Cisco netManager IP Infrastructure 1.1

Q. **What is Cisco® netManager IP Infrastructure 1.1?**

A. Cisco netManager IP Infrastructure 1.1 is part of the Cisco netManager family of products, built to manage small and medium-sized data networks with up to 100 devices and 100 wireless access points. It provides easy-to-use, immediately available monitoring and diagnostics for small and medium-sized network deployments of Cisco and multivendor devices.

Q. **What aspects of Cisco and multivendor networks can Cisco netManager IP Infrastructure 1.1 monitor?**

A. Cisco netManager IP Infrastructure 1.1 monitors all aspects of small and medium-sized Cisco as well as non Cisco IP networks and provides the current operating status of all the elements in the network through a real-time, physical connectivity 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. Cisco netManager IP Infrastructure 1.1 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 IP Infrastructure 1.1?**

A. The key features of Cisco netManager IP Infrastructure 1.1 are as follows:

- Software-based solution to monitor data 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); autodiscovery of detailed inventory and device capability; Simple Network Management Protocol (SNMP) versions 1 and 2 and Windows Management Instrumentation (WMI)– based monitoring capabilities
- Provides physical topology views of the network along with current operational/performance device/application status and the ability to navigate to view further information
  - Ability to search devices and summary panel for network status
  - Ability to acknowledge all events related to a device
  - Ability to remember each users last scroll and zoom selections
  - Ability to view device by hostname, IP address, or both.
- Real-time operational and performance monitoring, system-defined thresholds and events
- Notification services email, Short Message Service (SMS), and SNMP traps
- Notification filtering capability: Multiple rules can be defined to filter events before forwarding them as emails.
- Basic diagnostics capabilities including ping, trace route, Telnet, and Domain Name System (DNS) lookup
- Contextual performance monitoring, alerting, reporting, and trending; system performance reports using WMI counters

- Ability to configure the number of data records displayed to allow for quicker display of reports for Cisco faults, fault history, SNMP trap log, syslog, and Windows events log
- Ability to easily view lightweight access points (LWAPs) registered to a wireless LAN controller
- New dynamic group builder to help users create and validate SQL queries for new dynamic groups
- New Group State Summary Report: Provides device status summary information on the individual device states and group states
- New Quarterly Availability Summary Report: A group report that provides rolled-up availability statistics on groups of devices and services that are monitored
- Improved list-control and tree-control behavior for improved usability: Controls respond more quickly; key handling, scrolling, and paging have been improved.
- Ability to clear maintenance schedules using bulk field change
- 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)
- Support for a broad range of Cisco routing and switching platforms

Q. **What elements of the network are supported by Cisco netManager IP Infrastructure 1.1?**

A. Cisco netManager IP Infrastructure 1.1 monitors Cisco Routers (800, 1800, 2800, 3800, 3700, 1700 and ASR series), Cisco Switches (500, 29xx, 3xxx, 4xxx, 6xxx series), PIX® firewall (500 series), Adaptive Security Algorithm (ASA) 5xxx, intrusion detection system (IDS), VPN 3000 series concentrator, Aironet® access points (1xxx series), wireless LAN controllers (44xx and 21xx series), and third-party devices (servers, workstations, printers, and other networking devices) that support SNMP, Internet Control Message Protocol (ICMP), or WMI.

Q. **Does Cisco netManager IP Infrastructure 1.1 support non Cisco network elements?**

A. Yes, Cisco netManager IP Infrastructure 1.1 can be used to monitor multivendor devices like routers, gateways, switches, and other devices that support SNMP, ICMP, and WMI.

Q. **Does Cisco netManager IP Infrastructure 1.1 support any desktop office elements like servers, printers, and workstations?**

A. Yes, Cisco netManager IP Infrastructure 1.1 can be used to monitor desktop office elements like servers, printers, and workstations.

Q. **Does Cisco netManager IP Infrastructure 1.1 support any Cisco wireless network elements?**

A. Yes, Cisco netManager IP Infrastructure 1.1 can be used to monitor Cisco Unified wireless networks, specifically elements like the wireless LAN controller, lightweight wireless access points, Aironet wireless access points.

Q. **Can Cisco netManager IP Infrastructure 1.1 be used to monitor multiple sites and clusters?**

A. Yes. Cisco netManager IP Infrastructure 1.1 is recommended for monitoring Cisco and multivendor networks up to 100 devices and 100 wireless access points. One Microsoft Windows–based server or workstation running Cisco netManager IP Infrastructure 1.1 software can monitor the entire network, including up to 10 remote sites.

Q. **Can I use Cisco netManager IP Infrastructure 1.1 in a multicustomer environment?**

A. Cisco netManager IP Infrastructure 1.1 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 IP Infrastructure 1.1 in a multicustomer environment. However, please note that Cisco netManager IP Infrastructure 1.1 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 IP Infrastructure 1.1 will be able to see the status of all the devices in the different customer networks. Cisco netManager IP Infrastructure 1.1 does support 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 IP Infrastructure 1.1 require any agents to be installed on monitored platforms?**

A. No, Cisco netManager IP Infrastructure 1.1 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 IP Infrastructure 1.1 monitor third-party devices?**

A. Yes, Cisco netManager IP infrastructure 1.1 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 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 IP Infrastructure 1.1 by specifying the additional SNMP MIBs to be polled and specifying the range of acceptable and unacceptable values.

Q. **Does Cisco netManager IP Infrastructure 1.1 support any form of scripting?**

A. You can create custom monitors or actions for specific devices using a standard scripting syntax such as VBScript and JScript.

Q. **Does Cisco netManager IP Infrastructure 1.1 support any Cisco Unified Communications devices and networks?**

A. Yes, Cisco netManager 1.1 can be used to monitor Cisco Unified Communications devices and networks. However, to enable this capability, customers would need to procure an upgrade license for Cisco netManager—Unified Communications and deploy it on the server. For more information on the capabilities of the upgraded product capable of monitoring both data and voice networks, please refer to http://www.cisco.com/go/netmanager.

Q. How can I license Cisco netManager IP Infrastructure 1.1?

A. Cisco netManager IP Infrastructure 1.1 is available in a Perpetual right-to-use (RTU) license (no expiration date) mode only. Cisco netManager IP Infrastructure 1.1 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 network 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.

Q. What licenses does the Cisco netManager IP Infrastructure 1.1 support?

A. Cisco netManager IP Infrastructure 1.1 supports FLEX-LM–based licensing. It can be licensed for:

- 50 devices and 50 wireless access points
- 100 devices and 100 wireless access points
- Upgrade from 50 to 100 devices and 50 to 100 wireless access points
- Upgrade to support Cisco Unified Communications network with 100 phones
- Upgrade to support Cisco Unified Communications network with 250 phones
- Upgrade to support Cisco Unified Communications network with 500 phones

Q. On what operating systems can Cisco netManager IP Infrastructure 1.1 run?

A. Cisco netManager IP Infrastructure 1.1 can run on servers or workstations that are running Windows XP Service Pack 2 or 3 or Windows Server 2003 Service Pack 1 or 2 (Standard or Enterprise). A Pentium 4, Xeon, or AMD class processor with a minimum of 1 GB RAM and a 30 GB hard disk is required. Cisco netManager can coexist with other software on a single workstation/server.

Q. What types of reports can Cisco netManager IP Infrastructure 1.1 generate?

A. Cisco netManager IP Infrastructure 1.1 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
- Lightweight wireless access points summary report: Provides a summary report (inventory, connectivity, and status) on the lightweight wireless access points in the network
- 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 type of performance monitoring can Cisco netManager IP Infrastructure 1.1 support?**

A. Cisco netManager IP Infrastructure 1.1 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 can 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 IP Infrastructure 1.1? Can I customize the user interface for my personal preferences?**

A. Cisco netManager IP Infrastructure 1.1 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 IP Infrastructure 1.1 workstation/server, you can open up the supported browser and connect to the Cisco netManager web interface and log in to examine your network status.

Furthermore, the Cisco netManager IP Infrastructure 1.1 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 IP Infrastructure 1.1 provide physical connectivity details about the network that is being monitored?**

A. Yes, Cisco netManager IP Infrastructure 1.1 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 can be used to view device and application operational status and connectivity details, to navigate 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 diagnostic tools are available in Cisco netManager IP Infrastructure 1.1?**

A. Cisco netManager IP Infrastructure 1.1 provides contextual diagnostic tools such as ping, trace route, DNS lookup, device manager web page launch, and Telnet. Additionally for Cisco Unified Communications application servers, context-sensitive links to the administration, serviceability, and the trace configuration pages are provided as well. These tools can be

brought up from the service level or physical connectivity views, as well as the detailed device views for different devices.

Q. **What event history does Cisco netManager IP Infrastructure 1.1 provide?**

A. Cisco netManager IP Infrastructure 1.1 maintains up to 30 days of event history for every event it detects. Event history reports can be queried based on devices, device groups, and timeframe. Beyond 30 days, events are automatically purged. Data from the event history database can be exported as comma-separated value (CSV) files.

Q. **Can I extend the monitoring capabilities of Cisco netManager IP Infrastructure 1.1 beyond what is available by default?**

A. Yes, Cisco netManager IP Infrastructure 1.1 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 IP Infrastructure 1.1 by specifying the additional SNMP MIBs to be polled and specifying the range of acceptable and unacceptable values. Cisco netManager IP Infrastructure 1.1 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 a server/workstation does Cisco netManager IP Infrastructure 1.1 monitor?**

A. Cisco netManager IP Infrastructure 1.1 provides the following information for Cisco servers/workstations:

- Monitoring on running services
- Resource status (CPU, RAM, virtual memory, hard disk)
- Active monitor status (SNMP, ICMP ping)
- Device description and attributes (contact, location, description)
- Performance trends on CPU, memory, hard disk
- Problem areas

Q. **What aspects of a Cisco router/switch does Cisco netManager IP Infrastructure 1.1 monitor?**

A. Cisco netManager IP Infrastructure 1.1 provides the following information for Cisco routers and switches:

- 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

Q. **What aspects of a Cisco Unified wireless (Wireless LAN controller–based model) does Cisco netManager IP Infrastructure 1.1 monitor?**

A. Cisco netManager IP Infrastructure 1.1 provides the following information for the Cisco Unified Wireless LAN controller–based model:

- Controller:
  - Status of all the interfaces
  - Hardware component status (power supply, temperature sensor, fan)
  - Resource status (CPU, memory)
  - Active monitor status (SNMP, ICMP ping)
  - 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
- Wireless access points:
  - Access points IP addresses, names
  - Connectivity information
  - Cisco IOS Software version
  - Access points status (operational and administrative up/down)
  - Associated controller information
  - Wireless LAN controller association status
  - Number of users actively connected to the access points
  - Channel utilization

Q. **Is Cisco netManager IP Infrastructure 1.1 a direct replacement to CiscoWorks Small Network Management Solution (SNMS)?**

A. Yes, Cisco netManager IP Infrastructure 1.1 is the replacement product to CiscoWorks SNMS going forward. CiscoWorks SNMS has reached end-of-sale status.

Q. **Does Cisco netManager IP Infrastructure 1.1 provide configuration capability?**

A. Cisco netManager IP Infrastructure 1.1 is a monitoring application. This version does not provide configuration capability. For configuration capabilities, customers are recommended to consider CiscoWorks LAN Management Solution http://www.cisco.com/go/lms.

Q. **Does Cisco netManager IP Infrastructure 1.1 provide one to one parity with all features of CiscoWorks SNMS?**

A. Cisco netManager IP Infrastructure 1.1 provides all the monitoring capabilities and more as compared to CiscoWorks SNMS. Cisco netManager IP Infrastructure 1.1 does not provide configuration and image management capability; however, these are available in CiscoWorks LMS.

Q. What kind of upgrade does Cisco netManager IP Infrastructure 1.1 provide for CiscoWorks SNMS?

A. Cisco netManager IP Infrastructure 1.1 provides inventory migration through the export/import functionality in CiscoWorks SNMS and Cisco netManager IP Infrastructure 1.1. Direct inline software upgrade will not be supported. Users will have to start from a new install of Cisco netManager IP Infrastructure 1.1 and import the inventory from CiscoWorks SNMS.

Q. Is there any upgrade part number provided for CiscoWorks SNMS customers?

A. Yes, CiscoWorks SNMS customers can use SNMS-CNMIP11-50-K9 for upgrading from SNMS to Cisco netManager 1.1.

Q. How does a customer upgrade from Cisco netManager v 1.0?

A. Customers with Cisco Software Application Support (SAS) coverage can request upgrades via the Cisco Product Upgrade Tool located at www.cisco.com/upgrade. Customers without SAS can find the part numbers for updating in the Cisco netManager 1.1 product bulletins posted at: http://www.cisco.com/en/US/products/ps8415/prod_bulletins_list.html.