

Cisco netManager—Unified Communications 1.0

Q. What is Cisco® netManager—Unified Communications 1.0?

A. Cisco netManager—Unified Communications 1.0 is part of the Cisco netManager family of products, built to manage small and medium-sized voice and data networks with up to 1000 phones or users. It provides easy-to-use, immediately available monitoring and diagnostics for small and medium-sized deployments of Cisco Unified Communications systems using Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, or Cisco Unified Communications Manager Express.

Q. What aspects of Cisco Unified Communications deployments can Cisco netManager—Unified Communications 1.0 monitor?

A. Cisco netManager—Unified Communications 1.0 monitors all aspects of small and medium-sized Cisco Unified Communications systems, including the underlying IP transport infrastructure, and provides the current operating status of all the elements in the network through a real-time, service-level view. It includes built-in rules and thresholds as well as automatic device identification and data collection to allow easy setup and immediate monitoring of the managed network. It continuously monitors the different elements such as Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, Cisco Unified Communications Manager Express, Cisco Unity® systems, Cisco Unity Express, Cisco Unity Connection, Cisco Unified Contact Center Express, Cisco Unified Presence Server, and Cisco Unified MeetingPlace® Express, as well as Cisco gateways, routers, and switches. Cisco netManager—Unified Communications does not deploy any agent software on the devices being monitored and thus is completely nondisruptive to system operations.

Q. What are the key features of Cisco netManager—Unified Communications 1.0?

- A.** The key features of Cisco netManager—Unified Communications 1.0 are as follows:
- Software-based solution to monitor data and voice elements of commercial class deployments; Web-based user interface with customizable workspaces and multiuser support
 - Automated discovery of customer network elements (up to 10 different locations); support for all the layers of the Cisco Unified Communications System; autodiscovery of detailed inventory and device capability; Simple Network Management Protocol (SNMP) versions 1, 2, and 3 and Windows Management Instrumentation (WMI)—based monitoring capabilities
 - Provides service-level and physical topology views of the Cisco Unified Communications System along with current operational/performance device/application status and the ability to drill down for further information; provides cluster views and gateway and application operational status
 - Real-time operational and performance monitoring, system-defined thresholds and events
 - Notification services: e-mail, Short Message Service (SMS), and SNMP traps
 - Basic diagnostics capabilities including ping, traceroute, Telnet, and Domain Name System (DNS) lookup

- Multivendor small and medium-sized business (SMB)/commercial-class device support (commonly used workstations, servers, printers and SMB/commercial-class network devices); extensible monitoring infrastructure (user-specified MIB collectors, monitors)
- Phone and device inventory reports: phone status, phone search for Skinny Client Control Protocol (SCCP)-based and Session Initiation Protocol (SIP)-based phones, phone status change reports
- Contextual performance monitoring, alerting, reporting, and trending; system performance reports using WMI counters
- Support for broad range of Cisco routing and switching platforms

Q. What Cisco Unified Communications elements does Cisco netManager—Unified Communications 1.0 monitor?

- A.** Cisco netManager—Unified Communications 1.0 monitors Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, Cisco Unified Communications Manager Express, Cisco Unity, Cisco Unity Connection, Cisco Unified Presence Server, Cisco Unified Contact Center Express, Cisco Unity Express, Cisco Unified MeetingPlace Express, and the Cisco Survivable Remote Site Telephony (SRST) router family of product systems. It monitors endpoints such as Cisco IP phones, Cisco Unified Personal Communicator, and Cisco IP communicators (software-based phones) as well. It supports SIP-based and SCCP-based IP phones.

Q. What IP transport elements does Cisco netManager—Unified Communications 1.0 monitor?

- A.** Cisco netManager—Unified Communications 1.0 monitors routers, switches, gateways, and gatekeepers.

Q. Can Cisco netManager—Unified Communications 1.0 be used to monitor multiple sites and clusters?

- A.** Yes. Cisco netManager—Unified Communications 1.0 is recommended for monitoring Cisco Unified Communications systems based on Cisco Unified Communications Manager or Cisco Unified Communications Manager Express for up to 1000 phones/users. One Microsoft Windows-based server or workstation running Cisco netManager—Unified Communications 1.0 software can monitor the entire Cisco Unified Communications system, including up to 10 remote sites and up to 2 Cisco Unified Communications Manager clusters.

Q. Can I use Cisco netManager—Unified Communications 1.0 in a multicustomer environment?

- A.** Cisco netManager—Unified Communications 1.0 depends on network connectivity with the devices in order to monitor them. As long as network connectivity can be established with the devices in the multiple customer networks and there is no IP address overlap (and each device can be distinctly identified using a unique IP address), it is possible to use Cisco netManager—Unified Communications 1.0 in a multicustomer environment. However, please note that Cisco netManager—Unified Communications 1.0 does not allow security and access privileges to be set based on devices or customer networks. Any user who is authorized to log in and use Cisco netManager—Unified Communications 1.0 will be able to see the status of all the devices in the different customer networks. Cisco netManager—Unified Communications 1.0 does support a role-based access control. Different levels of users (based on user role) may be set up and access can be restricted to select features in the product.

Q. Does Cisco netManager—Unified Communications 1.0 require any agents to be installed on monitored platforms?

A. No, Cisco netManager—Unified Communications 1.0 does not require any agent software on any platform it monitors and thus is completely nondisruptive to system operations. It uses open interfaces such as SNMP, WMI, and HTTP to remotely (and periodically) poll the devices being monitored and collect status information. It also performs diagnostic tests (such as ping) and uses the results of these tests to determine the operational status of the monitored devices. The user interface is browser-based to help enable remote login from anywhere in the network and provide instant access to real-time information on the current status of the entire system and the devices that are part of it.

Q. Can Cisco netManager—Unified Communications 1.0 monitor third-party devices?

A. Yes, Cisco netManager—Unified Communications 1.0 is based on a generic extensible monitoring architecture and can monitor third-party devices as well as Cisco devices. Examples include Windows servers and workstations, printers, and other SMB/commercial class networking devices. Any device that responds to SNMP or Internet Control Message Protocol (ICMP) ping can be monitored for basic availability status. Furthermore, if specific SNMP MIBs that can provide additional information are known, you can extend the capabilities of Cisco netManager—Unified Communications 1.0 by specifying the additional SNMP MIBs to be polled and specifying the range of acceptable and unacceptable values. You can create custom monitors or actions for specific devices using a standard scripting syntax such as VBScript and JScript.

Q. How can I license Cisco netManager—Unified Communications 1.0?

A. Cisco netManager—Unified Communications 1.0 is available in two distinct license modes: Perpetual right-to-use (RTU) license (no expiration date) and Annual RTU license (valid for 1 year from the date of registration). Furthermore, within each of these editions, Cisco netManager—Unified Communications 1.0 can be licensed at different deployment scales and is appropriate for commercial-class deployments of various sizes. Licensing is controlled by means of a license file, and network administrators can upgrade the license as their Cisco Unified Communications deployment grows without disrupting the monitoring or having to decommission their server. Upgrading the license is as simple as logging on to the Cisco Website, procuring a new license, and deploying it on the server. Licenses are available for monitoring 250 phones, 500 phones, and increments of 250 phones up to a maximum of 1000 phones per Cisco netManager—Unified Communications 1.0 server.

Q. On what operating systems can Cisco netManager—Unified Communications 1.0 run?

A. Cisco netManager—Unified Communications 1.0 can run on servers or workstations that are running Windows XP Service Pack 2 or Windows Server 2003 Server Pack 1. A Pentium 4 class processor with a minimum of 1 GB RAM and 30 GB of hard disk is required. Cisco netManager may coexist with other software on a single workstation/server. Cisco netManager—Unified Communications 1.0 may also be run within a virtual machine using VMWare or such virtualization software as long as the specified hardware and software requirements are met.

Q. What types of reports can Cisco netManager—Unified Communications 1.0 generate?

A. Cisco netManager—Unified Communications 1.0 can generate a wide variety of real-time and historical reports. Reports are divided into a variety of areas and provide specific information on each of these areas. The following is a listing of different categories of reports:

- Device reports: Focus on performance and availability data for the selected device
- Device group reports: Focus on performance and availability data for the selected device group
- Phone reports: Provide IP phone inventory and status information for all the IP phones in the deployment
- Performance reports: Focus on performance data for the selected device or device group
- Problem areas: Display alerts reported across the network across different data sources (traps, syslogs, event logs, performance errors, top N outages, and so on)
- Event history: Provides historical reports of all events generated by Cisco netManager for the given device or device group
- General: Provides reports on application logs, user activity, and so on

Q. What kinds of performance monitoring can Cisco netManager—Unified Communications 1.0 support?

A. Cisco netManager—Unified Communications 1.0 provides real-time and historical performance reporting options for easy access and customization. All the collected performance data is summarized and maintained for up to 30 days. Data beyond 30 days is automatically purged. The collected performance data may be displayed in real-time graphical trend charts. The following is a sample of the predefined reports that are available without the need for any agents:

- CPU Utilization
- Memory Utilization
- Interface Utilization (Bandwidth)
- Ping Availability
- Hard Disk Drive Utilization

Q. What is the user interface paradigm of Cisco netManager—Unified Communications 1.0? Can I customize the user interface for my personal preferences?

A. Cisco netManager—Unified Communications 1.0 uses a Web-based user interface paradigm. This means that you don't need to download and install any client applications. You could be anywhere in the world, and as long as you have network connectivity to your Cisco netManager—Unified Communications 1.0 workstation/server, you can open up Internet Explorer and connect to the Cisco netManager Web interface and log in to examine your network status. Furthermore, the Cisco netManager—Unified Communications 1.0 user interface is based on portal technology. This means that you can customize your views and client interfaces to your specific needs by adding/configuring content you need and removing content that you are not interested in. All user customization settings are stored as user preferences and will be remembered the next time a user logs in. The entire Web-based user interface is built to be real time/autorefresh, and users can rest assured that the information that they see on the user interface is the latest status from the devices.

Q. Can Cisco netManager—Unified Communications 1.0 provide physical connectivity details about the network that is being monitored?

A. Yes, Cisco netManager—Unified Communications 1.0 automatically discovers interconnections between different devices as a part of its discovery process and can create a real-time physical connectivity view of the network. This physical connectivity view may be used to view device and application operational status and connectivity details, to drill down to

obtain detailed operational/performance status, and to perform troubleshooting tasks by launching diagnostic tools including ping, Telnet, DNS lookup, and so on. The physical connectivity view also presents events that highlight the most recently discovered operational issues in the network along with timing information and other associated details.

Q. What kinds of diagnostic tools are available in Cisco netManager—Unified Communications 1.0?

A. Cisco netManager—Unified Communications 1.0 provides contextual diagnostic tools such as ping, traceroute, DNS lookup, and Telnet. Additionally for Cisco Unified Communications application servers, context-sensitive links to the administration, serviceability, and the trace config pages are provided as well. These tools may be brought up from the service level or physical connectivity views, as well as the detailed device views for different devices.

Q. What kinds of event history does Cisco netManager—Unified Communications 1.0 provide?

A. Cisco netManager—Unified Communications 1.0 maintains up to 30 days of event history for every event it detects. Event history reports may be queried based on devices, device groups, and timeframe. Beyond 30 days, events are automatically purged. Data from the event history database may be exported as CSV files.

Q. Can Cisco netManager—Unified Communications 1.0 be used for IP phone inventory tracking? If so, how?

A. Yes, Cisco netManager—Unified Communications 1.0 can automatically discover all the IP phones in the deployment and can generate reports that may be used for IP phone tracking. Within the reports portal, two types of phone inventory reports are provided. The first is a detailed inventory and status of all the IP phones in the deployment. Discovered details include username, IP, MAC address, Cisco Unified Communications Manager/Communications Manager Express details, switch/switch port details, and serial number information about all the phones. The second is a Phone Move Report that captures phone movements (both physical movements and failovers) and shows past and current information with appropriate time stamps. The Phone Audit Report captures state changes in the phones and documents those changes with associated time stamps. These two reports serve to document moves, adds, and changes to the IP phones and are available for both SIP- and SCCP-based IP phones.

Q. Can I extend the monitoring capabilities of Cisco netManager—Unified Communications 1.0 beyond what is available by default?

A. Yes, Cisco netManager—Unified Communications 1.0 is based on a generic extensible monitoring architecture, and it can be extended to support additional devices and polling based on the availability of SNMP or other such data sources that provide monitoring insight. If you know of specific SNMP MIBs that can provide additional information, you can extend the capabilities of Cisco netManager—Unified Communications 1.0 by specifying the additional SNMP MIBs to be polled and specifying the range of acceptable and unacceptable values. Cisco netManager—Unified Communications 1.0 will start polling these additional data sources and will generate events if polled data corresponds to a faulty condition or if it violates predefined thresholds. You can create custom monitors or actions for specific devices using a standard scripting syntax such as VBScript and JScript.

Q. What aspects of Cisco Unified Communications Manager does Cisco netManager—Unified Communications 1.0 monitor?

A. Cisco netManager—Unified Communications 1.0 provides the following information for Cisco Unified Communications Manager:

- Deployed services status
- Phone registration status
- Voice gateway registration status
- Hardware component status (power supply, temperature sensor, fan)
- Resource status (CPU, RAM, virtual memory, hard disk)
- Active monitor status (SNMP, ICMP ping)
- Version information on the installed application
- Device description and attributes (contact, location, description)
- High-level device details (device type, capabilities, IP address, sysobject ID, platform, status)
- Performance trends on CPU, memory, hard disk
- Problem areas

Q. What aspects of Cisco Unity/Cisco Unity Connection does Cisco netManager—Unified Communications 1.0 monitor?

A. Cisco netManager—Unified Communications 1.0 provides the following information for the Cisco Unity/Cisco Unity Connection:

- Deployed services status
- Unity port status (total, active, inbound, inbound active, outbound, outbound active)
- Hardware component status (power supply, temperature sensor, fan)
- Resource status (CPU, RAM, virtual memory, hard disk)
- Active monitor status (SNMP, ICMP ping)
- Version information on the installed application
- Device description and attributes (contact, location, description)
- High-level device details (device type, capabilities, IP address, sysobject ID, platform, status)
- Performance trends on CPU, memory, hard disk
- Problem areas

Q. What aspects of Cisco Voice Gateways does Cisco netManager—Unified Communications 1.0 monitor?

A. Cisco netManager—Unified Communications 1.0 provides the following information for Cisco voice gateways:

- Status of all the interfaces
- Hardware component status (power supply, temperature sensor, fan)
- Resource status (CPU, memory)
- Active monitor status (SNMP, ICMP ping)
- Cisco IOS[®] Software version information
- Device description and attributes (contact, location, description)

- High-level device details (device type, capabilities, IP address, sysobject ID, platform, status)
- Performance trends on CPU, memory,
- Problem areas



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