Getting Started with Cisco MNM

This chapter describes the basics of working with Cisco MNM. Topics include:

- Starting and Quitting a Cisco MNM Session, page 4-1
- Opening, Closing, and Switching Cisco MNM Applications, page 4-3
- Basic Operations in Cisco MNM, page 4-5
- Using the Map Viewer, page 4-10
- Understanding Cisco MNM Dialog Boxes, page 4-24

Starting and Quitting a Cisco MNM Session

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

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, type:

#cd CMNM_ROOT/bin

where *CMNM_ROOT* is the Cisco MNM installation root directory (for example, /opt/CSCOcemf).

Step 3 Verify that Cisco EMF is running. Enter:

#cemf query

You should see CEMF Manager 3.1 initialized followed by a list of running Cisco EMF processes.

Step 4 If Cisco EMF is not running, start it by entering the following command:

#cemf start

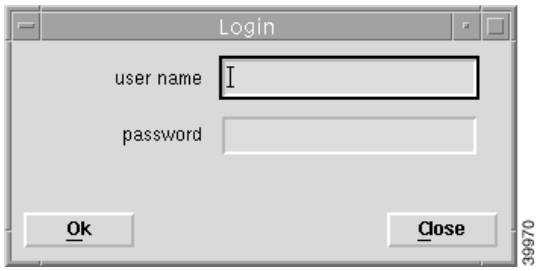
Step 5 From the command line on the terminal window, type:

***#CMNM_ROOT*/bin/cemf session**

Where *CMNM_ROOT* is the Cisco MNM installation root directory (for example, /opt/CSCOmgcm).

You see the Cisco EMF Login screen shown in Figure 4-1.

Figure 4-1 Cisco EMF Login Screen



Step 6 Enter your user name and password, and click **OK**. The default user ID is admin and the default password is admin.

When you specify a valid user name and password, the session starts and the Cisco EMF Launchpad screen, shown in Figure 4-2, displays.

Note If you enter an unknown user name or password, you see an error message. You have three attempts to specify a valid user name and corresponding password. If, after three attempts, you do not specify a valid user name and password, the session does not start and the Login window closes.

Step 7 Go on to the "Opening an Application" section on page 4-3.

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:

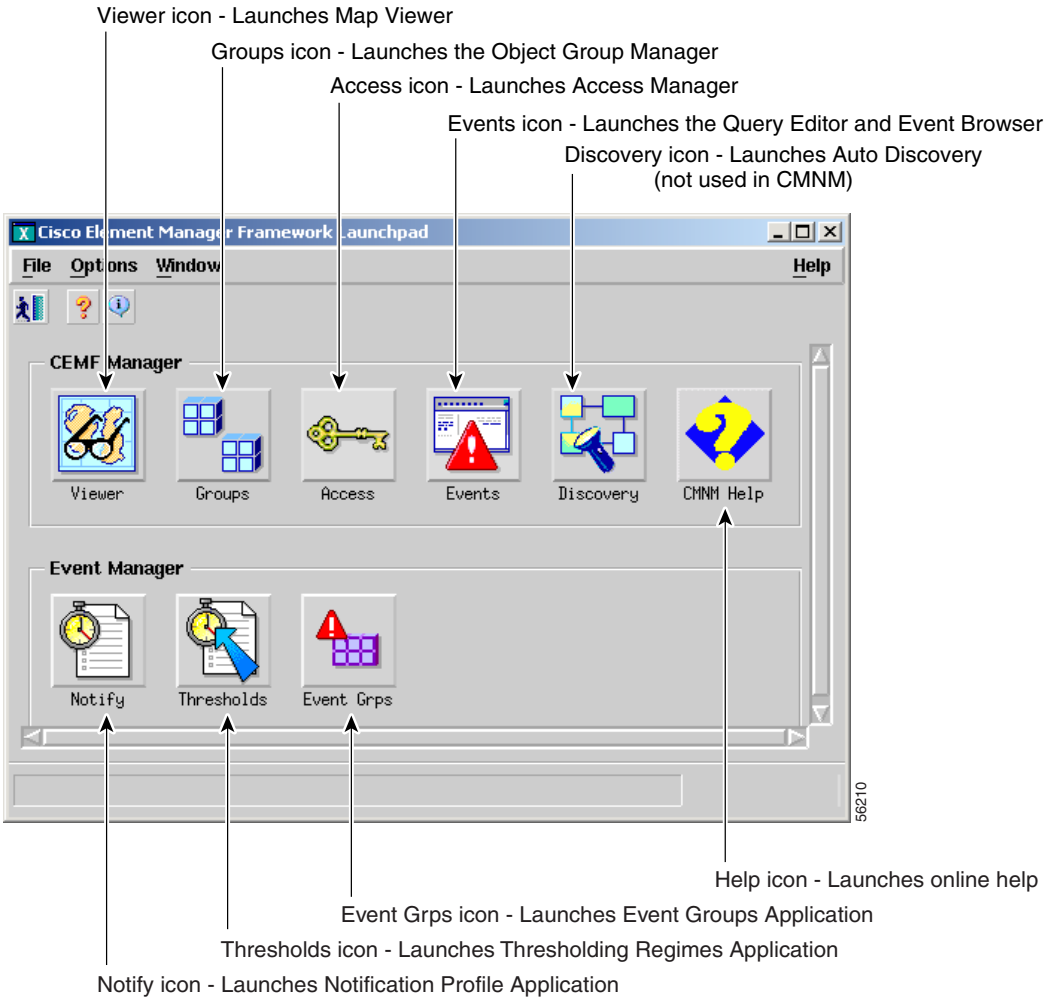
- Map Viewer—You can view, build, and monitor a network with the Map Viewer. You can monitor the networks using network and network object connections.
- Object Group Manager—You can organize network elements into object groups with the Object Group manager. You can create, delete, and modify object 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 brings up the Event Browser and Query Editor. You can create object groups or browse events from these screens.
- Discovery—Because Cisco MNM requires the login and password in order to communicate with a device, the Cisco EMF Automatic Discovery feature is not supported by Cisco MNM. Cisco MNM discovers 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 6, "Deploying Your Network in Cisco MNM.")
- 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—Using Event Groups, you can filter and organize events based on specified criteria, such as severity, state, or type of network element, then create a scoreboard to show the state of the group at a glance.

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 4-2, is used to access Cisco MNM applications. You can, and typically will, open multiple applications , and you can open more than one instance of an application.

Figure 4-2 Cisco EMF Launchpad Screen



Use the following procedure to open an application:

On the Launchpad**,** click the icon for the desired application.

The selected application opens. A busy icon and a message in the status bar is displayed while it is opening.

Note If an application is already open, it appears in the Windows list. 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 have separately opened the Event Browser for a BAMS and for a Cisco MGC host, closing the Cisco MGC host Event Browser window does not close the BAMS Event Browser window.

Use the following procedure to close an application:

In the application window, do one of the following:

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

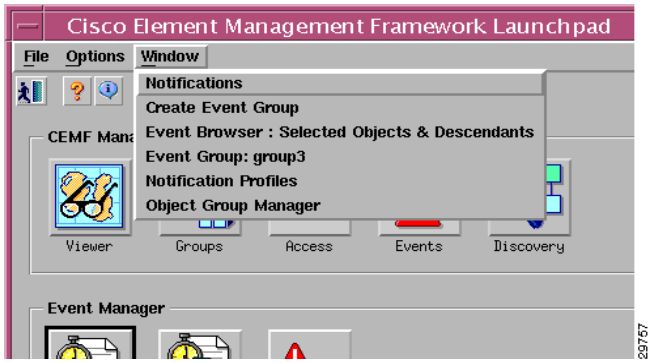
Switching Between Open Application Windows

Typically, your work in Cisco MNM involves having several windows open at the same time. You can view the list of open windows and switch between them from the Window menu on the application menu bar. The window menu for the Launchpad is shown in Figure 4-3.

Use the following steps to switch between windows:

Step 1 Select **Window**. The Window menu appears and lists open windows.

Figure 4-3 Window Pull-Down Menu



Step 2 Choose the desired window.

Basic Operations in Cisco MNM

This section describes basic operations that apply throughout 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

Throughout Cisco MNM, the left, middle, and right mouse buttons are used for the following functions.

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

Using Shortcut Keys

Ctrl-Key

Standard Cisco MNM menus are available from the Toolbar. Items can be selected from the menus or by typing the keys in Table 4-1 and Table 4-2.

Table 4-1 File Menu Shortcut Keys

Key Sequence	File Menu Function
Ctrl-Q	Quit
Ctrl-W	Close
Ctrl-P	Print
Ctrl-S	Save
Ctrl-N	New
Ctrl-O	Open

Table 4-2 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 presented 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 4-4, the toolbar contains tool buttons for the following functions common to many dialog boxes:

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

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

Figure 4-4 Example Toolbar

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

If you want to perform an operation on more than one item, you can select:

- A block of items
- Multiple noncontiguous items
- All items

You can also quickly deselect all items. For example, if you want to make sure that you do not have the wrong item selected before opening a function, you can first deselect all items and then select the desired item.

Use the following steps to select a block of items:

Step 1 Select the first item.

The item is highlighted.

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

Step 3 Select the last item in the sequence.

Step 4 Release the **Shift** key.

All items between the first and last item are highlighted.

Use the following steps to select multiple noncontiguous items:

Step 1 Select the first desired item.

The item is highlighted.

Step 2 Point to the next item to be selected.

Step 3 Press **Ctrl** and click.

The item is highlighted.

Step 4 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 relevant window.

Step 2 Press and hold the right mouse button.

A context menu is displayed.

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 relevant window.

Step 2 Press and hold the right mouse button.

A context menu is displayed.

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 many windows, you can print the contents of the window.

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, select **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 appears, as shown in Figure 4-5.

Figure 4-5 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 by device type, by Cisco MGC node, and by physical or network view.

From 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.

- Instantly 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-click to open any of the Cisco MNM services relevant to that device.
- View the network in different ways, depending on your purpose. For example, you can use the physical view to see where devices are located, the device view to perform an operation on all the devices of a particular type, and the node view to see node-specific elements such as signaling components.

Note We use the term “object” to refer to the graphical representation of a network element in Cisco MNM and the term “device” to refer 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, "How Cisco MNM Models the Network."

This section describes:

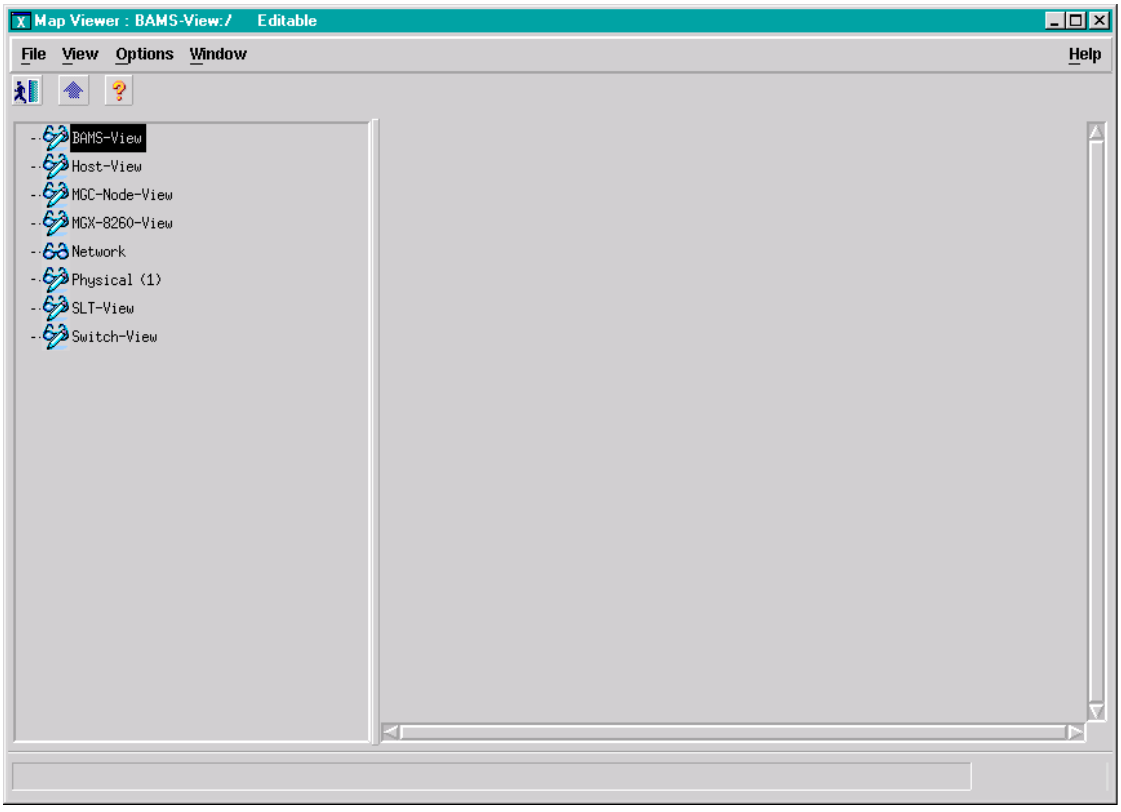
- The Map Viewer window and views.
- How to expand a view, to get to an object, and collapse a view, to unclutter the window.
- How to read the visual symbols associated with objects in the Map Viewer.
- How to use the context menu to open a Cisco MNM service for the current object. This is your entry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

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

The Map Viewer Window

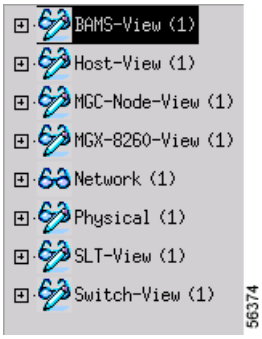
Until you have deployed a network in Cisco MNM, the Map Viewer displays only empty container objects.

Figure 4-6 Map Viewer Before a Network Is Deployed



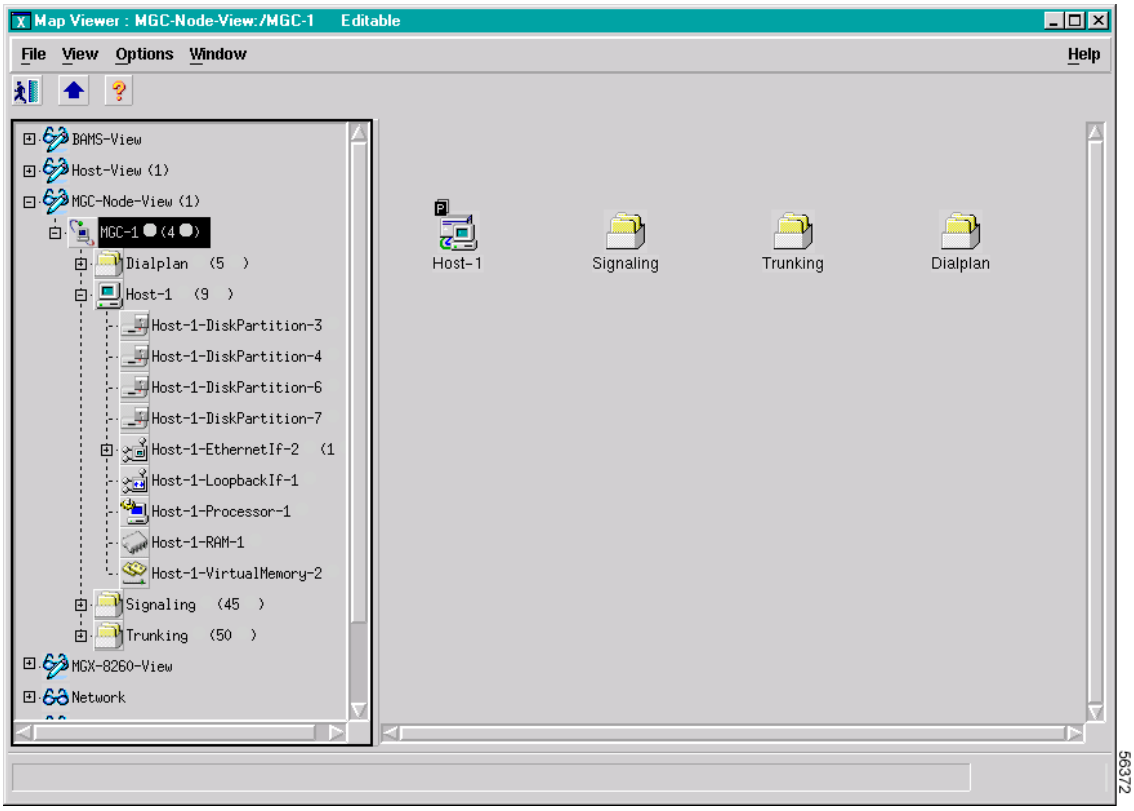
When you deploy a network, as you will learn how to do in Chapter 6, "Deploying Your Network in Cisco MNM," the views are populated with the graphical objects that represent your network devices. Initially, the view is collapsed, as shown in Figure 4-7.

Figure 4-7 Map Viewer After Deployment



When a view is expanded, the Map Viewer looks similar to the illustration shown in Figure 4-8.

Figure 4-8 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 right 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.

The Node View

The node view shows all the devices in the node, as well as the Cisco MGC host signaling, dial plan, and trunking components. Use the node view to:

- Deploy a node and devices within a node.
- 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 4-9 shows an example of the node view. Figure 4-10, Figure 4-11, and Figure 4-12 show expansions of the signaling, trunking, and dial plan folders.

Figure 4-9 The Node View

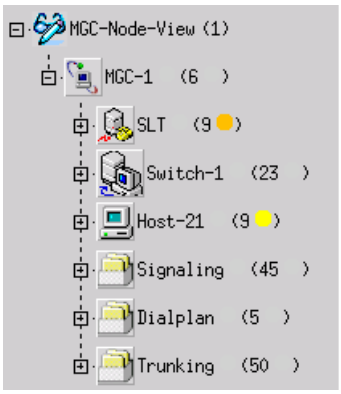


Figure 4-10 The Signaling Folder

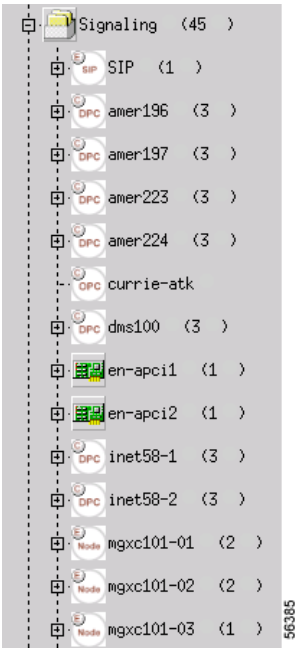


Figure 4-11 The Trunking Folder

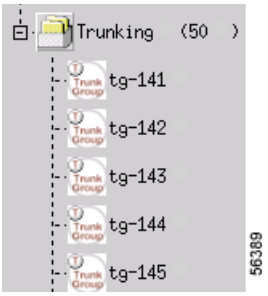
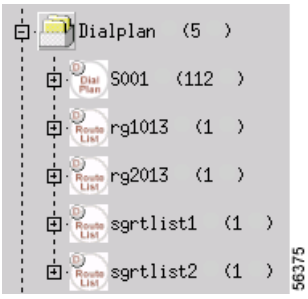


Figure 4-12 The Dial Plan Folder



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.

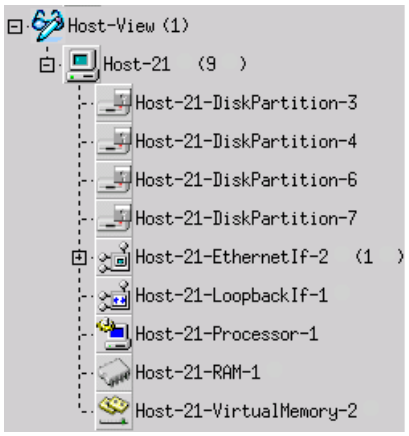
Tip To open a Cisco MNM service for a group of devices, open the service from the device view. The dialog box lists all the devices. You can select each desired device in turn.

The Cisco MGC Host View

This view shows all the Cisco MGC 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 4-13 Cisco MGC Host View

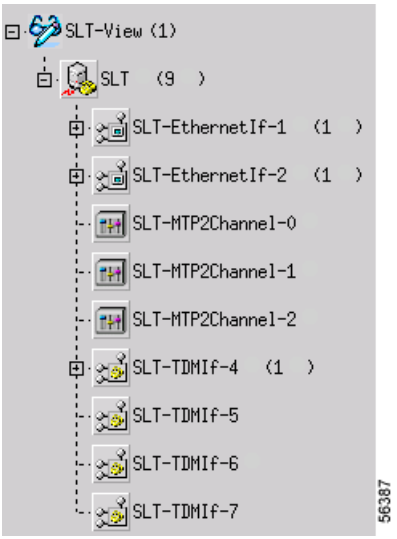


The Cisco SLT View

This view shows all the Cisco SLTs. Use Cisco SLT view to:

- View and manage all Cisco SLTs
- View and manage SLT interfaces, including TDM interfaces

Figure 4-14 Cisco SLT View

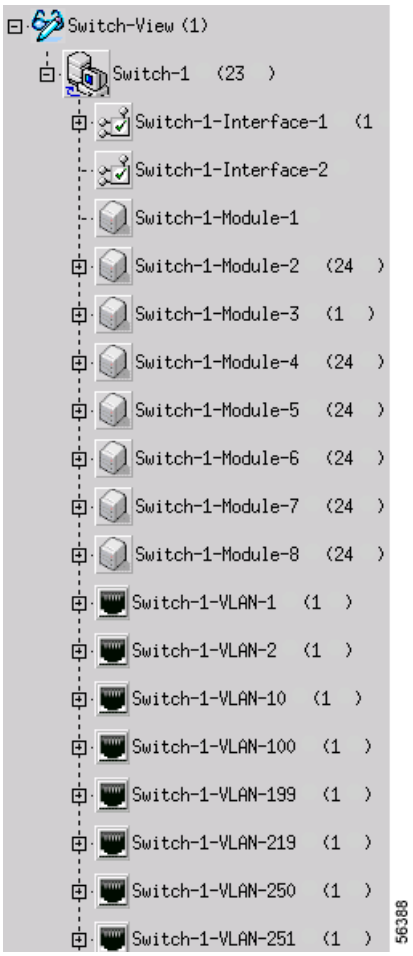


The Cisco LAN Switch View

This view shows all the 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 4-15 LAN Switch View

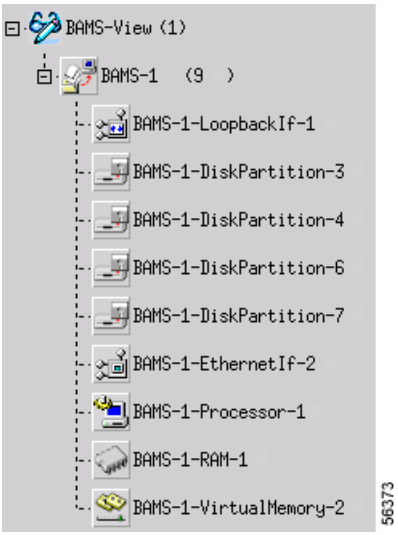


The BAMS View

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

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

Figure 4-16 BAMS View



The 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. Figure 4-17 shows an example. When you deploy the network, you identify the physical region or siteassociated with each network device.

Use the physical view to:

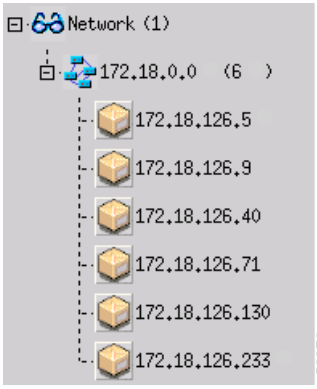
- Deploy regions and sites. To do this, select the container object for the level you want to deploy. For example, select a Southeast region object to deploy an Atlanta site.
- View alarm propagation. Alarms are propagated from child devices to parent devices, and you can drill down through the tree to find the element raising the alarm.
- Identify where a problem device is located. For example, in Figure 4-17 there is a problem in the Stonybrook building, which is propagated upward to the Raleigh and Southeast sites.
- Visualize the physical network.

Figure 4-17 Physical View

The Network View

This view shows the IP addresses of the network devices.

Figure 4-18 Network View



Expanding or Collapsing a View

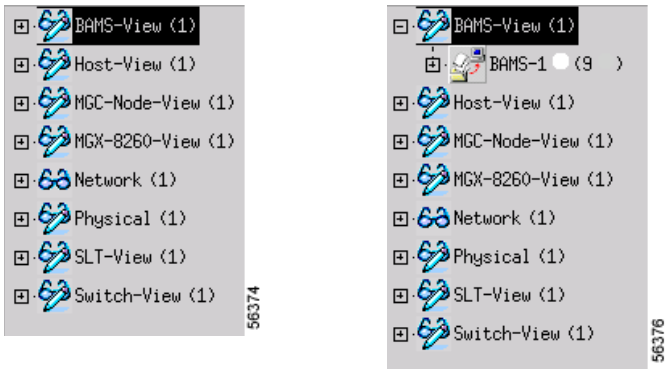
In the left hierarchy browser pane, a plus sign (+) next to an object means it contains other objects and can be expanded. A minus sign (-) means that the object is fully expanded.

- To expand a view, click the + next to the object, as shown in Figure 4-19.
- 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 4-19 Expanding a View in the Map Viewer

Collapsed View **Expanded View**



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 Cisc MGC subobjects are propagated up to the Cisco MGC 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 4-3 lists and describes status and event symbols. Table 4-4 displays the color-coding used for alarm events. For more information about alarm events, see Chapter 7.

Table 4-3 Status and Event Symbols

Symbol	Description
	(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.
	(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.
	Indicates that the device has not been discovered. (This is the icon 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.

Table 4-3 Status and Event Symbols (continued)

Symbol	Description
	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 4-4 Colors Used to Indicate Event Severity

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

Opening a Cisco MNM Function for a Device

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 and select it.

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 listing all the devices. You can select each desired device in turn.

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

Step 3 Choose the desired option. Table 4-5 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.

Table 4-5 Opening Cisco MNM Functions

Function	Select This View or Object	Command: Right-Click and Choose...	Description
MGC Node Deployment	MGC-Node-View	**Deployment > Deploy MGC Node**	Deploys a new Cisco MGC node
MGC Host Deployment	Host-View MGC Node	**Deployment > Deploy MGC Host** **Deployment > Deploy MGC Node Component**	Deploys a new Cisco MGC host
SLT Deployment	SLT-View MGC Node	**Deployment > Deploy SLT** **Deployment > Deploy MGC Node Component**	Deploys a new Cisco SLT
LAN Switch Deployment	Switch-View MGC Node	**Deployment > Deploy LAN Switch** **Deployment > Deploy MGC Node Component**	Deploys a new Cisco LAN switch
BAMS Deployment	BAMS-View MGC Node	**Deployment > Deploy BAMS** **Deployment > Deploy MGC Node Component**	Deploys a new BAMS
Seed File Deployment	Any view icon (action applies to entire network)	**Deployment > Deploy Network Seed File**	Displays Seed File deployment dialog
Trap Forwarding Dialog	Any view icon (action applies to entire network)	**Tools > Configure Trap Forwarding**	Displays Trap forwarding dialog
Performance Manager	MGC Node, BAMS, SLT, or LAN Switch at level of managed element	**Tools > Performance Manager**	Opens Performance Manager application to monitor performance measurements
MGC Node States	MGC-Node-View, MGC Node	**MGC Node States**	Opens MGC Node States dialog
MGC Host Properties	Host-View or Node View, MGC Host	**Properties**	Opens Host Properties dialog
MGC Host File System Properties	Host-View or Node View, MGC Host	**File Systems**	Opens Host File System properties dialog
MGC Host System Component Properties	MGC Host	**Devices**, then the desired component: **Disk Partition, Processor, RAM, or Virtual Memory**	Opens the properties dialog for the selected system component
MGC Host States	Host-View or Node View, MGC Host	**States**	Opens Host States dialog

Table 4-5 Opening Cisco MNM Functions (continued)

Function	Select This View or Object	Command: Right-Click and Choose...	Description
MGC Host Accounts	Host-View or Node View, MGC Host	**Accounts**	Opens Host Accounts dialog
MGC Host Diagnostics	Host-View or Node View, MGC Host	**Tools > MGC Host Diagnostics**	Opens Host Diagnostic dialog
SLT Properties	SLT-View or Node View, SLT	**Properties**	Opens SLT Properties dialog
SLT States	SLT-View, SLT	**States**	Opens SLT States dialog
SLT Accounts	SLT-View, SLT	**Accounts**	Opens SLT Accounts dialog
SLT Diagnostics	SLT-View, SLT	**Tools > SLT Diagnostics**	Opens SLT Diagnostic dialog
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
Trunking Configuration Audit	BAMS	**Tools > BAMS Diagnostics > Audit**	Opens the Configuration Audit 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 Trunking components	**Properties**	Opens the various trunking component property dialogs, one for each type of trunking component

Table 4-5 Opening Cisco MNM Functions (continued)

Function	Select This View or Object	Command: Right-Click and Choose...	Description
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 on)
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)
VSPT	MGC Host	**Tools > Voice Services Provisioning Tool**	Starts Voice Services Provisioning Tool application (detects correct release for Cisco MGC software)
MGC Toolbar	MGC Host	**Tools > MGC Host Toolbar**	Opens MGC Host toolbar applications
CMM	MGC Host	**Tools > Cisco MGC Manager**	Opens Cisco MGC Manager (CMM)
XTerm	MGC Host, BAMS	**Tools > Xterm**	Opens an XTerm window
CiscoView	LAN Switch, SLT	**Tools > CiscoView**	Opens CiscoView application
Telnet	MGC Host, BAMS, SLT, LAN Switch	**Tools > Telnet**	Opens UNIX Telnet application
Web Browser (Netscape)	SLT, LAN Switch	**Tools > Web Browser**	Opens a web browser, pointing to the internal web server on Cisco SLTs
Administration tool (system administrators only)	MGC Host, BAMS, SLT, LAN Switch, MGX 8260, 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 to aid your productivity:

- Many dialog boxes display popup field descriptions when you pass your pointer over a field name.

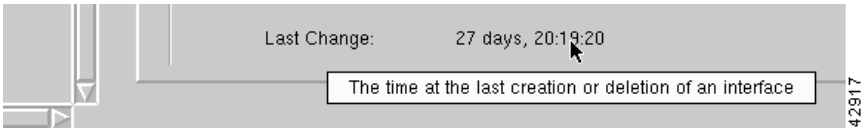
- If a container object is selected when the dialog box is opened, the dialog box can be used to view or manipulate properties for any of the selected devices.
- Because Cisco MNM supports multiple releases of the Cisco MGC host software, some fields in properties dialog boxes may not apply to your release.
- 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 which is which and how the information can be updated.

These features are described below.

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. A description of the field is displayed, as shown in Figure 4-20.

Figure 4-20 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 4-8 for details on selecting multiple objects.

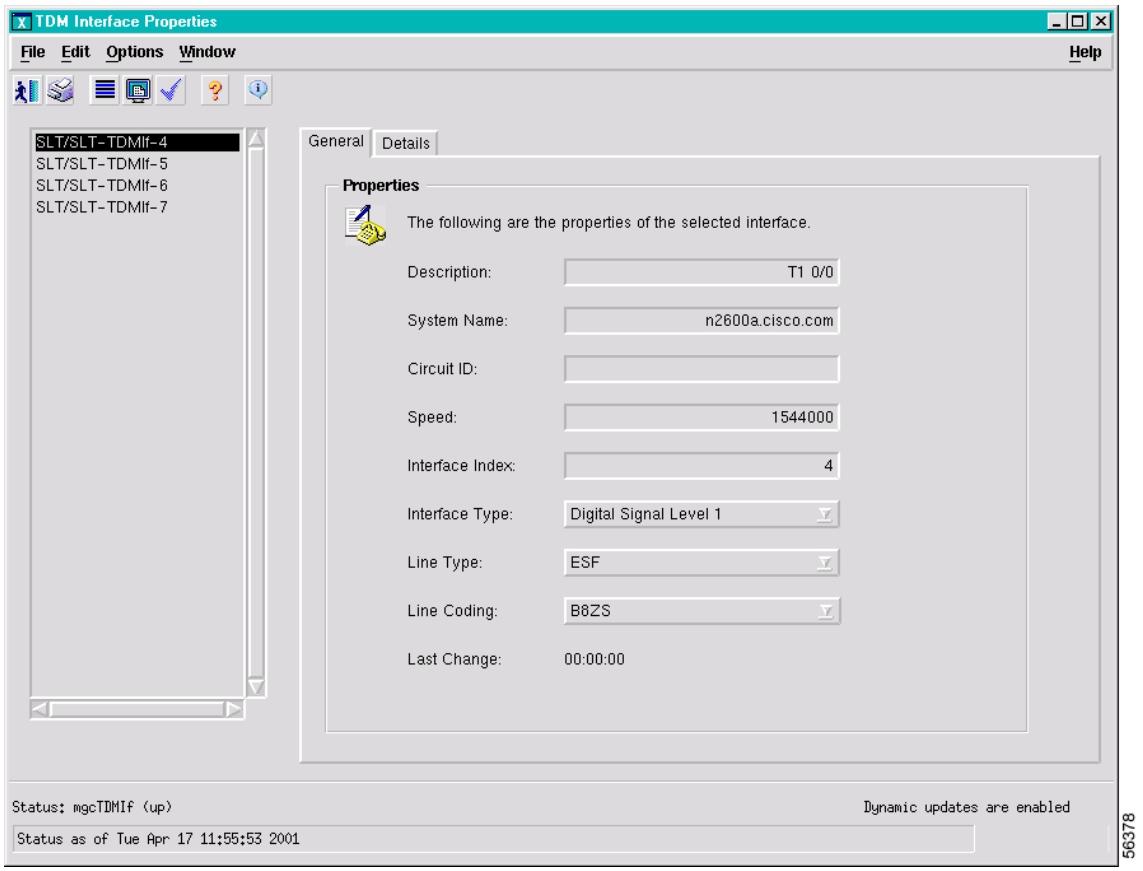
Step 2 Right-click, and choose the desired option.

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 4-21 shows an example (properties for all TDM interfaces of a Cisco SLT).

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 4-21 A Dialog Box with Information on Multiple Devices

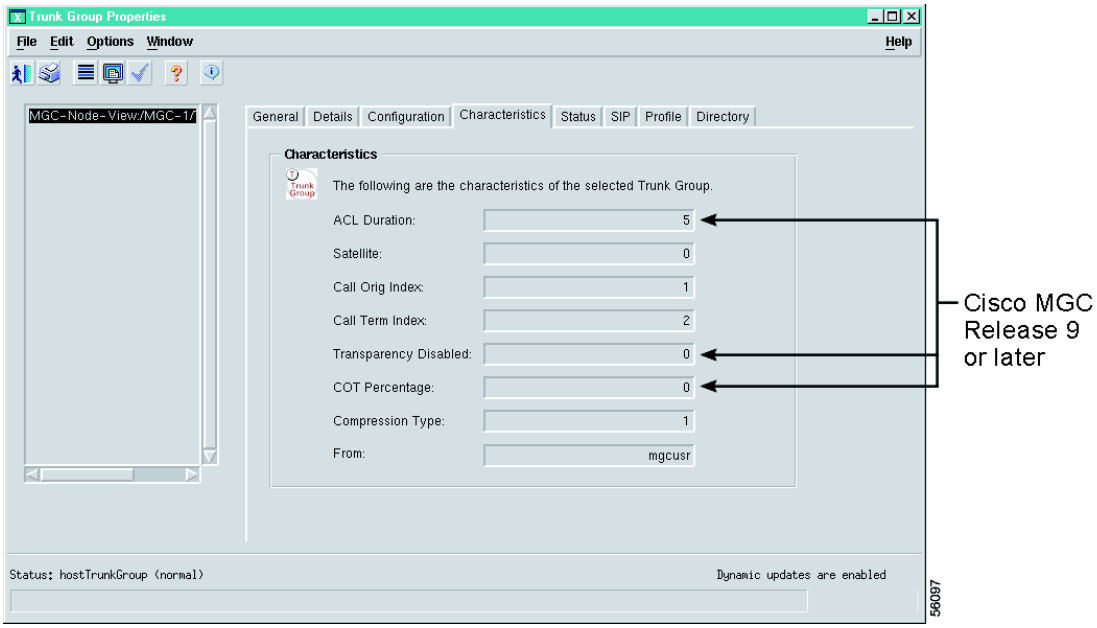


Properties for Multiple Releases of the Cisco MGC Host Software

Each new release of the Cisco MGC host software supports additional properties of the Cisco MGC node elements. Because Cisco MNM supports multiple Cisco MGC host software releases, some dialog boxes include fields that might not be applicable to your release of the Cisco MGC software.

For example, the Trunk Group Properties dialog box includes properties for Cisco MGC host software Release 7 and 9. It also contains a tab that includes some fields that apply only to Release 9, which are empty if you are using Release 7.

Figure 4-22 A Dialog Box with Properties for Multiple Cisco MGC 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's 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 (you cannot change it) and can typically be viewed in "Dynamic Update" mode for real-time monitoring of the device.

Note Information that resides in the Cisco MNM database can typically be changed, but keep in mind that what you are changing is the Cisco MNM database, not information stored on the device itself.

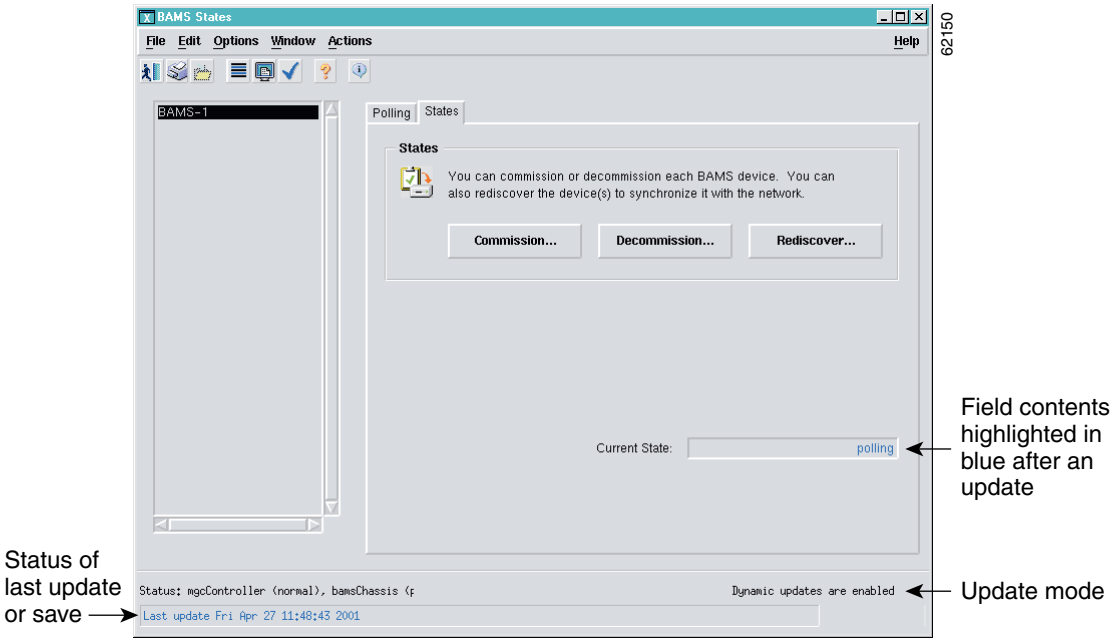
This section describes:

- 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 4-23). The status bar indicates whether dynamic updating is on or off. This kind of information is display only; you cannot change it.

Figure 4-23 Dialog Box with Dynamic Updating

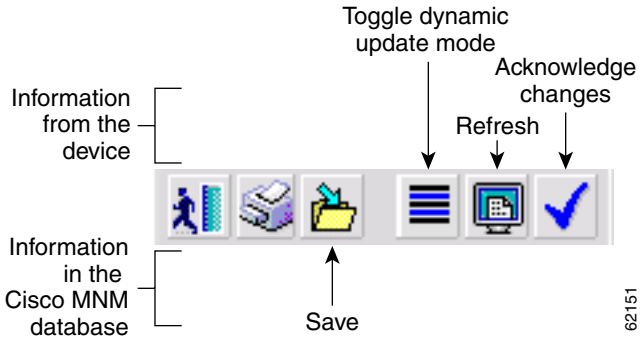


The toolbar in these dialog boxes includes the three tool buttons at the right in Figure 4-23, used for managing updates:

- 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 you click this, 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 4-23 also includes a Save tool, used for saving changes to database information, as described in "Making Changes to Cisco MNM Device Information" section on page 4-29.

Figure 4-24 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 4-23.

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.