



Chassis Display Tasks

This chapter describes the chassis display tasks for Element Manager and contains these sections:

- [Viewing Card Properties, page 2-1](#)
- [Enabling a Card, page 2-4](#)
- [Viewing the Card Inventory, page 2-5](#)
- [Viewing Internal Gateway Ports of a Card, page 2-6](#)
- [Viewing Card IP Addresses, page 2-6](#)
- [Viewing Card Bridging Details, page 2-7](#)
- [Viewing Port Properties, page 2-8](#)
- [Viewing Serial Management Port Properties, page 2-10](#)
- [Viewing Ethernet Management Port Properties, page 2-11](#)
- [Viewing InfiniBand Management Port Properties, page 2-11](#)
- [Viewing Port Bridging Properties, page 2-12](#)
- [Configuring Ports, page 2-12](#)



Note

When you launch Element Manager and open a Server Switch, a graphical display of that Server Switch appears. Colors in the display indicate the status of various components of the Server Switch. Various right- and left-click options let you configure the components that you see in the display.

Viewing Card Properties

To view card properties, perform the following steps:

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- Step 1** Right-click the card in the chassis display whose properties you want to view. A right-click menu appears.
- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar. [Table 2-1](#) lists and describes the fields that appear in the Card tab of the card window.

Table 2-1 Card Tab Fields

Field	Description
Admin Type field (gateway cards only)	Administratively configured card type.
Card Type field	Dynamically discovered card type.
Enable/Disable Card field (choose cards only)	Provides “up” and “down” radio buttons so you can use the Apply button to enable or disable the card.
Current Card Status field	Displays “up” if the card can currently run traffic, otherwise displays “down.”
Operational State field	Displays the general condition of the interface card. The general condition may appear as any of the following: • unknown • normal • wrong-image • bootFailed • tooHot • booting A condition of unknown indicates an unsupported interface card. To address this condition, replace the card with a supported card. The operational state of a card must appear as normal for the current status of the card to appear as up. A wrong-image condition indicates that the active system image on the interface card does not match the active system image on the controller. All cards must run the same active system image as the controller card to function. A bootFailed condition indicates that the active system image on the card was incompletely or incorrectly loaded. If the other interface cards come up successfully, reset the individual card. Otherwise, reboot your entire device. When your card overheats, the tooHot condition appears in the show card command output. Enter the show fan command to check to see if your fans failed. The booting condition indicates that the card has not finished loading necessary image data for internal configuration.

Table 2-1 **Card Tab Fields (continued)**

Field	Description
Card Boot Stage field	Boot Stage appears as one of the following: • recovery • ipl • ppcboot • fpga • pic • ib • rootfs • kernel • exe • done • none
Card Boot Status field	Boot Status may appear as any of the following: • upgrading • success • failed • badVersion • badCrc • memoryError • outOfSpace • programmingError • hardwareError • fileNotFound • inProgress • none
Serial Number field	Factory-assigned product serial number of the card.
PCA Serial Number field	Printed circuit assembly (PCA) serial number of the card.
PCA Assembly Number field	Printed circuit assembly (PCA) assembly number of the card.
FRU Number field	Field-replaceable unit (FRU) number of the card.

Table 2-1 Card Tab Fields (continued)

Field	Description
Action field (actions vary by card type)	Provides none , reset , and deleteInactiveImages radio buttons. For details, refer to the “Deleting Inactive Images from an Interface Card” section on page 2-4 and the “Resetting an Interface Card” section on page 2-4.
Result field	Result of the action from the Action field.

Deleting Inactive Images from an Interface Card

To remove an inactive image from an interface card, perform the following steps:

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- Step 1** Right-click the card in the chassis display whose properties you want to view. A right-click menu appears.
 - Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
 - Step 3** In the Action field, click the **deleteInactiveImages** radio button.
 - Step 4** Click the **Apply** button.
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Resetting an Interface Card

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- Step 1** Right-click the card in the chassis display whose properties you want to view. A right-click menu appears.
 - Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
 - Step 3** In the Action field, click the **reset** radio button.
 - Step 4** Click the **Apply** button.
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Enabling a Card

With Element Manager, you can bring up or shut down any card on your chassis. To configure the admin status of a card, perform the following steps:

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- Step 1** Right-click the card in the chassis display that you want to bring up or shut down. A right-click menu appears.

- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
- Step 3** Click the **up** radio button in the Enable/Disable Card field.
- Step 4** Click the **Apply** button.
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Disabling a Card

To disable a card, perform the following steps:

- Step 1** Right-click the card in the chassis display that you want to bring up or shut down. A right-click menu appears.
- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
- Step 3** Click the **down** radio button in the Enable/Disable Card field.
- Step 4** Click the **Apply** button.
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Viewing the Card Inventory

To view memory and image information on a card, perform the following steps:

- Step 1** Right-click the card in the chassis display whose properties you want to view. A right-click menu appears.
- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
- Step 3** Click the **Inventory** tab. [Table 2-2](#) lists and describes the elements in the Inventory tab of the card window.

Table 2-2 *Inventory Tab Fields*

Field	Description
Used Memory field	Used memory on the card, in kilobytes.
Free Memory field	Available memory on the device, in kilobytes.
Used Disk Space field	Used disk space on the card, in kilobytes.
Free Disk Space field	Available disk space on the device, in kilobytes.
Current Image Source field	Image that the card runs.
Image Source for Next Reboot field	Image that the card runs when you reboot.
Image One field	First image stored on the card.
Image Two field	Second image stored on the card.
CPU Description field	Description of the CPU on the card.

Table 2-2 *Inventory Tab Fields (continued)*

Field	Description
PIC Firmware Revision field (Choose cards)	Current PIC firmware version that the card runs.
FPGA Firmware Revision field (choose cards)	Current FPGA firmware version that the card runs.
IB Firmware Revision field	Version of InfiniBand firmware on the card. Note Element Manager displays the device-id and version number of the IB chip for each card for Anafa 2 chips. This content appears in parentheses next to the firmware version. For original Anafa chips, no parenthetical text appears.

Viewing Internal Gateway Ports of a Card

Ethernet Gateway cards use two internal gateway ports to pass traffic through your Server Switch. To view gateway port details for Ethernet Gateway cards, perform the following steps:

- Step 1** Right-click the card in the chassis display whose gateway ports you want to view. A right-click menu appears.
- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
- Step 3** Click the **Gateway Ports** tab. [Table 2-3](#) lists and describes the elements in the Gateway Ports tab of the card window.

Table 2-3 *Gateway Ports Tab Field Descriptions*

Field	Description
IfIndex field	Port (interface) number, in slot#/port# format.
Port Name field	Port name.
Port Type field	Port type.
Current Port Speed field	Current speed of the port.

Viewing Card IP Addresses

To view the IP addresses of Ethernet Gateway cards, perform the following steps:

- Step 1** Right-click the card in the chassis display whose IP addresses you want to view. A right-click menu appears.

- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
- Step 3** Click the **IP Addresses** tab. [Table 2-4](#) lists and describes the elements in the IP Addresses tab of the card window.

Table 2-4 IP Addresses Tab Field Descriptions

Field	Description
Port field	Port number, in card#port# format. A port# of 0 represents the internal gateway port of the interface card.
Address field	IP address that you assigned to the port.
Netmask field	Subnet mask that you assigned to the port.
BcastAddrFormat field	IP broadcast address format that the port uses.
ReasmMaxSize field	Size of the largest IP datagram which this port can receive and reassemble from incoming fragmented IP datagrams.
Type field	Displays “primary” or “backup” to indicate that the interface card acts as the primary or backup interface for the IP address that appears in the address field.
Status field	Displays “active” or “inactive” to indicate that the card actively services IP packets addressed to the IP address in the address field or does not service packets to the specified address.

Viewing Card Bridging Details

To view bridging details for Ethernet Gateway cards, perform the following steps:

- Step 1** Right-click the card in the chassis display whose bridging details you want to view. A right-click menu appears.
- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the card in the title bar.
- Step 3** Click the **Bridging** tab. [Table 2-5](#) lists and describes the elements in the Bridging tab of the card window.

Table 2-5 Bridging Tab Field Descriptions

Field	Description
Port field	Port number, in slot#/port# format.
IB P_Key field	Partition key that you assigned to the bridge group to which the port belongs.
Bridge Group ID field	Bridge group to which the port belongs. Assign the bridge group with the Ethernet > Bridging menu. For more information, see the “Creating a Bridge Group” section on page 9-7.

Viewing Port Properties

To view port properties, perform the following steps:

- Step 1** Right-click the port in the chassis display whose properties you want to view. A right-click menu appears.
- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the port in the title bar. The contents of the window vary by port type.

Table 2-6 lists and describes the fields in the properties window of an Ethernet port.

Table 2-6 Ethernet Port Properties Window Field Descriptions

Field	Description
Port Type field	Identifies the port type based on the function of the port (Ethernet, Fibre Channel, InfiniBand) and the type of card on which the port resides.
Port Name field	Provides a port name that you can edit and apply to the port.
Enable/Disable Port field	Provides the up and down radio buttons so you can configure the administrative status of the port.
Current Port Status field	Indicates whether or not the port is ready for use.
Physical State field	Displays the current state of the port, for example, polling.
Auto Negotiation Supported field	Displays “true” if the port supports autonegotiation.
Enable Auto Negotiation checkbox	Enables or disables autonegotiation on the port.
Set Port Speed field	Provides radio buttons to let you configure the speed of the port.
Current Port Speed field	Displays the speed of the port.
Set Duplex field	Provides radio buttons to let you configure the duplex setting of the port.
Current Duplex field	Indicates whether the port runs in full duplex mode or half duplex mode.
Enable Link Up/Down Trap field	Provides enabled and disabled radio buttons to configure whether or not the port sends a trap when links go up or down.
MTU field	Displays the maximum transmission unit (MTU) of the port, in bytes.
MAC Address field	Displays the media access control (MAC) address of the port.
Last Changed On field	Displays the time and date of the last time that a user configured the port.
Action field	Flushes the ARP table when you click the flushArp radio button, and then click the Apply button. Executes no action if you click the none radio button, and then click the Apply button.
Result field	Displays the result of the action that you perform from the Action field.

Table 2-7 lists and describes the fields in the properties window of an Fibre Channel port.

Table 2-7 Fibre Channel Port Properties Window Field Descriptions

Field	Description
Port Type field	Identifies the port type based on the function of the port (Ethernet, Fibre Channel, InfiniBand) and the type of card on which the port resides.
Port Name field	Provides a port name that you can edit and apply to the port.
Enable/Disable Port field	Provides the up and down radio buttons so you can configure the administrative status of the port.
Current Port Status field	Indicates whether or not the port is ready for use.
Auto Negotiation Supported field	Displays “true” if the port supports autonegotiation.
Enable Auto Negotiation checkbox	Enables or disables autonegotiation on the port.
Set Port Speed field	Provides radio buttons to let you configure the speed of the port.
Current Port Speed field	Displays the speed of the port.
Current Connection Type field	Displays the current connection type.
Enable Link Up/Down Trap field	Provides enabled and disabled radio buttons to configure whether or not the port sends a trap when links go up or down.
MTU field	Displays the maximum transmission unit (MTU) of the port, in bytes.
WWNN field	World-wide node name of the HCA of the port.
WWPN field	World-wide port name of the port.
FC ID field	Native Fibre Channel ID of the port.
Last Changed On field	Displays the time and date of the last time that a user configured the port.

Table 2-8 lists and describes the fields in the properties window of an InfiniBand port.

Table 2-8 InfiniBand Port Properties Window Field Descriptions

Field	Description
Port Type field	Identifies the port type based on the function of the port (Ethernet, Fibre Channel, InfiniBand) and the type of card on which the port resides.
Port Name field	Provides a port name that you can edit and apply to the port.
Enable/Disable Port field	Provides the up and down radio buttons so you can configure the administrative status of the port.
Current Port Status field	Indicates whether or not the port is ready for use.
Auto Negotiation Supported field	Displays “true” if the port supports autonegotiation.
Enable Auto Negotiation checkbox	Enables or disables autonegotiation on the port.
Set Port Speed field	Provides radio buttons to let you configure the speed of the port.

Table 2-8 *InfiniBand Port Properties Window Field Descriptions (continued)*

Field	Description
Current Port Speed field	Displays the speed of the port.
Power Connector Dongle Type field	Displays the power connector Dongle type. This field appears only if the InfiniBand port is supporting the power connector.
Enable Link Up/Down Trap field	Provides enabled and disabled radio buttons to configure whether or not the port sends a trap when links go up or down.
MTU field	Displays the maximum transmission unit (MTU) of the port, in bytes.
Last Changed On field	Displays the time and date of the last time that a user configured the port.

Viewing Serial Management Port Properties

To view management port properties, perform the following steps:

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- Step 1** Click the **Edit** menu and choose **Management Ports**. The Management Ports window opens.
- Step 2** Click the **Serial Port** tab. [Table 2-9](#) lists and describes the fields in the Ethernet Port tab.

Table 2-9 *Serial Port Window Field Descriptions*

Field	Description
Baud Rate field	Baud rate setting to which you must set your serial connection.
Data Bits field	Data bit setting to which you must set your serial connection.
Stop Bits field	Stop bit setting to which you must set your serial connection.
Parity field	Parity field setting to which you must set your serial connection.

Establishing a Serial Connection

To create a serial connection to your Server Switch, perform the following steps:

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- Step 1** Connect the straight-through M/F serial cable (provided with your Server Switch) to the Serial Management port, and then connect the cable to your terminal, workstation, or terminal server.
- Step 2** Launch a terminal session (on a workstation, use a terminal emulation application such as HyperTerminal) and configure your terminal parameters to match the parameters listed in [Table 2-9](#).
- Step 3** Press the **Enter** key until the Login prompt appears.
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Viewing Ethernet Management Port Properties

To view management port properties, perform the following steps:

- Step 1** Click the **Edit** menu and choose **Management Ports**. The Management Ports window opens.
- Step 2** Click the **Ethernet Port** tab. [Table 2-10](#) lists and describes the fields in the Ethernet Port tab.

Table 2-10 Ethernet Management Port Window Field Descriptions

Field	Description
MAC Address field	MAC address of the Ethernet Management Port (which serves as the MAC address of the Server Switch).
Enable Auto Negotiation field	Displays “true” if the Ethernet Management port dynamically determines the connection speed of the device to which it connects over via Ethernet cable. Otherwise displays “false.”
Administrative Port Status field	Displays the administrative status that you configure via the CLI with the shutdown and no shutdown commands.
Current Port Status field	Displays “up” if the port runs successfully. Displays “down” if the port cannot transmit and receive traffic for any reason.
IP Address field	IP address of the Ethernet Management Port.
Network Mask field	Subnet mask of the Ethernet Management port.
Gateway field	Ethernet Gateway assigned to the port.
Address Option field	Displays the address option that you configure with the addr-option CLI command.

Viewing InfiniBand Management Port Properties

To view management port properties, perform the following steps:

- Step 1** Click the **Edit** menu and choose **Management Ports**. The Management Ports window opens.
- Step 2** Click the **InfiniBand Port** tab. [Table 2-11](#) lists and describes the fields in the InfiniBand Port tab.

Table 2-11 InfiniBand Management Port Window Field Descriptions

Field	Description
Administrative Port Status field	Displays the administrative status that you configure via the CLI with the shutdown and no shutdown commands.
Current Port Status field	Displays “up” if the port runs successfully. Displays “down” if the port cannot transmit and receive traffic for any reason.
IP Address field	IP address of the InfiniBand Management port.
Network Mask field	Subnet mask of the InfiniBand Management port.

Table 2-11 *InfiniBand Management Port Window Field Descriptions (continued)*

Field	Description
Gateway field	IP address of the gateway that the InfiniBand port uses.
Address Option field	Displays the address option that you configure with the addr-option CLI command.
MTU field	Maximum transmission unit of the InfiniBand port.

Viewing Port Bridging Properties

To view the bridging properties of a port, perform the following steps:

- Step 1** Right-click the Ethernet port in the chassis display whose bridging properties you want to view. A right-click menu appears.
- Step 2** Choose **Properties...** from the right-click menu. A window opens and displays the type and number of the port in the title bar. The contents of the window vary by port type.
- Step 3** Click the **Bridging** tab. [Table 2-12](#) lists and describes the fields in this tab.

Table 2-12 *Port Bridging Table Field Descriptions*

Field	Description
Port	Port that you chose from the Ports table.
IEEE VLAN Tag	Virtual LAN (VLAN) of the bridge to which the port belongs.
Bridge Group ID	Bridge ID of the bridge to which the port belongs.

Configuring Ports

Element Manager provides different configuration options for each type of port. The options available to each port will appear in the Port Properties window.

**Note**

To configure multiple ports at once, hold the **Ctrl** key and click multiple ports of the same type, and then right-click one of the ports that you selected to view right-click menu options.

Configuring a Port Name

To configure the administrative name of a port, perform the following steps:

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- Step 1** Double-click the port that you want to configure. A window opens that identifies the type of the port and the port number (in slot#port# format).
- Step 2** In the Port Name field of the window, enter a name for the port, and then click the **Apply** button.
- Step 3** Click the **Close** button to close the window.
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Enabling or Disabling a Port

To enable or disable a port, perform the following steps:

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- Step 1** Double-click the port that you want to configure. A window opens that identifies the type of the port and the port number (in slot#port# format).
- Step 2** In the Enable/Disable Port field of the window, click the **up** (enable) or **down** (disable) radio button, and then click the **Apply** button.
- Step 3** Click the **Close** button to close the Port Properties window.



Tip

As a shortcut, right-click the port and choose **Enable** or **Disable**.

Configuring Autonegotiation on a Port

To enable or disable autonegotiation on a port, perform the following steps:

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- Step 1** Double-click the port that you want to configure. A window opens that identifies the type of the port and the port number (in slot#port# format).
- Step 2** In the Auto Negotiation Supported field of the window, click the **Enable Auto-Negotiation** checkbox to check (enable) or uncheck (disable) it, and then click the **Apply** button.
- Step 3** Click the **Close** button to close the window.
-

Configuring Port Speed

To configure the speed of a port, perform the following steps:

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- Step 1** Double-click the port that you want to configure. A window opens that identifies the type of the port and the port number (in slot#port# format).
- Step 2** In the Auto Negotiation field, uncheck the **Enable** checkbox (if necessary).
- Step 3** In the Set Port Speed field of the window, click a radio button to choose a speed, and then click the **Apply** button.

- Step 4** Click the **Close** button to close the window.
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Configuring Port IP Addresses

To add IP addresses to choose ports, perform the following steps:

- Step 1** Double-click the port that you want to configure. A window opens that identifies the type of the port and the port number (in slot#port# format).

- Step 2** Click the **IP Addresses** tab.



Note Before you can manually add IP addresses, you must configure the port for bridging. For details, refer to the *Ethernet Gateway User Guide*.

- Step 3** Click the **Insert** button. The Insert IP Addresses window opens.

- Step 4** Enter an IP address and subnet mask, and then click the **Insert** button. The address appears in the table under the IP Addresses tab.

- Step 5** Click the **Close** button to close the window.
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Rebooting the Server Switch

To reboot the chassis, perform the following steps:

- Step 1** Right-click the Server Switch in the chassis display (avoid selectable elements such as ports and cards) and click **Reboot**. A window opens and prompts you to save configuration changes.

- Step 2** Click **Yes** to save configuration changes or click **No** to discard the changes. A window opens to verify that you want to reboot.

- Step 3** Click **OK** to reboot; otherwise, click **Cancel**.
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