



CHAPTER 3

Getting Started with Cisco MNM

Revised: December 15, 2009, OL-18339-03

This chapter describes the basics of working with Cisco Media Gateway Controller (MGC) Node Manager (MNM). Topics include:

- [Starting and Quitting a Cisco MNM Session, page 3-1](#)
- [Opening, Closing and Switching Cisco MNM Applications, page 3-3](#)
- [Basic Operations in Cisco MNM, page 3-6](#)
- [Using the Map Viewer, page 3-10](#)
- [Understanding Cisco MNM Dialog Boxes, page 3-26](#)

Starting and Quitting a Cisco MNM Session

This section describes how to start and quit a Cisco MNM session.



Note

If you are using VNC on Solaris 10 to access Cisco MNM, see the following URL for instructions on installing and configuring the VNC on the Solaris 10 platform from the Sun Microsystems website

http://www.sun.com/bigadmin/jsp/descFile.jsp?url=descAll/install_and_configu

In the configuration procedure described in the above URL, use the following line to replace the corresponding line when you are editing `/etc/dt/config/Xservers`.

```
:1 Local local_uid@console root /opt/sfw/bin/Xvnc :1 -httpd /opt/sfw/vnc/classes -depth 24  
-geometry 1024x768 -r fbwait 120000 -rfbauth /opt/sfw/vnc/.vnc/passwd -rfbport 5901  
-httpport 5801 -fp tcp/localhost:7100 -alwaysshared -co /usr/openwin/lib/X11/rgb  
-fp /usr/openwin/lib/X11/fonts/misc/, /usr/openwin/lib/X11/fonts/75dpi/
```

Starting a Cisco MNM Session

You can start a Cisco MNM session when Cisco EMF is running. Use the following steps to start a Cisco MNM session:

- Step 1** Log in as root.
- Step 2** From the command line on the terminal window enter

```
# cd <CEMF_ROOT>/bin
```

Where *<CEMF_ROOT>* is the Cisco MNM installation root directory (for example, */opt/cemf*).



Note Because Cisco EMF is the element management framework upon which Cisco MNM is built, you need go into the *<CEMF_ROOT>* directory to start a Cisco MNM session.

- Step 3** Verify that Cisco EMF is running.

- Step 4** Enter

```
# cemf query
```

You should see CEMF Manager 3.2 initialized followed by a list of running Cisco EMF processes.

- Step 5** If Cisco EMF is not running, start it by entering the following command:

```
# cemf start
```

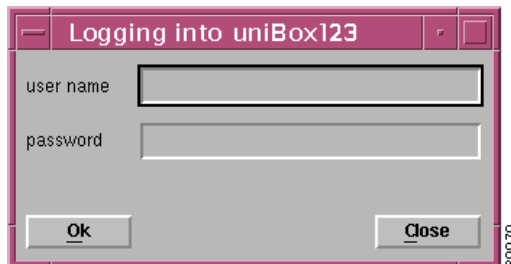
- Step 6** From the command line on the terminal window, enter

```
# <CEMF_ROOT>/bin/cemf session
```

Where *<CEMF_ROOT>* is the Cisco MNM installation root directory (for example, */opt/cemf*).

The Cisco EMF Login window displays, as shown in [Figure 3-1](#).

Figure 3-1 Cisco EMF Login Window



- Step 7** Enter your user name and password, and click **OK**.



- Note**
- The default user name and password is admin.
 - If an unknown user name or password is entered, an error message displays. You are given three attempts to enter a valid user name and corresponding password. After three invalid entries, the session does not start and the Login window closes.

When a valid user name and password is entered, the session starts and the Cisco EMF Launchpad window displays, as shown in [Figure 3-2](#).

- Step 8** Continue to the [“Opening an Application”](#) section on page 3-4.

Quitting a Cisco MNM Session

You can quit a Cisco MNM session at any time. Quitting Cisco MNM closes any open applications or dialog boxes, but does not stop Cisco EMF. Use the following procedure to quit a Cisco MNM session:

Step 1 Do one of the following:

- From the File menu, select **Quit**.
- Press **Ctrl-Q**.
- Click the **Close** tool on the toolbar.

You are asked if you want to quit the Cisco EMF Manager system.

Step 2 Click **Yes** to quit the session.

All active applications are closed and the session terminates. Cisco EMF continues to run.



Note To stop Cisco EMF, you must be the root user.

Opening, Closing and Switching Cisco MNM Applications

Cisco MNM applications are the major groupings of network management functions. They include:

- **Map Viewer**—You can view, build, and monitor a network with Map Viewer. You can monitor the networks using network object connections.
- **Object Group Manager**—You can organize network elements into object groups with the Object Group manager. You can create, delete, and modify object groups.
- **Access Manager**—The Access menu allows an administrator to set up users and user groups, assign passwords, and define access parameters.
- **Event Browser**—Clicking the Events button initiates the Event Browser and Query Editor. You can create object groups or browse events from these windows.
- **Discovery**—Because Cisco MNM requires a log in and password to communicate with a device, the Cisco EMF Automatic Discovery feature is not supported by Cisco MNM. Cisco MNM discovers (and can automatically rediscover) device components and configurations once the device has been deployed: IP address, host name, and login information entered into Cisco MNM, as described in [Chapter 5, “Deploying Your Network in Cisco MNM.”](#)
- **Cisco MNM Manuals**—Opens a Mozilla browser window and displays links to the following documents:
 - Cisco Media Gateway Control Node Manager End-User Guides
You can also see these documents at http://www.cisco.com/en/US/products/sw/netmgtsw/ps1912/products_user_guide_list.html.



Note If the Cisco MNM is installed co-resident with another CEMF element manager, a button for that product’s manual also displays.

- Event Manager

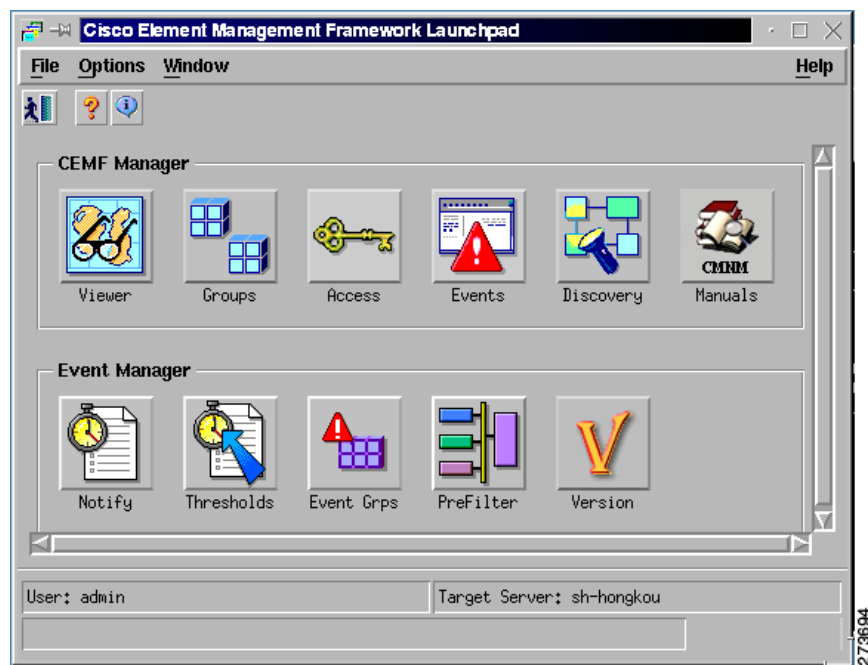
- Notify—You can create notification profiles that consist of a series of notifications that should be carried out as a result of the profile being triggered.
- Thresholds—You can configure the management system to actively monitor the network and notify the operator when some aspect of the network performance has deviated from preset criteria.
- Event Groups—You can filter and organize events based on specified criteria, such as severity, state, or type of network element, and then create a scoreboard to show the state of the group at a glance.
- PreFilter—Pre-filter some messages collected in Cisco MNM according to the defined rules.
- Version—Display the version and patch information for Cisco MNM and Cisco VSPT (if installed together with Cisco MNM).

Once you have started a Cisco MNM session, you can open, close, and switch between applications.

Opening an Application

The Cisco EMF Launchpad (shown in [Figure 3-2](#)) is used to access Cisco MNM applications. You can open multiple applications, and you can open more than one instance of an application.

Figure 3-2 Cisco EMF Launchpad



Use the following procedure to open an application:

On the Launchpad, click the icon to open the desired application. A busy icon and a message in the status bar displays while it is opening.


**Note**

If an application is already open, it displays in the drop-down menu on the Window toolbar. Click **Window**, and choose the desired application.

Closing an Application

Closing an application closes only the current instance of the application. Other instances of the application are unaffected. For example, if you separately opened an Event Browser for a Cisco BAMS and an Event Browser for a Cisco PGW 2200 Softswitch host, closing the Cisco PGW 2200 Softswitch host Event Browser window does not close the Cisco BAMS Event Browser window.

Use one of the following procedures to close an application:

- Choose **File > Close**.
- Click the window **Close** button.
- If the window has a toolbar, click the **Close** tool .
- Press **Alt-F4**.

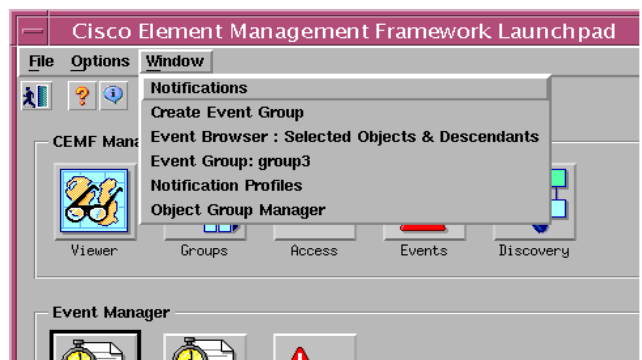
Switching Between Open Application Windows

Working in Cisco MNM often involves having several windows open at the same time. You can view the list of open windows and switch between them from the drop-down menu on the Window toolbar, as shown in [Figure 3-3](#).

Use the following steps to switch between windows:

- Step 1** Click **Window** on the toolbar. The drop-down menu displays and lists all open windows.

Figure 3-3 Window Pull-Down Menu



- Step 2** Choose the desired window.

Basic Operations in Cisco MNM

This section describes basic operations that apply to Cisco MNM:

- Using the mouse, shortcut keys, or toolbar to access Cisco MNM features
- Selecting items in lists
- Printing the contents of a window
- Viewing Cisco MNM status information



Note

If you have problems printing the contents of a window, consult your system administrator to verify that your operating system is configured for printing.

Using the Mouse

The left, middle, and right mouse buttons are used for the following Cisco MNM functions:

- Click the left mouse button to
 - Select.
 - Activate.
 - Set the location of the cursor.
- Click the middle mouse button to
 - Copy.
 - Move.
 - Drag.
- To access context menus, click the right mouse button on a managed object within an application such as the Map Viewer, the Object Group Manager, and events in the Event Browser.

Using Shortcut Keys

Ctrl-Key

Standard Cisco MNM menus are available on the toolbar. You can click to select items from the menus or you can enter shortcut keys, as shown in [Table 3-1](#) and [Table 3-2](#).

Table 3-1 File Menu Shortcut Keys

Key Sequence	File Menu Function
Ctrl-Q	Quit
Ctrl-W	Close
Ctrl-P	Print
Ctrl-S	Save

Table 3-1 File Menu Shortcut Keys (continued)

Ctrl-N	New
Ctrl-O	Open

Table 3-2 Edit Menu Shortcut Keys

Key Sequence	File Menu Function
Ctrl-Z	Undo
Ctrl-X	Cut
Ctrl-C	Copy
Ctrl-V	Paste
Ctrl-A	Select all
Ctrl-D	Deselect all

**Note**

When a menu option is grayed out, it is not available for selection.

Alt-Key

Items in the Cisco MNM menus and dialog boxes may be displayed with the first (initial) letter underlined (for example, Actions.) This means that you can either select this option by clicking the mouse, or you can press **Alt-A**.

**Tip**

You can use the X windows standard **Alt-4** to close the current window.

Using the Toolbar

In Cisco MNM application windows, a toolbar contains tool buttons for commonly used menu options. You can toggle the toolbar on or off and choose to display or hide tooltips.

In [Figure 3-4](#), the toolbar contains tool buttons for the following functions common to many dialog boxes:

- Close the current window.
- Print the contents of the window.

Figure 3-4 Example Toolbar**Note**

If you have problems printing the contents of a window, consult your system administrator to verify that your operating system is configured for printing.

- Toggle dynamic update mode to allow viewing or not viewing real-time changes.
- Refresh the window to update the information when dynamic update mode is off.
- Acknowledge that you have seen dynamically updated dialog box changes.

Hiding or Showing the Toolbar

To toggle the display of the toolbar for the current window, choose **Options > Show Toolbar**.

Hiding or Showing Tooltips

Tooltips provide a brief description of a toolbar button or window panel. Tooltips appear when the cursor is positioned over the item. You can choose to show or hide tooltips.

To toggle the display of tooltips for the toolbar in the current window, choose **Options > Enable Tooltip**.

Selecting from Lists

To perform an operation on more than one item, you can select:

- A block of items
- Multiple items in different areas of a list
- All items

You can also deselect all items. For instructions, see the [“Use the following steps to deselect all items:” task on page 3-9](#)

Use the following steps to select a block of items:

Step 1 Click the first item in the block.

The item is highlighted.

Step 2 Press and hold the **Shift** key.

Step 3 Click the last item in the block.

Step 4 Release the **Shift** key.

All items between the first and last item are highlighted.

Use the following steps to select multiple items in different areas of a list:

Step 1 Click the first item.

The item is highlighted.

Step 2 Press **Ctrl** and click the next item you want to select.

The item is highlighted.

Step 3 Repeat Step 2 and Step 3 until all the desired items are highlighted.

Use the following steps to select all items:

Step 1 Place the cursor anywhere in the window.

Step 2 Press and hold the right mouse button.

A context menu displays.

Step 3 Choose **Select All**.



Note This option is not available in all windows.

All items in the list are highlighted.

Use the following steps to deselect all items:

Step 1 Place the cursor anywhere in the window.

Step 2 Press and hold the right mouse button.

A context menu displays.

Step 3 Choose **Deselect**.



Note This option is not available in all windows.

All items in the list are deselected.

Printing the View Displayed in the Window

In most windows you can print the contents.



Note If you have problems printing the contents of a window, consult your system administrator to verify that your operating system is configured for printing.

To print the contents of the current window, do one of the following:

- From the File menu, choose **Print**.
- Press **Ctrl-P**.
- Click the **Print** tool on the toolbar.

The current view is printed.

Viewing Cisco MNM Status Information

The status bar at the bottom of most windows displays status information about the current Cisco MNM application status (not about network status).

To view previous status messages, double-click in the status bar. The Status Dialog displays, as shown in Figure 3-5.

Figure 3-5 Status Dialog



Using the Map Viewer

The Map Viewer organizes the network display into various views and is the starting point for most Cisco MNM network management operations. Each view represents a different way of containing and grouping the network elements, such as device type, Cisco PGW 2200 Softswitch node, and physical or network view.

In the Map Viewer you can

- Deploy an entire network or a single new device.
- See at a glance which devices have generated alarms. Because the alarm display is propagated from the originating object up through the containing objects, you can quickly drill down to find the source of the problem.



Note

Propagation applies to the node and physical views. Alarms are not propagated in device views.

- Identify information about a device by its graphical representation. State icon, color, cross-hatching pattern are some of the indicators that give you a quick graphical read of the network condition.
- Access network devices by navigating through one of the views to the desired object and then right-clicking to open any of the Cisco MNM services relevant to that device.
- View the network in different ways. For example, you can use the physical view to see where devices are located, the device view to perform an operation on all devices of a particular type, and the node view to see node-specific elements such as signaling components.



Note

The term “object” refers to the graphical representation of a network element in Cisco MNM and the term “device” refers to the real-world counterpart that is represented and manipulated by the object.

This section describes the basics of how to use the Map Viewer. The Map Viewer display is based on the Cisco MNM object model of the network. For an explanation of the concepts and some of the technical details behind the Map Viewer, see [Chapter 1, “Overview of Cisco Media Gateway Controller Node Manager,”](#) “How Cisco MNM Models the Network” section on page 1-9.

This section describes:

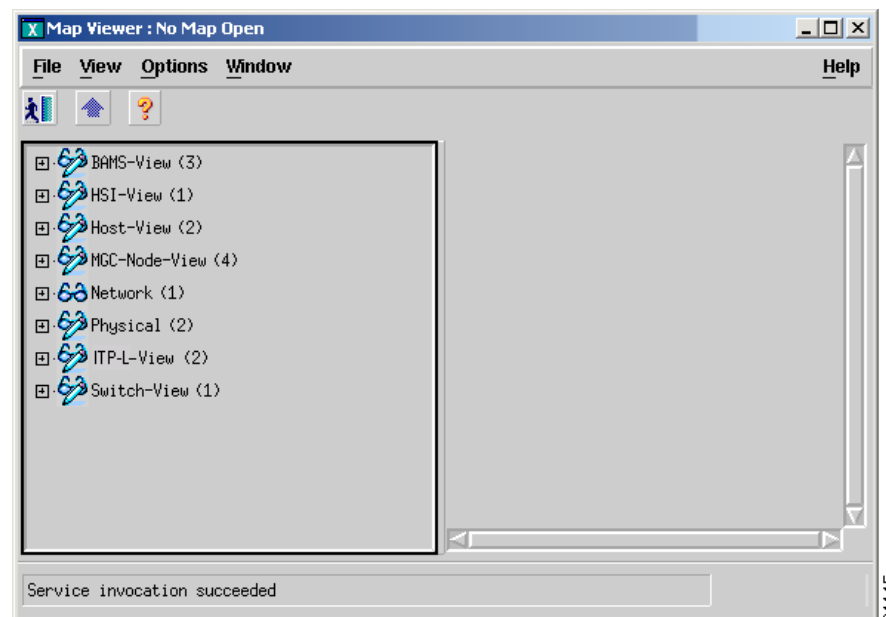
- The Map Viewer window and views.
- How to expand a view, to get to an object, and collapse a view.
- How to read the visual symbols associated with objects in the Map Viewer.
- How to use the context menu to open a Cisco MNM service for the current object. (This is your entry point to most network management functions.)

For more information on the Map Viewer, refer to “Map Viewer” in the Cisco EMF online help.

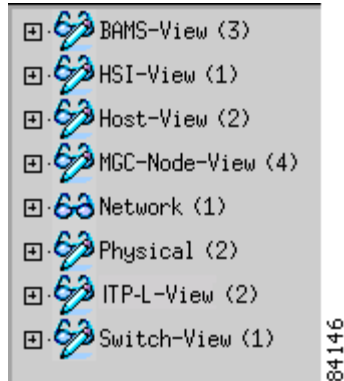
Map Viewer Window

Until you have deployed a network in Cisco MNM, the Map Viewer displays only empty container objects.

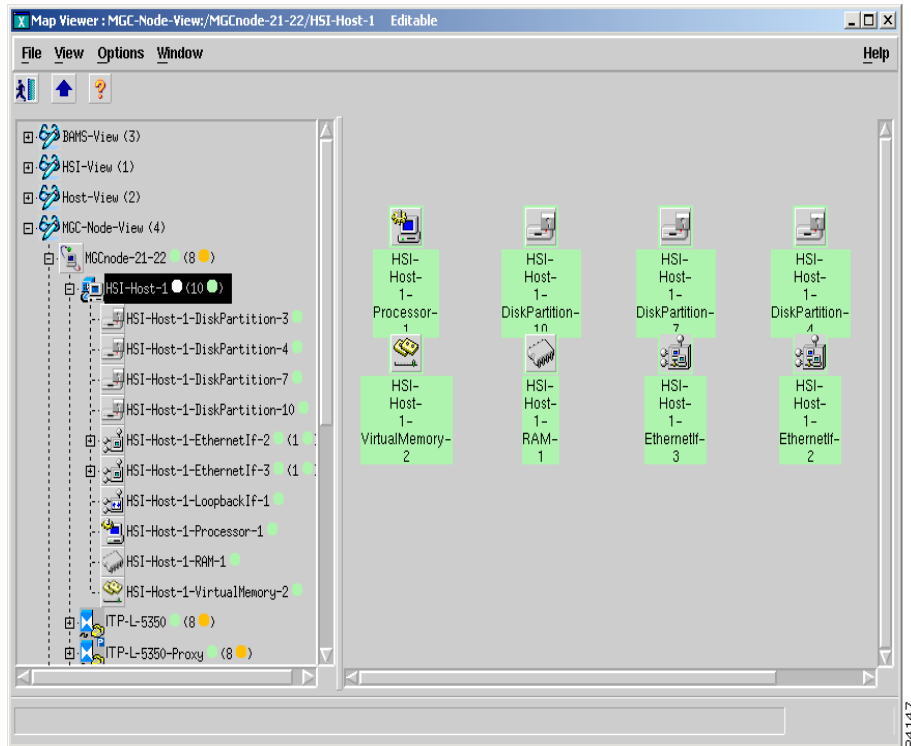
Figure 3-6 Map Viewer Before a Network Is Deployed



When you deploy a network, (see [Chapter 5, “Deploying Your Network in Cisco MNM”](#)) the views are populated with the graphical objects that represent your network devices. Initially, the view is collapsed, as shown in [Figure 3-7](#).

Figure 3-7 Map Viewer After Deployment

When a view is expanded, the Map Viewer looks similar to the illustration shown in [Figure 3-8](#).

Figure 3-8 Typical Appearance of the Map Viewer

- The Map Viewer window is divided into two panes. The left pane is a hierarchy browser. The right pane displays a map of the object selected in the left pane. The map is a detailed depiction of the selected device or site.
- Resize the hierarchy browser pane and map pane by positioning your cursor over the boundary and dragging.
- Use the scroll bars to view all information in the left and right panes.
- You can open a service on a device object by right-clicking the object and choosing the service from the context menu. To open a service on multiple devices, select the devices, and then right-click.

**Note**

The context menu displays the list of services available for the selected device or devices. Services available depend on your access privileges. If multiple objects are selected, only services common to all selected objects are available.

Map Viewer Views

This section describes the various Map Viewer views.

Node View

The node view shows all the devices in the node, as well as the Cisco PGW 2200 Softswitch host signaling, dial plan, and trunking components.

Use the node view to:

- Deploy a node and devices within a node. In a conventional node, you deploy one or a pair of Cisco PGW 2200 Softswitch hosts under the node. In a farm, you deploy a farm under the node, and then deploy one or a pair of Cisco PGW 2200 Softswitch hosts under the farm, as shown in [Figure 3-12](#).
- View alarm propagation. Alarms are propagated from child devices to parent devices anywhere in the node, and you can drill down through the tree to find the element raising the alarm.
- View signaling, trunking, and dial plan information.
- Open applications for signaling, trunking, and dial plan components.

[Figure 3-9](#) shows an example of the node view. [Figure 3-10](#) and [Figure 3-11](#) show expansions of the signaling and trunking folders. [Figure 3-12](#) shows an example of a farm folder.

Figure 3-9 Node View

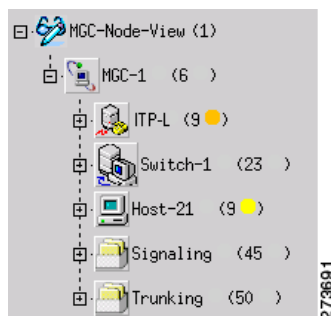


Figure 3-10 Signaling Folder

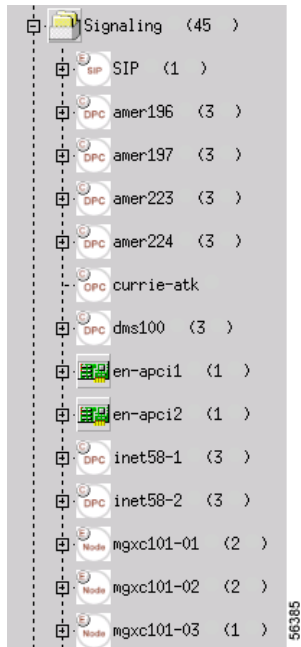


Figure 3-11 Trunking Folder

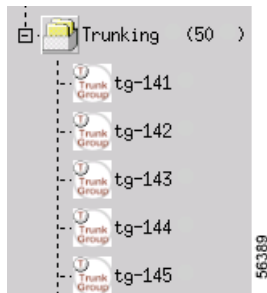
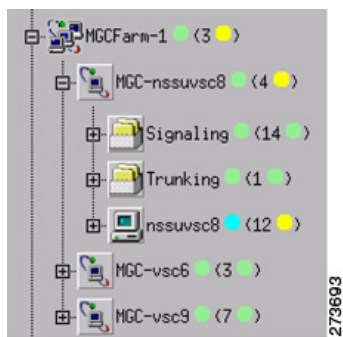


Figure 3-12 Farm Folder



Device Views

The device views group devices by their type. Use device views to view and manage all the devices of a particular type.


Note

Alarms are not propagated in device views. Use the node view or physical view to propagate alarms.


Tip

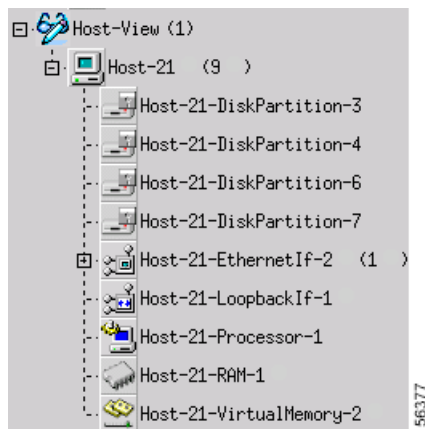
To open a Cisco MNM service for a group of devices, open the service from the device view. The dialog box lists all the devices. You can select each desired device in turn.

Cisco PGW 2200 Softswitch Host View

This view shows all Cisco PGW 2200 Softswitch hosts. Use host view to:

- View and manage all hosts
- View and manage host system components, such as disk, RAM, memory, processor, and interfaces

Figure 3-13 Cisco PGW 2200 Softswitch Host View



Cisco ITP-L View


Note

Cisco IP Transfer Point LinkExtender (ITP-L) is the new name for Cisco Signaling Link Terminal (SLT). Over time, ITP-L will replace SLT in publications and the product.

This view shows all the Cisco ITP-Ls, integrated ITP-Ls and integrated ITP-L coresident EMs. Use Cisco ITP-L view to:

- View and manage all of the Cisco ITP-Ls
- View and manage ITP-L interfaces, including TDM interfaces

Different icons are used for different types of ITP-Ls, as shown below.



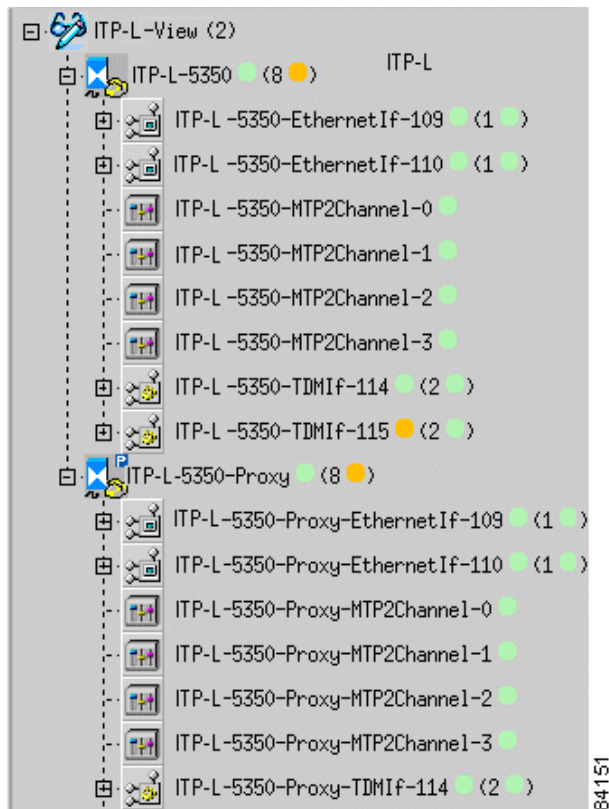
Type of ITP-L	Icon
Standalone ITP-L	
Integrated ITP-L	



Figure 3-14 Cisco ITP-L View

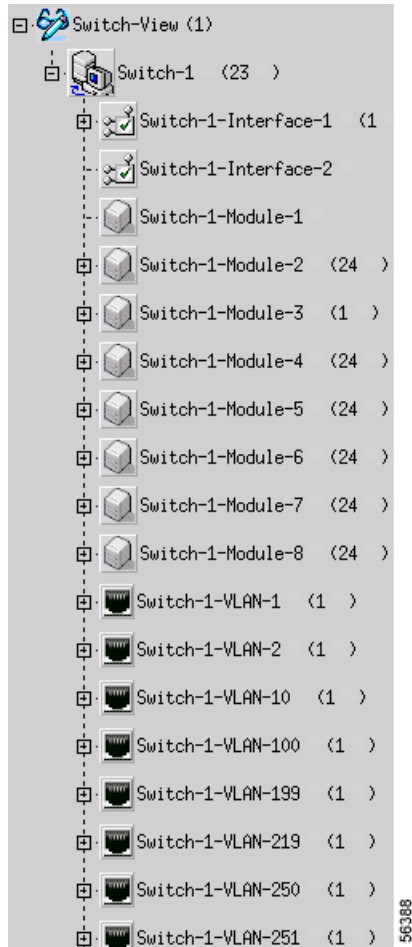


Cisco LAN Switch View

This view shows all Cisco LAN switches. Use this view to:

- View and manage all Cisco LAN switches
- View and manage switch components, such as interfaces, modules, and ports

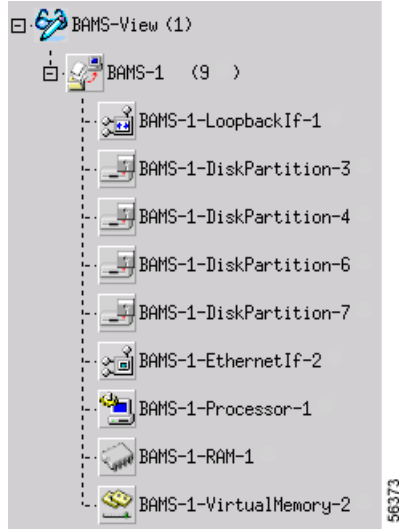
Figure 3-15 LAN Switch View



BAMS View

This view shows all Cisco BAMS machines. Use BAMS view to:

- View and manage all Cisco BAMS machines
- View and manage Cisco BAMS system components, including disk, RAM, memory, and interfaces

Figure 3-16 BAMS View

HSI View

This view shows all Cisco HSI servers. Use this view to:

- View and manage all Cisco HSI servers
- View and manage Cisco HSI system components, including disk, RAM, memory, and interfaces

Figure 3-17 HSI View

Physical View

This view organizes the network by physical location. You can define a hierarchy of regions and sites, such as cities, buildings, and floors (see [Figure 3-18](#)). When you deploy the network, you can identify the physical region or site associated with each network device.

Use the physical view to:

- Deploy regions and sites—Select the container object for the level you want to deploy. For example, select a Southeast region object to deploy an Atlanta site.
- View alarm propagation—Alarms are propagated from child devices to parent devices. Drill down through the tree to find the element raising the alarm.
- Identify where a problem device is located—For example, in [Figure 3-18](#), a problem is indicated in the Stonybrook building, which is propagated upward to the Raleigh and Southeast sites.
- Visualize the physical network.

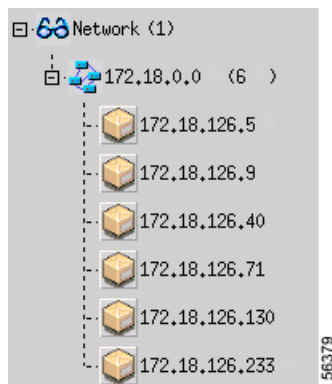
Figure 3-18 Physical View



Network View

This view shows the IP addresses of the network devices.

Figure 3-19 Network View



Expanding or Collapsing a View

In the left hierarchy browser pane, a plus sign (+) next to an object means it contains other objects and can be expanded. A minus sign (-) means that the object is fully expanded.

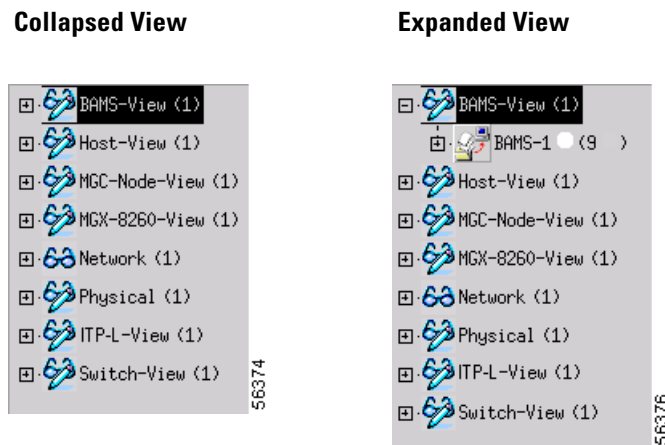
- To expand a view, click the + next to the object, as shown in [Figure 3-20](#).

- To drill down to an object, continue expanding the view until you see the desired object.
- To collapse a view, click the - next to the object.

**Tip**

When you see an alarm symbol next to an object, drill down to find the object generating the alarm.

Figure 3-20 Expanding a View in the Map Viewer



Understanding Map Viewer Symbols

Indicators in the Map Viewer reflect the status of the associated object and the occurrence of alarm events. For example, a polling icon indicates that a device or its child is being polled. In this way, the states of the Cisco PGW 2200 Softswitch subobjects are propagated up to the Cisco PGW 2200 Softswitch node object.

Similarly, alarm events, indicated with a color-coded circle in the left pane and a balloon in the right pane, are propagated up in the physical and node view.

For some states, a small symbol is placed near the top of the icon. Cross-hatching is used to indicate state information.

Table 3-3 lists and describes status and event symbols. Table 3-4 displays the color-coding used for alarm events. For more information about alarm events, see Chapter 6, “Managing Faults with Cisco MNM.”

Table 3-3 Status and Event Symbols

Symbol	Description
(9 ●)	(In the left pane) Indicates the number of child devices. In the physical and network views, a circle indicates an event on one or more child devices, color-coded to severity. The highest severity is displayed.
1M	(In the right pane) A balloon indicates events, color-coded to severity. The number indicates the number of the most severe events in the category. The letter indicates the highest unacknowledged event severity in the category.

Table 3-3 *Status and Event Symbols (continued)*



















Symbol	Description
	Indicates that the device has not been discovered. (This is the icon that displays when the device is initially deployed.)
	Indicates that the device is in the process of discovering or rediscovering. The object icon itself has a hatch pattern.
	Indicates that the device has some outage or operational problem and is, therefore, out-of-service. Icons also have a hatch pattern.
	Indicates that the device is performing polling.
	Indicates that the device is not SNMP reachable. This may be because the device is off the network or its SNMP agent is not responding.
	Indicates that some major service or software process on the device has failed. The icons also have a hatch pattern.
	Indicates that the device is off-duty or administratively down.
	Indicates that the device is providing service.
	Indicates that the device is running in warm-standby mode.
	Indicates that the device is running in an unknown (other) mode.
	Indicates that the device is being tested.
	A hatch-pattern (without any corresponding state symbol) is used to indicate that the device is not being managed.

Table 3-4 *Colors Used to Indicate Event Severity*

	Color	Severity of Event
	Red	Critical
	Orange	Major
	Yellow	Minor
	Cyan	Warning
	Green	Normal
	White	Informational

Use the Map Viewer to open a function, such as the Performance Manager or a Properties dialog box, for a device or group of devices. Use the following steps to open a function for a device:

-
- Step 1** In the Map Viewer, navigate to the desired object.



Note To open a Cisco MNM service for a group of devices, open the service from the device view. The dialog box contains a list box of all the devices. You can select each desired device in turn.

Step 2 Right-click the object. The context menu displays showing the functions available for the selected object or objects.

Step 3 Choose the desired option. [Table 3-5](#) summarizes how to access various services.

A window opens for the service. For example, if you choose **Properties**, a Properties dialog box displays the properties of the selected device.



- Note**
- Some functions can be opened from the Event Browser as well as the Map Viewer.
 - If SSH is enabled, functions that normally invoke Telnet or ftp instead invoke their SSH counterparts, ssh or sftp.

Table 3-5 Opening Cisco MNM Functions

Function	Select This View or Object	Command: Right-Click and Choose...	Description
Cisco PGW 2200 Softswitch Node Deployment	MGC-Node-View	Deployment > Deploy MGC Node	Deploys a new Cisco PGW 2200 Softswitch node
Cisco PGW 2200 Softswitch Host Deployment	Host-View Cisco PGW 2200 Softswitch Node	Deployment > Deploy MGC Host Deployment > Deploy MGC Node Component	Deploys a new Cisco PGW 2200 Softswitch host
ITP-L Deployment	ITP-L-View Cisco PGW 2200 Softswitch Node	Deployment > Deploy ITP-L Deployment > Deploy MGC Node Component	Deploys a new Cisco ITP-L or integrated ITP-L
LAN Switch Deployment	Switch-View Cisco PGW 2200 Softswitch Node	Deployment > Deploy LAN Switch Deployment > Deploy MGC Node Component	Deploys a new Cisco LAN switch
BAMS Deployment	BAMS-View Cisco PGW 2200 Softswitch Node	Deployment > Deploy BAMS Deployment > Deploy MGC Node Component	Deploys a new Cisco BAMS
HSI Deployment	HSI-View Cisco PGW 2200 Softswitch Node	Deployment > Deploy HSI Deployment > Deploy MGC Node Component	Deploys a new Cisco HSI host device
Seed File Deployment	Any view icon (action applies to entire network)	Deployment > Deploy Network Seed File	Displays Seed File deployment dialog

Table 3-5 Opening Cisco MNM Functions (continued)

Function	Select This View or Object	Command: Right-Click and Choose...	Description
Performance Manager	Cisco PGW 2200 Softswitch Node, BAMS, HSI, ITP-L, or LAN Switch at level of managed element	Tools > Performance Manager	Opens Performance Manager application to monitor performance measurements
Cisco PGW 2200 Softswitch Node States	MGC-Node-View, Cisco PGW 2200 Softswitch Node	MGC Node States	Opens MGC Node States dialog
Cisco PGW 2200 Softswitch Host Properties	Host-View or Node View, Cisco PGW 2200 Softswitch Host	Properties	Opens Host Properties dialog
Cisco PGW 2200 Softswitch Host File System Properties	Host-View or Node View, Cisco PGW 2200 Softswitch Host	File Systems	Opens Host File System properties dialog
Cisco PGW 2200 Softswitch Host System Component Properties	Cisco PGW 2200 Softswitch Host	Devices , then the desired component: Disk Partition, Processor, RAM, or Virtual Memory	Opens the properties dialog for the selected system component
Cisco PGW 2200 Softswitch Host States	Host-View or Node View, Cisco PGW 2200 Softswitch Host	States	Opens Host States dialog
Cisco PGW 2200 Softswitch Host Accounts	Host-View or Node View, Cisco PGW 2200 Softswitch Host	Accounts	Opens Host Accounts dialog
Cisco PGW 2200 Softswitch Host Diagnostics	Host-View or Node View, Cisco PGW 2200 Softswitch Host	Tools > MGC Host Diagnostics	Opens Host Diagnostic dialog
ITP-L Properties	ITP-L-View or Node View, ITP-L	Properties	Opens ITP-L Properties dialog
ITP-L States	ITP-L-View, ITP-L	States	Opens ITP-L States dialog
ITP-L Accounts	ITP-L-View, ITP-L	Accounts	Opens ITP-L Accounts dialog
ITP-L Diagnostics	ITP-L-View, ITP-L	Tools > ITP-L Diagnostics	Opens ITP-L Diagnostic dialog

Table 3-5 Opening Cisco MNM Functions (continued)

Function	Select This View or Object	Command: Right-Click and Choose...	Description
LAN Switch Properties	Switch-View or Node View, LAN Switch	Properties	Opens LAN Switch Properties dialog
LAN Switch States	Switch-View or Node View, LAN Switch	States	Opens LAN Switch States dialog
LAN Switch Accounts	Switch-View or Node View, LAN Switch	Accounts	Opens LAN Switch Accounts dialog
LAN Switch Diagnostics	Switch-View or Node View, LAN Switch	Tools > LAN Switch Diagnostics	Opens LAN Switch Diagnostic dialog
BAMS Properties	BAMS-View or Node View, BAMS	Properties	Opens BAMS Properties dialog
BAMS File System Properties	BAMS-View or Node View, BAMS	File Systems	Opens BAMS File System properties dialog
BAMS System Component Properties	BAMS	Devices , then the desired component: Disk Partition, Processor, RAM, or Virtual Memory	Opens the properties dialog for the selected system component
BAMS States	BAMS-View or Node View, BAMS	States	Opens BAMS States dialog
BAMS Accounts	BAMS-View or Node View, BAMS	Accounts	Opens BAMS Accounts dialog
BAMS Diagnostics	BAMS-View or Node View, BAMS	Tools > BAMS Diagnostics	Opens BAMS Diagnostic dialog
BAMS Node Properties	BAMS-View or Node View	Properties	Opens BAMS Node Properties dialog
BAMS Node Diagnostics	BAMS-View or Node View	Tools > BAMS Diagnostics	Opens BAMS Node Diagnostic dialog
Trunking Configuration Audit	BAMS	Tools > BAMS Diagnostics > Audit	Opens the Configuration Audit dialog
H323 Properties	HSI-View, HSI Host	Properties	Opens the H323 Properties dialog
H323 File Systems	HSI-View, HSI Host	File Systems	Opens the H323 File Systems dialog
H323 States	HSI-View, HSI Host	States	Opens the H323 States dialog
H323 Accounts	HSI-View, HSI Host	Accounts	Opens the H323 Accounts dialog

Table 3-5 *Opening Cisco MNM Functions (continued)*

Function	Select This View or Object	Command: Right-Click and Choose...	Description
H323 Diagnostics	HSI-View, HSI Host	Tools > Diagnostics	Opens the H323 Diagnostics dialog
H323 Administration Tool	HSI-View, HSI Host	Administration Tool	Opens the H323 Administration Tool dialog
Signaling Dialogs	Signaling folder, all signaling components	Properties	Opens the various signaling component property dialogs, one for each type of signaling component
Trunking Dialogs	Trunking folder, all trunk group components	Properties	Opens the various trunking component property dialogs, one for each type of component
Dial Plan Properties Dialogs	Dial plan folder, all routing components	Properties	Opens the various dial plan component property dialogs, one for each type of routing component
Network Interface or Component Properties	The individual interface or component under a device	Properties	Opens the properties dialog for the selected network interface or component (interface, port, slot, and so forth)
Network Interface or Component Properties, a set of components	The device	Component Type > Component Properties , for example, Interfaces > TDM Properties	Opens the properties dialog for all components of that type on the selected device
Event Browser (can also be opened from Launchpad)	Any device that forwards traps to Cisco MNM	Tools > Open Event Browser	Opens Event Browser for the selected device(s)
Performance Manager	Any device that collects performance data and is in polling state	Tools > Performance Manager	Opens Performance Manager for the selected device(s)
Voice Services Provisioning Tool	Cisco PGW 2200 Softswitch Host, BAMS	Tools > Voice Services Provisioning Tool	Starts Cisco Voice Services Provisioning Tool application (detects correct release for Cisco PGW 2200 Softswitch software and correct level of user privileges).

Table 3-5 Opening Cisco MNM Functions (continued)

Function	Select This View or Object	Command: Right-Click and Choose...	Description
Cisco PGW 2200 Softswitch Toolbar	Cisco PGW 2200 Softswitch Host	Tools > MGC Host Toolbar	Opens MGC Host toolbar applications
HSI Alarm Viewer	HSI Host	Tools > HSI Alarm Viewer	Launches HSI Alarm Viewer application
HSI Log Viewer	HSI Host	Tools > HSI Log Viewer	Launches HSI Log Viewer application
XTerm	Cisco PGW 2200 Softswitch Host, BAMS, HSI server	Tools > Xterm	Opens an XTerm window
CiscoView	LAN Switch, ITP-L	Tools > CiscoView	Opens CiscoView application
Connection Service	Cisco PGW 2200 Softswitch Host, BAMS, HSI server, ITP-L, LAN Switch	Tools > Connection Service	Opens UNIX Telnet application or SSH, depending on whether SSH is enabled on both Cisco MNM and the device its connecting to
Web Browser (Mozilla)	ITP-L, Catalyst 2900XL	Tools > Web Browser	Opens a web browser, pointing to the internal web server on Cisco ITP-Ls and Catalyst 2900XLs
Administration tool (system administrators only)	Cisco PGW 2200 Softswitch Host, BAMS, HSI server, ITP-L, LAN Switch, or device view for all devices of the same type	Tools > Administration Tool	Opens the device administration dialog box to allow rebooting or shutting down the device

Understanding Cisco MNM Dialog Boxes

Cisco MNM dialog boxes are summarized below:

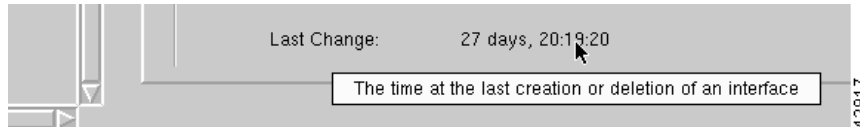
- Many dialog boxes display popup field descriptions when you pass your pointer over a field name.
- If a container object is selected when the dialog box is opened, the dialog box can be used to view or manipulate properties for any of the selected devices.
- Because Cisco MNM supports multiple releases of the Cisco PGW 2200 Softswitch software, some fields in property dialog boxes may not apply to your release.
- Some dialog boxes display information received from a managed device and others display information about that device residing in the Cisco MNM database. Toolbar buttons in the dialog box can help you recognize the difference and how the information can be updated.

The features of Cisco MNM dialog boxes are described in the following sections.

Displaying Field Descriptions

In many dialog boxes, you can view a description of the current field by slowly passing the cursor across the field name, as shown in [Figure 3-21](#).

Figure 3-21 Context Help



Displaying Information for Multiple Devices

You can open a dialog box on multiple devices of the same type. For example, you can:

- Select a device view to open a service on all devices of that type.
- Select a device chassis to open a Properties dialog box on all subcomponents of a particular type.

Use the following steps to display information for multiple devices:

Step 1 Select the devices. See the [“Selecting from Lists” section on page 3-8](#) for details on selecting multiple objects.

Step 2 Right-click, and choose the desired option.

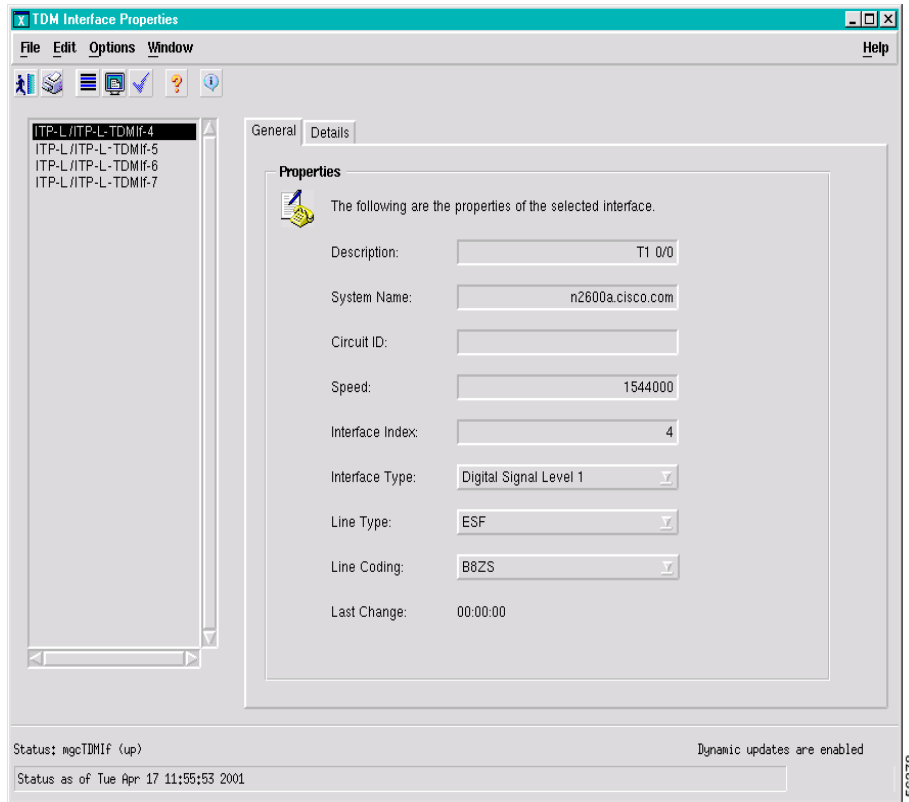


Note If an option is not available for the multiple devices you have selected, the option name is dimmed.

The dialog box opens. A list box in the left pane lists the selected devices. [Figure 3-22](#) shows an example (properties for all TDM interfaces of a Cisco ITP-L).

Step 3 To view or manipulate information for a particular device, select the device in the list box. The information on the right changes to reflect the current selection.

Figure 3-22 Dialog Box with Information on Multiple Devices



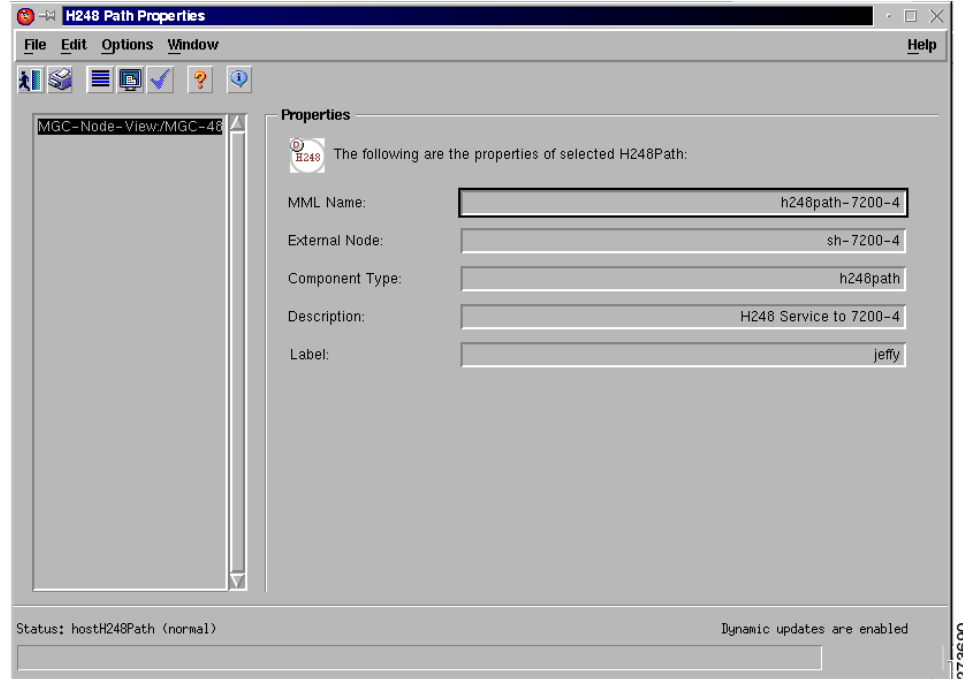
Properties for Multiple Releases of the Cisco PGW 2200 Softswitch Software

Each new release of the Cisco PGW 2200 Softswitch software supports additional properties of the Cisco PGW 2200 Softswitch node elements.

Because Cisco MNM supports multiple Cisco PGW 2200 Softswitch software releases, some dialog boxes may display some fields that might not be applicable to your release of the Cisco PGW 2200 Softswitch software. For example, the H.248 Path Properties dialog box includes the property, Label, for Cisco PGW 2200 Softswitch software Release 9.8. If you are using Cisco PGW 2200 Softswitch software Release 9.7, this field is empty.

In general, Cisco MNM is tested and supported only on Cisco PGW 2200 Softswitch Releases 9.8(1), 9.7(3), and 9.6(1).

Figure 3-23 A Dialog Box with Properties for Multiple Cisco PGW 2200 Softswitch Releases



Working with Various Types of Dialog Box Information

Cisco MNM dialog boxes display two kinds of information about network devices:

- Information that comes from the device itself, such as properties or alarm events, or from Cisco MNM interaction with the device, such as state information
- Information that resides in the Cisco MNM database and is used by Cisco MNM to communicate with the device, such as account information

Information that comes from the device is display-only and cannot be edited or modified. To turn on “Dynamic Update” mode for real-time monitoring of the device, see the [“Monitoring Dynamically-Updated Information”](#) section on page 3-30.



Note

Information that resides in the Cisco MNM database can typically be changed. However, you are changing only the Cisco MNM database and not information stored on the device itself.

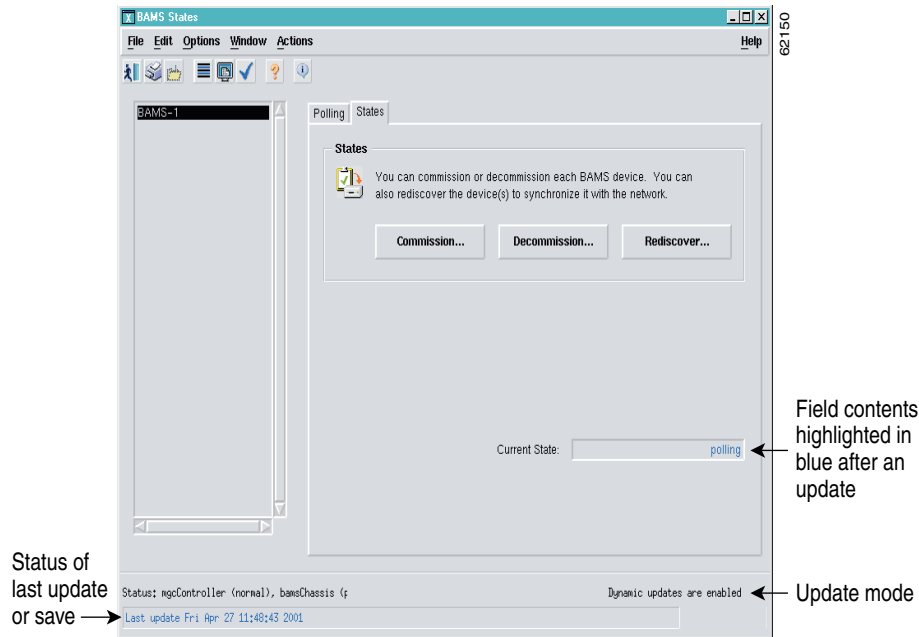
This section describes

- How to recognize and work with a dialog box that displays dynamically updated information
- How to recognize and use field changes that are applied to the device from a dialog box where information is display only

Monitoring Dynamically-Updated Information

Many dialog boxes display in near real-time information received from a managed device. With dynamic update on, incoming changes from a device are highlighted in blue (see [Figure 3-24](#)). The status bar indicates whether dynamic updating is on or off. This kind of information is display only; it cannot be changed.

Figure 3-24 Dialog Box with Dynamic Updating



The toolbar in these dialog boxes includes the three tool buttons in [Figure 3-25](#) used for managing updates:

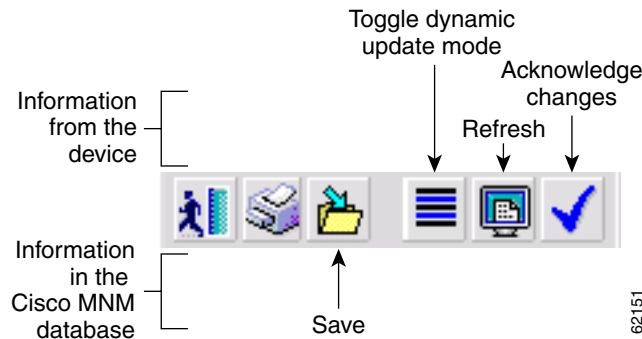
- Toggle dynamic update mode, to allow viewing of real time changes.
- Refresh the window, to update the information manually when dynamic update mode is off.
- Acknowledge that you have seen dynamically updated dialog box changes. When clicked, the blue highlighting is removed.



Note

Some dialog boxes include both dynamically updatable information from managed devices and information about the network maintained in the Cisco MNM database. The toolbar in [Figure 3-25](#) also includes a Save tool used for saving changes to database information, as described in the [“Making Changes to Cisco MNM Device Information”](#) section on page 3-31.

Figure 3-25 Dialog Box Toolbar with Dynamic Update and Database Save Functions



Making Changes to Cisco MNM Device Information

Some dialog boxes display information that you can edit. For example, if the login ID for a device changes, you can use the Accounts dialog box for that device to update the information in the Cisco MNM database. In dialog boxes that include editable information, the toolbar includes a **Save** tool button, as shown in [Figure 3-25](#).

To make changes to the Cisco MNM database, enter the new information, and click the **Save** tool button.



Note

If you try to make a change but the **Save** tool button remains dimmed, the field is not editable.

Navigating between Dialog Boxes for a Given Component

For most Cisco PGW 2200 Softswitch node components, you can navigate from one dialog box to another without having to reselect the component in the Map Viewer and right-click. For example, from the File Systems dialog box for a given Cisco BAMS, you can navigate to the Properties, Accounts, States, or Diagnostics dialog box for that Cisco BAMS.

Perform the following steps to navigate from one dialog box to another not-yet-open dialog box for a given component:

-
- Step 1** In the open dialog box, choose **Navigation**. A menu appears listing options to open other dialog boxes for this component. See [Table 3-6](#) for a list of components and dialog boxes that provide the Navigation menu.
- Step 2** Choose the desired menu option. The selected dialog box opens.
-



Note

Once a dialog box is open, use the Window menu on the toolbar to navigate between windows.

Table 3-6 *Components with Dialog-Box Navigation Menus*

Component	Dialog Boxes with the Navigation Menu
Cisco PGW 2200 Softswitch Host	Properties, Accounts, File Systems, States, Diagnostics.
Cisco BAMS	Properties, Accounts, File Systems, States, Diagnostics.
Csico HSI server	Properties, Accounts, File Systems, States, Diagnostics.
Cisco ITP-L	Properties, Accounts, States, Diagnostics.
Cisco LAN switch	Properties, Accounts, States, Diagnostics.
All components that have Properties dialog boxes	<p>Properties: You can navigate from any Properties dialog box for the component to any other valid Properties dialog box for that component.</p> <p>Note The Navigation menu may display options that are not valid for the current component. Service invocation fails if you select an invalid properties dialog box.</p>