



Other Network Management Tasks

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Performing Routine Network Management

This section presents checklists of routine procedures for network management using Cisco MGC Node Manager. Because Cisco MGC Node Manager is used in many different types of situations, no single checklist can describe optimal procedures for all cases. The information here is designed to help guide your thinking about your own management routines, tailored to your particular network and users.

Procedures for Getting Started

Task	Steps
Install Cisco EMF and Cisco MGC Node Manager (system administrator)	See the Installation Guide.

Task	Steps
Configure network devices for management (system administrator)	See Chapter 2, “Configuring Network Devices for Management”
Set up security (system administrator)	See Chapter 4, “Setting Up Cisco MGC Node Manager Security”
Deploy the network, creating a model of your network in Cisco MGC Node Manager	See Chapter 5, “Deploying Your Network in Cisco MGC Node Manager”
Identify key performance measurements to monitor	See Chapter 7, “Managing the Performance of Cisco MGC Node Manager Devices,” “Selecting What To Monitor” section on page 7-14
Set up threshold crossing alerts and scoreboards	See Chapter 6, “Managing Faults with Cisco MGC Node Manager,” “Task 2. Customizing Event Management” section on page 6-4

Routine Daily Procedures

Task	Steps
(Ongoing) Monitor the network for changes in status.	<ol style="list-style-type: none"> 1. At the top level of the Map Viewer, monitor changes. 2. When you see an alarm, drill down to find where the problem occurred. 3. Right-click the device object and choose Tools > Event Browser to view details on the alarm. 4. Click the Acknowledge button for this event to indicate that the problem is being investigated. <p>See Chapter 6, “Managing Faults with Cisco MGC Node Manager,” “Using the Event Browser to Manage Events” section on page 6-9 for details.</p> <p>After identifying the alarm, use diagnostics to diagnose the problem. See the “Using Diagnostic Tools” section on page 8-51.</p>
<p>If the network is not monitored continuously, look at alarms that came in overnight, specifically:</p> <ul style="list-style-type: none"> • Active alarms • Alarms that were received and cleared, including alarms cleared automatically • Destination in service alarms, such as PRIs or SS7s • Switchovers from standby to active status <p>Work from the most severe alarm to the least severe.</p>	<p>Investigate active alarms as described in the previous task.</p> <p>Alternatively, in the Map Viewer, right-click the Cisco MGC host object and choose Properties, then click the Software tab. See the “Viewing Properties for Devices” section on page 8-9 for details.</p>

Task	Steps
Check the health of the devices assigned to you: <ul style="list-style-type: none"> • Are they in service? • Are they reachable using ping? • Is the device communicating with Cisco MGC Node Manager? 	If you cannot access a device, in the Map Viewer, right-click the device object, and choose Tools > [Device name] Diagnostics . On the General tab, click IP Ping or SNMP Ping . See the “ Using Diagnostic Tools ” section on page 8-51 for details.
Check the amount of disk space available on the Cisco MGC host. Pay special attention to root (/) and opt directories.	Monitor the file system. In the Map Viewer, right-click the Cisco MGC host object and choose File Systems . See the “ Monitoring Cisco MGC Host, HSI Server, and BAMS File Systems ” section on page 8-19 for details.
Check the amount of virtual memory available on the Cisco MGC host.	In the Map Viewer, right-click the Cisco MGC host object and choose Devices > Virtual Memory Properties . See the “ Viewing System Component Properties ” section on page 8-21 for details.
Check the status of trunks.	Check status: In the Map Viewer, right-click the Trunking folder and choose Properties , then click the Status tab. Verify trunk group: In the Map Viewer, right-click the BAMS and choose Properties , then click the Status tab.
Check CPU usage on the Cisco MGC host.	In the Map Viewer, right-click the Cisco MGC host object and choose Devices > Processor Properties . See the “ Viewing System Component Properties ” section on page 8-21 for details.
Check the number of processes running on the Cisco MGC host. Generally, there should not be more than 60 to 70 processes running.	To see the number of processes: In the Map Viewer, right-click the Cisco MGC host object and choose Properties , then click the Software tab. The number of processes is displayed at the bottom of the dialog box. See the “ Viewing Properties for Devices ” section on page 8-9 for details. To view the status of processes: In the Map Viewer, right-click the device object and choose Tools > MGC Host Diagnostics . On the General tab, click Process Status . See the “ Using Diagnostic Tools ” section on page 8-51 for details.
Check the number of users on the Cisco MGC host.	In the Map Viewer, right-click the Cisco MGC host object and choose Properties , then click the Software tab. See the “ Viewing Properties for Devices ” section on page 8-9 for details.
Cisco SLTs: Check memory used and RAM.	In the Map Viewer, right-click the Cisco SLT object, choose Properties , and click the Memory tab. See the “ Viewing Properties for Devices ” section on page 8-9 for details.

Task	Steps
For traffic engineering, look at trunk group measurements to identify when the network is reaching circuit capacity.	
(As needed) Deploy new devices and delete obsolete devices.	See Chapter 5, “Deploying Your Network in Cisco MGC Node Manager,” “” section on page 5-17

Routine Weekly Procedures

Task	For More Information, see
Analyze measurement data for trends: <ol style="list-style-type: none"> Export desired performance data. Import the data into an external measurement report and analysis tool such as Trinogy Trend. 	Chapter 7, “Managing the Performance of Cisco MGC Node Manager Devices,” “Exporting Bulk Performance Data” section on page 7-17

Using Cisco MGC Node Manager To Launch Device Configuration

From Cisco MGC Node Manager, you can launch configuration tools for the Cisco MGC node devices. Specifically, you can launch:

- The Cisco Voice Services Provisioning Tool (VSPT) to configure the Cisco MGC host



Note The Voice Services Provisioning Tool (VSPT) was formerly known as MNM-PT.

- CiscoView to configure the Cisco SLT and Cisco LAN switch
- Telnet or an X terminal window to use MML, UNIX, and OSI commands. If SSH is enabled on Cisco MGC Node Manager and the target device, SSH is used instead.

Launching Configuration Tools

You can launch configuration tools for various devices from the Cisco MGC Node Manager Map Viewer, as shown in [Table 8-1](#).

Table 8-1 Configuration Tools for Cisco MGC Node Devices

Cisco MGC Node Device	Available Tools
Cisco MGC host	Cisco VSPT or Cisco MGC Manager Telnet or ssh; MML
BAMS	Telnet or ssh; MML

Table 8-1 Configuration Tools for Cisco MGC Node Devices (continued)

Cisco MGC Node Device	Available Tools
HSI server	Telnet or ssh; MML
Cisco SLT	CiscoView http://www.cisco.com/en/US/products/sw/cscowork/ps4737/prod_tech_nical_documentation.html Telnet
Cisco LAN Switch	CiscoView Telnet or ssh

Use the following procedure to launch a configuration tool:

-
- Step 1** In the Map Viewer, right-click the device you want to configure, and choose **Tools**.
- Step 2** From the **Tools** menu, choose one of the following:
- **Voice Services Provisioning Tool** (or for Cisco MGC releases below 7.4.12, **Cisco MGC Manager**) to configure the Cisco MGC host
 - **CiscoView** to configure the Cisco SLT and Cisco LAN switch

The application opens.



Note The Cisco PGW deployment user ID and password are passed to VSPT and you are logged in with the privileges assigned to that user, read-write or read-only. If there is no deployment user ID and password, VSPT opens to the log in window, and you must log in manually.

- Step 3** Perform the desired configuration.
- Step 4** Close the application when you are done.
-

Use the following procedure to launch a Telnet session (or ssh, if SSH is enabled) or an X terminal window to use UNIX, OSI, and MML commands:

-
- Step 1** In the Map Viewer, right-click the desired device, and choose **Tools**.
- Step 2** From the **Tools** menu, choose **Connection Service**.
- A Telnet, ssh, or X terminal window opens, and you are connected to the selected device.
- Step 3** Enter MML commands, or perform other desired operations.
- Step 4** Close the window when you are done.
-

Viewing or Modifying Account and SNMP Information

You can view the account and SNMP information that resides in the Cisco MGC Node Manager database for any of the following Cisco MGC node devices:

- Cisco MGC host
- BAMS
- Cisco SLT
- Cisco LAN Switch
- HSI server

Account information and SNMP read and write community strings are defined when a device is deployed. If the actual device information changes—for example, if a password is changed—you can modify it to update the Cisco MGC Node Manager database. The changed information is used in device rediscovery.

Use the following procedure to view or change account or SNMP information in the Cisco MGC Node Manager database:

Step 1 From the Map Viewer, select the desired device or devices.



Note Alternatively, if you have a Properties, States, Diagnostics, or File Systems (if applicable) dialog box open for the device, you can use the dialog box Navigation menu to open the Accounts dialog box.

Step 2 Right-click, and choose **Accounts**.

The Accounts dialog box appears.

Step 3 If you have selected more than one device, choose the desired device in the list box on the left side of the dialog box.

Step 4 Check or change device information. See the [“About the Accounts Dialog Box” section on page 8-7](#) for details.

Step 5 If you make changes, click the toolbar **Save** button, or choose **File > Save**. The updated information is saved in the Cisco MGC Node Manager database.

Step 6 In the Accounts dialog box, you can use the toolbar buttons or menu options to:

- Print the information on the current tab
- Close the dialog box
- Toggle dynamic update mode off and on
- Refresh the window to update the information when dynamic update mode is off
- Acknowledge that you have seen dynamically-updated changes

You can use the Navigation menu to open the Properties, File Systems (where applicable), States, or Diagnostics dialog box for the selected component.



Note The status bar shows the current status of the device.



Note If the account is locked (the lock icon is closed), you do not have permission to view this information.

About the Accounts Dialog Box

The Accounts dialog box displays login and SNMP information for the selected network device. This information is used when the device is rediscovered. The Accounts dialog box contains the Accounts tab and the SNMP tab.

By default, the Accounts dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes when dynamic updating is off.

The Accounts dialog box includes a Navigation menu that allows navigating directly to Properties, File Systems, States, or Diagnostics dialog boxes for the selected component, without having to reselect the component in the Map Viewer. See [Chapter 3, “Getting Started with Cisco MGC Node Manager,”](#) “[Navigating between Dialog Boxes for a Given Component](#)” on page 32 for details.

The Accounts Dialog Box Toolbar

The toolbar contains buttons for these functions:

- Close the current window
- Print the contents of the window
- 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
- Save your changes to the Cisco MGC Node Manager database

Dynamic updates are displayed in blue. When an update occurs, the dialog box moves in front of other open Cisco MGC Node Manager windows. Click the Acknowledge button to acknowledge you have seen changes and remove the blue highlighting.

The Accounts Tab

The Accounts tab contains the following fields:

Login ID—The login ID defined in the Cisco MGC Node Manager database.

Password—The password defined in the Cisco MGC Node Manager database.

Root or Enable Password—The root or enable super-user password defined in the Cisco MGC Node Manager database.

Security Policy—The security protocol used for communication with the device.

- Choose SSH if you have installed the Cisco EMF SSH add-in and the device is SSH-enabled. With SSH support installed, all operations that previously used Telnet or FTP to communicate with network elements instead use ssh (the secure shell program, the SSH counterpart of Telnet) and sftp (secure FTP).
- Choose None for non-secure devices.

The SNMP Tab

The SNMP tab contains the following fields:

Read Community—SNMP read-community string.

Write Community—SNMP write-community string.

Timeout (seconds)—The number of milliseconds the system attempts to connect remotely when performing an SNMP operation before timing out. The default value is 5000.

Retries—The number of times the system attempts to connect when performing an SNMP operation. The default value is 2.

Varbinds/Packet—The number of varbinds sent in a single packet to an SNMP agent. The default value is 5.

SNMP Version—The version of SNMP running on this device. Versions 1 and 2 are supported.

Viewing Properties for Devices and Their Components

You can view properties for any of the Cisco MGC node devices and for their major components.

You can view properties for the following devices, as described in the [“Viewing Properties for Devices” section on page 8-9](#):

- The Cisco MGC host
- BAMS
- HSI server
- Cisco SLT
- Cisco LAN switch

You can view properties for Serial, Ethernet, and TDM interfaces, as described in the [“Viewing Properties for Interfaces” section on page 8-14](#).

You can view properties and monitor the usage of the Cisco MGC host, HSI server, and BAMS file systems, as described in the [“Monitoring Cisco MGC Host, HSI Server, and BAMS File Systems” section on page 8-19](#).

You can view properties for system components (disk partitions, processor, RAM, and virtual memory) of the Cisco MGC host, HSI server, and BAMS, as described in the [“Viewing System Component Properties” section on page 8-21](#).

You can view properties for the following Cisco MGC node components:

- Dial plan components, as described in the [“Viewing Dial Plan Component Properties” section on page 8-22](#).
- Signaling components, as described in the [“Viewing Signaling Component Properties” section on page 8-27](#).
- Trunking components, as described in the [“Viewing Dial Plan Component Properties” section on page 8-22](#).

All Properties dialog boxes share the basic functionality described in the next section, [“Common Functionality in Properties Dialog Boxes” section on page 8-8](#).

Common Functionality in Properties Dialog Boxes

All Properties dialog boxes display dynamically updated information and provide similar functionality, with the main functions accessible from a toolbar. If a Properties dialog box is opened for more than one component, a list box on the left side of the dialog box lists the available components. The Properties information applies to the selected component.

Properties dialog boxes include a Navigation menu that allows navigating directly to other dialog boxes for the selected component, without having to reselect the component in the Map Viewer. See [Chapter 3, “Getting Started with Cisco MGC Node Manager,”](#) “[Navigating between Dialog Boxes for a Given Component](#)” on page 32 for details.

**Note**

The specific properties you see depend not only on the network element you are inspecting but also on the release of the Cisco MGC host software that you are using.

The Properties Dialog Box Toolbar

In every Properties dialog box (see [Figure 8-1](#)), a toolbar contains buttons for these functions:

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

In addition, because the File System dialog box includes settings that you can modify to change how the file system is monitored, the File System Properties dialog box contains a Save button.

Dynamic updates are displayed in blue. When an update occurs, the dialog box moves in front of other open Cisco MGC Node Manager windows. Click the **Acknowledge** button to acknowledge you have seen changes and remove the blue highlighting.

Figure 8-1 Device Properties Dialog Box Toolbar



Viewing Properties for Devices

You can view properties for any of the Cisco MGC node devices:

- Cisco MGC host
- HSI server
- BAMS
- Cisco SLT
- Cisco LAN switch

Property fields vary with the device.

Use the following procedure to view properties for a device:

-
- Step 1** From the Map Viewer, select the desired device or devices.
- Step 2** Right-click, and choose **Properties**.
The Properties dialog box appears.

If you have selected more than one device, choose the desired device in the list box on the left side of the dialog box.

- Step 3** Check device properties. See the [“About the Device Properties Dialog Box”](#) section on page 8-10 for details on properties.
- Step 4** (Optional) In the Properties dialog box, you can use the toolbar buttons or menu options to manipulate the display.



Note The status bar shows the current status of the device.

About the Device Properties Dialog Box

The Properties dialog box contains a toolbar and tabs displaying various categories of device properties. The contents of tabs varies with the device type.

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off. All fields are display-only.

See the [“Common Functionality in Properties Dialog Boxes”](#) section on page 8-8 for more information on dialog box functionality.

The General Tab

The General tab contains the following display-only fields:

Management Address—Network management IP address.

System Name—Administratively assigned name for the device.

Location—Physical location of the device.

Contact—Contact person or organization and brief contact information, such as phone number.

(BAMS, HSI server, and Cisco MGC only) System Status—Current operational status of the device. Values are Active, Standby, Outage, Error, and Other.

Up-time—Time since the device was initialized.

Description—Description of the device.

The Details Tab

The Details tab contains the following fields:

For the Cisco MGC, HSI server, and BAMS

Hardware Model—Hardware model for the device.

OS Version—Version of the operating system.

OS Release—Release level of the operating system.

Host ID—Host ID.

Memory Size—Amount of physical main memory.

System Date—Local time and day on the host.

Last Boot Time—Time the machine was last booted.

For the Cisco SLT and Cisco LAN Switch

Model—Chassis type.

Chassis ID—Unique identifier for the chassis (Cisco SLT) or serial number (Cisco LAN switch).

For the Cisco SLT only

Hardware Version—Chassis hardware revision level.

ROM System Version—ROM system software version.

ROM Monitor Version—ROM monitor version.

For the HSI server only

Host Port-1—The first port number to be used by the Cisco HSI. The default value is 0.



Note

This value must match the peer port setting on the Cisco PGW 2200 EISUP IPLNK object.

Host Port-2—The second port number to be used by the Cisco HSI. The default value is 0. This value should not be changed; it should always be set to 0.

For the Cisco LAN switch only

Fan Status—Status of the fan. Values are OK, Other, Minor Fault, and Major Fault.

Details area

System Type—Chassis system type.

Backplane Type—Chassis backplane type.

Power Supply area

Status (Primary and Secondary)—Power supply status. Values are OK, Other, Major Fault, and Minor Fault.

Type (Primary and Secondary)—Type of power supply.

The Host, HSI, or BAMS Tab (Cisco MGC host, HSI server, or BAMS)

The Cisco MGC Host or BAMS tab contains the following fields:

In the **Call Agent, BAMS Software, or HSI Software** area, information about the software:

Host, BAMS Version, or HSI Version—Software version.

Patch Level—Patch level of the software.

(Cisco MGC only) Host Vendor—Vendor of the host software.

Home Directory—Software home directory.

(Cisco MGC only) Active Config Name—Name of the active MML configuration, if any.

(Cisco MGC only) Desired State—Desired state of the platform, such as standalone.

(Cisco MGC only) Switch Type—Switching configuration of the host.

In the **Failover** area, Failover Peer Addresses A and B—IP address of each of the failover machines.

For the HSI server only

Primary MGC—In the first row, under IP Address, the primary IP address of the primary Cisco PGW; under Port, the first port number of the primary Cisco PGW.

In the second row, the secondary IP address and the second port number of the primary Cisco PGW. These must match the primary information in the first row.

Secondary MGC—In the first row, under IP Address, the primary IP address of the secondary Cisco PGW; under Port, the first port number of the secondary Cisco PGW.

In the second row, the secondary IP address and the second port number of the secondary Cisco PGW. These must match the information in the first row.

**Note**

The Secondary MGC parameter is not used in a standalone Cisco PGW configuration.

The Network Tab (all)

The Network tab contains the following fields:

IP addresses configured on the device—IP addresses from the IP address table. A device can have more than one IP address.

IP Address—IP address of the selected entity

Net Mask—Subnet mask associated with the IP address.

Interface Index—Interface on which the IP address is configured.

The Cisco LAN switch also contains these fields:

Broadcast Address—The broadcast address of the switch.

Net Mask—The net mask of the chassis.

Booted Image—The name of the image from which the system was booted.

Last Configuration Change—Time (in hundredths of a second) since the configuration of the system was last changed.

The Cisco MGC host also contains a **Configuration** area:

IP addresses configured on the Call Agent—Cisco MGC host network addresses.

The Software Tab (Cisco MGC host, HSI server, and BAMS)

The Software tab contains the following fields describing software installed on the device:

The software running on the selected device—A list of installed software. Select the software whose details you want to view.

Name—Name of the selected software.

Parameters—Parameters supplied to the software when it was run.

Path—Location from where the software was run.

Type—Type of software, such as operating system or device driver.

Status—Status of the running software. Values are Running, Runnable, Not Runnable, and Invalid.

These fields apply to the **Cisco MGC host** overall:

Number of Processes—Actual: Number of process contexts currently running. Maximum: Number of process contexts this system can support.

Number of Users—Actual: Number of user sessions for which this host is storing information. Maximum: Number of user sessions this host can support.

The Virtual IP Tab (Cisco MGC host)

The Virtual IP tab contains the following fields:

Pool Name—Name assigned to the selected memory pool, such as DRAM.

Virtual IP address 1-Virtual IP address from MGC host.

Virtual IP Address 2- Second Virtual IP address from MGC host.

The Memory Tab (Cisco SLT and Cisco LAN Switch)

Memory Pool—A list of memory pools supported by the device. Select the memory pool whose details you want to view.

Pool Name—Name assigned to the selected memory pool, such as DRAM.

Memory Used—Number of memory pool bytes that are currently in use by applications.

Memory Free—Number of memory pool bytes that are unused.

Largest Free—Largest number of contiguous bytes that are currently unused.

Cisco SLT only:

Configuration Memory—Bytes of nonvolatile configuration memory In Use/Total bytes of nonvolatile configuration memory.

Processor RAM—Bytes of RAM available to the CPU.

The Configuration Tab (Cisco SLT)

History area

Configuration events on the device—List of configuration events in the device history. Select a device to view its details.

Event Time:

Source—Source of the selected configuration event.

Destination—Configuration data destination for the event.

Image Name—Name of the system boot image.

Reason for Last Reload—Reason the system was last restarted.

Running Last Changed—Value of system uptime (sysUpTime) when the running configuration was last changed.

Startup Last Changed—Value of system uptime when the startup configuration was last saved.

Running Last Saved—Value of system uptime when the running configuration was last saved.

The Poll Tab (BAMS)

Poll information—Poll table.

Host Name (primary and secondary)—Cisco MGC host for this BAMS.

Prefix (primary and secondary)—Prefix for data files on the host.

Suffix (primary and secondary)—Suffix for data files on the host.

Remote Directory (primary and secondary)—Remote directory on the host.

Action—Action to perform after polling.

Interval—Polling unit (in minutes). Default value is 10.

Timeout—Timeout for file transfer. Default value is 10.

Maxtries—Maximum number of retries on each file. Default value is 3.

The RAS Parameters Tab (HSI Server)

Gatekeeper ID—Identifying name of the gatekeeper with which the endpoint is trying to register.

Gateway Prefix—The telephone prefix for which the gateway is registering as being able to terminate.

RAS Port—Number of the port receiving all RAS transactions for the current endpoint. Set to 0 to allow the OS to look for the available port.

Gatekeeper IP Address—.The IP address of a known gatekeeper with which an endpoint might attempt to register.

Gatekeeper Port—The port associated with the Gatekeeper IP Address, which can be either a well-known port or another port by agreement.

Viewing Properties for Interfaces

You can view properties for serial, Ethernet, loopback, and TDM interfaces of the various Cisco MGC node devices. You can view properties for the ports, VLAN, and SCO/SLO interfaces of the Cisco LAN switch.

Use the following procedure to view properties information for interfaces:

Step 1 From the Map Viewer, select the desired interface.



Note Find TDM interfaces under the Cisco SLT.

Step 2 Right-click, and choose **Properties**.

The Properties dialog box appears.

Step 3 If you have selected more than one device, choose the desired device in the list box on the left side of the dialog box.

Check device properties. See the [“About the Serial, Ethernet, Loopback, and SCO/SLO Interface Properties Dialog Box”](#) section on page 8-15 and the [“About the TDM Interface Properties Dialog Box”](#) section on page 8-15 for details on interface properties.

Step 4 (Optional) In the Properties dialog box, you can use the toolbar buttons or menu options to:

- Print the information on the current tab
- Close the dialog box
- Toggle dynamic update mode off and on
- Refresh the window to update the information when dynamic update mode is off
- Acknowledge that you have seen dynamically updated changes

**Note**

The status bar shows the current status of the interface.

About the Serial, Ethernet, Loopback, and SCO/SLO Interface Properties Dialog Box

The Serial, Ethernet, Loopback, and SCO/SLO Interface Properties dialog boxes contain a toolbar and a General and Details tab. All fields are display-only.

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes” section on page 8-8](#) for more on dialog box functionality.

The General Tab

The General tab contains the following display-only fields:

(Ethernet, Loopback, and SCO/SLO) Physical Address—The interface address at the protocol sublayer.

Description—A description of the interface.

System Name—The administratively-assigned name for the interface.

Interface Type—The type of interface, such as FDDI.

Admin Status—The desired state of the interface. Values are Up, Down, or Testing.

Operational Status—The current operational state of the interface. Values are Up, Down, Testing, Unknown, Dormant, Not Present, and Lower Layer Down.

The Details Tab

The Details tab contains the following fields:

Interface Index—Index of this interface in the interface table (ifTable).

MTU—Size of the largest packet that can be sent or received on the interface.

(Ethernet, Serial, SCO/SLO only) Speed—Estimated speed of the interface, in bits per second.

Last Change—Time at which an interface was last created or deleted.

About the TDM Interface Properties Dialog Box

The TDM Interface Properties dialog box contains a toolbar and a General and Details tab. All fields are display-only.

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes” section on page 8-8](#) for more on dialog box functionality.

The General Tab

The General tab contains the following display only fields:

- Description—A description of the interface.
- System Name—The administratively assigned name for the interface.
- Circuit ID—Transmission vendor’s circuit identifier.
- Speed—Estimated speed of the interface, in bits per second.
- Interface Index—Index of this interface in the interface table (ifTable)
- Interface Type—The type of interface, such as FDDI.
- Line Type—DS1 line type.
- Line Coding—Variety of Zero Coding Suppression used on the link.
- Last Change—Time at the last creation or deletion of an interface.

The Details Tab

The Details tab contains the following fields:

Status area

- Admin Status—The desired state of the interface. Values are Up, Down, and Testing.
- Operational Status—The current operational state of the interface. Values are Up, Down, Testing, Unknown, Dormant, Not Present, and Lower Layer Down.
- Line Status—Alarm status of the line.

Configuration area

- Signal Mode—Signaling mode. Values are None, Robbed bit, Bit oriented, and Message oriented.
- Send Code—Type of code sent across the interface. Values are No code, Line code, Payload code, and Reset code.
- Facilities Data Link—Use of the facilities data link.
- Loopback Config—Loopback configuration of the interface. Values are No loop, Payload loop, line loop, and other loop.
- Transmit Clock Source—Source of the transmit clock. Values are Loop timing, local timing, and through timing.

About the Cisco LAN Switch Port Properties Dialog Box

The Port Properties dialog box contains a toolbar and a General, Details, and VLAN tab. All fields are display-only.

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes” section on page 8-8](#) for more on dialog box functionality.

The General Tab

The General tab contains the following display-only fields:

Physical Address—The interface address at the protocol sublayer.

Description—A description of the interface.

System Name—The administratively assigned name for the interface.

Interface Type—The type of interface, such as FDDI.

Admin Status—The desired state of the interface. Values are Up, Down, and Testing.

Operational Status—The current operational state of the interface. Values are Up, Down, Testing, Unknown, Dormant, Not Present, and Lower Layer Down.

MTU—Size of the largest packet that can be sent or received on the interface.

Last Change—Time at the last creation or deletion of an interface.

The Details Tab

The Details tab contains the following fields:

Port Name—Name of the port.

Port Type—Type of physical layer medium dependent interface on the port.

Port Status—Current operational status of the port. Values are Up, Down, Testing, Unknown, Dormant, Not Present, and Lower Layer Down.

Duplex—Indicates if port is operating in half-duplex, full-duplex, disagree, or auto-negotiation mode.

Span Tree Fast Start—Whether the port is operating in span tree fast mode. Values are Enabled and Disabled.

Desired Speed—Desired speed of the port, in bits per second.

Speed—Estimated speed of the interface, in bits per second.

The VLAN Tab

The VLAN tab contains the following fields:

VLAN Number—Number assigned to the port.

Switching Priority—Priority level the port uses to access the switching media. Values are Normal, High, and Not Applicable.

Admin Status—Indicates whether the port will be assigned to a VLAN statically or dynamically. Values are Static and Dynamic.

Operational Status—Current VLAN status of the port. Values are Inactive, Active, Shutdown, and VLAN Active Fault.

About the Cisco LAN Switch VLAN Properties Dialog Box

The VLAN Properties dialog box contains a toolbar and the fields described below. All fields are display-only.

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes” section on page 8-8](#) for more on dialog box functionality.

Fields:

System Name—The administratively assigned name for the interface.

Spanning Tree Enabled—Whether spanning tree protocol is enabled for this VLAN.

Viewing Properties for the Cisco SLT SS7 MTP2 Channel

Use the following procedure to view properties information for the MTP2 channel:

-
- Step 1** From the Map Viewer, select the Cisco SLT.
- Step 2** Right-click and choose **Channels > MTP2 Channel Properties**.
The SS7 MTP2 Properties dialog box appears.
- Step 3** If you have selected more than one device, choose the desired device in the list box on the left side of the dialog box.
- Step 4** Check device properties. See the [“About the Serial, Ethernet, Loopback, and SCO/SLO Interface Properties Dialog Box”](#) section on page 8-15 or the [“About the TDM Interface Properties Dialog Box”](#) section on page 8-15 for details on interface properties.
- Step 5** (Optional) In the Properties dialog box, you can use the toolbar buttons or menu options to:
- Print the information on the current tab
 - Close the dialog box
 - Toggle dynamic update mode off and on
 - Refresh the window to update the information when dynamic update mode is off
 - Acknowledge that you have seen dynamically-updated changes



Note The status bar shows the current status of the channel.

About the SS7 MTP2 Channel Properties Dialog Box

The Cisco SLT SS7 MTP2 Channel Properties dialog box contains a toolbar and the fields described below. All fields are display-only.

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes”](#) section on page 8-8 for more information on dialog box functionality.

Channel Number—MTP2 channel number

Link Status—Overall status of the link

Alignment Error Rate Monitor—Status of the alignment error rate monitor state machine

Signal Unit Error Monitor—Status of the signal unit error monitor (SUERM)

Transmission Control—Status of the initial alignment control state machine

Receive Control—Status of the receive control state machine

Remote Processor Outage—Processor outage status of the remote

Congestion Backhaul—Status of the congestion control state between the Cisco MGC host and the Cisco SLT

Congestion—Status of the congestion control state machine

Monitoring Cisco MGC Host, HSI Server, and BAMS File Systems

You can monitor file systems on the Cisco MGC host, HSI server, and BAMS as follows:

- View file system information
- Set a threshold to have the device send a trap if file system usage passes the threshold
- View which file systems have exceeded their threshold
- Poll file systems at a desired frequency, specifying a global polling frequency or individual frequencies for each file system
- Poll all file systems now
- Turn traps on or off for individual file systems based on trap severity

Use the following procedure to monitor Cisco MGC host, HSI server, or BAMS file systems:

Step 1 In the Map Viewer, select the desired Cisco MGC host, HSI server, or BAMS,



Note Alternatively, if you have an Accounts, Properties, States, or Diagnostics dialog box open for the device, you can use the dialog box Navigation menu to open the File Systems dialog box.

Step 2 Right-click, and choose **File Systems**.

The File System Properties dialog box appears, displaying file system properties and settings for monitoring the file system.

If there is more than one selected device, the details shown apply to the currently highlighted device. In the list, click the device whose details you want to view or change. See the [“About the File System Properties Dialog Box”](#) section on page 8-20 for details.

Step 3 Check or change settings as needed:

- Use the General tab to view file system information.
- Use the Monitor tab to change settings for monitoring file system usage.
- Use the Exception tab to check file systems that have crossed their threshold.



Note You can use the Navigation menu to open the Properties, Accounts, States, or Diagnostics dialog box for the selected component.

Step 4 If you make changes, click the toolbar **Save** button.

About the File System Properties Dialog Box

The File System Properties dialog box contains a toolbar and a single tab (General, Monitoring, and Exceptions).

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes when dynamic updating is off.

See the “[Common Functionality in Properties Dialog Boxes](#)” section on page 8-8 for more on dialog box functionality. Unlike other Properties dialog boxes, the File System Properties dialog box includes a toolbar Save button for saving changes to monitoring specifications.

The General Tab

File System—List of file systems for this device. Select a system to view details.

Capacity—Percentage of normally available space that is currently allocated to files on the system.

Used Space—Amount of space allocated to existing files.

Free Space—Total amount of space available for the creation of new files by unprivileged users.

Mount Point—Mount point (directory) of the file system.

The Monitor Tab

File System—List of file systems. Select a system to check or change monitoring settings.

Current Utilization—Percent of disk space currently In Use/Percent full at which an event (alarm) will be triggered for the selected file system. Set alarm severity with Trap Severity.

Poll Interval—Period in seconds when this file system should be checked to see if it exceeds its threshold.



Note

The Poll Now function is not currently supported for an individual file system. Global (all file systems) Poll Now is supported.

Threshold Command—Command to execute when the threshold is exceeded.

Trap Severity—Severity of the trap that is sent when the threshold is exceeded. Values are Warning and Critical.

When Above Threshold—Send a trap if the threshold is exceeded. Values are Send Trap and Don't Send Trap. Use Don't Send Trap to turn off notification for the selected file system.

When Below Threshold—Send a trap if the file system usage falls below the threshold. Values are Send Trap and Don't Send Trap. Use Don't Send Trap to turn off notification for the selected file system.

Global Poll Interval—Period in seconds when all file systems should be checked to see if any exceed the threshold.

Poll Now button—Check all file systems for this device immediately.

The Exceptions Tab

File system list box—List of file systems that have exceeded their threshold. Select a file system to view details.

File System—Name of the selected file system.

Threshold—Threshold that has been exceeded.

Current Utilization—Current percent utilization of the file system.

Viewing System Component Properties

You can check properties on the following system components of a Cisco MGC host, HSI server, or BAMS:

- Disk partitions
- Processor
- RAM
- Virtual memory

**Note**

For information about viewing performance data for system components, see [Appendix B, “Performance Measurements Reference,” “Performance Data Collected for System Components” section on page B-9.](#)

Use the following procedure to view system component properties:

Step 1 In the Map Viewer, do one of the following:

- To view information for all components of a particular type, select a Cisco MGC host, HSI server, or BAMS, and right-click. Choose **Devices**, then choose one of the following:
 - **Disk Partition Properties**
 - **Processor Properties**
 - **RAM Properties**
 - **Virtual Memory Properties**
- To view information for a particular component, under the Cisco MGC host, HSI server, or BAMS, select the component and right-click. Choose **Properties**.

The dialog box displays information on the selected component’s properties. See the [“About the System Components Properties Dialog Boxes” section on page 8-21](#) for details.

Step 2 (Optional) In the Properties dialog box, you can use the toolbar buttons or menu options to:

- Print the information on the current tab
- Close the dialog box
- Toggle dynamic update mode off and on
- Refresh the window to update the information when dynamic update mode is off
- Acknowledge that you have seen dynamically updated changes

About the System Components Properties Dialog Boxes

There are two types of Cisco MGC host, HSI server, and BAMS system component Properties dialog boxes:

- A Properties dialog box for fixed disk, RAM, and virtual memory
- A Properties dialog box for the processor

By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes” section on page 8-8](#) for more on dialog box functionality.

Fixed Disk, RAM, and Virtual Memory Properties dialog box

Description—Description of the type and instance of the selected storage device.

Allocation Units—Size in bytes of the data object allocated from this pool.

Space Used—Amount of the storage that is allocated.

Total Size—Size of the total device storage.

Allocation Failures—Number of requests for storage that could not be honored.

Processor Properties dialog box

Description—Description of the processor.

Status—Current operating status. Values are Running, Unknown, Testing, Warning, and Down.

Utilization—Average over the last minute of the percent of time that the processor was active.

Errors—Number of errors detected on this device.

Viewing Dial Plan Component Properties

You can view properties of the following dial plan components of a Cisco MGC node:

- A- and B-digit trees
- Routes
- Routing
- Dial plan properties

In addition, you can set and view these relationships between dial plan components:

- The relationship between conditional route and day of the week. A single conditional route can be associated with one or more conditional route descriptors on a given day, or it can be related to the same descriptor on multiple days. In the Map Viewer, this appears under the conditional route as Conditional Route Day, the day of the week with the conditional route name appended to it.
- The relationship between conditional route descriptor and the route list or percentage route. A single conditional route descriptor can be associated with one or more conditional route lists or one or more percentage routes. In the Map Viewer, this appears under the conditional route as Conditional Route Descriptor Details, the route list or percentage route (whichever the descriptor is associated with) with the conditional route descriptor name appended to it.
- The relationship between the percentage route and the route list or conditional route. A single percentage route can be associated with one or more conditional routes or one or more route lists. In the Map Viewer, this appears under the percentage route as Percentage Route Descriptor, the route list or conditional route with the percentage route name appended to it.

Use the following procedure to view dial plan component properties:

-
- Step 1** In the Map Viewer, do one of the following:
- To view information for all components of a particular type, select the dial plan folder and right-click. Choose one of the following:
 - **Digit Trees and then one of the following:**
 - A-Digit Tree Properties**
 - B-Digit Tree Properties**
 - **Routes and then one of the following:**
 - Route Trunk Properties**
 - Route List Properties**
 - Route Trunk Group Properties**
 - Bearer Cap(ability) Properties**
 - Routing and then one of the following:
 - Percentage Routes > Percentage Route or Relationship between Percentage Route and RouteList/Conditional Route
 - Conditional Routes > Conditional Route, Relationship between Conditional Route and Day of Week, Conditional Route Descriptor, Conditional Route Descriptor Details, or Relationship between Conditional Route Descriptor and RouteList/Percentage Route
 - Route Holiday Properties
 - Result Table Properties
 - Result Set Properties
 - CPC Properties
 - Codec String Properties
 - TMR Properties
 - TNS Properties
 - Dial Plan Properties
 - To view information for a particular component, under the dial plan folder, select the desired component, and right-click. Choose **Properties**.

The dialog box displays information on the selected component's properties. See the [“About the Dial Plan Properties Dialog Boxes”](#) section on page 8-24 for details.
- Step 2** (Optional) In the Properties dialog box, you can use the toolbar buttons or menu options to:
- Print the information on the current tab.
 - Close the dialog box.
 - Toggle dynamic update mode off and on.
 - Refresh the window to update the information when dynamic update mode is off.
 - Acknowledge that you have seen dynamically-updated changes.
-

About the Dial Plan Properties Dialog Boxes

The various Properties dialog boxes for dial plan components contain a toolbar and the fields described in [Table 8-2](#). By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes”](#) section on [page 8-8](#) for more information on dialog box functionality.

Table 8-2 Properties of Dial Plan Components

Field Name	Definition
A- or B-Digit Tree Properties dialog box	
Customer Group ID	ID of the customer associated with the selected trunk group.
Digit String	All the digits in a calling or called number.
Digit-to-Present	Number of digits to skip (backward or forward) during analysis. Enter - to skip backwards.
Set Name	Name of the result set for the selected component.
Call side	Side of the call. Values are Originating and Terminating.
Route Trunk Properties dialog box	
MML Name	Name of the component.
Trunk Group	Name of the trunk group.
Next Trunk Group	Trunk group number of the next trunk group, if any
Weighted Trunk	Set to on if weighted trunk group routing is desired. Values are On or Off.
Route List Properties dialog box	
MML Name	Name of the component.
Route Name	Name of the route.
Carrier ID	Carrier ID with which users on this trunk group are associated.
Distribution	Sequential distribution. Values are On (trunk groups in a route are selected sequentially) and Off (trunk groups in a route are selected randomly).
Route Trunk Group Properties dialog box	
MML Name	Name of the component.
Trunk Type	The trunk transmission media.
Cut-through	The point in the calling process where the trunk is seized from end point to end point.
Queuing	Duration in seconds the call is queued.
Reattempts	The number of times the system attempts to select a trunk group.
Reserve Circuits %	Reserve circuits percentage.
Bearer Capability Name	Bearer capability name (the MML name in the Bearer Capability Properties dialog box)
SIP Route Trunk Group Properties	
Bearer Capability Name	Bearer capability name (the MML name in the Bearer Capability Properties dialog box)

Table 8-2 Properties of Dial Plan Components (continued)

Field Name	Definition
Bearer Capability Properties (in the Map Viewer, appears under route trunk, route trunk group)	
MML Name	Name of the component, such as bearer1
Bearer Capability	Series of transmission medium requirements (TMR) values (see TMR Properties), separated by semicolons, such as 12;05;21
Percentage Route Properties dialog box	
MML Name	Name of the component
Relationship between Percentage Route and RouteList/Conditional Route	
Percentage Route Name	Percentage route name
Name	
Over Flow Supported	Overflow supported
Over Flow	This entry is the overflow entry [y/n]
Primary	This entry is the primary entry [y/n]
Route List Name	Route list name
Conditional Route Name	Conditional route name
Conditional Route Properties	
MML Name	Name of the component
Day of Week	Day of the week
Relationship between Conditional Route and Day of Week	
Conditional Route Name	Name of the conditional route
Day of Week	Day of the week to associate with this conditional route, either a default or a day between Sunday and Saturday, or one of the holiday days defined in Route Holiday Properties.
Conditional Route Descriptor	Conditional route descriptor name
Conditional Route Descriptor Properties	
MML Name	MML name.
Relationship between Conditional Route Descriptor and RouteList/Percentage Route	
Conditional Route Descriptor	Conditional route descriptor name
Start Time	Time to start, in the form hhmm , 24 hour day
End Time	Time to end
Route List Name	Route list name
Percentage Route Name	Percentage based route name
Primary	The primary entry for percentage-based routing

Table 8-2 Properties of Dial Plan Components (continued)





Field Name	Definition
Route Holiday Properties	
	
Note	In the Map Viewer, the Route Holiday component appears under the dial plan object and is named for the date, such as 2003.12.25.
Customer Group ID	ID of customer associated with the selected trunk group.
Holiday Day	Holiday day
Date of Holiday	Date of the holiday, in the form YYYY.MM.DD
Result Set Properties dialog box	
MML Name	Name of the component
Customer Group ID	ID of customer associated with the selected trunk group.
Result Table Properties dialog box	
MML Name	Name of the component.
Customer Group ID	ID of customer associated with the selected trunk group.
Set Name	Name of the result set.
Result type	Type of result set.
Data word 1 to Data word 4	Data words 1 through 4.
CPC (Calling Party Category) Properties. These properties detect and effect routing based on CPC.	
	
Note	In the Map Viewer, the CPC component appears under the result set object, below the result table, with a name in the form <i>cpc-CPC value</i> , such as “cpc-15”.
Customer Group ID	ID of customer associated with the selected trunk group.
CPC Value	Calling party category value
Set Name	Name of the result set
Codec String Properties (in the Map Viewer, appears under result set, result table)	
MML Name	Name of the component, such as codecl
Codec String	Set of codec choices separated by semicolons, such as G.726-32;G.729b-L
TMR (Transmission Medium Requirements) Properties	
	
Note	In the Map Viewer, the TMR component appears under the result set object with a name in the form <i>tmr-TMR value</i> , such as “tmr-1”.
Customer Group ID	ID of customer associated with the selected trunk group.
TMR Value	Transmission medium requirements value
Set Name	Name of the result set

Table 8-2 Properties of Dial Plan Components (continued)

Field Name	Definition
TNS (Transit Network Selection) Properties	
	
Note	In the Map Viewer, the TNS component appears under the result set object with a name in the form <i>tns-TNS value</i> , such as “tns-333”.
Customer Group ID	ID of customer associated with the selected trunk group.
TNS Value	Transit network selection value
Set Name	Name of the result set
Dial Plan Properties	
Customer Group ID	ID of customer associated with the selected trunk group.
Over-Decadic Status	Over-decadic status. Value: YES or NO.

Viewing Signaling Component Properties

You can view properties of the following signaling components of a Cisco MGC node:

- Paths
- Links
- Point codes
- External nodes
- Interfaces
- SS7 components
- M3UA/SUA Components

Use the following procedure to view signaling component properties:

Step 1 In the Map Viewer, do one of the following:

- To view information for all components of a particular type, select the Signaling folder, and right-click. Choose one of the following:
 - **Paths, then the desired type of path component.** See [Table 8-3](#) for dialog box details.
 - **Links, then the desired type of link component.** See [Table 8-4](#) for dialog box details.
 - **Point Codes, then the desired type of point code component.** See [Table 8-5](#) for dialog box details.



Note In Cisco MGC Version 9.x, detailed DPC point code properties do not appear on the DPC Properties dialog box Details tab. Instead, drill down from the DPC to the SS7 path object (ss7svc1, for example), choose Properties, and in the Properties dialog box click the Details tab.

- **External Nodes, then the desired type of external node component.** See [Table 8-6](#) for dialog box details.

- **Interfaces, then the desired type of interface component.** See [Table 8-7](#) for dialog box details.
- **SS7 Components, then the desired type of SS7 component.** See [Table 8-8](#) for dialog box details.
- **M3UA/SUA Components**, then either the M3UA Key or Route, or SUA Key or Route, component. See [Table 8-9](#) for details.
- To view information for a particular component, under the Signaling folder, select the desired component, and right-click. Choose **Properties**.

The dialog box displays information on the selected component's properties. See the “[About the Signaling Components Properties Dialog Boxes](#)” section on page 8-28 for details.

Step 2 (Optional) In the Properties dialog box, you can use the toolbar buttons or menu options to:

- Print the information on the current tab
- Close the dialog box
- Toggle dynamic update mode off and on
- Refresh the window to update the information when dynamic update mode is off
- Acknowledge that you have seen dynamically-updated changes

About the Signaling Components Properties Dialog Boxes

The various Properties dialog boxes for signaling components contain a toolbar and fields described in tables below for each component type. By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

- Signaling path components, in [Table 8-3](#)
- Signaling link components, in [Table 8-4](#)
- Signaling point code components, in [Table 8-5](#)
- Signaling external node components, in [Table 8-6](#)
- Signaling interface components, in [Table 8-7](#)
- Signaling SS7 components, in [Table 8-8](#)
- Signaling M3UA/SUA components, in [Table 8-9](#)

See the “[Common Functionality in Properties Dialog Boxes](#)” section on page 8-8 for more on dialog box functionality.

Table 8-3 *Properties of Signaling Path Components*

Field Name	Definition
Association Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
Port	Local SCTP port number.

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
Peer Port	Destination SCTP port number.
External Node	Name of a previously configured external node.
First IP Address	First local address.
Second IP Address	Second local address.
First Peer Address	The highest priority destination address.
Second Peer Address	The lowest priority destination address.
Receive Window Bytes	Number of bytes to advertise for the local receive window.
IP Route 1	MML name of the first IP route.
IP Route 2	MML name of the second IP route.
Time Between Heartbeats	Time between heartbeats. The heartbeat is this value plus the current retransmission timeout value.
Max Retransmissions	Maximum number of retransmissions to either the first or second peer address before it is declared failed.
Internet Protocol Precedence	Value placed in the IP Precedence portion of the Type of Service field for outgoing SCTP datagrams.
Differential Service Code Point	Value placed in the DSCP portion of the Type of Service field for outgoing SCTP datagrams.
Previously Configured SGP	MML name of a previously configured SGP.
Details tab	
Maximum Init Retransmission Timer	Maximum initial timer retransmission value.
Max Retransmission Timer	Maximum value allowed for the retransmission timer.
Min Retransmission Timer	Minimum value allowed for the retransmission timer.
Maximum Retransmissions to Dest	Maximum number of retransmissions over all destination addresses before the association is declared failed.
Max Bundling Wait Time	Maximum time SCTP will wait for other outgoing datagrams for bundling.
Max Init Retransmission Times	Maximum number of times to retransmit SCTP INIT message.
Max Time Before Sending SACK	Maximum time after a datagram is received before an SCTP SACK is sent.
Association State	State of SCTP association
AXL Server Properties dialog Box	
MML Name	Name of the component
Description	Description of the MML component
First IP Address	First local address

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
Second IP Address	Second local address
Port	Local SCTP port number
First Peer Address	The highest priority destination address
Peer Port	Destination SCTP port number
IP Route 1	MML name of the first IP route
IP Route 2	MML name of the second IP route
CTI Path	CTI Sig Path component
Version	The version of CTI Path supported by MGC
BRI Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
External Node	MML Name of a previously configured external node
Side	User for user side and network for network side; (network)
MDO	Message definition object file protocol name
Customer Group ID	Four digit ID; (0000)
Call Ref Length	1 for 1 byte or 2 for 2 byte call reference length; (0)
Admin State	Administrative state of the component
Destination Association	Point-code state
Destination State	Destination Association
Destination Package	Destination Package
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
CAS Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
External Node	External node
Customer Group ID	ID of the customer associated with the selected trunk group
Side	Q.931 call model side
Admin State	Administrative state of the component
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
CTI Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
External Node	MML Name of a previously configured external node for this CTI Path
CTI Manager Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
First IP Address	First local address
Second IP Address	Second local address
Port	Local SCTP port number
First Peer Address	The highest priority destination address
Peer Port	Destination SCTP port number
IP Route 1	MML name of the first IP route
IP Route 2	MML name of the second IP route
CTI Path	CTI Sig Path component configured for this CTI Manager
Version	The version of CTI Manager supported by MGC
DPNSS Path Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
Destination Association	Type of association
Component Type	Type of component
External Node	External node
Customer VPN ID	VPN customer name assigned to the selected trunk group
Customer Group ID	ID of the customer associated with the selected trunk group
Signal Slot	Physical slot on 2600/3660 (optional)
Signal Port	Physical port on the slot of 2600/3660 (optional)
Destination Package	Name of the installed package
A/B Flag	DPNSS side
Details tab	
Admin State	Administrative state of the component
Destination State	Destination state
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
EISUP Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
External Node	External node
Customer Group Table	Customer group table
Customer Group ID	ID of the customer associated with the selected trunk group
Side	Q.931 call model side
Admin State	Administrative state of the component
Destination State	Point-code state
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
FAS Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Customer Group Table	Customer group table
Customer Group ID	ID of the customer associated with the selected trunk group
Call Ref Length	Call reference length
Side	Q.931 call model side
MDO	Message definition object file protocol name
A/B Flag	A/B flag
ASP Part	Auxiliary signaling path
IP FAS Path Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
External Node	External node
Customer Group Table	Customer group table
Customer Group ID	ID of the customer associated with the selected trunk group
Call Ref Length	Call reference length
Side	Q.931 call model side
MDO	Message definition object file protocol name
Details tab	
A/B Flag	A/B flag
ASP Part	Auxiliary signaling path
Admin State	Administrative state of the component
Destination State	Point-code state
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
Shutdown	Number of bearer channels in SHUTDOWN state
Label Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Call limit	Max number of calls allowed on this location label. 0-n . Integer value 0(default)
MGCP Path Properties dialog box and SGCP Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
External Node	External node
NAS Path Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
External Node	External node
MDO	Message definition object file protocol name
Customer Group ID	ID of the customer associated with the selected trunk group
Signal Slot	Physical slot on the NAS defining the NFAS Group (optional)
Signal Port	Physical port on the slot of NAS defining the NFAS Group (optional)
Details tab	
Admin State	Administrative state of the component
Destination State	Point-code state
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
Session Set Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
External Node	External node
First IP Address	First logical IP address
Second IP Address	Second logical IP address
First Peer Address	Remote IP address 1
Second Peer Address	Remote IP address 2
Ext Node Type	Session set external node type
IP Route 1	Name of first IP route

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
IP Route 2	Name of second IP route
Details tab	
Port	Local port number of link interface on the Cisco MGC host
Peer Port	Port number of the link interface on the remote device
Network Mask Address 1	Network mask (not supported after Cisco MGC 9.3(2))
Next Hop Address 1	Next hop (not supported after Cisco MGC 9.3(2))
Network Mask Address 2	Network mask (not supported after Cisco MGC 9.3(2))
Next Hop Address 2	Next hop (not supported after Cisco MGC 9.3(2))
SIP Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
MDO	Message definition object file protocol name
Admin State	Administrative state of the component
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
SS7 Path Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
Customer Group ID	ID of the customer associated with the selected trunk group
Customer Group Table	Customer group table
ASP Part	Auxiliary signaling path
MDO	Message definition object file protocol name
Side	Q.931 call model side
OPC	Originating point code
DPC	Destination point code
M3UAKey	MML name of M3UAKEY
Details tab	
Admin State	Administrative state of the component
Destination State	Point-code state
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
SS7 Signaling Gateway Path Properties dialog box	
General tab	

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
MML Name	Name of the component
Description	Description of the MML component
Customer Group ID	ID of the customer associated with the selected trunk group
Customer Group Table	Customer group table
ASP Part	Auxiliary signaling path
MDO	Message definition object file protocol name
Side	Q.931 call model side
OPC	Originating point code
DPC	Destination point code
Signaling Gateway Pair	Name of a pair of SS7 signaling gateway nodes
Details tab	
Admin State	Administrative state of the component
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
Destination State	Point-code state
TCAP Path Property dialog box	
MML Name	Name of the component
Description	Description of the MML component
External Node	External node
Customer Group ID	ID of the customer associated with the selected trunk group
Side	Q.931 call model side
Admin State	Administrative state of the component
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
Label Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Call Limit	Max number of calls allowed on this location label. 0-n . Integer value 0(default)
AXL Server Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
First IP Address	First local address
Second IP Address	Second local address

Table 8-3 Properties of Signaling Path Components (continued)

Field Name	Definition
Port	Local SCTP port number
First Peer Address	The highest priority destination address
Peer Port	Destination SCTP port number
IP Route 1	MML name of the first IP route
IP Route 2	MML name of the second IP route
CTI Path	CTI Sig Path component
Version	The version of CTI Path supported by MGC
CTI Path Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
External Node	MML Name of a previously configured external node for this CTI Path
CTI Manager Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
First IP Address	First local address
Second IP Address	Second local address
Port	Local SCTP port number
First Peer Address	The highest priority destination address
Peer Port	MML name of the first IP route
IP Route 1	MML name of the first IP route
IP Route 2	MML name of the second IP route
CTI Path	CTI Sig Path component configured for this CTI Manager
Version	The version of CTI Manager supported by MGC

Table 8-4 Properties of Signaling Link Components

Field Name	Definition
C7 IP Link Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
IP Address	IP address
Interface	Ethernet interface to which the link connects
Priority	Priority of the route
Timeslot	Time slot used by the link
Details tab	

Table 8-4 Properties of Signaling Link Components (continued)

Field Name	Definition
Port	Local port number of the link interface on the Cisco MGC host
Peer Address	Remote IP address of link address
SLC	SS7 signaling link code
Signal Channel State	State of the signaling channel
Network Mask	Network mask
Next Hop	Next hop
D Channel Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Service	Signaling service
Status	Operational status of the D-channel
Priority	Priority of the route
Signal Slot	Physical slot on the gateway into which the T1/E1 is plugged
Signal Port	Physical port on the gateway
Session Set	Session set of backhaul link to the gateway
TCP Link	Name of an existing TCP Link
Sub Unit	Only for BRI D Channel. Integer 0 or 1.
IP Link Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
IP Address	IP address
Interface	Ethernet interface to which the link connects (not supported after Cisco MGC 9.3(2))
Service	Signaling service
Priority	Priority of the route
Port	Local port number of link interface on the Cisco MGC host
Peer Port	Port number of the link interface on remote device
Signal Slot	Physical slot on the gateway into which the T1/E1 is plugged
Signal Port	Physical port on the gateway
Signal Channel State	State of the signaling channel
Network Mask	Network mask (not supported after Cisco MGC 9.3(2))
Next Hop	Next hop (not supported after Cisco MGC 9.3(2))
IP Route	IP route's MML name
State	State of the IP route
IP Route Properties dialog box	
MML Name	Name of the component

Table 8-4 Properties of Signaling Link Components (continued)

Field Name	Definition
Description	Description of the MML component
IP Address	Local IP address
Destination	Destination hostname or IP address
IP Route State	IP Route state
Priority	Priority of the route
Network Mask	Subnet mask of destination (optional)
Next Hop	Next hop router IP address
Link Set Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Protocol Family	Protocol used by the component
APC	Adjacent point code for an STP
Linkset Type	Type of transport for this link set
Linkset State	Service state of the link
SIP Link Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
IP Address	IP address
Interface	Ethernet interface to which the link connects (not supported after Cisco MGC 9.3(2))
Priority	Priority of the route
Details tab	
Service	Type of signaling service
Port	Local port number of the link interface on the Cisco MGC host
Signal Channel State	State of the signaling channel
Network Mask	Network mask (not supported after Cisco MGC 9.3(2))
Next Hop	Next hop (not supported after Cisco MGC 9.3(2))
SS7 Signaling Gateway IP Link Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Signaling Gateway Node	State of the signaling channel
IP Address	IP address
Peer Address	IP address of the remote peer
Peer Port	Port number of the link interface on the remote device
Interface	Ethernet interface to which the link connects (not supported after Cisco MGC 9.3(2))

Table 8-4 *Properties of Signaling Link Components (continued)*

Field Name	Definition
Priority	Priority of the route
SLC	SS7 Signaling Link Code
Signal Channel State	State of the signaling channel
TDM Link Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Interface	Ethernet interface to which the link connects
Priority	Priority of the route
Timeslot	Time slot used by the link
Service	Type of signaling service
SLC	SS7 signaling link code
TCP Link Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
IP Address	IP address
Type	Signaling Type. BRI
Port	Local port number of link interface on the Cisco MGC host
IP Route	IP route's MML name
External Node	External node
Peer Port	Port number of the link interface on remote device
Peer Address	Peer IP address
Signal Channel State	State of the signaling channel

Table 8-5 *Properties of Signaling Point Code Components*

Field Name	Definition
APC Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Network Address	SS7 network address in dotted notation
Network Indicator	Indicator assigned by the network administrator
OPC	Originating point code
DPC	Destination point code
Route Set State	State of the point code
DPC Properties dialog box	
General tab	

Table 8-5 Properties of Signaling Point Code Components (continued)

Field Name	Definition
MML Name	Name of the component
Description	Description of the MML component
Network Address	SS7 network address in dotted notation
Network Indicator	Indicator assigned by the network administrator
OPC	Originating point code
DPC	Destination point code
Details tab	
Admin State	Administrative state of the component
Route Set State	State of the point code
Destination State	Point-code state
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
OPC Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Network Address	SS7 network address in dotted notation
Network Indicator	Indicator assigned by the network administrator
OPC Type	Originating point code

Table 8-6 Properties of Signaling External Node Components

Field Name	Definition
External Node Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Extnode Type	Type of the external node
Admin State	Administrative state of the component
Locked	Number of bearer channels in LOCKED state
Unlocked	Number of bearer channels in UNLOCKED state
Shutdown	Number of bearer channels in SHUTDOWN state
M3UA/SUA Group Number	M3UA/SUA group number
ISDN Signaling Type	ISDN signaling type (optional)
SGP Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component

Table 8-6 *Properties of Signaling External Node Components (continued)*

Field Name	Definition
External Node	External node's MML name
SGP State	State of the Signaling Gateway Process
Signaling Gateway Node Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Type	Type of SS7 Signaling Gateway Node
State	SS7 Signaling Gateway Node status
Signaling Gateway Node Pair Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Signaling Gateway Node	SS7 signaling gateway node
Mated SG Node	Mated SS7 signaling gateway node

Table 8-7 *Properties of Signaling Interface Components*

Field Name	Definition
Card Interface Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Card Type	Type of card or adapter
Slot	Location of card or adapter within host device
Ethernet Interface Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Card	Card that supports the interface
TDM Interface Properties dialog box	
General tab	
MML Name	Name of the component
Description	Description of the MML component
Card	Card that supports the interface
Signal Type	Signal type
Coding	Line coding
Format	Interface format
Details tab	
Line Interface Number	Line interface number
Resistance	Resistance

Table 8-7 Properties of Signaling Interface Components (continued)

Field Name	Definition
Data Rate	Data rate
Clock	Clock
HDLC	High-level data link control
DTE/DCE	Data terminal equipment/Data communications equipment

Table 8-8 Properties of Signaling SS7 Components

Field Name	Definition
SS7 Route Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Link Set	Link set that leads to destination device
Priority	Priority of the route
OPC	Originating point code
DPC	Destination point code
SS7 Subsystem Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Subsystem Number	Subsystem number
Priority	Priority of the route
Service	Type of signaling service
Protocol Family	Protocol used by the component
Transport Protocol	Transport protocol
Mated APC	Adjacent point code for an STP mate
STP/SCP Index	STP/Service control point index
SuaKey	MML name of SUAKEY
Local Subsystem Number	Local subsystem number (beginning in 9.5(2), used instead of Subsystem number)
Remote Subsystem Number	Remote subsystem number
OPC	Origination point code
SS7 Signaling Gateway Subsystem Properties dialog box	
MML Name	Name of the component
Description	Description of the MML component
Subsystem Number	Subsystem number
Priority	Priority of the route
Protocol Family	Protocol used by the component

Table 8-8 Properties of Signaling SS7 Components (continued)

Field Name	Definition
OPC	Originating point code
APC	Adjacent point code for an STP
STP/SCP Index	STP/Service control point index
Signaling Gateway Pair	Pair of SS7 signaling gateway nodes

Table 8-9 Properties of Signaling M3UA/SUA Components

Field Name	Definition
M3UA Key Properties dialog box	
MML Name	Routing key name, alphanumeric string up to 20 characters.
Description	Description of the MML component, up to 128 characters.
Service Indicator	(Optional) Service indicator: ISUP,TUP,N/A. Default: N/A
Routing Context	Routing context value, any integer except 0. Default: 0.
DPC	(Optional) Destination point code
Network Appearance	(Optional) Network appearance. 0-32767. 0 indicates an invalid network appearance. Default: 0.
OPC	(Required) Originating point code
M3UA Route Properties dialog box	
MML Name	M3UA route name, alphanumeric string up to 20 characters.
Description	Description of the MML component, up to 128 characters.
DPC	MML name of previously defined destination point code.
External Node	MML name of a previously configured external node.
OPC	MML name of a previously configured origination point code.
SUA Key Properties dialog box	
MML Name	Routing key name, alphanumeric string up to 20 characters.
Description	Description of the MML component, up to 128 characters.
OPC	(Required) Origination point code.
APC	(Optional) Adjacent point code.
Local SSN	Local subsystem number.
Routing Context	Routing context value, any integer except 0. Default: 0.
Network Appearance	(Optional) Network appearance. 0-32767. 0 indicates an invalid network appearance. Default: 0.
SUA Route Properties dialog box	
MML Name	SUA route name, alphanumeric string up to 20 characters.
Description	Description of the MML component, up to 128 characters.
APC	MML name of previously defined adjacent point code.

Table 8-9 Properties of Signaling M3UA/SUA Components (continued)

Field Name	Definition
External Node	MML name of a previously configured external node.
Remote SSN	Remote subsystem number (destination).
OPC	MML name of a previously configured origination point code.

Viewing Trunk Group Component Properties

You can view the properties of trunk group components of a Cisco MGC node such as:

- Configuration
- Status
- SIP attributes (Cisco MGC Release 9 and later)

Use the following procedure to view trunk group component properties:

Step 1 In the Map Viewer, do one of the following:

- To view information for all trunk group components, select the Trunking folder, and right-click. Choose **Trunk Group Properties**.
- To view information for a particular trunk group component, under the Trunking folder select the desired component, and right-click. Choose **Trunk Group Properties**.

The dialog box displays information on the selected component's properties. See the [“About the Trunk Group Properties Dialog Box”](#) section on page 8-44 for details.

Step 2 (Optional) In the Properties dialog box, you can use the toolbar buttons or menu options to:

- Print the information on the current tab.
 - Close the dialog box.
 - Toggle dynamic update mode off and on.
 - Refresh the window to update the information when dynamic update mode is off.
 - Acknowledge that you have seen dynamically updated changes.
-

About the Trunk Group Properties Dialog Box

The Properties dialog box for trunk group components contains a toolbar and the fields described in [Table 8-10](#). By default, the Properties dialog is dynamically updated as device information changes. You can use toolbar buttons to turn updating on or off, acknowledge that you have seen updated information, and check for changes as desired when dynamic updating is off.

See the [“Common Functionality in Properties Dialog Boxes”](#) section on page 8-8 for more on dialog box functionality.



Note

The trunk group properties you see, and the tabs they are located on, depend on the release of the Cisco MGC software that you are using.

Table 8-10 Properties of Trunk Group Components

Field Name	Definition
General tab	
Trunk Group Number	Trunk group number.
Trunk Type	Trunk transmission media.
Customer Group ID	ID of the customer associated with the selected trunk group.
Priority	Priority of the route.
Select Sequence	Selection sequence.
Service	Type of signaling service.
Queueable	Whether the trunk group is capable of queuing calls.
Package Type	CAS trunk group package.
Glare	Call collision handling.
Default Presentation Number NOA	Sets the default for Presentation Number NOA value.
Default Presentation Number NPI	Sets the default for Presentation Number NPI value.
Default PN	Enables the incoming trunk group to have default presentation number if the incoming call does not have one; overdecadic digits are supported.
Maximum ACL	Maximum congestion level.
Number Plan Area	The numbering plan area (NPA) code associated with the incoming trunk group.
Carrier ID	The carrier ID to which users on this trunk group are associated.
Orig. Carrier ID	Carrier ID digit string.
CLLI	Common language location identifier.
Carrier Screening	Whether to apply carrier selection and screening on the call.
Notify Setup Complete	Whether to send notification when call setup completes.
Send Address to CGPN	Determines if CLI digits should be sent in outgoing CgPN parameter. Value is 0 (False) for don't include address digits in CgPN param or 1 (True) for including address digits in CgPN param; default is 1.
CGPN Presentation Restricted	Determines if incoming Presentation Indication should be overridden. Value is 0 (False) for leave as-is or 1 (True) for set to presentation restricted; default is 0.
Enable IP Screening	Enables the incoming trunk group to select dial plan based on IP address, source ID and CLI prefix tables
Default PN Presentation Indicator	Sets default Presentation Number Presentation Indicator value
Configuration tab	
Fax/Modem Tone	Specifies if notification of the fax/modem tone from the MGC is desired. Values are 0 (no) and 1 (yes).

Table 8-10 Properties of Trunk Group Components (continued)

Field Name	Definition
Screen Fail Action	Indicates if an action is to be performed when a screening failure occurs. Values and 0 (no) and 1 (yes).
Ring-No-Answer	Time (in seconds) that ringing can occur.
AOC Enabled	Whether advice of charge handling should be applied to this call. Values and 0 (no) and 1 (yes).
Echo Cancel	Whether echo cancellation is required. Values and 0 (no) and 1 (yes).
ACC Control	ACC control procedure flag.
D Channel Status	Host controller-MIB accRespCatName.
External COT	External continuity test indicator.
Support 183 Response Code	Flag indicating support of 183 response code.
Customer VPN ID	Assigns a VPN customer name to the trunk group. Prefix="*" Default="00000000", Size min=1 max=8.
VPN On-Net Table Number	Assigns VPN ON NET profile table indices for a particular trunk group. Prefix="*" Default="0", Size min=1 max=8.
VPN Off-Net Table Number	Assigns VPN OFF NET profile table indices for a particular trunk group. Prefix="*" Default="0", Size min=1 max=8.
Populate SDP Info in CDR	Enables extraction of information from SDP. 1 enables, 0 disables. Default 0.
Support 100 Response Code	Flag indicating support of 100 response code.
ACL Duration	Duration (in seconds) that ACL remains in effect.
Satellite	Indicates if the trunk group is going over a satellite. Values and 0 (no) and 1 (yes).
Call Orig. Index	Starting number analysis digit index for call origination.
Call Term. Index	Starting number analysis digit index for call termination.
Transparency Disabled	Indicates if ISDN User Part (ISUP) transparency is disabled. Values 0 (no) and 1 (yes).
COT Percentage	Statistical continuity test percentage.
Compression Type	The G.711 compression type used on the trunk.
From	The display name of the calling party.
Call Forward Reroute Disabled	Disables Call Forward rerouting for all calls. Prefix="*". Range 0 - 1. Default 0.
Feature Transparency Disabled	Disables Feature Transparency for all calls. Prefix="*". Range 0 - 1. Default 0.
OD 32 Digit Support	Indicates whether overdecadic and 32 digits are supported for ANSI, Q721, Q761, and Q767 protocol variants. Values 0 (no) and 1 (yes). Default 0.
Status tab	
Admin State	Administrative state of the component.
Locked	Number of bearer channels in LOCKED state.

Table 8-10 Properties of Trunk Group Components (continued)

Field Name	Definition
Unlocked	Number of bearer channels in UNLOCKED state.
Shutdown	Number of bearer channels in SHUTDOWN state.
SIP tab	
Local Port	UDP port for SIP communication.
VSC SIP Version	Supported SIP version.
VSC Domain	MGC domain name in SIP messages.
Max Redirection	The maximum number of SIP message redirects allowed.
Max SIP Forward	The maximum number of SIP forwards allowed.
T1 Timer	T1 timer (in milliseconds) for SIP messages other than INVITE messages.
INVITE Timer	T1 timer for INVITE messages.
Orig. Session Timer	The maximum session time (in milliseconds) for a SIP call originated by the MGC.
Hold Timer	Maximum hold time for a SIP call.
MIN Event Subscribe Duration	Minimum duration for which an event can be subscribed, in msec. Range: 40-3600 msec.
MAX Subscription Duration	Maximum duration for which the subscription can exist before it needs a re-subscription, in msec. Range: 0-3600 msec.
ISUP Trans Early Backward Disabled	Sends the early backward message-183 session progress without the SDP MIME body. 0 - Enable, 1 - Disable. Default 1.
SIP MIME Body Support	Determines SIP-T and SIP-GTD related special processing of data (used by SS7 and SIP trunk groups). 0 - None, 1 - SIP-T supported, 2 - SIP-GTD supported. Default 0.
MGC SIP Version	The version of SIP protocol supported by MGC. Maps to trunk group property MGCSipVersion. Any valid SIP version, SIP2.0 default.
MGC Domain	MGC's domain name used in SIP messages. Maps to trunk group property MGCDomain. Any valid domain name or NULL string.
Max SIP Forward	The maximum number of SIP forward allowed. Maps to trunk group property MaxForwards. Any value > 0, default 10.
T2 Timer	T2 timer (in milliseconds) for SIP messages other than INVITE messages.
EXPIRE Timer	Timer value (in milliseconds) in the EXPIRE header of SIP messages.
Term. Session Timer	The maximum session time (in milliseconds) for a SIP call terminated by the MGC.
Retry Timer	The time (in milliseconds) that MGC waits before retrying SIP calls.

Table 8-10 Properties of Trunk Group Components (continued)

Field Name	Definition
GTD Cap Type	Used as a pointer to the subset of GTD configuration parameters. Values: 0 - No GTD parameter string. Any other string - points to entry in gtdParam.dat file. Default: 0.
Subscribe Notify Support	Enables or disables Unsolicited Notify method for solicited notification of SIP DTMF digits.
GTD Message Format	Selects GTD message format. C - Compact mode, V - verbose mode. Default C.
Unsolicited Notify Method	Enables or disables Subscribe/Notify method for solicited notification of SIP DTMF digits.
SIP IP Source	Tells MDL to use IP packet source address or IP address from SDP in INVITE message to do dial plan selection for SIP calls.
Profile tab	
Originating Line Information	Default originating line information.
Carrier Network ID	Default carrier identifier network identifier.
Carrier Network Type	Default carrier identifier national network type.
Carrier Network ID Plan	Default carrier network national network identifier plan.
Charge Number	Default charge number.
Charge Number NOA	Default charge number nature of address.
Charge Number NPI	Default charge number plan identification.
Charge Origin	Specifies the charge origin. It is up to the network engineer to decide what value of charge origin will be used. Value is 0 to 9999; default is 0.
Directory Number Presentation	Default directory presentation indicator.
Directory Number Screening	Default directory screening indicator.
Directory Number	Default directory number.
Directory Number NOA	Default directory number nature of address.
Directory Number NPI	Default directory number plan identification.
H.323 Tab	
Gateway Ring Back Tone	Indicates if the gateway ring back tone application is supported within the gateway that hosts the trunk group and the connection method that is applied.
Wait for Answer Timer	Duration, in seconds, that the MGC waits to receive the Answer message after instructing the MGW to apply ring back tone.
Wait for Originating SDP Timer	Duration, in seconds, that the MGC waits for the originating SDP information after transiting the answer message.
Wait for Terminating SDP Time	Duration, in seconds, that the MGC waits for the terminating SDP information after transiting the answer message.

Table 8-10 Properties of Trunk Group Components (continued)

Field Name	Definition
Allow H.323 Hairpin	Whether to allow the HSI component connected through the EISUP path to make and receive H.323 calls to and from another HSI component.
Fax Support	What fax support, if any, is available on the incoming trunk group.
H.323 Adjunct Link	Identifies an EISUP link that is connected to an H.323 adjunct platform.
Characteristics Tab	
A Number National Prefix	National prefix string to be added to the national dialed number when NOA is enabled.
A Number International Prefix	International prefix string to be added to the international dialed number when NOA is enabled.
B Number National Prefix	National prefix string to be added to the national dialed number when NOA is enabled.
B Number International Prefix	International prefix string to be added to the international dialed number when NOA is enabled.
Apply Country Code to A Number	Whether to apply the country code to A numbers.
Apply Country Code to B Number	Whether to apply the country code to B numbers.
Country Code to be Removed	Country code string to be removed.
Country Code to be Prefixed	Country code string to be prepended.
A-number Normalization	(European feature; ingress trunk groups) Indicates that A-number (Calling Party Number) normalization is appropriate based on the NOA value and the leading digits of the A-number. Leading digits 0: Remove 0 and set NOA to NATIONAL. 00: Remove 00 and set NOA to INTERNATIONAL.
B-Number Normalization	(European feature; ingress trunk groups) Indicates that B-number (Called Party Number) normalization is appropriate based on the NOA value and the leading digits of the B-number. Leading digits 0: Remove 0 and set NOA to NATIONAL. 00: Remove 00 and set NOA to INTERNATIONAL.
SCP Credit Expired Timer	Time period before credit expiry that the SCP is notified.
SSF Credit Expired Timer	Time period before credit expiry that the SSF is notified.
Warning Credit Expired Timer	Time period before credit expiry that a warning tone or announcement is played.
Expiry Warning Tone Type	Type of warning tone
Expiry Warning Tone Duration	Duration of warning tone
CLI Select	Whether the Dual CLI feature is supported (default is N).
GW Default Codec String	Ordered series of codec choices, separated by semicolons.
More Tab	

Table 8-10 Properties of Trunk Group Components (continued)

Field Name	Definition
GW Default ATM Profile	Provides an initial list of profiles for use in ATM gateway profiles negotiation per trunkgroup. Default "NULL" type="string" size min="1" max="140"
Play Announcement	Contains announcement id. 0 means the functionality will be considered as switched off at the trunk group level. Default "0" type="int"
ATM Connection Type	Populates connection type indicator (ct:) in local connection option parameters. This property is read for both originating and terminating legs of all ATM switched calls. Property Valid Values: 1-->AAL1,2--> AAL1_SDT, 3-->AAL1_UDT, 4-->AAL2, 5-->AAL 3/4, 6-->AAL5. default="4" type="int" range min="1" max="6"
B-number Tech Prefix	This property will provide a digit string to be used as a Tech Prefix to the B-number when sending the call forward.type="string" size min="1" max="16"
Loop Avoidance Support	This property will indicate whether to support Lop Avoidance feature in DPNSS or not. Default 0 not supported, 1 - supported.
Loop Avoidance Counter	Loop Avoidance counter for DPNSS. Min value is 0 and Max 25. default 0.
Country Code to be Removed	Country code string to be removed.
Country Code to be Prefixed	Country code string to be prepended.
MWI String OFF	MWI OFF string as used by DPNSS PBX, Default = NULL
MWI String ON	MWI ON string as used by DPNSS PBX, Default = NULL
Inhibit Incoming Calling Name Display	This property inhibit the support of incoming calling name display in DPNSS and EISUP(HSI) protocols. "1" = inhibit incoming calling name display. "0" = enable incoming calling name display
Inhibit Outgoing Calling Name Display	This property inhibit the support of outgoing calling name display in DPNSS and EISUP HSI) protocols. "1" = inhibit outgoing calling name display. "0" = enable outgoing calling name display
Inhibit Incoming Connected Number Display	This property inhibit the support of the incoming connected name display for call transfer in DPNSS and EISUP (HSI) protocols. "1" = inhibit incoming connected name display. "0" = enable incoming connected name display
AOC Default Tariff Id	This property is used to configure the default tariff to be applied when AOCInvokeType is configured as "All Calls". Min = "1", max = "9999". Default = "1"
AOC Invoke Type	This property is used to configure whether the AOC Supplementary services should be applicable for all calls or for per call basis. ("1" = per call, "2" = All calls). Default = "1"

Table 8-10 Properties of Trunk Group Components (continued)

Field Name	Definition
Mid-Call Check Pointing Interval	a property to allow user to enable/disable mid-call checkpointing and when enabled, it specifies the interval between checkpointing event in the connected state. min = 0, max=60(in minute unit). value zero means disabled
CLI Selection For Code Of Practice3	A new PGW2200 Trunk Group Property called “CliSelectionForCodeOfPractice3” will be introduced in order to provision “per Trunk Group” which level of CLI selection should be employed when sending the Calling Line Identities (such as Calling Party Number or Generic Number parameter) to the succeeding exchange. 0 - Indicates no specific CLI selection. 1 - Indicates Single CLI selection 2 - Indicates Dual (double) CLI selection Property Valid Values: 0 to 2 Property Default Value: 0
Inhibit Outgoing Connected Name Display	This property inhibit the support of the outgoing connected name display for call transfer in DPNSS and EISUP (HSI) protocols. “1” = inhibit outgoing connected name display. “0” = enable outgoing connected name display
Inhibit Outgoing Connected Number Display	This property inhibit the support of the outgoing connected number display for call transfer in DPNSS and EISUP (HSI) protocols. “1” = inhibit outgoing connected number display. “0” = enable outgoing connected number display.

Using Diagnostic Tools

When you need to troubleshoot Cisco MGC node devices, you can use the Diagnostics dialog box to access a variety of diagnostic tools. The Diagnostics dialog box provides shortcuts for common diagnostics that normally require using UNIX or MML commands. For example, you can use the ping application to determine if a device is not responding because of an SNMP agent failure or a true network connectivity failure.

After the command is run, you see the results in the Action Result window. If the diagnostic command generates more information than can be shown in the Action Result window, the results are written to a file and you see the name of that file. The file can be retrieved and analyzed by external systems.



Note

Many diagnostic commands are time consuming to run. Take this into account when planning your use of diagnostic tools.

Related Topics

The “[Using Cisco MGC Node Manager To Launch Device Configuration](#)” section on page 8-4 describes how to use various configuration and diagnostic tools such as Cisco VSPT, Cisco View, and launching Telnet (or ssh) or X-windows to a device.

The “[Using the Cisco MGC Toolbar](#)” section on page 8-54 describes how to use the Cisco MGC Toolbar, a diagnostic component of the Cisco MGC software.

Use the following procedure to run diagnostics on a Cisco MGC node device:

Step 1 In the Map Viewer, select the desired device and right-click.



Note Alternatively, if you have an Accounts, Properties, States, or File Systems dialog box open for the device, you can use the dialog box Navigation menu to open the Diagnostics dialog box.

Step 2 Choose **[Device Name] Diagnostics or Tools > [Device Name] Diagnostics**. The Diagnostics dialog box for the selected device appears.



Note You can use the Navigation menu to open the Properties, File Systems (where applicable), Accounts, or States dialog box for the selected component.

Step 3 Select the desired diagnostic option. For details, see the [“About the Diagnostics Dialog Box” section on page 8-52](#).

You are asked to confirm the operation.

Step 4 Click **Yes** to confirm or **No** if you decide not to continue.

An Action Report box appears containing the results of the diagnostic operation or the name of the file to which the results have been saved.

Step 5 Review the results, then click **Close** to close the Action Report box.

About the Diagnostics Dialog Box

The Diagnostics dialog box lets you run common UNIX and MML diagnostic commands from Cisco MGC Node Manager without knowing any UNIX or MML or having to launch an X window to connect to the device.

For the Cisco MGC host and the HSI host, the dialog box contains two tabs, the Diagnostics tab and the Advanced tab, which provides status check functions. For all other devices, the dialog box contains the Diagnostics options only.

The Diagnostics dialog box includes a Navigation menu that allows navigating directly to Properties, Accounts, File Systems (where applicable), or States dialog boxes for the selected component, without having to reselect the component in the Map Viewer. See [Chapter 3, “Getting Started with Cisco MGC Node Manager,” “Navigating between Dialog Boxes for a Given Component”](#) on page 32 for details.

[Table 8-11](#) describes the diagnostic tools available from the Diagnostics dialog box General tab.

[Table 8-12](#) describes the tools available for the Cisco MGC host from its Diagnostics dialog box

Advanced tab. [Table 8-13](#) describes the tools available for the HSI host from its Diagnostics dialog box Advanced tab.

Table 8-11 *Diagnostics Dialog Box General Tab*

Diagnostic Tool	Command	Available Devices	Description
IP Ping		Cisco MGC host, BAMS, Cisco SLT, Cisco LAN Switch	Performs standard UNIX ping application on the device to see if its management interface is reachable
SNMP Ping		All IP devices	Makes an SNMP request to the device to determine if its SNMP agent is running and accessible
Traceroute		All IP devices	Determines the route that packets take from Cisco MGC Node Manager to the device's management interface
Alarm Log	rtrv-alm	Cisco MGC host, HSI server, and BAMS	Displays and saves current alarm log information
Process Status	rtrv-softw:all	Cisco MGC host, HSI server, and BAMS	Displays and saves current status of all device processes
System Log	RTRV-FILE S:: /acec/files/sy slog	BAMS	Displays the BAMS system log
Cross-Device Audit	prov-rtrv:trunkgrp	BAMS	Audits BAMS trunk groups against the Cisco MGC host configuration, producing a list of discrepancies, if any

Table 8-12 *Cisco MGC Diagnostics Dialog Box Advanced Tab*

Option	MML Command ¹	Description
1	rtrv-admin-state	Retrieves the administrative state for all (applicable) components
2	rtrv-dest	Retrieves state information for all DPCs ² and signaling paths
3	rtrv-lnk-ctr	Retrieves the service state of all linksets
4	rtrv-lssn	Retrieves the state of all local SSNs
5	rtrv-ne-health	Retrieves CPU occupancy and disk utilization
6	rtrv-rssn	Retrieves the state of all remote SSNs ³
7	rtrv-rte	Retrieves the SS7 routes for all point codes.
8	rtrv-sc	Retrieves the state of all signaling channels and linksets
9	rtrv-tc	Retrieves the state of bearers for all signaling paths

1. The MML command invoked by the Status Check option; runs in the background

2. Destination point codes

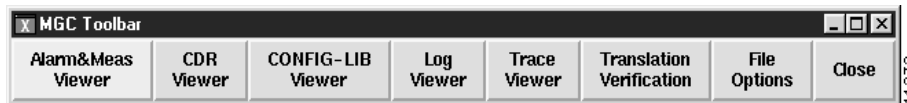
3. Subsystem numbers

Table 8-13 HSI Host Diagnostics Dialog Box, Advanced Tab (HSI 2.21)

Option	Description
Configuration	Displays current configuration of the HSI host using the rtrv-config command
HSI Link Status	Displays current status of the IP/EISUP links
HSI Host Status	Displays current status of the HSI host

Using the Cisco MGC Toolbar

From Cisco MGC Node Manager, you can access the Cisco MGC toolbar (see [Figure 8-2](#)), a standalone diagnostic component of the Cisco MGC software. The toolbar contains a suite of tools for viewing diagnostic and troubleshooting information.

Figure 8-2 Cisco MGC Toolbar

From the MGC Toolbar you can access these viewers:

- Alarm and Measurement Viewer—Search and view alarms and system statistics
- Call Detail Record (CDR) Viewer—Search and view call detail records (CDRs)
- CONFIG-LIB Viewer—Manage the contents of the configuration library
- Log Viewer—Search and view system logs
- Trace Viewer—View and navigate through call trace output
- Translation Verification—View called number analysis results
- File Options—A tool to manage these toolkit files

Instructions for using the toolbar are provided in the Cisco MGC documentation under “Using the Cisco MGC Viewer Toolkit,” which can be found in the *Operations, Maintenance, and Troubleshooting Guide* at

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_maintenance_guide_chapter09186a008007e58f.html#wp1043288.