



## Other Network Management Tasks

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This chapter provides information on the following:

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  - [Using Cisco MGC Node Manager To Launch Device Configuration, page 8-5](#)
  - [Viewing or Modifying Account and SNMP Information, page 8-6](#)
  - [Viewing Properties for Devices and Their Components, page 8-8, including:](#)
    - [Viewing Properties for Devices, page 8-10](#)
    - [Viewing Properties for Interfaces, page 8-14](#)
      - [Viewing Properties for the Cisco SLT SS7 MTP2 Channel, page 8-18](#)
      - [Monitoring Cisco MGC Host, HSI Server, and BAMS File Systems, page 8-19](#)
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## Performing Routine Network Management

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.

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| <ul style="list-style-type: none"> <li>___ Set up security (system administrator)</li> <li>___ Deploy the network, creating a model of your network in Cisco MGC Node Manager</li> <li>___ Identify key performance measurements to monitor</li> <li>___ Set up threshold crossing alerts and scoreboards</li> </ul> | <p>Chapter 2, “Configuring Network Devices for Management”</p> <p>See Chapter 4, “Setting Up Cisco MGC Node Manager Security”</p> <p>See Chapter 5, “Deploying Your Network in Cisco MGC Node Manager”</p> <p>See Chapter 7, “Managing the Performance of Cisco MGC Node Manager Devices,” “Selecting What To Monitor” section on page 7-14</p> <p>See Chapter 6, “Managing Faults with Cisco MGC Node Manager,” “Task 2. Customizing Event Management” section on page 6-4</p> |
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## Routine Daily Procedures

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| <ul style="list-style-type: none"> <li>___ (Ongoing) Monitor the network for changes in status.</li> </ul> | <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3. Right-click the device object and choose <b>Tools &gt; Event Browser</b></li> <li>4. <b>Acknowledge</b></li> </ol> |
|--|--|

**Properties**

**Software**

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**  
**IP Ping** **SNMP Ping**

**Monitor the following important network properties:**

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**File Systems**

**Memory Properties**

**Devices > Virtual**

**Properties**

**Properties**

**Properties**

**Devices > Processor**

bottom of the dialog box. See the [“Viewing Properties for Devices”](#) section on page 8-10 for details.

To view the status of processes: In the Map Viewer, right-click the device object and choose **Tools > MGC Host Diagnostics Process Status**

**Software Properties**

**Memory Properties**

[“Keeping the Cisco MGC Node Manager Network Model Up To Date”](#) section on page 5-19

## Routine Weekly Procedures

**For More Information, see**

- 1.
- 2.

# Using Cisco MGC Node Manager To Launch Device Configuration



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- 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

**Table 8-1 Configuration Tools for Cisco MGC Node Devices**

Cisco MGC Node Device	Available Tools
	Telnet or ssh; MML
BAMS	Telnet or ssh; MML
HSI server	Telnet or ssh; MML
Cisco SLT	CiscoView <a href="http://www.cisco.com/en/US/products/sw/escowork/ps4737/prod_technical_documentation.html">http://www.cisco.com/en/US/products/sw/escowork/ps4737/prod_technical_documentation.html</a> Telnet
Cisco LAN Switch	CiscoView Telnet or ssh

**Step 1**

**Step 2**

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**Note**

Step 3

Step 4

Step 1

Step 2

Step 3

Step 4

## Viewing or Modifying Account and SNMP Information

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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 .

Step 3

Step 4

Step 5

Step 6

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## About the Accounts Dialog Box

### The Accounts Dialog Box Toolbar

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**■ Viewing Properties for Devices and Their Components**

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**The Accounts Tab**

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**The SNMP Tab**

## **Viewing Properties for Devices and Their Components**

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## Common Functionality in Properties Dialog Boxes



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## The Properties Dialog Box Toolbar

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Figure 8-1 Device Properties Dialog Box Toolbar



## Viewing Properties for Devices

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Step 1

Step 2

Step 3

Step 4



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## About the Device Properties Dialog Box

## The General Tab

## The Details Tab

### For the Cisco MGC, HSI server, and BAMS

### For the Cisco SLT and Cisco LAN Switch

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

Hardware Version—Chassis hardware revision level.

ROM System Version—ROM system software version.

ROM Monitor Version—ROM monitor version.

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



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

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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.

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

System Type—Chassis system type.

Backplane Type—Chassis backplane type.

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)**



**Note**

**The Network Tab (all)**

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

**The Virtual IP Tab (Cisco MGC host)**

**The Memory Tab (Cisco SLT and Cisco LAN Switch)**

## The Configuration Tab (Cisco SLT)

## The Poll Tab (BAMS)

## The RAS Parameters Tab (HSI Server)

# Viewing Properties for Interfaces

Step 1



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Step 2

Step 3

Step 4

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

### The General Tab

## The Details Tab

## About the TDM Interface Properties Dialog Box

### The General Tab

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 contains the following fields:

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.

Signal Mode—Signaling mode. Values are None, Robbed bit, Bit oriented, and Message oriented.

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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 General Tab**

### **The Details Tab**

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## The VLAN Tab

## About the Cisco LAN Switch VLAN Properties Dialog Box

## Viewing Properties for the Cisco SLT SS7 MTP2 Channel

Step 1

Step 2

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Channels > MTP2 Channel Properties

Step 3

Step 4

Step 5

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## About the SS7 MTP2 Channel Properties Dialog Box

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

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Step 1



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Step 2

Step 3

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Step 4

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## About the File System Properties Dialog Box

The General Tab

The Monitor Tab



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## The Exceptions Tab



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### Devices

- Disk Partition Properties
- Processor Properties
- RAM Properties
- Virtual Memory Properties

### Properties

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**Fixed Disk, RAM, and Virtual Memory Properties dialog box**

**Processor Properties dialog box**

**Viewing Dial Plan Component Properties**

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**Step 1**

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**A-Digit Tree Properties**

**B-Digit Tree Properties**

**Routes**

**Route Trunk Properties**

**Route List Properties**

**Route Trunk Group Properties**

**Bearer Cap Properties**

**Routing**

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





**Properties of Dial Plan Components (continued)**

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)
Properties	
Bearer Capability Name	Bearer capability name (the MML name in the Bearer Capability Properties dialog box)
Properties (in the Map Viewer, appears under route trunk, route trunk group)	
MML Name	Name of the component, such as <b>bearer1</b>
Bearer Capability	Series of transmission medium requirements (TMR) values (see TMR Properties), separated by semicolons, such as <b>12;05;21</b>
<b>Percentage Route</b>	
<b>Relationship between Percentage Route and RouteList/Conditional Route</b>	
	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
Properties	
MML Name	Name of the component
Day of Week	Day of the week
<b>Relationship between Conditional Route and Day of Week</b>	
<b>Conditional Route Descriptor</b>	
<b>Relationship between Conditional Route Descriptor and RouteList/Percentage Route</b>	



**TMR (Transmission Medium Requirements)**

	<hr/> <hr/>	<i>TMR value</i>
	<hr/> <hr/>	
	<hr/> <hr/>	

	<hr/> <hr/>	<i>TNS value</i>
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**Paths**  
**Links**  
**Point Codes**



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**M3UA/SUA Components**

**Properties**

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Field Name	Definition

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**Trunk Group Properties**

**Trunk Group Properties**

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**About the Trunk Group Properties Dialog Box**





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.
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.
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.
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.
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.
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.
Tab	
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

Field Name	Definition

## 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**

Step 1



Note

Step 2



Note

Step 3

Step 4

Yes

No

Step 5

Close

## About the Diagnostics Dialog Box

Diagnostic Tool	Command	Available Devices	Description

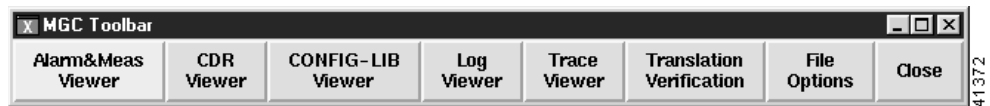
Option	MML Command <sup>1</sup>	
1	rtrv-admin-state	Retrieves the administrative state for all (applicable) components
2	rtrv-dest	Retrieves state information for all DPCs <sup>2</sup> and signaling paths
3	rtrv-lnk-ctr	Retrieves the service state of all linksets
4	rtrv-ssn	Retrieves the state of all local SSNs
5	rtrv-ne-health	Retrieves CPU occupancy and disk utilization
6	rtrv-rssn	Retrieves the state of all remote SSNs <sup>3</sup>
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

#### *HSI Host Diagnostics Dialog Box, Advanced Tab (HSI 2.21)*


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



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*Guide*

*Operations, Maintenance, and Troubleshooting*

[a008007e58f.html#wp1043288](http://a008007e58f.html#wp1043288).

