



## Q & A

# CiscoWorks IP Communications Operations Manager 1.0

## General

**Q.** What is CiscoWorks IP Communications Operations Manager 1.0?

**A.** CiscoWorks IP Communications Operations Manager 1.0 provides a unified view of the entire IP Communications infrastructure and presents the current operational status of each of the elements of the IP Communications network. It continuously monitors the current status of different IP Communications elements such as Cisco® CallManager, Cisco Unity®, Cisco CallManager Express, Cisco Unity Express, Cisco IP Contact Center elements, Cisco gateways, routers, and phones and provides different diagnostic tools for faster trouble isolation and resolution. It monitors and evaluates the current status of both the IP Communications infrastructure and the underlying transport infrastructure in the network.

- It presents current operational status of the IP Communications deployment and provides visualization using service-level views of the network.
- It increases productivity of the network managers and enables faster trouble isolation by providing contextual diagnostic tools to enable troubleshooting:
  - Through diagnostic tests, performance, and connectivity details about different elements of the converged IP Communications infrastructure
  - Using synthetic tests that replicate end-user activity and verify gateway availability and other configuration aspects of the IP Communications infrastructure
  - Through IP service-level agreement (SLA)-based diagnostic tests that can measure the performance of WAN links and measure node-to-node service quality
  - By providing actionable information in notification messages through context-sensitive links to more detailed information about service outages
  - By context-sensitive links to other CiscoWorks tools and Cisco Systems® tools for managing IP Communications implementations
- It presents service-quality alerts by using the information available through CiscoWorks IP Communications Service Monitor 1.0 (when the latter is deployed). It displays mean opinion scores associated with service quality between pairs of endpoints (IP phones, Cisco Unity messaging systems, or voice gateways) at specified times involved in the monitored call segment and other associated details about the service-quality problem. It can also perform a probable path trace between the two endpoints and can report on any outages or problems on intermediate nodes in the path.
- It provides current information about connectivity-related and registration-related outages affecting different IP phones in the network and provides additional contextual information to determine the location and identification of the IP phones.
- It enables tracking of IP Communications devices and IP phone inventory, tracks IP phone status changes, and creates a variety of reports that document move, add, and change operations for IP phones in the network.
- It provides flexible north-bound interfaces using Simple Network Management Protocol (SNMP) traps, syslog messages, and e-mails that let CiscoWorks IP Communications Operations Manager 1.0 report the status of the network being monitored to a higher-level entity (typically a manager of managers).

- It uses open interfaces such as SNMP and HTTP to remotely poll data from different devices in the IP Communications deployment. It does not deploy any agent software on the devices being monitored and thus is nondisruptive to system operations.

**Q.** Does CiscoWorks IP Communications Operations Manager 1.0 use any agents?

**A.** No, CiscoWorks IP Communications Operations Manager 1.0 does not deploy any agent software on any platform it monitors and thus is nondisruptive to system operations. It uses open interfaces such as SNMP and HTTP (AVVID XML Layer (AXL)–Simple Object Access Protocol [SOAP]) to remotely (and periodically) poll the devices being monitored and thus collects status information. It also performs several diagnostic tests (Skinny Client Control Protocol [SCCP]-based and IP SLA-based) and uses the results of these tests to determine the operational status of the deployment. The user interface is browser-based to enable remote login from anywhere in the network and have instant access to real-time information on the current status of the deployment.

**Q.** How is CiscoWorks IP Communications Operations Manager 1.0 different from other products that manage Cisco IP Communications technologies?

**A.** CiscoWorks IP Communications Operations Manager 1.0 is differentiated from other products that manage Cisco IP Communications technologies because it comes with the Cisco commitment to quality and 24-hour support and combines all of the following capabilities into a full solutions management package:

- Extensive coverage of IP Communications devices, as well as the underlying transport infrastructure
- Service-level view of the entire deployment, with current status information about all monitored elements
- Context-sensitive tools that can be launched from different user interfaces to aid in trouble isolation and resolution
- Diagnostic tests that can replicate end-user activity such as making phone calls, leaving voice mail, etc.
- Use of open interfaces such as SNMP and HTTP to remotely and periodically poll devices and no use of any kind of agent software
- Phone reports with extensive information such as IP/MAC addresses, physical connectivity information, signaling status, etc.

**Q.** What IP Communications elements does CiscoWorks IP Communications Operations Manager 1.0 monitor?

**A.** CiscoWorks IP Communications Operations Manager 1.0 monitors Cisco CallManager, Cisco Unity, Cisco Conference Connection, Cisco Emergency Responder, Cisco IP Contact Center, Cisco IP Contact Center Express, Cisco CallManager Express, Cisco Unity Express, and the Cisco Survivable Remote Site Telephony (SRST) router family of product systems. It monitors endpoints such as Cisco IP phones (hardware-based phones) and Cisco IP communicators (software-based phones) as well.

**Q.** What IP transport elements does CiscoWorks IP Communications Operations Manager 1.0 monitor?

**A.** CiscoWorks IP Communications Operations Manager 1.0 monitors routers, switches, gateways, and gatekeepers.

**Q.** Can CiscoWorks IP Communications Operations Manager 1.0 be used for IP phone inventory tracking? If so, then how?

**A.** Yes, CiscoWorks IP Communications Operations Manager 1.0 can be used for IP phone tracking. Two types of information are available. The Phone Status Display (an autorefreshing real-time display) in CiscoWorks IP Communications Operations Manager 1.0 shows details about all IP phones that are currently experiencing connectivity or signaling outages. A second source is the different reports with CiscoWorks IP Communications Operations Manager 1.0 that show phone status and phone status change information. The Phone Move Report 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 in the phone deployment.

**Q.** How does CiscoWorks IP Communications Operations Manager 1.0 monitor my IP Communications network?

**A.** CiscoWorks IP Communications Operations Manager 1.0 uses a seed device as a starting point, discovers the entire IP Communications network using the Cisco Discovery Protocol, and creates a service-level view (topology) of the deployment. Depending on the type of device, CiscoWorks IP Communications Operations Manager 1.0 actively monitors different conditions by Internet Control Message Protocol (ICMP) polling, HTTP-based polling, SCCP-based synthetic tests, SNMP MIB interrogation, and SNMP trap reception, and it tracks only those conditions known to cause higher-level problems in that particular device. If CiscoWorks IP Communications Operations Manager 1.0 receives information from the device and that information is not a known condition of a higher-level problem, it ignores the information, minimizing the need for IT managers to look at every event happening on the network. This provides the opportunity for IT managers to more productively manage Cisco device faults. CiscoWorks IP Communications Operations Manager 1.0 also carries out diagnostic tests that ascertain the current operational status of the IP Communications network and reports on any kind of problems it encounters. Whenever such diagnostic tests fail, suitable alerts are generated that inform network managers of potential service problems. All these alerts are shown on real-time displays such as the alerts console and the service-level views. It is also possible to forward alerts reported by CiscoWorks IP Communications Operations Manager 1.0 to other management tools by northbound interfaces using SNMP traps, syslog messages, and e-mail.

**Q.** How is CiscoWorks IP Communications Operations Manager 1.0 packaged?

**A.** CiscoWorks IP Communications Operations Manager 1.0 is packaged together with CiscoWorks IP Communications Service Monitor 1.0 and the underlying CiscoWorks Common Services 3.0 on a single CD. A single installation process takes the user through the installation process and installs all three components on the server. Depending on the license that is provided during the installation, appropriate features are enabled. The two different licensing options that are available are (1) CiscoWorks IP Communications Operations Manager 1.0 only on a server and (2) CiscoWorks IP Communications Operations Manager 1.0 with CiscoWorks IP Communications Service Monitor 1.0 on a single server.

**Q.** How can I license CiscoWorks IP Communications Operations Manager 1.0?


**A.** CiscoWorks IP Communications Operations Manager 1.0 can be licensed at different deployment scales and is appropriate for enterprises of all sizes. Licensing is controlled by means of a license file, and network administrators can upgrade the license as they grow their IP Communications deployment without disrupting the monitoring or having to decommission the server. Upgrading the license is as simple as logging onto the Cisco Website, procuring a new license, and deploying it on the server. Licenses are available for monitoring at 1000-phone, 5000-phone, 10,000-phone, and 30,000-phone levels. Depending upon the license installed on the server, server hardware requirements and scalability limits are enforced to help ensure that acceptable performance is achieved.

**Q.** On what operating systems can CiscoWorks IP Communications Operations Manager 1.0 run?

**A.** CiscoWorks IP Communications Operations Manager 1.0 is intended for a dedicated hardware platform using Microsoft Windows Server 2003. CiscoWorks IP Communications Operations Manager 1.0 is intended to isolate operations and maintenance personnel from the complexity of many IP Communications implementations. This requires significant resources, and, as a result, a dedicated server is recommended (with the exception of CiscoWorks IP Communications Service Monitor 1.0 sharing a single server with CiscoWorks IP Communication Operations Manager 1.0). As a general rule, a larger hardware platform (in terms of speed and number of processors) and more system memory (a minimum of 2 GB is required) will improve the performance and scalability of the management solution provided by CiscoWorks IP Communications Operations Manager 1.0.

**Q.** What will happen to CiscoWorks IP Telephony Environment Monitor (ITEM) 2.0 and its downloadable utilities?

**A.** CiscoWorks IP Communications Operations Manager 1.0 will replace CiscoWorks ITEM 2.0. CiscoWorks ITEM 2.0 will attain end-of-sale (EOS) status concurrent with the release of CiscoWorks IP Communications Operations Manager 1.0. This means that Cisco will continue to support existing deployments of CiscoWorks ITEM 2.0 per the Cisco Support Policy, but there will be no new versions of the CiscoWorks ITEM product line. CiscoWorks IP Communications Operations Manager 1.0 incorporates all the functionality that was present in the



downloadable utilities of CiscoWorks ITEM available through Cisco.com, and these utilities will no longer be marketed separately. All current customers of CiscoWorks ITEM 1.x and CiscoWorks ITEM 2.0 are strongly encouraged to migrate to CiscoWorks IP Communications Operations Manager 1.0 to help ensure that they have the necessary tools to manage the full scope of the latest technologies in Cisco IP Communications solutions.

**Q.** Why should I migrate from CiscoWorks ITEM 2.0 to CiscoWorks IP Communications Operations Manager 1.0?

**A.** CiscoWorks IP Communications Operations Manager 1.0 provides coverage for the latest Cisco IP Communications technologies, such as Cisco CallManager Express, Cisco Unity Express, Cisco IP Contact Center (Enterprise and Express editions), in addition to providing new and useful interfaces for monitoring the overall status of the deployment. It integrates with another new offering, CiscoWorks IP Communications Service Monitor, to present real-time service quality alerting. CiscoWorks IP Communications Operations Manager 1.0 brings together different technologies of the CiscoWorks ITEM product line (CiscoWorks IP Telephony Monitor [ITM] and drop-ins such as the Gateway Statistics Utility, WAN Performance Utility, and Tactical Graphing Utility) into an integrated delivery and usage model. CiscoWorks IP Communications Operations Manager 1.0 continues to carry out different diagnostic tests to evaluate the general health of the IP Communications environment in the monitored network. CiscoWorks IP Communications Operations Manager 1.0 uses its sophisticated evaluation and correlation capabilities to help ensure timely information about the health of IP Communications environments. Using several data collection and analysis techniques, CiscoWorks IP Communications Operations Manager 1.0 generates intelligent traps that can be forwarded to other event-management systems installed in the network, sent to e-mail or pager gateways, or displayed on the CiscoWorks IP Communications Operations Manager 1.0 GUI.

**Q.** Is there an upgrade path from CiscoWorks ITEM 2.0 to CiscoWorks IP Communications Operations Manager 1.0?

**A.** Yes, customers with existing CiscoWorks ITEM deployments (both 1.x and 2.0) will be able to order CiscoWorks IP Communications Operations Manager 1.0 at a preferred customer upgrade price. Specialized part numbers are available for this upgrade path. Please contact your Cisco sales representative or channel partner for ordering assistance.

**Q.** How does CiscoWorks IP Communications Operations Manager 1.0 integrate with CiscoWorks products?


**A.** CiscoWorks IP Communications Operations Manager 1.0 works with the entire family of CiscoWorks products. It runs on CiscoWorks Common Services 3.0, as do applications such as CiscoWorks LAN Management Solution (LMS). CiscoWorks IP Communications Operations Manager 1.0 integration with the CiscoWorks family includes:

- CiscoWorks security roles
- CiscoWorks server process and backup management services
- Device and credential repository
- CiscoSecure Access Control Server (ACS) integration

In addition to this, CiscoWorks IP Communications Operations Manager 1.0 can perform a context-sensitive launch of different CiscoWorks products (such as Resource Manager Essentials, CiscoView, Campus Manager, and so on) from different user interfaces in CiscoWorks IP Communications Operations Manager 1.0 to enable faster trouble isolation and resolution.

**Q.** How does CiscoWorks IP Communications Operations Manager 1.0 integrate with CiscoWorks IP Communications Service Monitor 1.0?

**A.** CiscoWorks IP Communications Operations Manager 1.0 is able to use the information provided by CiscoWorks IP Communications Service Monitor to present service-quality (quality-of-voice) alerts on a real-time basis. The service-quality alerts are associated with IP phones or IP Communications devices that are currently monitored by CiscoWorks IP Communications Operations Manager 1.0 and present that information in the Service Quality Alerts Display. Details about connectivity of the IP phones and devices are available as well. Context-sensitive diagnostic tools such as a probable path trace, node-to-node IP SLA tests, and phone status tests can be run to perform further



troubleshooting. A node-to-node test between the routers serving the path can help network managers identify potential problems in intermediate nodes and can influence service quality. A phone status test on either endpoint verifies the IP connectivity of the phone(s) involved in the call segment that had the poor service quality. CiscoWorks IP Communications Operations Manager 1.0 has specialized reports that present historical information.

### **For More Information**

For more information about CiscoWorks IP Communications Operations Manager 1.0, visit [www.cisco.com](http://www.cisco.com) or contact your local account representative.

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