Cisco Unified Service Monitor 2.3

Q. What is Cisco® Unified Service Monitor (USM)?

A. Cisco Unified Service Monitor is part of the Cisco Unified Communications Management Suite. It provides a low-cost, reliable method of monitoring and evaluating the quality of voice in Cisco Unified Communications Solutions. It continuously monitors active calls supported by the Cisco Unified Communications System and provides near real-time notification when the voice quality of a call, represented as end-user experience expressed by a Mean Opinion Score (MOS), fails to meet a user-defined quality threshold. It also provides a variety of reports that characterize the user experience as measured by the system and provide details on the endpoints that are most affected due to voice quality alerts. In addition to call quality analysis, Cisco Unified Service Monitor can perform call classification based on dial plan for each cluster that is managed using Cisco Unified Service Monitor. Cisco Unified Service Monitor provides system-defined call types and also allows users to create user-defined call types to correctly classify the calls. The filter–based, on-demand reports for call detail records (CDRs) provide further visibility into various call details needed for analysis or reporting.

Q. What are the components of Cisco Unified Service Monitor?

A. The Cisco Unified Service Monitor voice quality solution consists of central Cisco Unified Service Monitor software and Cisco 1040 Sensor hardware.

The Cisco Unified Service Monitor application software operates on a Windows Server 2003 platform and receives voice quality information from Cisco 1040 Sensors, Cisco Network Analysis Module (NAM), and Cisco Unified Communications Manager 4.2 or later systems. Users can configure MOS thresholds on a per codec basis; alerts are sent to an upstream application such as Cisco Unified Operations Manager when a MOS threshold is violated. Cisco Unified Service Monitor allows users to understand the service quality experience at a system level through Cisco Voice Transmission Quality (VTQ) support and in real time through the Cisco 1040 Sensors and NAM.

Q. What are the key benefits of Cisco Unified Service Monitor?

- Supports the latest releases of Cisco Unified Communications Solution components
- Provides real-time alerting and reporting on call quality metrics
- Uses call metrics from Cisco Unified Communications Manager, Cisco NAM, Cisco 1040 Sensors
- Correlates call detail records and NAM/1040 call reports for enhanced analysis
- Provides the ability to pinpoint the network segment causing call quality degradation
- Provides configurable thresholds based on MOS, codec, endpoints, Communications Manager, and sensors
- Call classification based on dial plan per cluster
- System- and user-defined call types
- Rich filter-based, on-demand call type (CDR) reports
- Virtualization:
  - Higher scale will reduce the number of Service Monitor server platforms for large enterprise customers.
  - Two virtual instances of Service Monitor, each scaling up to 45,000 phones on a single server, reduce the number of hardware platforms.
- Integrates with the Cisco Unified Operations Manager service quality alert dashboard
- Integrates with Cisco Unified Service Statistics Manager long-term reporting and trending functions

Q. Where do you deploy the Cisco 1040 Sensors in the network?

A. The Cisco 1040 Sensor can be deployed in campus and remote locations (such as branch offices) to analyze voice-specific Rapid Transport Protocol (RTP) data streams and to calculate a MOS value for each stream. The end-user experience is captured, analyzed, and reported every 60 seconds.

Q. What is new in Cisco Unified Service Monitor 2.3?

A. Major new features include:

- Refer to the Cisco USM 2.3 Compatibility Information at http://www.cisco.com/en/US/products/ps6536/products_device_support_tables_list.html.
- Dial plan configuration for call classification per cluster
- On-demand call type (CDR) reports
- Lower cost entry-level package for 500 phones

Q. Does Cisco Unified Service Monitor run in a virtual environment?

A. Yes. Cisco Unified Service Monitor 2.3 is certified to work in the VMware ESX 4.0 environment.

Q. Where can I learn more about the VMware specification required?

A. Please visit http://www.cisco.com/en/US/products/ps6536/prod_white_papers_list.html for the latest white paper on virtualization support.

Q. Where can I get the deployment best practices?

A. Please visit http://www.cisco.com/en/US/products/ps6536/prod_white_papers_list.html for the latest update.

Q. What is call classification?

A. Call classification allows system administrators to understand the types of calls made by the users to provide them guidance on the usage pattern of the unified communications infrastructure. Call types, including Local, International, Conference, and so on, are useful to understand the usage patterns related to the network bandwidth used as well as to monitor the overall call activity. The system administrator uses such reports to communicate the usage to management as well as to request expansion based on usage.

Q. How can I understand how to configure and use the call classification feature?

A. A detailed white paper is published for the feature under http://www.cisco.com/en/US/products/ps6536/prod_white_papers_list.html.

Q. How does Cisco Unified Service Monitor compare with other voice quality measurement tools?

A. As worldwide adoption of IP-based telephony progresses, many offerings provide quality of voice metrics for the enterprise. Although many of these provide broad monitoring and analysis of general network performance, Cisco Unified Service Monitor has several inherent advantages and features that help ensure an easily integrated solution for monitoring voice quality:

- The Cisco 1040 Sensor and Cisco NAM evaluate the actual RTP data streams of monitored calls and evaluate calls using standards-based techniques.
- Cisco Unified Service Monitor provides a distributed, scalable solution for cost-effective quality of voice monitoring.
- Cisco Unified Service Monitor uses the same ease of deployment, scaling, and redundancy mechanisms as Cisco IP phones.
- Cisco Unified Service Monitor voice quality alerts integrate with Cisco Unified Operations Manager, in which their specialized display provides a launching point for diagnostic tools and processes.
- The Cisco 1040 Sensor uses IEEE 802.3af Power over Ethernet (PoE) and integrates with IP telephony devices such as Cisco Unified IP phones, gateways, and telephony service such as voicemail to measure voice quality.

- The Cisco 1040 Sensor is FCC Class B–compliant and can be installed in any office environment.

Q. What operating systems support Cisco Unified Service Monitor?

A. Cisco Unified Service Monitor requires a hardware platform executing Microsoft Windows Server 2003 with Service Pack 2.

Q. Can Cisco Service Monitor coreside with Cisco Unified Operations Manager and Cisco Unified Service Statistics Manager?

A. Cisco Unified Service Monitor can coreside on the same platform with Cisco Unified Operations Manager and Cisco Unified Service Statistics manager to manage up to 10,000 endpoints.

Q. Is Cisco Unified Service Monitor a web-based application?

A. Cisco Unified Service Monitor has a web-based user interface. Users can access Cisco Unified Service Monitor through Microsoft Internet Explorer 7.0.

Q. How does Cisco Unified Service Monitor interoperate with other CiscoWorks management products?

A. Cisco Unified Service Monitor can coexist in the same network (but not on the same server) with any member of the CiscoWorks family of products. It executes with CiscoWorks Common Services Software, as do other CiscoWorks management applications such as CiscoWorks LAN Management Solution (LMS). Cisco Unified Service Monitor uses CiscoWorks services, including:

- CiscoWorks security roles
- CiscoWorks server process and backup management services
- Cisco Secure Access Control Server (ACS) integration

Q. What kinds of northbound interfaces are provided by Cisco Unified Service Monitor?

A. Cisco Unified Service Monitor provides Simple Network Management Protocol (SNMP) trap notifications that can be sent on northbound interfaces to Cisco Unified Operations Manager or other “manager-of-manager” applications.

Q. How does Cisco Unified Service Monitor integrate with Cisco Unified Operations Manager?

A. Cisco Unified Operations Manager uses the information sent by Cisco Unified Service Monitor to present service quality (quality of voice) alerts on a real-time basis. Cisco Unified Operations Manager processes the SNMP traps that come from Cisco Unified Service Monitor and associates the endpoint information in the trap to the IP phones or Cisco Unified Communications devices it is monitoring. The alerts from Cisco Unified Service Monitor appear in a specialized Service Quality Alerts display that provides a launching point for diagnostic tools and processes.

Q. How does Cisco Unified Operations Manager integrate with Cisco Unified Service Statistics Manager?

A. Cisco Unified Service Monitor acts as a data source for the call detail records and call quality metrics collected from multiple instances of Communications Manager, Cisco 1040 Sensors, and Network Analysis Module to Cisco Unified Service Statistics Manager. Cisco Unified Service Statistics Manager uses the data for long-term historic reports, trend reports, and capacity planning reports.

Q. How is Cisco Unified Service Monitor packaged?

A. Cisco Unified Service Monitor ships in two ways:

- Standalone Cisco Unified Service Monitor application packaged with CiscoWorks Common Services Software on a single CD. A single installation procedure installs both components on the server.
- Bundle that includes Cisco Unified Operations Manager, Cisco Unified Service Monitor, and the CiscoWorks Common Services Software on a single CD. A single installation procedure installs all three components on the server.

Service Monitor is enabled once the Service Monitor license is purchased and installed.

Q. How do I order Cisco Unified Service Monitor?

A. Cisco Unified Service Monitor can be licensed for the deployment scale required. Deployment scale is controlled with a license file so network administrators can increase the number of phones supported by adding to the license file as their Cisco Unified Communications deployment grows, without disruption. Expansion is accomplished by purchasing additional licenses and deploying them on the server, adding to licenses already there. Licenses are available in increments of from 1000 phones to 30,000 phones, supporting a maximum of 45,000 phones per Cisco Unified Service Monitor server. Server hardware sizing is checked during installation to make sure the server will adequately support the number of phones licensed. For Cisco Unified Communications deployments of more than 45,000 phones, multiple Cisco Unified Service Monitor servers should be deployed.

Q. Where can I find more information about Cisco Unified Service Monitor?

A. For more information about Cisco Unified Service Monitor, please visit http://www.cisco.com/go/cusm, contact your local account representative, or send email to the Cisco product marketing group at ask-ipcmanagement@cisco.com.

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