Cisco Unified Operations Manager 8.0

Cisco Unified Communications

Cisco® Unified Communications Solutions unify voice, video, data, and mobile applications on fixed and mobile networks, facilitating easy collaboration every time from any workspace. Part of a comprehensive solution that includes network infrastructure, security, wireless, management, or third-party applications and lifecycle services, Cisco Unified Communications management solutions can accelerate deployment, provide cost savings, and enhance productivity.

Product Overview

Cisco Unified Operations Manager (UOM) is the cornerstone of the Cisco Unified Communications Management Suite, designed specifically for managing the Cisco Unified Communications 8.0 Solution. The Cisco Unified Communications Management Suite offers provisioning, monitoring, diagnostics, and extensive reporting capabilities to:

- Simplify the management of your Cisco Unified Communications environment
- Reduce the total cost of ownership
- Help ensure high-quality service and end-user satisfaction
- Optimize your Cisco Unified Communications resources

Cisco Unified Operations Manager provides comprehensive voice network monitoring with diagnostics for the entire Cisco Unified Communications system, including the underlying voice transport infrastructure.
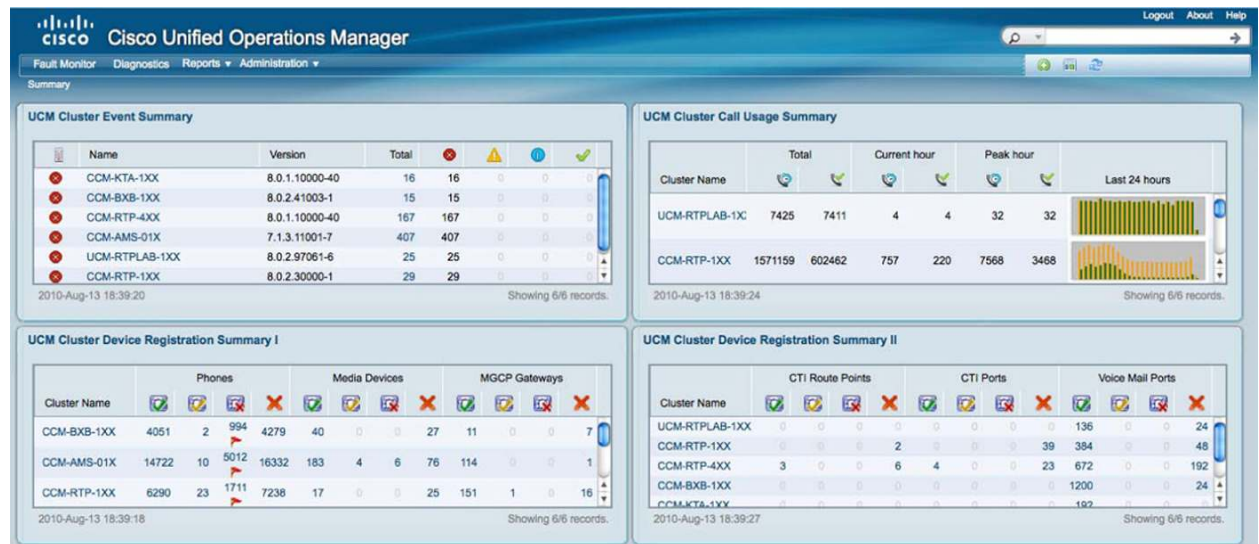
Cisco Unified Operations Manager identifies the role of every device and application in the Cisco Unified Communications network and monitors them, detecting operational faults with voice-application-aware intelligence. The resulting alerts facilitate rapid troubleshooting of outages, with context-sensitive links to the appropriate services for that device. There are no workflow rules to write, no thresholds to define, and no time-consuming management setup to budget for.

Features and Benefits

Reduces Downtime with Real-Time Visualization

Cisco Unified Operations Manager presents the current operational status of the Cisco Unified Communications system through dynamic fault and diagnostic views of the network showing the current status of monitored devices, applications, and phones. These views display detailed information for each element and provide single-screen views that group component status at a network, cluster, Communication Manager, device pool, or phone level (Figure 1).
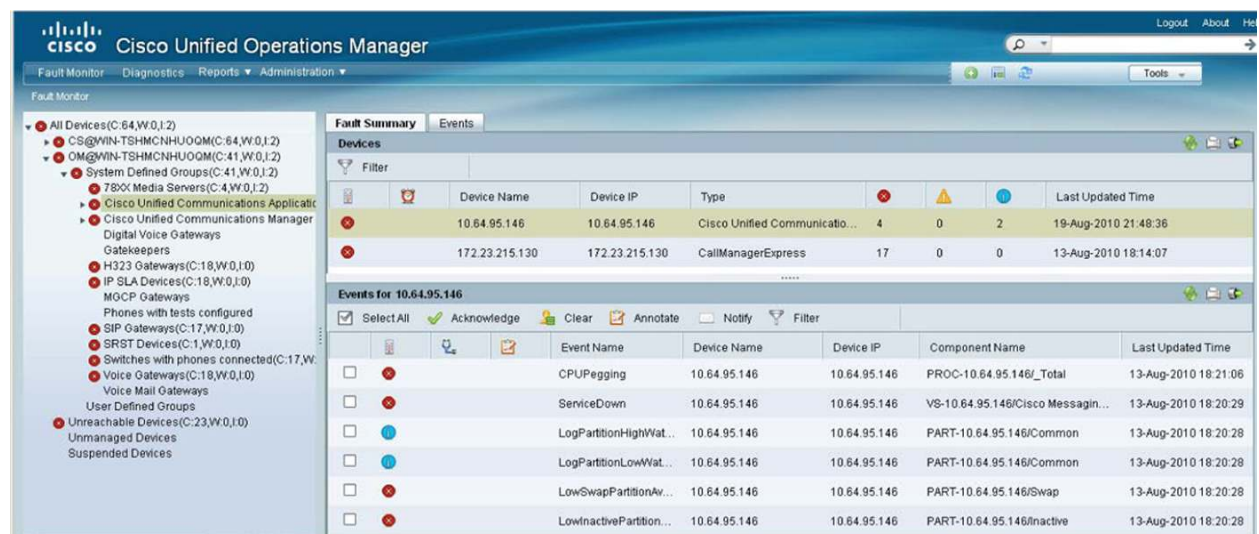
Figure 1. Cisco Unified Operations Manager: Diagnostic View

Saves Time with Automated Discovery

Cisco Unified Operations Manager automatically discovers the network and updates its knowledge base by identifying the role of every device and application in the Cisco Unified Communications network.

Figure 2. Cisco Unified Operations Manager Fault Monitor Dashboard

Operations Staff Monitor Faults and Take Action Using the New Unified Fault Monitor Dashboard

Cisco Unified Operations Manager monitors the discovered network elements to detect problems using its built-in intelligence to notify the network operations staff. The new Fault Monitor Dashboard (Figure 2) unifies the Alerts and Activity Display, Service Quality Alerts Display, and IP Phone Outage Display to present the most up-to-date status of monitored IP phones and IP devices. Using device- or event-specific actions, operations staff can launch context-sensitive monitoring and diagnostic tools to troubleshoot the problem. Cisco Unified Operations Manager provides a customized display for threshold-crossing alerts generated by Cisco Unified Service Monitor (USM) on voice-quality exceptions at an individual cluster device pool level or individual phone level.

Anticipates Problems Using Scheduled Tests on the Network

Cisco Unified Operations Manager comes with a powerful set of diagnostic tests that can be executed on demand or through calendar control for proactive network health monitoring and trouble isolation. The diagnostics can be used to validate that the phone's features are set up as expected, including call, call hold, call park, call transfer, message light activation, and conference calling. Operational tests simulate user activities such as getting a dial tone, making phone calls, leaving voicemail, and creating or joining conference calls; the tests also log any issues encountered. Dial-plan tests provide an easy mechanism to validate all the dial plans. Node-to-node testing uses the Cisco IOS® Software IP service-level agreement (SLA) feature in Cisco routers and switches to simulate traffic through the network. After the test, network characteristics such as status, response time, latency, jitter, packet loss, and network quality are recorded in a results report.

Table 1 lists features and benefits of Cisco Unified Operations Manager.

Table 1.   Features and Benefits of Cisco Unified Operations Manager

Feature	Benefits
Automated discovery	• Automated discovery of Cisco Unified Communications Manager cluster elements and associated Cisco Unified Communications applications and phones, switches, routers, and voice gateways • Link to CiscoWorks LAN Management Solution (LMS) credential repository to reduce duplicate credential entry for LMS supported infrastructure components • Automatic grouping and population of cluster service-level view
Diagnostic View	• Single view to visualize and monitor Unified Communications component status, performance, and test results by logical and physical groupings • See the status of the key components in a grouping together on a single screen to make diagnosis of problems much quicker than the previous individual-feature navigation approach
Fault Monitor	• Quick at-a-glance, real-time status of all the faults in the Unified Communications network • View fault summaries by selected group with events for selected line simultaneously displayed in an adjacent window to minimize the number of clicks to see actual event detail • View events by selected grouping, bypassing the event summary for even faster access to event details
Performance monitoring	• Visibility into critical performance metrics of each element, such as resource usage (CPU, memory, media digital signal processor [DSP] resources), active calls, trunk statistics (trunk usage, port usage, gateway statistics), and so on • Graphic chart views for side-by-side comparison of selected metrics • Key performance results displayed on Diagnostic View with instant zoom
Diagnostics tests	• Synthetic tests (call processor to phone) and phone-to-phone tests, helping to ensure end-to-end service connectivity • Phone batch and status tests to help ensure that phone features operate as provisioned • IP SLA node-to-node testing • Multiple test results displayed on new Diagnostic View
Northbound interfaces	• Email, Simple Network Management Protocol (SNMP) traps, and syslog formats for external notification from the UOM MIB, and not just network components, forward actionable alerts created by UOM • Event-filtering user interface to select specific types of fault notifications for a set of devices to be sent to specific users • Hyperlink embedded in the notification email providing direct launch of the event display to quickly determine the what sent the event and what is going on with other involved Unified Communications components • SNMP MIB for UOM server status • Web Services API for phone inventory
Service-level and inventory reports	• Reports that can be viewed, archived, exported, or sent to the subscribers on a scheduled basis by email • Historical alert, event, and service-quality reports that can document past outages for long-term trending • Phone reports that provide information about phone moves, changes, and status information for every IP phone and every video-enabled IP phone deployed in the network • Customizable reports to collect and periodically email the information about a specific set of the devices, phones, and diagnostic tests

Integration with Cisco Unified Service Monitor 8.0

Cisco Unified Service Monitor sends service quality alerts to UOM when the Mean Opinion Score (MOS) generated by Cisco IP phones and other endpoints exceeds the USM threshold. For more information on Cisco Unified Service Monitor, please visit http://www.cisco.com/go/cusm.

Integration with Cisco Unified Service Statistics Manager 1.3

Integration with Cisco Unified Service Statistics Manager provides long-term statistics analysis and reports for Cisco Unified Communications networks. Using the data collected by Cisco Unified Operations Manager and Cisco Unified Service Monitor, Cisco Unified Service Statistics Manager provides predefined and customizable reports that give visibility into critical metrics, including call volume, service availability, call quality, resource utilization, and capacity across the Cisco Unified Communications system. For more information, visit http://www.cisco.com/go/cussm.

Premium Edition Only in Cisco Unified Operations Manager 8.0

Cisco Unified Operations Manager was previously available in a Standard or Premium Edition. The Premium Edition was required to get support for diagnostic testing, video-enabled phones, and Cisco TelePresence™ endpoints. The Standard Edition has been eliminated and all users will get the Premium Edition features when they order version 8.0.

Supported Cisco Unified Communications Applications and Devices

Cisco Unified Communications Manager supports Cisco Unity® software, Cisco Unity Connection, Cisco Unified Contact Center, Cisco Unified MeetingPlace® Express, Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco Unified Contact Center Express, Cisco Conference Connection, Cisco Personal Assistant, Cisco Emergency Responder, Cisco Unified Presence Server, routers, gateways, switches, and IP phones (including Cisco IP Communicator and Cisco Unified Personal Communicator).

System Requirements

VMware is supported on all Cisco Unified Communications Management products. To view the complete server requirements and supported configuration options for VMware and coresident applications, please refer to the *Cisco Unified Operations Manager Installation Guide.* Table 2 lists system requirements, and Table 3 lists the system capacity for a single Cisco Unified Operations Manager without VMware installed.

Table 2.   Processing Platform Requirements[*]

Description	Specification	
Server Requirements		
System parameters	Up to 10,000 phones and 1000 IP devices	Up to 45,000 phones and 2000 IP devices
Processor	Two processors, 2 GHz minimum	Four processors, 2 GHz minimum
Memory	Minimum: 4 GB Recommended: 8 GB[**]	8 GB
Page file	8 GB	12 GB
Software	Windows Server 2003 Standard Edition or Enterprise Edition with Service Pack 1 or 2; Windows Server 2008 Standard Edition or Enterprise Edition with Service Pack 2 for 32-bit support only VMware ESX 3.5 or ESXi 4.x	
Disk space	72 GB recommended	
Client Requirements		
Processor	Dual Core, 2 GHz minimum (PC or Mac)	
Memory	2 GB RAM minimum	
Browser	Microsoft Internet Explorer 8.x Firefox 3.6 and later	
Resolution	1440 x 900 minimum	

[*] **Note:** VMware and co-resident system requirements are listed in the Cisco Unified Operations Manager Installation Guide.
[**] **Note:** Anytime UOM 8.0 is working with Cisco Unified Service Statistics Manager, 8 GB of RAM is highly recommended on the UOM server. In the next release, UOM 8.5 will require 8 GB of RAM for any installation.

Table 3.   System Limits for Each Cisco Unified Operations Manager Server

System Parameter	Capacity
Phones	Up to 45,000
Voice network IP devices[*]	Up to 2000
Cisco Unified Communications Managers	Up to 150
Cisco Unified Communications Manager clusters	Up to 20
Cisco Unified Communications Manager Express and Cisco Unity Express	Up to 600
Survivable Remote Site Telephony (SRST) devices	Up to 1000
Concurrent user logins	5

[*] The 500 phone license scales to 100 IP devices. The 1000 phone license scales to 300 IP devices. The licenses for more than 1000 phones scale to 2000 IP devices.

Note: Refer to the Supported Devices table in Cisco Unified Operations Manager for the specific versions that have been certified in testing at

http://www.cisco.com/en/US/products/ps6535/products_device_support_tables_list.html.

Ordering Information

UOM 8.0 is a major upgrade so all existing customers will need to purchase the upgrade part to get it to work. The base part number includes licensing for the indicated number of phones, and licenses are added to increase the number of phones supported (Table 4). Cisco Unified Operations Manager can be ordered as part of a Cisco Unified Communications Management Suite bundle or as a standalone product. To place an order, visit the Cisco Ordering Homepage. The Cisco Unified Communications Management Suite Ordering Guide, available to Cisco employees and partners, provides instructions on how to order management product bundles that deliver significant savings over the individual product pricing. Please contact your account representative for details.

Table 4.   Ordering Information

Product Description	Product Number
OM8.0,SM8.0,SSM1.3,PM2.x Suite Bundle 1K IP Phone LIC-K9	L-UCMS-STE-B-1K
OM8.0,SM8.0,SSM1.3,PM2.x Suite Bundle 5K IP Phone LIC-K9	L-UCMS-STE-B-5K
OM8.0,SM8.0,SSM1.3,PM2.x Suite Bundle 10K IP Phone LIC-K9	L-UCMS-STE-B-10K
OM8.0,SM8.0,SSM1.3,PM2.x Suite Bundle 20K IP Phone LIC-K9	L-UCMS-STE-B-20K
OM8.0,SM8.0,SSM1.3,PM2.x Suite Bundle 30K IP Phone LIC-K9	L-UCMS-STE-B-30K
UC Management Suite Mon Bundle 500 LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON500
UC Management Suite Mon Bundle 1K LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON1K
UC Management Suite Mon Bundle 2K LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON2K
UC Management Suite Mon Bundle 5K LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON5K
UC Management Suite Mon Bundle 10K LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON10K
UC Management Suite Mon Bundle 20K LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON20K
UC Management Suite Mon Bundle 30K LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON30K
UC Management Suite Mon Bundle 45K LIC for OM 8.0 SM 8.0-K9	UCMS-B-MON45K
Unified Operations Manager 8.x up to 500 IP Phone License-K9	L-UOM-B-500=
Unified Operations Manager 8.x up to 1,000 IP Phone License-K9	L-UOM-B-1K=
Unified Operations Manager 8.x up to 2,000 IP Phone License-K9	L-UOM-B-2K=
Unified Operations Manager 8.x up to 5,000 IP Phone License-K9	L-UOM-B-5K=
Unified Operations Manager 8.x up to 10,000 IP Phone License-K9	L-UOM-B-10K=
Unified Operations Manager 8.x up to 20,000 IP Phone License-K9	L-UOM-B-20K=
Unified Operations Manager 8.x up to 30,000 IP Phone License-K9	L-UOM-B-30K=

Product Description	Product Number
Unified Operations Manager 8.x up to 45,000 IP Phone License-K9	L-UOM-B-45K=
Unified Operations Manager 8.x up to 500 IP Phone upgrade license	L-UOM-B-500-UPG=
Unified Operations Manager 8.x up to 1,000 IP Phone upgrade License	L-UOM-B-1K-UPG=
Unified Operations Manager 8.x up to 2,000 IP Phone upgrade License	L-UOM-B-2K-UPG=
Unified Operations Manager 8.x up to 5,000 IP Phone upgrade License	L-UOM-B-5K-UPG=
Unified Operations Manager 8.x up to 10,000 IP Phone upgrade License	L-UOM-B-10K-UPG=
Unified Operations Manager 8.x up to 20,000 IP Phone upgrade License	L-UOM-B-20K-UPG=
Unified Operations Manager 8.x up to 30,000 IP Phone upgrade License	L-UOM-B-30K-UPG=
Unified Operations Manager 8.x up to 45,000 IP Phone upgrade License	L-UOM-B-45K-UPG=

Cisco Unified Communications Services

Cisco Unified Communications Services allows you to accelerate cost savings and productivity gains associated with deploying a secure, resilient Cisco Unified Communications Solution. Delivered by Cisco and our certified partners, our portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks. Our unique lifecycle approach to services enhances your technology experience to accelerate true business advantage. For more information about Cisco services, visit Cisco Technical Support Services or Cisco Advanced Services.

For More Information

For more information about the Cisco Unified Communications Management Suite, please visit http://www.cisco.com/go/ucmanagement, contact your local account representative, or send email to the Cisco product marketing group at ask-ipc-management@cisco.com.