DATA SHEET

CISCO MEDIA GATEWAY CONTROL NODE MANAGER 2.5(2)

Cisco Media Gateway Control (MGC) Node Manager software is a Cisco element manager for the fault, configuration, performance, and security management of the Cisco PGW 2200 Softswitch gateway. Cisco MGC Node Manager integrates management access to all signaling components, effectively representing them as a Signaling System 7 (SS7) node to the network operator.

PRODUCT OVERVIEW

Cisco® MGC Node Manager software is a Cisco element manager for the fault, configuration, performance, and security management of the Cisco PGW 2200 Softswitch gateway to the public switched telephone network (PSTN). Cisco MGC Node Manager integrates management access to all signaling components, effectively representing them as an SS7 node to the network operator. The software provides views of individual managed devices and logical nodes, making it easier to manage the components that make up a voice-over-IP (VoIP) media gateway control node as a single entity.

The devices managed are: Cisco Signaling Link Terminal (SLT); the Cisco Catalyst® 2900 Series XL, Catalyst 5500 Series, and Catalyst 6509 switches; Cisco Billing and Measurements Server (BAMS), and the Cisco PGW 2200 H.323 Signaling Interface. Cisco MGC Node Manager also supports integration with Cisco Voice Services Provisioning Tool (VSPT), the provisioning graphical user interface for the Cisco PGW 2200 Softswitch and Cisco BAMS, enabling more effective deployment of comprehensive and flexible voice services.

KEY FEATURES AND BENEFITS

Table 1 lists advantages made possible by the network surveillance tools in Cisco MGC Node Manager software.

Table 1. Network Surveillance

Feature	Benefit and Application
Alarm and Event Browser	Rapid fault detection helps increase service availability and customer satisfaction.
Alarm Collection	Comprehensive fault detection, collection, and storage simplify activities in the network operations center (NOC) and help ensure faster response to problems.
Presence Polling	Detect network problems even during communication breakdowns in the element manager system (EMS).
Map Viewer	Easy access to important fault and inventory information simplifies management of a large, evolving network.
Thresholding Regimes	Averting problems before they begin to affect service can increase service availability.
Notification Profiles	Proactive notification in the NOC highlights critical problems for immediate resolution for faster repair.
Event Groups	Graphic fault summaries improve fault visibility and increase NOC productivity.

Cisco MGC Node Manager makes available a Diagnostic Viewer Toolbar for each Softswitch device that is easily accessible from the object map icons. A set of diagnostic tools, described in Table 2, is grouped for convenient access under the toolbar. The toolbar and the diagnostic tools may be viewed with or without Cisco MGC Node Manager software from an X-terminal display.

Table 2. Cisco MGC Node Manager Diagnostic Tools

Feature	Benefit and Application
Call Trace Viewer	Results are displayed with flexible selection parameter options to help focus on problem areas quickly.
Log Viewer	Log viewer makes finding log information much easier by searching through log files for a match on user-defined search criteria.
Call Detail Record (CDR) Viewer	Formatted CDR display decodes records for easy access to desired information fields, helping reduce troubleshooting time.
Translation Verification Viewer	Dial plan is verified without passing live calls, helping reduce time needed to set up new customers.
Viewer Toolbar	Toolbar provides pop-up access to the diagnostic tools on a selected Cisco PGW 2200 Softswitch device, eliminating the need to remember individual commands and device addresses.

Cisco MGC Node Manager provides easy access to applications tailored for the current task and centralizes device configuration, database creation, and service provisioning. Table 3 describes key features.

Table 3. Provisioning and Configuration

Feature	Benefit and Application
Provisioning Tool	A GUI simplifies provisioning for the Cisco PGW 2200 Softswitch and Cisco MGX® 8000 Series Carrier Voice Gateway when installed in the same VoIP network.
Graphic Device Display	Menus display only those functions appropriate for the selected device and the user's access level, helping reduce operator error and training by removing the need to remember device names and login information.
Automatic Synchronization	Database is synchronized to configuration changes made on the Cisco PGW 2200 Softswitch, reducing configuration steps and ensuring accurate display information.
Automated Discovery	Device discovery is controlled to avoid discovery of unwanted Simple Network Management Protocol (SNMP) devices, helping reduce deployment time for new networks and speed trials and lab testing.
CiscoView	CiscoView software is included to provide a standardized view of Cisco SLT, Cisco Integrated SLT, and the supported Cisco LAN switches, helping reduce training time for experienced CiscoView users.

User access-control and performance-management features are described in Table 4.

Table 4. User Access and Performance

Feature	Benefit and Application
Access Control	Powerful control of user access allows system administration of users by group or function.
Performance Management	Performance measurements are stored in the object database, graphed on X/Y charts, displayed in tabular text format, and made available for export to identify long-term performance trends.

PRODUCT ARCHITECTURE

Cisco MGC Node Manager is a client–server management system that promotes distribution of the client component to scale upward, supporting additional operators in groups of 10 per client workstation. All client–server and server-to-network traffic is over TCP/IP using Simple Network Management Protocol (SNMP), FTP, command-line interface (CLI), and PGW Man-Machine Language (MML).

Table 5. Managed Devices

Cisco PGW 2200 Softswitch	v7.4.12, v9.3(x) to v9.5(2)
Cisco SLT	Any
Cisco Integrated SLT	Any
Cisco Catalyst 5500 Series, Catalyst 2900 Series XL, and Catalyst 6509 switches	Any
Cisco BAMS	Any
Cisco PGW 2200 H.323 Signaling Interface	Any

Table 6. Product Specifications

Feature	Description		
Product Compatibility	See managed devices in Table 5		
Software Compatibility	Supports co-resident operation with Cisco VSPT, Cisco Universal Gateway Manager, Cisco Extensible Provisioning and Operations Manager, and CiscoWorks		
Protocols	SNMP, FTP, CLI, and PGW MML		
Components	Media Kit, Right to Use License		
Connectivity	X-terminal to presentation server	TCP/IP	128 Kbps required; higher bandwidth recommended
	Presentation server to management server	TCP/IP	10-Mbps LAN connection required
	Management server to the Cisco PGW 2200 Softswitch	TCP/IP	1 Mbps bursting
Features and Functions	Fault, performance, and security management		

Feature	Description
MIBs	Cisco Express Forwarding MIB for Northbound Trap Forwarding
Programming Interfaces	None

SYSTEM CAPACITY

Cisco MGC Node Manager has been verified operational, managing up to 20 Cisco PGW 2200 Softswitch failover pairs. Response time depends on PGW calls per second, the number of operators, and the size of the Cisco MGC Node Manager server.

SYSTEM REQUIREMENTS

Table 7. System Requirements

Cisco PGW 2200 Softswitch Network Size	Small Network 1-3 Operators 1-5 Nodes 24 Traps/Minute	Midsize Network*; 4-6 Operators; 6-10 Nodes; 36-42 Traps/Minute		Large Network; 7-10 Operators; 11-20 Nodes; 42-54 Traps/Minute	
	Single Machine	**Presentation Server**	**Management Server**	**Presentation Server ****	**Management Server**
RAM (GB)	2	2	2	2	4
Swap (GB)	4	2	4	2	8
Disk Drives* (9 GB Minimum)**	2	1	4	1	4-6
CPU	2 x 440 MHz—1.05 GHz	2 x 440 MHz—1.05 GHz	2 x 1.05 GHz	4 x 1.05 GHz	4 x 1.05 GHz

* Presentation and management servers may run co-resident for midsize networks when faster Sun CPUs are used or operator loads are light. When combined, RAM and swap are added, while a total of four hard drives is sufficient. Adding more presentation servers increases the number of operators supported.

** Additional presentation servers may be added, if necessary, to maintain good operator response time in large networks with heavy alarm traffic. Additional operator support is planned for testing.

*** A two-disk machine will work for smaller networks with less traffic and fewer operators. Response time to operator commands will slow down as the network grows and additional operators are added. Adding one or two additional disk drives can improve performance by supporting parallel access reducing overall seek time.

Cisco MGC Node Manager has been tested with Sun UltraSPARC II and III systems. Pure Sun products that meet or exceed the sizing recommendation are required to ensure Cisco Software Application Support (SAS) for Cisco MGC Node Manager.

ORDERING INFORMATION

To place an order, visit the Cisco Ordering Home Page.

Table 8. Ordering Information

Part Number	Product Name
CMNM	Cisco MGC Node Manager
EMS-MNM-KIT-252-K9	Cisco MNM 2.5(2) Media Kit Option
EMS-MNM-KIT-252K9D	Cisco MNM 2.5(2) 30-day Demo Kit
EMS-MNM-LIC-252	Cisco MNM 2.5(2) Right to Use License Option

TO DOWNLOAD THE SOFTWARE

Visit the Cisco Software Center to download Cisco MGC Node Manager software.

Product Name/Description
Cisco MNM 2.5(2) 30-day Demo
Cisco MNM Product Updates

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FOR MORE INFORMATION

For more information about Cisco MGC Node Manager, visit:
http://www.cisco.com/en/US/products/sw/netmgtsw/ps1912/index.html

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