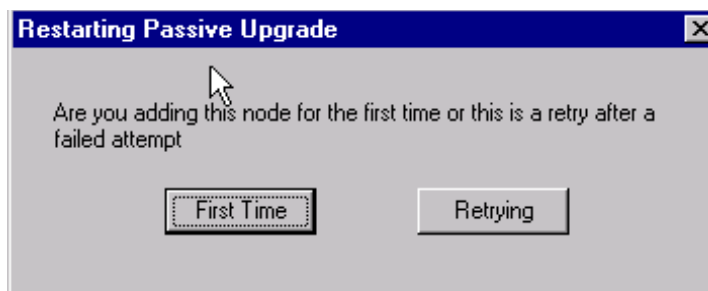
 - 8 Enter the **Adjacent Node ID 2 (Node 3)**.

 - 9 Enter the **Number of Packets**. The values used for this field are either: 3 (T1) or 4 (E1 or J1)

 - 10 For **Transmit Mode**, if you want to change from the default value of **Transmit and Receive**, select **Receive Only** from the drop-down list.

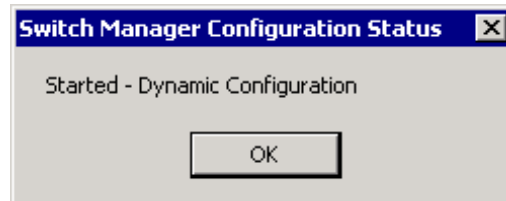
 - 11 For Enhanced Mode, if you want to change from the default value of **No**, select **Yes**. This field refers to the Enhanced Fault Tolerance Ring mode. For more information, see *Exnet Ring Configure (0x0074)* in the *API Reference*.

 - 12 Click **Add Node**. The **Restarting Passive Upgrade** dialog box opens:



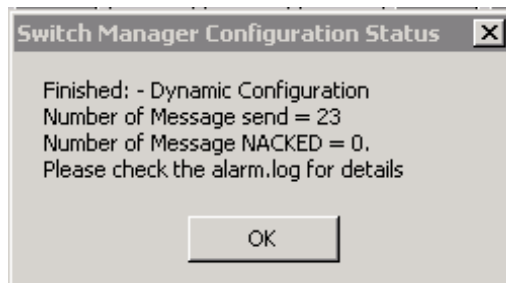
-
- 13** If you are adding a node for the first time, click **First Time**. If you select step 12 (Dynamic Config) from the drop-down list, then you go directly to Step 18 in this procedure.

If you are retrying to add a node after a failed attempt, click **Retrying**. The **Switch Manager Configuration Status** dialog box opens.



-
- 14** Click **OK**.

Next, another **Switch Manager Configuration Status** dialog box opens.



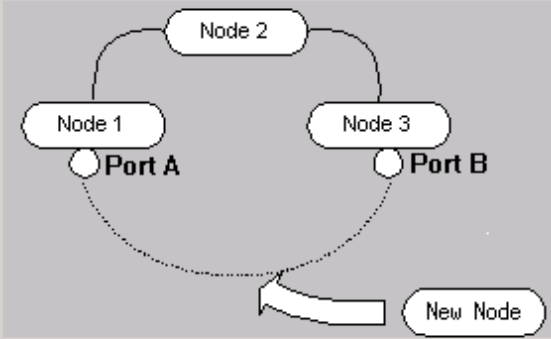
At this point you will see:

- The LLC opened a connection to the new node.
- The Node ID is assigned.
- Port A on adjacent Node 1 is in loopback mode.
- Port B on adjacent Node 2 is in loopback mode.

-
- 15** When the previous step is completed, a dialog box below opens and confirms this. See the next screen shot.

Passive Upgrade

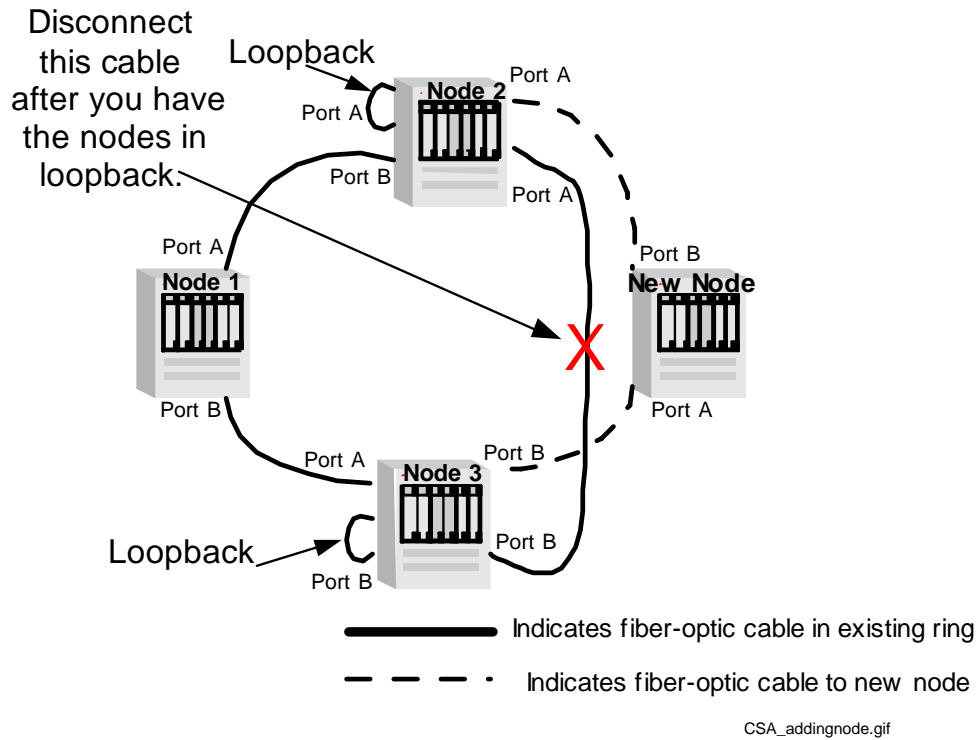
Matrix 1 IP Address	<input type="text"/>	Adjacent Node ID1 (Node 1)	<input type="text" value="0"/>
Matrix 2 IP Address	<input type="text"/>	Adjacent Node ID2 (Node 3)	<input type="text" value="0"/>
Ring Card Slot	<input type="text" value="0"/>	Number of Packets	<input type="text" value="0"/>
Standby Ring Card Slot (Optional)	<input type="text"/>	Transmit Mode	<input type="text" value="Receive Only"/>
Logical Node ID	<input type="text" value="0"/>	Enhanced Mode	<input type="text" value="NO"/>
Logical Ring ID	<input type="text" value="0"/>		



Configuration of EXS options completed on new node.
Please configure the following and press DONE when complete:
Loopback ports on the operational ring Disconnect fiber-optic cable where necessary
Make fiber-optic connections to the new node

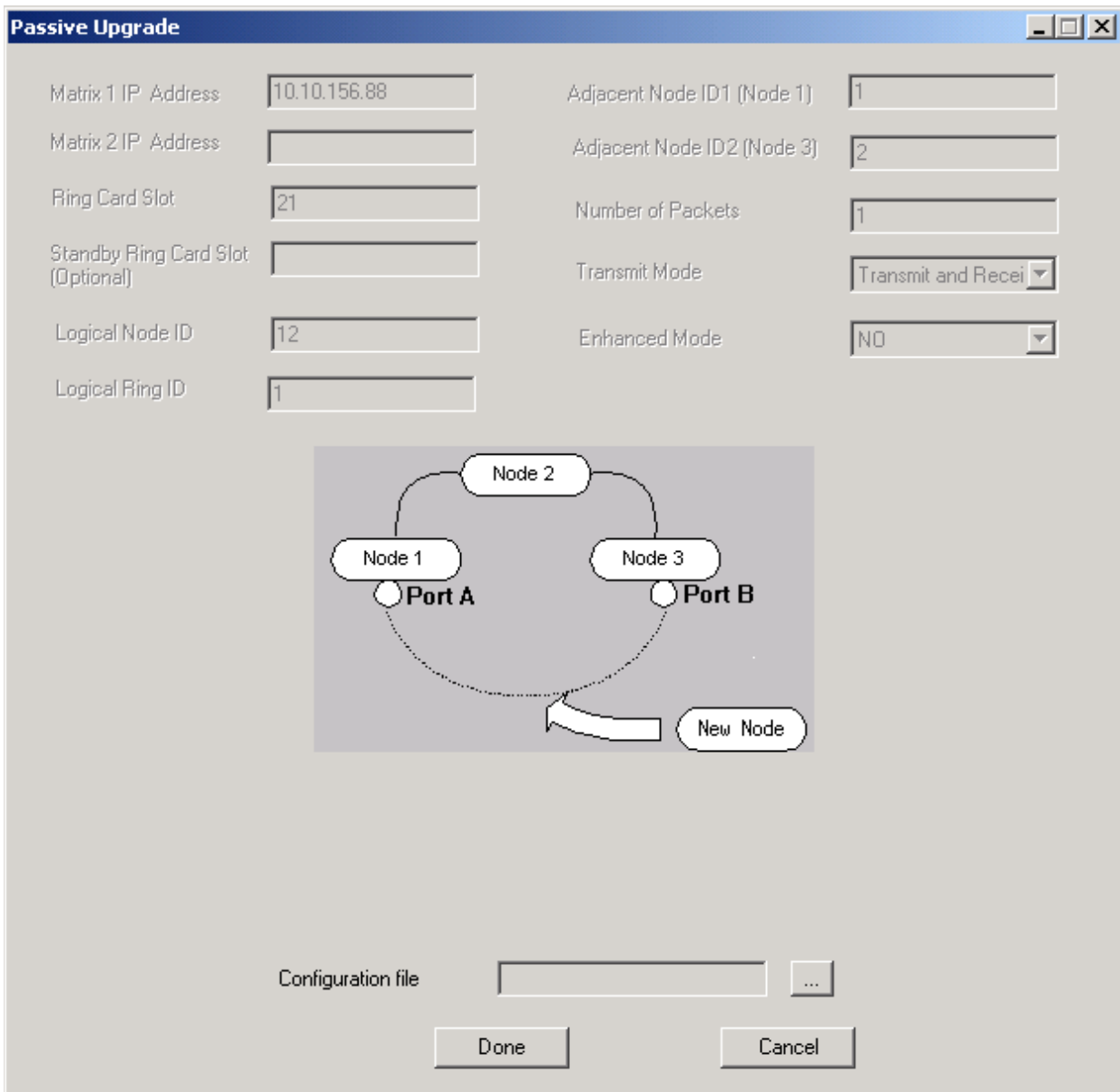
- 16 You can verify the port status on the EXNET-ONE card to determine what cable to move by either looking at the LEDs on the EXNET-ONE card in the chassis or using the CSA by looking at the node view in the monitoring mode.
- 17 As shown in the dialog box example in step 16, Port A on Node 1 and Port B on Node 3 will now be in loopback temporarily. Disconnect the fiber-optic cable for the ports in loopback mode.

See the next diagram.



-
- 18** Connect the fiber-optic cable to the new node and then click **Done**.

The next dialog box opens. The **Configuration File** should be selected only if you are using Dynamic Config. See Step 13 of this procedure.



The **Passive Upgrade** dialog box contains the following fields and controls:

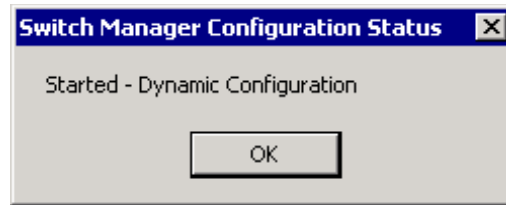
Field	Value	Field	Value
Matrix 1 IP Address	10.10.156.88	Adjacent Node ID1 (Node 1)	1
Matrix 2 IP Address		Adjacent Node ID2 (Node 3)	2
Ring Card Slot	21	Number of Packets	1
Standby Ring Card Slot (Optional)		Transmit Mode	Transmit and Recei
Logical Node ID	12	Enhanced Mode	NO
Logical Ring ID	1		

Below the fields is a diagram showing a ring topology with three nodes: Node 1, Node 2, and Node 3. Node 1 is connected to Port A, and Node 3 is connected to Port B. A dashed line indicates a connection path from Port A to Port B, with a label 'New Node' and an arrow pointing to the dashed line.

At the bottom, there is a 'Configuration file' label, a text input field, and a button with three dots. Below these are 'Done' and 'Cancel' buttons.

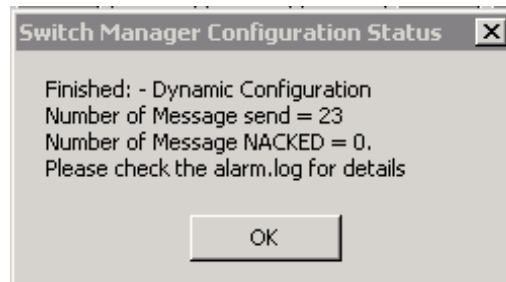
- 19 Type in the name of the configuration file for the new node. The new configuration gets sent to the switch and is appended to the configuration file that the SwitchManager is currently using.
- 20 Click **OK**.

The **Switch Manager Configuration Status** dialog box opens.



21 Click **OK**.

Another **Switch Manager Configuration Status** dialog box opens.



Click **OK** again.

END OF STEPS
