



CHAPTER 1

Getting Started with Service Monitor

Cisco Unified Service Monitor (Service Monitor) is a product from the Cisco Unified Communications Management Suite that receives and analyzes Mean Opinion Scores (MOSs) from Cisco Unified Communications Manager (Unified Communications Manager) clusters and Cisco 1040 Sensors (sensors), sending traps when violations occur.



Note

Throughout this document, any reference to Unified Communications Manager can also be understood to refer to Cisco Unified CallManager, unless explicitly noted.

The following topics are included:

- [Overview, page 1-1](#)
- [Service Monitor Home Page, page 1-3](#)



Note

For information on initially configuring Service Monitor, see [Configuration Checklists and Tips, page A-1](#).

Overview

Service Monitor receives and analyzes MOS from Unified Communications Manager clusters and Cisco 1040 Sensors. Service Monitor supports sensors or clusters or both. For more information, see [Data Collection and Analysis, page 1-2](#).

Service Monitor analyzes the data that it receives and sends traps when MOS falls below a threshold. Service Monitor provides a set of default global thresholds, one per supported codec. Service Monitor enables you to change the default global thresholds and to override them by creating threshold groups: sensor threshold groups and cluster threshold groups. For more information, see [Thresholds and Traps, page 1-3](#) and [Trap Receivers, page 1-3](#).

Service Monitor diagnostic reports display data for calls that occurred during the data retention period (see [Configuring and Viewing Other Settings, page 3-15](#)). You can run reports for cluster-reported data and sensor-reported data. You can also run reports for the endpoints with the greatest number of violations in a 24-hour or 7-day period. For more information, see [Using Reports, page 2-1](#).

Data Collection and Analysis

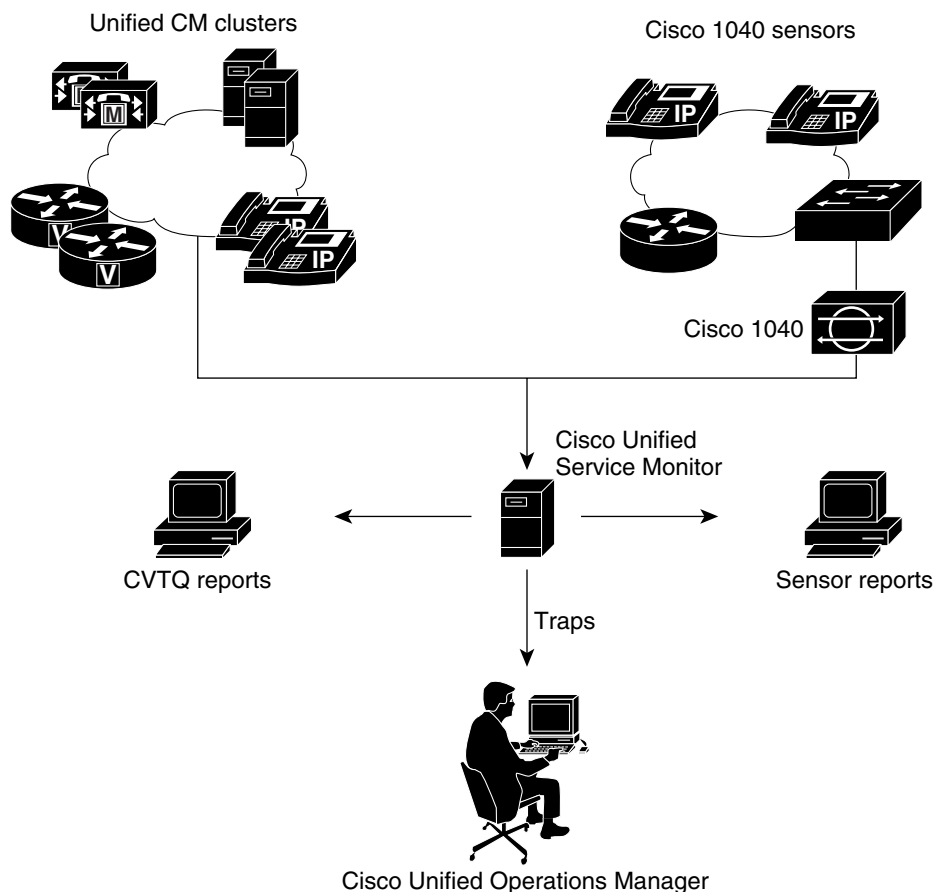
Service Monitor receives and analyzes MOS from these sources when they are installed in your voice network and configured properly:

- **Sensors**—Cisco 1040 Sensors compute MOS for each Real-Time Transport Protocol (RTP) stream and send syslog messages to Service Monitor every 60 seconds.
- **CVTQ**—Unified Communications Manager collects data from Cisco voice gateways and Cisco Unified IP Phones; MOS is calculated on the gateways and phones using the Cisco Voice Transmission Quality (CVTQ) algorithm. At the termination of a call, Unified Communications Manager stores the data in Call Detail Records (CDRs) and Call Management Records (CMRs).



Note For Unified Communications Manager versions that Service Monitor supports, see *Release Notes for Cisco Unified Service Monitor 2.1*.

Figure 1-1 Service Monitor Overview



For more information, see these topics:

[Configuring Service Monitor, page 3-1](#)

- [Managing Sensors, page 4-1](#)

Thresholds and Traps

user-defined threshold group settings or global threshold settings. When MOS drops below the threshold, Service Monitor generates SNMP traps and sends them to up to four trap receivers.

You can set thresholds for the following:

- **Sensor Groups**—Select sensors and endpoints and set a MOS threshold value for one or more supported codecs.
- **CVTQ Groups**—Select Unified Communications Manager clusters and endpoints and set a MOS threshold value for one or more supported codecs.
- **Global Settings**—Update default thresholds for one or more supported codecs. Global threshold settings are used when no other thresholds are applicable.

Trap Receivers

Service Monitor examines the data it receives, comparing MOS against a default or user-specified threshold value for the codec. When MOS drops below the threshold, Service Monitor generates SNMP traps and sends them to up to four trap receivers. Service Monitor also stores the call metrics it receives; when receiving data from:

- **Clusters**—Service Monitor stores information in the database for a configurable number of days. (See [Configuring and Viewing Other Settings](#), page 3-15.)
- **Cisco 1040 Sensors**—Service Monitor stores information in the database for a configurable number of days. Optionally, Service Monitor also stores the call metrics it receives from Cisco 1040s to disk files.

You can configure Cisco Unified Operations Manager (Operations Manager) as a trap receiver for Service Monitor. Operations Manager can further analyze, display, and act on Service Monitor data. Operations Manager can:

- Generate events for Service Monitor traps
- Display the events on the Service Quality Alerts dashboard
- Store and display event history

For more information, see *User Guide for Cisco Unified Operations Manager*.

Service Monitor Home Page

The Reports tab is the home page for Service Monitor, appearing after you log in. From the home page, you can generate reports that provide you with MOS statistics for a configurable number of days.

- [Using Sensor Reports](#), page 2-4
- [Using CVTQ Reports](#), page 2-8
- [Using Most-Impacted Endpoints Reports](#), page 2-13

Starting Service Monitor

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- Step 1** Enter `http://server_name:1741` in your browser, where `server_name` is the DNS name or the IP address of the server where Service Monitor is installed. A login page is displayed.
- Step 2** Enter a username and password. If you do not have a username, you can use the following:
- Enter *admin* for the user ID.
 - Enter the password that you entered for the admin user during installation and press Enter.
- The Service Monitor home page appears.
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For more information, see the following topic:

- [Configuring Users \(ACS and Non-ACS\), page 6-10](#)