



About Element Manager Fundamentals

This chapter describes the Element Manager Java-based user-interface (GUI) that runs on your server switch and contains these sections:

- [Introduction, page 1-1](#)
- [Installing Element Manager, page 1-4](#)
- [Launching Element Manager, page 1-6](#)

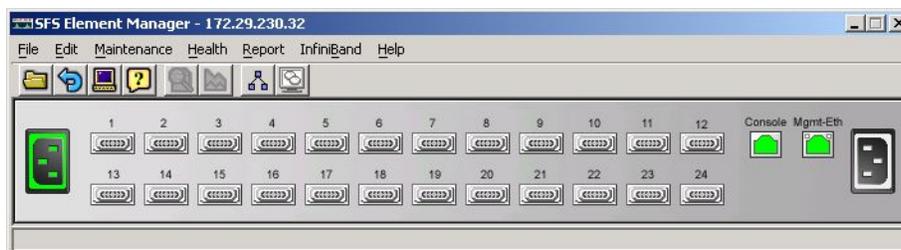
Introduction

With Element Manager, you can manage individual Server Switches from an easy-to-use GUI. To run element manager, you must do the following tasks:

- Install the EM software on a host or workstation.
- Configure your Server Switch(es) to support EM.
- Launch EM on your host or workstation.

The primary display of Element Manager provides pulldown menus, feature buttons, and various clickable display elements. [Figure 1-1](#) shows the Element Manager display.

Figure 1-1 Element Manager Primary Display



The number of menus, buttons, and display elements vary by Server Switch platform. [Table 1-1](#) and [Table 1-2](#) list and describe all possible menus and buttons. Clickable display elements vary by hardware platform.

When you click a display element (such as Server Switch ports), a yellow border appears around the element. You can double-click any clickable element to open a related configuration window. You can right-click these elements to view element-specific right-click menus. You can use these menus and windows to view element details or change the configuration.

You can hold the **Ctrl** button and click multiple elements of the same type (for instance, multiple InfiniBand ports) to select multiple elements at once to configure them as a group. After you select multiple elements, right-click one of the elements to display a right-click menu for options that you can apply.

Table 1-1 lists and describes the pulldown menus in the Element Manager display.

Table 1-1 *Element Manager Pulldown Menus*

Menu	Description
File	Use the menu items in the File menu to do the following: <ul style="list-style-type: none"> • Load a Server Switch in the EM display. • Configure EM performance options such as intervals and thresholds for various features. • Refresh the EM display. • Telnet to the open Server Switch to configure the switch with the CLI. (For CLI details, refer to the <i>Cisco SFS 7000 Series Product Family Command Reference Guide</i>.)
Edit	Use the edit menu to view port properties or card properties.
Maintenance	Use the menu items in the Maintenance menu to do the following: <ul style="list-style-type: none"> • View Server Switch details. • View and configure basic services. • View and configure the boot configuration. • Back-up the running configuration. • Import and export files. • Reboot the Server Switch. • Track diagnostic tests.
Health	Use the menu items in the Health menu to monitor the Server Switch status and events.
Report	Use the menu items in the Report menu to graph Server Switch statistics.
InfiniBand	Use the menu items in the InfiniBand menu to configure InfiniBand-specific Server Switch features, including the Device Manager and Subnet Manager.
Ethernet	Use the menu items in the Ethernet menu to configure Ethernet-specific Server Switch features.
Fibre Channel	Use the menu items in the FibreChannel menu to configure FC-specific Server Switch features.
Help	Use the menu items in the Help menu to launch online help and locate additional help resources.

Table 1-2 lists and describes the feature buttons in the Element Manager display.

Table 1-2 *Element Manager Feature Buttons*

Button	Description
Open button 	Click the Open button to load a different Server Switch in the EM display.
Refresh button 	Click the Refresh button to poll the Server Switch and update the EM display.
Telnet button 	Click the Telnet button to launch a Telnet session to the Server Switch.
Help button 	Click the Help button to launch EM online help.
Properties button 	Click the Properties button after you click an element (or multiple elements of the same type) to view the properties of the element(s).
Graph button 	Click the Graph button after you click an element (or multiple elements of the same type) to select element statistics that you can then graph.
Topology button 	Click the Topology button to view the Server Switch and neighboring devices.
Subnet Management button 	Click the Subnet Management button to open the Subnet Management window and configure partitions, multicast groups, and other SM-related features.
Storage Manager button 	Click the Storage Manager button to open the Storage Manager window and configure initiators, targets, and LUNs.

Common GUI Buttons

Many windows that you can open in Element Manager display a combination of frequently appearing buttons. [Table 1-3](#) lists and describes these common buttons.

Table 1-3 Common Buttons

Button	Description
Apply	Applies any changes that you made in the window to the Server Switch.
Refresh	Updates the window with the latest information from the Server Switch.
Close	Closes the window.
Help	Launches context-sensitive online help.

Status Indicators

The Element Manager display uses specific colors to communicate the status of Server Switch elements. [Table 1-4](#) lists and explains status-indicator colors.

Table 1-4 Status Indicator Colors

Color	Indication
gray	Element is not active (such as an InfiniBand port that does not connect to a cable).
red	An administrator has taken the element offline or the element experiences an error.
green	Element functions successfully.
transparent	Element is unmanaged.

Installing Element Manager

Element Manager runs on Linux, Solaris, and Windows platforms. Follow installation instructions for the appropriate platform.

System Requirements (All Platforms)

To install Element Manager, your system must meet the following requirements:

- 64 MB of available RAM
- 75 MB of available hard disk space and 50 MB of additional available hard disk space during installation
- 300 MHz processor
- 800 x 600 screen resolution with 16-bit color depth

Linux Installation

To install Element Manager on Linux, perform the following steps:

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- Step 1** Log in to your Linux host.
 - Step 2** Place the Element Manager CD-ROM in the CD-ROM drive.
 - Step 3** Mount your CD-ROM drive (if required).

```
# mount /mnt/cdrom/
```
 - Step 4** Navigate to the top-level directory of the CD-ROM.

```
# cd /mnt/cdrom/
```
 - Step 5** Navigate to the Linux directory.

```
# cd Linux
```
 - Step 6** Run the appropriate binary file and proceed with the installation wizard.
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Solaris Installation

To install Element Manager on Solaris, perform the following steps:

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- Step 1** Log in to your Solaris host.
 - Step 2** Place the Element Manager CD-ROM in the CD-ROM drive.
 - Step 3** Access the top-level folder of the CD.
 - Step 4** Navigate to the em/Solaris directory.
 - Step 5** Start the `./install_yourOS.bin` file. Proceed with the installation wizard.
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Windows Installation

To install Element Manager on Windows, perform the following steps:

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- Step 1** Log in to your Windows host.
 - Step 2** Place the Element Manager CD-ROM in the CD-ROM drive.
 - Step 3** Navigate to the Windows directory on the CD-ROM.
 - Step 4** Launch the executable file (.exe) to begin the installation process. The Introduction screen appears.
 - Step 5** Click the **Next** button. The License Agreement screen appears.
 - Step 6** Read the license agreement and click the **I accept the terms of the license agreement** radio button, and then click the **Next** button. The Choose Install Folder screen appears.
 - Step 7** Select a folder, and then click the **Next** button. The Choose Shortcut Folder screen appears.

- Step 8** Make selections as appropriate for your needs, and then click the **Next** button. The Pre-Installation Summary screen appears.
- Step 9** Verify installation information in the Please Review the Following Before Continuing window, and then click the **Install** button. The installation executes.
- Step 10** Click the **Done** button when the installation completes.
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Launching Element Manager

When you launch Element Manager, the EM interface requests the IP address (or DNS name) of the Server Switch that you want to manage. To successfully connect to the Server Switch that you want to manage, you must first configure that Server Switch to permit Element Manager access. If Element Manager fails to connect to a given Server Switch, verify that the Server Switch meets the prerequisites for EM.

Preparing your Server Switch

Factory defaults permit your Server Switch to connect to Element Manager. The following settings must apply to your Server Switch in order for it to open in EM:

- HTTP server enabled
- Telnet server enabled
- SNMP server configured

To view your Server Switch settings, perform the following steps:

- Step 1** Log in to your Server Switch.
- Step 2** Enter the **enable** command to enter Privileged EXEC mode.
- Step 3** Enter the **configure terminal** command to enter global configuration mode.
- Step 4** Enter the **ip http server** command to enable the HTTP server.
- Step 5** Enter the **telnet enable** command to enable telnet services.
- Step 6** To configure and SNMP server enter the **snmp-server** command with the following:
- the IP address of the server that you want to configure
 - (optional) **recv-event-traps** keyword

For more details, refer to the *Cisco SFS 7000 Series Product Family Command Reference Guide*.