



Preface

Document Objectives

This user guide provides the information you need to install, configure, and use the Cisco Media Gateway Controller Node Manager (Cisco MGC Node Manager). It also contains reference information that might be needed by administrators, service technicians, and users.



Note

The Cisco MGC Node Manager was previously known as Cisco MNM. The Cisco Voice Services Provisioning Tool (VSPT) was previously known as the Cisco MGC Node Manager Provisioning Tool (MNM-PT).



Note

The Cisco PGW 2200 PSTN Gateway has been renamed as the Cisco PGW 2200 Softswitch. Older names of this product are the Cisco VSC 3000 and Cisco SC 2200. Some parts of this document may still use the older names.

Audience

This document is designed for:

- System administrators who install and configure Cisco MGC Node Manager
- Network Operations Center (NOC) personnel who use Cisco MGC Node Manager to monitor the network and respond to events and alarms

Scope

This document describes Cisco MGC Node Manager in the context of the Cisco Element Management Framework (Cisco EMF).

Cisco MGC Node Manager enhances some capabilities of Cisco EMF. Your product ships with Cisco MGC Node Manager and Cisco EMF documentation; you need to be familiar with both in order to be proficient with Cisco MGC Node Manager.

Document Organization

This document contains the following chapters:

Table 1 Document Contents

Chapters	Title	Content
Chapter 1	Overview of Cisco Media Gateway Controller Node Manager	This chapter provides an overview of Cisco MGC Node Manager and the various tasks you perform.
Chapter 2	Configuring Network Devices for Management	This chapter shows you how to configure each network device so that it can be managed by Cisco MGC Node Manager.
Chapter 3	Getting Started with Cisco MGC Node Manager	This chapter describes Cisco MGC Node Manager concepts.
Chapter 4	Setting Up Cisco MGC Node Manager Security	The administrator must set up security for the system and users. Cisco MGC Node Manager provides a number of security features necessary for a typical service provider's environment, such as user login IDs and alphanumeric passwords and per-user privileges and control of administrative functions. This chapter shows you how to set up defaults for users and security for the system.
Chapter 5	Deploying Your Network in Cisco MGC Node Manager	Cisco MGC Node Manager provides two methods to deploy Cisco Media Gateway Controller (MGC) nodes and child objects: manual and seed file. This chapter shows you how to deploy using either method.
Chapter 6	Managing Faults with Cisco MGC Node Manager	Cisco MGC Node Manager provides fault management of the Cisco MGC, including the Cisco MGC host, Cisco SLT, and LAN switch. This chapter shows you how to view, acknowledge, and clear alarms for an object.

Table 1 Document Contents (continued)

Chapters	Title	Content
Chapter 7	Managing the Performance of Cisco MGC Node Manager Devices	Cisco MGC Node Manager collects performance information from the Cisco MGC node, allowing you to monitor the health and performance of the network. Cisco MGC Node Manager allows you to view performance data associated with a given object and graph that data over time. This chapter shows you how to monitor performance data.
Chapter 8	Other Network Management Tasks	This chapter describes other network tasks, including routine network management tasks, how to view a variety of different information about network devices, and how to do diagnostics.
Chapter 9	Cisco MGC Node Manager System Administration	Descriptions of common system administration tasks and how to troubleshoot common problems.
Appendix A	Alarm Message Reference	Reference information for Chapter 6 .
Appendix B	Performance Measurements Reference	Reference information for Chapter 7 .
Appendix C	Troubleshooting Cisco MGC Node Manager	Reference information for Cisco MGC Node Manager messages.

Documentation Suite

Consult the following related documentation for additional information about the Cisco MGC software.

Cisco MGC Node Manager Installation Guide

Installation of the Cisco MGC Node Manager and its Provisioning Tool is covered in separate guides. The *Installation Guide for the Cisco MGC Node Manager* is available at:

http://www.cisco.com/en/US/products/sw/netmgtsw/ps1912/prod_installation_guides_list.html

Installation instructions for the Voice Services Provisioning Tool are available in the *Cisco Voice Services Provisioning Tool User's Guide* at:

http://www.cisco.com/en/US/products/sw/netmgtsw/ps2272/products_user_guide_list.html

Cisco MGC Node Manager Release Notes

Release Notes for Cisco Media Gateway Controller Node Manager are available at:

http://www.cisco.com/en/US/products/sw/netmgtsw/ps1912/prod_release_notes_list.html

Provisioning Tool Documentation

The Cisco Voice Services Provisioning Tool (VSPT) provides an integrated provisioning graphical user interface for the Cisco PGW 2200 Softswitch, the Cisco Billing and Measurement Server (BAMS), and the Cisco MGX 8850 and its Voice Interworking Service Module (VISM) Release 3.1, enabling the effective deployment of comprehensive and flexible voice services. VSPT may be installed on the Cisco PGW 2200 platform, on the Cisco MGC Node Manager platform, or stand-alone.

The following documentation is available for VSPT:

Installation and getting started is covered in the separate *Cisco Voice Services Provisioning Tool User's Guide* at:

http://www.cisco.com/en/US/products/sw/netmgtsw/ps2272/products_user_guide_list.html

Cisco Voice Services Provisioning Tool Release Notes are located at:

http://www.cisco.com/en/US/products/sw/netmgtsw/ps2272/prod_release_notes_list.html

Unlike Cisco MGC Node Manager, where the latest version is backward-compatible with earlier Cisco MGC software versions, each VSPT version is designed to work with a specific version of Cisco MGC software. For a chart of version compatibility, refer to the Installation Guide.

Cisco MGC Documentation

The following documentation available for the Cisco MGC Release 9 is on the CD that ships with your software and at <http://www.cisco.com/univercd/cc/td/doc/product/access/sc/re19/index.htm>:

- *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*
- *Cisco Media Gateway Controller Software Release 9 Provisioning Guide*
- *Cisco Media Gateway Controller Software Release 9 Dial Plan Guide*
- *Cisco Media Gateway Controller Software Release 9 MML Command Reference*
- *Cisco Media Gateway Controller Software Release 9 Messages Reference Guide*
- *Cisco Media Gateway Controller Software Release 9 Operations, Maintenance, and Troubleshooting Guide*
- *Cisco Media Gateway Controller Hardware Installation Guide*
- *Cisco Media Gateway Controller Software Release 9 Billing Interface Guide*
- *Cisco MGC Software Release 9.3(2) Feature Modules*
- *Cisco Media Gateway Controller Management Information Base (MIB) Guide*
- *Cisco Signaling Link Terminal*
- *Cisco Billing and Measurements Server, Release 2 and Cisco Billing and Measurements Server, Release 3.10*
- *H.323 Signaling Interface Guide*

- *Cisco Media Gateway Controller Software Release 9 Solutions*, with link to solution documentation at <http://www.cisco.com/univercd/cc/td/doc/product/access/sc/rel9/soln/index.htm>.
- *Cisco Media Gateway Controller Software Master Index*
- *Cisco Voice Services Provisioning Tool User's Guide* for Version 2.4(1) the name appears as *MGC Node Manager Provisioning Tool*
- *Release Notes for the Cisco Media Gateway Controller Software Release 9*. Includes Release Notes for Version 9, Cisco MGC Node Manager 2.x, and VSPT 2.x, Solaris 2.6 and 8, and HSI 2.20.

If you are using Cisco MGC Release 7, you can find documentation at <http://www.cisco.com/univercd/cc/td/doc/product/access/sc/rel7/index.htm>.

Cisco Element Manager Framework Documentation

Consult the following related documentation for additional information about the Cisco Element Manager Framework (Cisco EMF):

- *Cisco Element Management Framework Installation and Administration Guide* at http://www.cisco.com/en/US/products/sw/netmgtsw/ps829/products_installation_and_configuration_guides_list.html
- *Cisco Element Management Framework Release Notes* at http://www.cisco.com/en/US/products/sw/netmgtsw/ps829/prod_release_notes_list.html
- *Cisco Element Management Framework User Guide* at http://www.cisco.com/en/US/products/sw/netmgtsw/ps829/products_user_guide_list.html

Billing and Measurements Server Documentation

Consult the following related documentation for additional information about the Billing and Measurements Server (BAMS):

- *Cisco Billing and Measurements Server User's Guide, Release 3.13* at http://www.cisco.com/en/US/products/sw/voicew/ps522/products_user_guide_book09186a0080160c4b.html
- *Release Notes for Cisco Billing and Measurements Server Software Release 3.13 and Related Patches* at http://www.cisco.com/en/US/products/sw/voicew/ps522/prod_release_note09186a00801ed791.html

H.323 Signaling Interface Server

Consult the following related documentation for information about the H.323 Signaling Interface (HSI) Server:

- *Cisco H.323 Signaling Interface User Guide, Cisco HSI Release 2.21* at http://www.cisco.com/en/US/products/sw/voicew/ps1913/products_user_guide_book09186a0080116d4d.html
- *Release Notes for Cisco H.323 Signaling Interface, Cisco HSI Release 2.21 and Related Patches* at http://www.cisco.com/en/US/products/sw/voicew/ps1913/prod_release_note09186a008014d1bf.html

Cisco SS7 Interconnect for Voice Gateways Solution Documentation

Consult the following related documentation for information about the Cisco SS7 Interconnect for Voice Gateways solution:

- Solution documentation at <http://www.cisco.com/univercd/cc/td/doc/product/access/sc/re19/soln/voip20/index.htm>
- Individual components documentation at <http://www.cisco.com/univercd/cc/td/doc/product/access/sc/re19/soln/voip20/compo/index.htm>

Document Conventions

Command descriptions use the following conventions:

boldface font	Commands and keywords are in boldface .
<i>italic font</i>	Arguments for which you supply values are in <i>italics</i> .
[]	Elements in square brackets are optional.
{ x y z }	Alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use the following conventions:

screen font	Terminal sessions and information the system displays are in <i>screen font</i> .
boldface screen font	Information you enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
^	Represents the key labeled Control or Ctrl. For example, the key combination ^D in a screen display means hold down the Control key while you press the D key.
< >	Nonprinting characters, such as passwords, are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.



Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.



Timesaver

Means the *described action saves time*. You can save time by performing the action described in the paragraph.

**Tip**

Means *the following information might help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information, similar to a Timesaver.

**Caution**

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:
<http://www.cisco.com/en/US/partner/ordering/index.shtml>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can send comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, 365 days a year at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool automatically provides recommended solutions. If your issue is not resolved using the recommended resources, your service request will be assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553 2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

<http://www.cisco.com/go/marketplace/>

- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:

<http://cisco.com/univercd/cc/td/doc/pcat/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

<http://www.cisco.com/packet>

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

<http://www.cisco.com/ipj>

- World-class networking training is available from Cisco. You can view current offerings at this URL:

<http://www.cisco.com/en/US/learning/index.html>