

Cisco Media Gateway Controller Node Manager 2.8(1)

Cisco® Media Gateway Controller (MGC) Node Manager is a Cisco element manager for the fault, configuration, and performance management of the Cisco® PGW 2200 Softswitch. Cisco MGC Node Manager integrates management access to the separate PGW 2200 components, effectively representing the individual components as part of a logical PGW 2200 Softswitch node to the network operator.

Product Overview

Cisco MGC Node Manager software provides views of individual managed devices and logical objects, such as trunk groups and signaling links, making it easier to manage the components that make up a voice-over-IP (VoIP) media gateway controller node.

The devices managed are the Cisco PGW 2200 Softswitch (PGW), Cisco IP Transfer Point Link Extender (ITP-L), Cisco Integrated ITP, Cisco Billing and Measurement Server (BAMS), the Cisco PGW 2200 H.323 Signaling Interface (HSI), and the Cisco Catalyst® LAN switches. Cisco MGC Node Manager also includes the Voice Services Provisioning Tool (VSPT), a graphical user interface for provisioning the Cisco PGW 2200 Softswitch and Cisco BAMS, facilitating more effective deployment of voice services, including measurements and billing.

Key Features and Benefits

Table 1 lists advantages made possible by the network surveillance features 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	Helps ensure that management communication is available and notifies if there is an interruption.
Map viewer	Easy access to important fault and inventory associations simplifies management of a large, evolving network.
Thresholding regimes	Proactive surveillance that detects trends before they begin to affect service can increase service availability.
Notification profiles	Notification can be in the form of alarms, display messages, email, or pages to reduce missed events.
Event groups	Graphic fault summaries tailor fault displays to increase NOC productivity.

Cisco MGC Node Manager launches the PGW 2200 diagnostic toolbar, which is easily accessible from the PGW 2200 host object icon. A set of diagnostic tools, described in Table 2, is grouped for convenient access under the toolbar.

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.
Measurement Viewer	Direct access to stored measurement files on the MGC host with flexible selection criteria.
State Operations	GUI to view and change operational states for all stateful objects, reducing the need for command-line interaction
Integrity Check	Verifies that trunk group configuration is consistent between PGW and BAMS ensuring accurate billing and measurement records

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 GUI	A graphical user interface (VSPT) simplifies provisioning for the Cisco PGW 2200 Softswitch.
Scheduled backup	Backup and restore are set up on a GUI that reduces errors and simplifies routine administration.
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 helping ensure accurate display information.
Automated discovery	Device discovery is controlled to retrieve the important physical and logical inventory details and 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 and control of Cisco ITP-L, Cisco ITP and Integrated ITP on AS5350 and AS5400, and the Cisco Catalyst LAN switches, creating a familiar display 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 database, graphed on X/Y charts, displayed in tabular text format, and made available for export to identify long-term performance trends. Real-time performance statistics are also collected and displayed on demand.

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 SNMP, FTP, command-line interface (CLI), X-terminal, and PGW 2200 Softswitch Man-Machine Language (MML). Table 5 lists the managed devices. Table 6 gives product specifications.

Table 5. Managed Devices

Managed Device	Version
Cisco PGW 2200 Softswitch	9.6(1) to 9.8(1)
Cisco ITP-L	Cisco IOS® Software Version 12.4(21)a
Cisco Integrated ITP	Cisco IOS Software Version 12.4(19)a
Cisco Catalyst 5500 Series, Catalyst 2900 Series XL, and Catalyst 6509 switches supported directly by MGC Node Manager deep discovery and fault management; other Cisco LAN switches and ITP platforms are supported by CiscoView for chassis views, ad hoc monitoring, diagnostics, and control	Latest Version
Cisco BAMS	3.30
Cisco PGW 2200 HSI	4.3(2)

Table 6. Product Specifications

Feature	Description
Product compatibility	See managed devices in Table 5.
Software compatibility	Supports coresident operation with Cisco Extensible Provisioning and Operations Manager (EPOM), CiscoWorks LAN Management Solution (LMS), Universal Gateway Call Analyzer (UGCA), Cisco Mobile Wireless Transport Manager, and VNC for remote X-terminal access.
Protocols and Interfaces	SNMPv2, (S)FTP, CLI, Telnet, Secure Shell (SSH) Protocol, and MML
Components	Media kit, right-to-use license
Connectivity	X-terminal to Sun server: <ul style="list-style-type: none"> • TCP/IP • 1 Mbps required, 10 Mbps recommended Sun server to the Cisco PGW 2200 Softswitch: <ul style="list-style-type: none"> • TCP/IP • 1 Mbps bursting
Features and functions	Fault, configuration, and performance management
MIBs	Cisco Element Management Framework MIB for northbound trap forwarding
Operating system	Solaris 10

System Capacity

Cisco MGC Node Manager has been verified operational, managing up to 20 Cisco PGW 2200 Softswitch primary/standby 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 lists the minimum system requirements for Cisco MGC Node Manager.

Table 7. Minimum System Requirements

Cisco PGW 2200 Softswitch Network Size	Small Network 1–3 Operators 1–2 Nodes	Midsize Network 4–6 Operators 3–10 Nodes	Large Network 7–10 Operators 11–20 Nodes
RAM (GB)	4	8	16
Swap (GB)	4	8	16
Disk drives*	2	4	4
CPU/Core	2 x 1.0 GHz	4 x 1.0 GHz	8 x 1.0 GHz

Cisco MGC Node Manager has been tested with Sun UltraSPARC III, IV, and T2000 servers. T2000 is recommended for best price/performance and longest Sun support expectation. RAID0 is recommended for best performance to reduce disk access times.

Pure Sun products that meet or exceed the sizing recommendation are required to help ensure successful Cisco Software Application Support (SAS) for Cisco MGC Node Manager.

Cisco MGC Node Manager will operate in a client/server configuration for networks that require more than 10 operators; however, most large networks will be served well by the large T2000 configuration.

Ordering Information

Cisco MGC Node Manager will be orderable on October 20, 2008 and the first customer shipment is planned for November 20, 2008. Table 8 lists ordering information. To place an order, contact your Cisco sales representative or visit the [Cisco Ordering Homepage](#) and enter the product number CMNM. Use the configure button to display the options.

Table 8. Ordering Information

Part Number	Product Name
CMNM	Cisco MGC Node Manager top-level part number
EMS-MNM-KIT-281K9	Cisco MNM 2.8(1) Media Kit Option
EMS-MNM-KIT281K9U	Cisco MNM 2.8(1) media upgrade kit. Requires previous version.
EMS-MNM-KIT281K9D	Cisco MNM 2.8(1) 30-day Demo Kit
EMS-MNM-LIC-281	Cisco MNM 2.8(1) Right-to-Use (RTU) License – 1 per PGW RTU
EMS-MNM-LIC-281-U	Cisco MNM 2.8(1) Right-to-Use license upgrade – 1 per PGW RTU

Software Patches

To download software patches, visit the [Cisco Software Center](#).

Service and Support

Cisco delivers a wide range of service programs through a combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you to protect your network investment, optimize network operations, and prepare the network for new applications to extend network intelligence and the power of your business. For more information about Cisco services, see [Cisco Technical Support Services](#) or [Cisco Advanced Services](#).

For More Information

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



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