

CA Nimsoft Monitor

Probe Guide for Cisco Unified Communication Manager (UCM) Monitoring

cisco_ucm v1.8 series



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Documentation Changes

This table describes the version history for this document.

Version	Date	What's New?
1.8	June 2014	Documentation on the initial web-based GUI version of the Cisco Unified Communication Manager (UCM) Monitoring probe.

Chapter 1: Overview

The `cisco_ucm` probe is a tool for managing the health and performance of the Cisco Unified Communications Manager (formerly known as Call Manager) systems.

The `cisco_ucm` probe monitors all performance counters and services available on the Cisco Unified Communications Manager servers.

Cisco Unified Communications Manager (CUCM) is a call-processing software of the Cisco IP Telephony solution. The CUCM monitors various Voice-over-IP (VoIP) network components and provides many functions, such as managing call setup, controlling devices, and collecting statistics on call quality.

The CUCM system extends enterprise telephony features and functions to packet telephony network components such as:

- Voice-over-IP phones
- Media processing devices
- Voice-over-IP gateways
- Multimedia applications
- Unified messaging
- Conference bridges
- Collaborative contact centers
- Voice mail boxes
- Interactive multimedia response systems

For example, a CUCM administrator can use the `cisco_ucm` probe to monitor the health and quality of a video conference that was made through a specific VoIP device.

This section contains the following topics:

[About This Guide](#) (see page 8)

[Related Documentation](#) (see page 8)

About This Guide

This guide provides information about how the Cisco Unified Communication Manager (UCM) Monitoring probe is configured for CA Nimsoft Monitor. This guide contains the following information:

- Overview of the Cisco Unified Communication Manager (UCM) Monitoring probe and related documentation for previous probe versions.
- Configuration details of the probe.
- Field information and common procedures required for configuring the probe.

Important! Description for intuitive GUI fields is not included in the document.

Related Documentation

Related Documentation

Documentation for other versions of the cisco_ucm probe

The [Release Notes](#) for the cisco_ucm probe

[User documentation for the Admin Console](#)

Monitor Metrics Reference Information for CA Nimsoft Probes

(http://docs.nimsoft.com/prodhelp/en_US/Probes/ProbeReference/index.htm)

Preconfiguration Requirements

This section contains the preconfiguration requirements for the CA Nimsoft Cisco Unified Communication Manager (UCM) Monitoring probe.

System Requirements

The cisco_ucm probe should be installed on systems with the following minimum resources:

- Memory: 2-4GB of RAM.
- CPU: 3GHz dual-core processor, 32-bit or 64-bit

Monitoring System Requirements

The `cisco_ucm` probe monitors key performance metrics and services on the CUCM servers. The probe contains an intuitive user interface making it easier for administrators to define hosts to be monitored, activate/deactivate checkpoints, and configure thresholds. The `cisco_ucm` probe monitoring capabilities can be achieved without installing any software on the CUCM servers. The probe can also be extended to monitor any available Cisco performance counters.

Supported Platforms

Refer to the [Nimsoft Compatibility Support Matrix](#) for the latest information on supported platforms. See also the [Support Matrix for Nimsoft Probes](#) for additional specific information on the `cisco_ucm` probe.

List of Supported Products

The `cisco_ucm` probe supports the following Cisco Unified products:

- Cisco Unified Communications Manager (Call Manager) 6.x, 7.x, 8.x, 9.x, 10.x
- Cisco Unity Connection 7.x, 8.x, 9.x, 10.x
- Cisco Unified Presence 7.x, 8.x, 9.x, 10.x
- Cisco Contact Center Express 8.x

Chapter 2: Configuration Details

The Cisco Unified Communication Manager (UCM) Monitoring probe is configured to use various services that CUCM provides. The probe uses File Transfer Protocol (FTP) to fetch the call management details from the CUCM server. You can configure the FTP settings through the Cisco Unified Communication Manager (UCM) Monitoring probe.

Note: Install the Cisco Unified Communication Manager (UCM) Monitoring probe on the same machine where the FTP server resides.

The Cisco Unified Communication Manager (UCM) Monitoring probe is configured to create two types of monitoring profiles:

- **CAR Profile:** CAR stands for CDR (Call Data Report) Analysis Report. CAR profile lets you track the call statistics and generate health and performance report of network calls. The cisco_ucm probe uses File Transfer Protocol (FTP) for fetching CDR files and then generates the CDR Analysis Report.
- **Host Profile:** This profile represents the system on which the probe is deployed. You can add custom checkpoints to the host profile and can enable respective monitors.

This section contains the following topics:

- [cisco_ucm Node](#) (see page 12)
- [Configure a Node](#) (see page 19)
- [Add Checkpoints](#) (see page 19)
- [How to Configure Alarm Thresholds](#) (see page 19)
- [Add Resource](#) (see page 20)
- [Add CAR Profile](#) (see page 20)
- [Add Host Profile](#) (see page 20)
- [Delete CAR Profile](#) (see page 21)
- [Delete Host Profile](#) (see page 21)
- [Delete Resource](#) (see page 21)

cisco_ucm Node

This node lets you view the probe information. You can also configure the threshold limits for accessing the CUCM, fetching the CDR details, and receiving the response for CAR profile.

Navigation: cisco_ucm

Set or modify the following values as required:

cisco_ucm > Probe Information

This section provides information about the probe name, probe version, start time of the probe, and the probe vendor.

cisco_ucm > General Configuration

This section is used to configure the log level of the probe. You can also set the threshold values for the probe for connecting to the CUCM, fetching CDR data, and receive response for CAR profile.

- **Log Level:** specifies the detail level of the log file.
Default: 0-fatal
- **Send Session Alarms:** enables you to issue a session alarm for a deactivated session.
- **Check Interval:** specifies the time interval (in minutes) for fetching the monitoring data and writing to the database.
Default: 1
- **Sample Interval:** specifies the time range (in hours) from which the probe fetches the average value of the monitors that were selected as sample monitors. For example, if the sample interval is specified as 12 hours then the probe fetches the average value of the sample monitors from the last 12 hours and writes it to the database.
Default: 6

- **AXL Timeout (sec):** specifies the threshold value (in seconds) for the probe for connecting to the CUCM server through Administrative XML Layer (AXL). If the specified threshold is breached, then an alarm is issued.

Default: 60

- **Report Timeout (sec):** specifies the time interval within which the cisco_ucm probe must generate the call session report.

Default: 60

- **CAR Interval:** specifies the time interval between each instance when the probe fetches the CDR data and then, writes it to the database.

- **Maximum Number of Threads:** specifies the total number of profiles that the probe can simultaneously monitor.

Default: 10

- **Insert CAR Details to SLM NIS Database:** enables the probe to write the data, which is collected for the CAR profile, to the **tbncdr** database. The database resides at the path which is specified in the **Data Engine Address** field.

Note: Select **Validate Data Engine** from the **Actions** drop down for verifying the data engine path.

cisco_ucm > Message Configuration

This section lets you select an alarm message from the table and view their properties.

- Message ID: indicates the ID that is associated with the selected alarm message.
- Message Text-OK: indicates the message text for a positive alarm.
- Message Text-Error: indicates the message text for a negative alarm.
- Subsystem: indicates the alarm subsystem ID that defines the source of the alarm.
- Token: indicates a predefined alarm which is fetched from the database.
- Error Token: indicates a predefined negative alarm.
- OK Token: indicates a predefined positive alarm.
- Severity: indicates the severity level of the selected alarm message.

cisco_ucm > Add New Resource

This section lets you connect to a CUCM server for using its services.

- Hostname or IP Address: defines the IP address of the CUCM server.
- Unified Server Type: specifies the version of the CUCM server.
- Port: specifies the communication port to be used.
Default: 8443
- Username: defines the user name for accessing the CUCM server.
- Node List: specifies the particular service of the CUCM that you want to use for monitoring the resource. A node name represents a service of the CUCM.

<IP Address> Node

This node represents one of the CUCM servers. You can create a CAR profile and a HOST profile for the respective CUCM server.

Note: This node is user-configurable and is known as *IP Address* node in the document.

Navigation: cisco_ucm > *IP Address*

Set or modify the following values as required:

IP Address > Resource Configuration

Refer to the **Add New Resource** section of the **cisco_ucm** node for field description.

IP Address > Node List

This section lets you view a list of available nodes on the CUCM server. Select **Fetch Nodes** from the **Actions** drop down list for generating nodes list.

CAR Node

A CAR profile pushes the FTP client on the CUCM to transfer the CDR data on the FTP server. The cisco_ucm probe fetches the CDR data from the FTP server for analysis.

This node lets you create a CAR profile for monitoring the call sessions of the CUCM.

Navigation: cisco_ucm > IP Address > CAR Node

Set or modify the following values as required:

IP Address > Add New CAR Profile

This section lets you add a CAR profile for monitoring the health and performance of the network calls. Each CAR profile monitors a specific communication session.

- Profile Name: defines the unique CAR profile name.
- Active: lets you activate the CAR profile.
- Node: defines the service of the CUCM that you want the CAR profile to use for monitoring the call session.

Note: If you do not provide any node, or if you provide an invalid node, then the probe selects the node that you specify when you create a resource.

- FTP Hostname: defines the host name or IP address of the FTP server.
- FTP Username: defines the user name for accessing the FTP server.
- Remote Directory: defines the path of the directory where you want the FTP client for storing the CDR data.
- FTP Actual path: specifies the path of the directory from where the probe fetches the CDR data.
- Secure FTP: select this check box if the FTP connection is secure.
- Time Zone Offset: specifies the time zone difference between the location of the CUCM server and the machine where the probe is involved.
- QoS Identification Method: specifies whether the FTP server machine is identified through the profile name or the host name.

CAR-<Profile Name> Node

This node represents the new CAR profile. You can configure the CAR properties for the probe to generate QoS data based on analyzing the CDR data.

Note: This node is known as *CAR-profile name* node on the document and it is user-configurable.

Navigation: cisco_ucm > IP Address > CAR Node > *CAR-profile name*

Set or modify the following values as required:

CAR-profile name > CAR Profile Configurations

This section lets you configure the CAR profile properties. Refer to the **Add New CAR Profile** section of the **CAR** node for field description.

CAR-profile name > Monitors

This section lets you activate the monitors and configure their properties. You can select a specific monitor from the list of monitors in the table. The Cisco Unified Communication Manager (UCM) Monitoring probe generates QoS only for the activated monitors.

- **Publish Data:** enables the probe to generate QoS data for the selected monitor.

Note: When you check the **Publish Data** check box, the value of **Data** column in the table changes from **Off** to **On**.

- **Active:** activates the selected monitor.
- **Key:** indicates the monitor name in the specific node list.

Host Node

This node represents the host profile which is created to monitor all other services of the CUCM other than the call sessions.

Navigation: cisco_ucm > *IP Address* > Host

Set or modify the following values as required:

Host > Add New Host Profile

This section lets you create a profile for monitoring the services of the CUCM.

- Profile Name: defines the unique profile name.
- Node: defines the CUCM service which is defines for this host profile.
Note: For an invalid node name, the probe selects the default node name which is specified at the resource profile.
- Alarm Message: specifies the alarm which is issued when the host does not respond.
Default: MsgAgentError
- Authentication Message: specifies the message that is issued when a logging attempt fails due to invalid credentials.
Default: MsgError
- QoS Identification Method: specifies the QoS source.
Default: Host Name
- Alarm Identification Method: specifies the alarm source.
Default: Host Name

Host-<Profile Name> Node

This node represents the host profile which is created for monitoring the services of the CUCM.

Note: This node is known as *Host-profile name* node in the document and is user-configurable.

Navigation: cisco_ucm > *IP Address* > Host > *Host-profile name*

Set or modify the following values as required:

Host-profile name > Host Profile Configurations

Refer to the **Add New Profile** section of the **Host** node for field description.

Host-profile name > Test Host Profile

This section lets you test whether the connection to the CUCM server has been established or not. Select **Test Profile** from the **Actions** drop down list for generating connection information.

<Checkpoint Name> Node

This node lets you configure the monitors of the host profile. You can select the monitors for which you want to generate QoS data and Alarm messages.

Notes:

- This node is known as *checkpoint name* node in the document and is user-configurable.
- For adding various checkpoints for a host profile, refer to the **Add Checkpoints** topic.

Navigation: cisco_ucm > *IP Address* > Host > Host-profile name > *checkpoint name*

***checkpoint name* > Monitors**

This section lets you configure the monitoring checkpoints for generating QoS data and alarms.

- Publish data: enables QoS generation.
- Publish Alarms: enables alarm message generation.
- Monitoring Object: indicates the checkpoint name.
- Name: defines a custom name for the checkpoint.
- Last Interval: specifies the time interval (in minutes) from which the values are collected for comparison with the threshold value.
- Value Definition: specifies the value which is compared with the threshold value. This value is the average value, the current value, or the difference between the current value and previous value.
- Operator: specifies the comparison operator.
- Threshold Value: defines the threshold value of the checkpoint.
- Unit: defines the unit of a threshold value. If the threshold value represents the status of the checkpoint then this field is disabled.
- Message Token: specifies the message which is issued when the specified threshold is breached.
- QoS Name: specifies the default QoS that are available for the checkpoint.

Configure a Node

The following procedure provides information to configure a section within a node.

Each section within the node lets you configure the properties of the probe for connecting to the CUCM Server and monitoring various CUCM services.

Follow these steps:

1. Navigate to the section within a node that you want to configure.
2. Update the field information and click **Save**.

The specified section of the probe is configured.

Add Checkpoints

The following procedure lets you add checkpoints for a host profile.

Follow these steps:

1. Click **Options** icon next to the *Host-profile name* node in the navigation pane.
2. Click **Select Counters**.
3. Select any checkpoint from the **Available** list and click the right arrow button for moving the selected checkpoint to the **Selected** list.
4. Click **Submit**.

The selected checkpoints are visible under the *Host-profile name* node in the navigation pane.

How to Configure Alarm Thresholds

Some Quality of Service measurement probes allow you to set different types of alarm thresholds. These threshold options allow you to more broadly control when alarm messages are sent for each QoS probe.

For more information about the different alarm thresholds and their configuration requirements, refer to the *General Probe Configuration* section of the Admin Console Help.

Important! Alarm threshold settings are dependent on the `baseline_engine` probe. If you do not have the correct version of `baseline_engine` configured, you will not see the additional threshold options.

Add Resource

The following procedure enables you to add a resource profile for connecting to the CUCM server. There can be multiple resource profiles for monitoring the services of the CUCM.

Follow these steps:

1. Click **Options** next to the **cisco_ucm** node in the navigation pane.
2. Select **Add New Profile**.
3. Update the field information and click **Submit**.

The new resource profile is visible under the **cisco_ucm** node in the navigation pane.

Add CAR Profile

The following procedure enables you to add a CAR profile for collecting the data of CDR and other call management data.

Follow these steps:

1. Click **Options** next to the **CAR** node in the navigation pane.
2. Select **Add New Profile**.
3. Update the field information and click **Submit**.

The new monitoring profile is visible under the **CAR** node in the navigation pane.

Add Host Profile

The following procedure enables you to add a Host profile for monitoring other services of the CUCM.

Follow these steps:

1. Click **Options** next to the **Host** node in the navigation pane.
2. Select **Add New Profile**.
3. Update the field information and click **Submit**.

The new monitoring profile is visible under the **Host** node in the navigation pane.

Delete CAR Profile

You can delete a CAR profile if you do not want the probe to analyze the CDR data.

Follow these steps:

1. Click the **Options** icon next to the *CAR-profile name* node that you want to delete.
2. Select **Delete Profile**.
3. Click **Save**.

The monitoring profile is deleted from the **CAR** node.

Delete Host Profile

You can delete a profile if you do not want the probe to monitor the services of the CUCM.

Follow these steps:

1. Click the **Options** icon next to the *Host-profile name* node that you want to delete.
2. Select **Delete Profile**.
3. Click **Save**.

The monitoring profile is deleted from the **Host** node.

Delete Resource

You can delete a resource if you do not want the probe to connect to the CUCM server.

Follow these steps:

1. Click the **Options** icon next to the *IP Address* node that you want to delete.
2. Select **Delete Resource**.
3. Click **Save**.

The resource profile is deleted from the probe.

Chapter 3: QoS Threshold Metrics

Many Nimsoft Monitor probes ship with default QoS threshold values set. The default threshold values provide an idea of the type of values to be entered in the fields and are not necessarily recommended best practice values. To aid in tuning thresholds and reducing false-positive alarms, this section describes the QoS metrics and provides the default QoS thresholds.

This section contains the following topics:

[cisco_ucm QoS Metrics](#) (see page 23)

[cisco_ucm Metrics](#) (see page 24)

[cisco_ucm Alert Metrics Default Settings](#) (see page 82)

cisco_ucm QoS Metrics

The following table describes the QoS metrics that can be configured using the cisco_ucm probe.

Monitor Name	Units	Description
QOS_CCM_CALLS	Calls	Cisco Communications Manager Calls
QOS_CCM_DEVICES	Value	Cisco Communications Manager Devices
QOS_CCM_DISK_USAGE	MBytes	Disk Usage (Communications Manager)
QOS_CCM_RESOURCE	Resources	Cisco Communications Manager Resources
QOS_CPU_USAGE	Percent	CPU Usage
QOS_DISK_USAGE_PERC	Percent	Disk Usage (%)
QOS_MEMORY_USAGE_CCM	Kilobytes	Cisco Communications Manager Memory Usage
QOS_MEMORY_USAGE_PERC	Percent	Memory Usage (%)
QOS_PROCESS_CPU	Percent	Process CPU Usage
QOS_PROCESS_MEMORY	Kilobytes	Process Memory Usage
QOS_SERVICE_STATE	State	Cisco Communications Manager Service Availability

cisco_ucm Metrics

The following table provides the description of the monitors that can be configured using the cisco_ucm probe.

Monitor Name	Units	Description
Cisco Annunciator Device		
(ANN_2)\OutOfResources	-	Represents the total number of times an attempt was made to allocate an annunciator resource from this annunciator device and failed, for example, because all resources were already in use.
(ANN_2)\ResourceActive	-	Represents the total number of annunciator resources that are currently active (in use) for this annunciator device.
(ANN_2)\ResourceAvailable	-	Represents the total number of resources that are not active and are still available to be used at the current time for the annunciator device.
(ANN_2)\ResourceTotal	-	Represents the total number of annunciator resources configured for this annunciator device.
Cisco AXL Web Service		
ThrottleCount	-	Represents the number of times Administrative XML Layer (AXL) throttling has been engaged since the last restart of the Cisco AXL Web Service. Throttling occurs when the AXL service receives more change requests than it is able to process.
ThrottleState	-	Represents whether Administrative XML Layer (AXL) throttling is currently active (throttling is engaged). A value of 1 in this counter indicates that throttling is currently engaged, which means that any application attempting to send a write request to Cisco Unified Communications Manager via AXL will be denied due to AXL throttling. Read requests will continue to be allowed and processed while AXL throttling is engaged. A value of zero indicates that throttling is not occurring at this time and all read and write requests will be processed.
Cisco Call Restriction		
AdHocConferenceFailures	-	Represents the number of attempts that failed to add a participant to an Ad Hoc Conference because the call path between the geolocation of the devices already in conference and the device being invited to the conference was restricted due to a logical partition policy.
BasicCallFailures	-	Represents the number of basic calls that have failed because of logical partition policy restrictions between the geolocations of the called and calling parties. A basic call is any call that does not utilize supplementary services such as transfer, forward, and so on.

Monitor Name	Units	Description
ForwardingFailures	-	Represents the number of attempts to forward an incoming call which failed because of a logical partition policy restriction between the geolocations of the two parties involved.
LogicalPartitionFailure sTotal	-	Represents the total number of call attempts that have failed because of a restriction of calls between geolocations of the calling and called parties. This includes the number of failures for Transfer, Ad Hoc Conference, Meet-Me Conference, Pickup, Call Park, Shared Lines and Basic Calls.
MeetMeConferenceFa ilures	-	Represents the number of attempts that failed to add a participant to a Meet-Me Conference because the call path between the geolocation of the devices already in conference and the device attempting to join the conference was restricted due to a logical partition policy.
MidCallFailures	-	Represents the number of calls that have failed because of a restriction between the geolocations of the called or connected parties after the initial policy check.
ParkRetrievalFailures	-	Represents the number of attempts to perform a Call Park operation that failed because the device that was attempting to retrieve the call had a logical partition policy restriction with the geolocation of the parked party.
PickUpFailures	-	Represents the number of attempts to perform a Pickup operation that failed because the device on which the pickup was being attempted had a logical partition policy restriction with the geolocation of the calling device.
SharedLineFailures	-	Represents the number of attempts to use a shared line which failed because the caller or callee has a logical partition policy restriction with the geolocation of the devices having the shared lines.
TransferFailures	-	Represents the number of call transfer attempts that failed due to restriction of calls between the geolocation of the transferred party and the transferred destination
Cisco Call Manager		
AnnunciatorOutOfRes ources	-	Represents the total number of times that Communications Manager attempted to allocate an annunciator resource from those that are registered to this Communications Manager when none were available.
AnnunciatorResourceA ctive	-	Represents the total number of annunciator resources that are currently in use on all annunciator devices registered with this Communications Manager.
AnnunciatorResourceA vailable	-	Represents the total number of annunciator resources that are not active and are currently available.
AnnunciatorResourceT otal	-	Represents the total number of annunciator resources provided by all annunciator devices that are currently registered with this Communications Manager.

Monitor Name	Units	Description
AuthenticatedCallsActive	-	Represents the number of authenticated calls that are currently active (in use) on this Communications Manager. An authenticated call is one in which all the endpoints participating in the call are authenticated. An authenticated phone uses the Transport Layer Security (TLS) authenticated Skinny protocol signaling with Communications Manager.
AuthenticatedCallsCompleted	-	Represents the number of authenticated calls that were connected and subsequently disconnected through this Communications Manager. An authenticated call is one in which all the endpoints participating in the call are authenticated. An authenticated phone uses the Transport Layer Security (TLS) authenticated Skinny protocol signaling with Communications Manager.
AuthenticatedPartiallyRegisteredPhone	-	Represents the number of partially registered authenticated SIP Phones.
AuthenticatedRegisteredPhones	-	Represents the total number of authenticated phones registered to this Communications Manager. An authenticated phone uses the Transport Layer Security (TLS) authenticated Skinny protocol signaling with Communications Manager.
BRIChannelsActive	-	Represents the number of BRI voice channels that are currently in an active call on this Communications Manager.
BRIspansInService	-	Represents the number of BRI spans that are currently available for use.
CommunicationsManagerHeartBeat	-	Represents the heartbeat of Communications Manager. This is an incremental count that indicates that Communications Manager is alive and running. If the count does not increment, then Communications Manager is down (dead).
CallsActive	-	Represents the number of voice or video streaming connections that are currently in use (active). In other words, the number of calls that actually have a voice path connected on this Communications Manager.
CallsAttempted	-	Represents the total number of attempted calls. Any time a phone goes off-hook and back on-hook, it is considered an attempted call, regardless of whether any digits were dialed or if it connected to a destination. Some call attempts are made by the system during feature operations (such as transfer and conference) and are considered attempted calls
CallsCompleted	-	Represents the number of calls that were actually connected (a voice path or video stream was established) through this Communications Manager. This number increments when the call is terminated.
CallsInProgress	-	Represents the number of voice or video calls that are currently in progress on this Communications Manager, including all active calls. When a phone goes off-hook, it is a call in progress until it goes back on-hook. When all voice or video calls that are in progress are connected, the number of CallsInProgress and the number of CallsActive are the same.

Monitor Name	Units	Description
CumulativeAllocatedResourceCannotOpenPort	-	Represents the total number of calls that failed when the allocated resource failed to open a port for media transmission.
EncryptedCallsActive	-	Represents the number of encrypted calls that are currently active (in use) on this Communications Manager. An encrypted call is one in which all the endpoints participating in the call are encrypted.
EncryptedCallsCompleted	-	Represents the number of encrypted calls that were connected and subsequently disconnected through this Communications Manager. An encrypted call is one in which all the endpoints participating in the call are encrypted.
EncryptedPartiallyRegisteredPhones	-	Represents the number of partially registered encrypted SIP Phones.
EncryptedRegisteredPhones	-	Represents the total number of encrypted phones registered to this Communications Manager.
ExternalCallControlEnabledCallsAttempted	-	Specifies the total number of calls to devices that have the External Call Control feature enabled. This is a cumulative count of all calls to intercept-enabled patterns or DNs since the last restart of the Cisco Communications Manager service.
ExternalCallControlEnabledCallsCompleted	-	Specifies the total number of calls that were connected to a device that had the External Call Control feature enabled. This is a cumulative count of all calls to intercept-enabled patterns or DNs since the last restart of the Cisco Communications Manager service.
ExternalCallControlEnabledFailureTreatmentApplied	-	Specifies the total number of calls that were cleared or routed based on failure treatments (such as Allow or Deny) that are defined in the External Call Control profile.
FXOPortsActive	-	Represents the number of FXO ports that are currently in use (active) on this Communications Manager.
FXOPortsInService	-	Represents the number of FXO ports that are currently available for use in the system.
FXSPortsActive	-	Represents the number of FXS ports that are currently in use (active) on this Communications Manager.
FXSPortsInService	-	Represents the number of FXS ports that are currently available for use in the system.
HuntListsInService	-	Represents the number of hunt/route lists that are currently in service on this Communications Manager.
HWConferenceActive	-	Represents the number of active conferences on all hardware conference devices registered with this Communications Manager.

Monitor Name	Units	Description
HWConferenceCompleted	-	Represents the total number of conferences that used a hardware conference bridge (hardware-based conference devices such as Cisco Catalyst 6000, Cisco Catalyst 4000, Cisco VG200, Cisco series 26xx and 36xx) allocated from this Communications Manager and have been completed, which means that the conference bridge has been allocated and released. A conference is activated when the first call is connected to the bridge. The conference is completed when the last call disconnects from the bridge.
HWConferenceResourceActive	-	Represents the total number of times Communications Manager attempted to allocate a hardware conference resource from those that are registered to this Communications Manager when none were available.
HWConferenceResourceAvailable	-	Represents the total number of conference resources that are in use on all hardware conference devices (such as Cisco Catalyst 6000, Catalyst 4000, Cisco VG200, Cisco series 26xx and 36xx) that are registered with this Communications Manager. A conference is considered active when one or more calls are connected to a bridge. One resource is equal to one stream.
HWConferenceResourceTotal	-	Represents the total number of hardware conference resources provided by all hardware conference bridge devices that are currently registered with this Communications Manager.
InitializationState	-	Represents the current state of Cisco Communications Manager initialization. The following values specify initialization states: 1-Database; 2-Regions; 3-Locations; 4-QoS Policy; 5-Time Of Day; 6-AAR Neighborhoods; 7-Digit Analysis; 8-Route Plan; 9-Call Control; 10-RSVP Session Manager; 11-Mobility Generic Device; 12-Mobility Call Park; 13-Supplementary Services; 14-SDL Link; 15-Device; 100-Initialization Complete. Not all states will be displayed using this counter. This is not an error; it simply indicates that the state(s) were processed to completion within the refresh period of the performance monitor.
LocationOutOfResources	-	Represents the total number of times that a call through Locations failed due to lack of bandwidth.
MCUConferencesActive	-	Represents the total number of active conferences on all Cisco Telepresence MCU conference bridge devices registered with this Communications Manager.
MCUConferencesCompleted	-	Represents the total number of conferences that used a Cisco Telepresence MCU conference bridge allocated from this Communications Manager and have been completed, which means that the conference bridge has been allocated and released. A conference is activated when the first call is connected to the bridge. The conference completes when the last call disconnects from the bridge that were connected and released.
MCUHttpConnectionErrors	-	Represents the total number of times an attempt was made by Communications Manager to create HTTP connections to this Cisco Telepresence MCU conference bridge device and failed because of connection error on Cisco Telepresence MCU conference bridge side.

Monitor Name	Units	Description
MCUHttpNon200OkResponse	-	Represents the total number of times Communications Manager received a non 200 OK HTTP Response from Cisco Telepresence MCU conference bridge (for any HTTP query sent by Communications Manager).
MCUOutOfResources	-	Represents the total number of times an attempt was made by Communications Manager to allocate a conference resource from this Cisco Telepresence MCU conference bridge device and failed, for example, because all resources were already in use.
MOHMulticastResourceActive	-	Represents the total number of multicast MOH resources that are currently in use (active) on all MOH servers registered with this Communications Manager.
MOHMulticastResourceAvailable	-	Represents the total number of active multicast MOH connections that are not being used on all MOH servers that are registered with this Communications Manager.
MOHOutOfResources	-	Represents the total number of times that the Media Resource Manager attempted to allocate an MOH resource when all available resources on all MOH servers registered with this Communications Manager were already active.
MOHTotalMulticastResources	-	Represents the total number of multicast MOH resources or connections provided by all MOH servers that are currently registered with this Communications Manager.
MOHTotalUnicastResources	-	Represents the total number of unicast MOH resources or streams provided by all MOH servers that are currently registered with this Communications Manager. Each MOH unicast resource uses one stream.
MOHUnicastResourceActive	-	Represents the total number of unicast MOH resources that are currently in use (active) on all MOH servers that are registered with this Communications Manager. Each MOH unicast resource uses one stream.
MOHUnicastResourceAvailable	-	Represents the total number of unicast MOH resources that are currently available on all MOH servers registered with this Communications Manager. Each MOH unicast resource uses one stream.
MTPOutOfResources	-	Represents the total number of times Communications Manager attempted to but failed to allocate an MTP resource from one of the MTP devices that is registered with this Communications Manager. This also means that no transcoders were available to act as MTPs.

Monitor Name	Units	Description
MTPRequestsThrottled	-	Represents the total number of media termination point (MTP) resource requests that have been denied due to throttling (a resource from this MTP was not allocated because, as specified by the Cisco Communications Manager service parameter, MTP and Transcoder Resource Throttling Percentage, the MTP was being utilized beyond the configured throttle percentage). This counter increments each time a request for an MTP on this Cisco Unified Communications Manager (Unified CM) node is requested and denied due to MTP throttling and reflects a running total since the start of the Cisco Communications Manager service.
MTPResourceActive	-	Represents the total number of Media Termination Point (MTP) resources that are currently in use (active) on all MTP devices registered with this Communications Manager. Each MTP resource uses two streams. An MTP in use is one MTP resource that has been allocated for use in a call.
MTPResourceAvailable	-	Represents the total number of MTP resources that are not in use and are available to be allocated on all MTP devices that are registered with this Communications Manager. Each MTP resource uses two streams. An MTP in use is one MTP resource that has been allocated for use in a call.
MTPResourceTotal	-	Represents the total number of media termination point resources provided by all MTP devices that are currently registered with this Communications Manager.
PartiallyRegisteredPhone	-	Represents the number of partially registered SIP Phones.
PRIChannelsActive	-	Represents the number of PRI voice channels that are in an active call on this CallManager.
PRIspansInService	-	Represents the number of PRI spans that are currently available for use.
RegisteredAnalogAccess	-	Represents the number of registered Cisco Analog Access gateways that are registered with this system. This does not include the number of Cisco Analog Access ports.
RegisteredHardwarePhones	-	Represents the number of Cisco hardware IP phones (for example, models 7960, 7940, 7910, etc.) that are currently registered in the system.
RegisteredMGCPGateway	-	Represents the number of MGCP gateways currently registered in the system.
RegisteredOtherStationDevices	-	Represents the number of station devices other than Cisco hardware IP phones that are currently registered in the system (for example, Cisco IP SoftPhone, CTI port, CTI route point, Cisco voice mail port).
SIPLineServerAuthorizationChallenges	-	Represents the number of authentication challenges for incoming SIP requests that Cisco Communications Manager has issued to SIP phones. An authentication challenge occurs when a SIP phone sends a SIP line request to Cisco Communications Manager and Digest Authentication is enabled for that phone.

Monitor Name	Units	Description
SIPLineServerAuthorizationFailures	-	Represents the number of authentication challenge failures for incoming SIP requests from SIP phones to Cisco Communications Manager. An authentication failure occurs when a SIP phone sends a SIP line request with bad credentials to Cisco Communications Manager and Digest Authentication is enabled for that phone.
SIPTrunkApplicationAuthorizationFailures	-	Represents the number of application-level authorization failures for incoming SIP requests that have occurred on Cisco Communications Manager SIP trunks. An application-level authorization failure occurs when Cisco Communications Manager compares an incoming SIP request to the SIP feature settings on the Application User Configuration window in Cisco Communications Manager Administration and finds that application-level authorization for one or more of the SIP features on that window is not allowed.
SIPTrunkApplicationAuthorizations	-	Represents the number of application-level authorization checks for incoming SIP requests that Cisco Communications Manager has issued to SIP trunks. An application-level authorization check occurs when Cisco Communications Manager compares an incoming SIP request to the SIP feature settings on the Application User Configuration window in Cisco Communications Manager Administration. Note: This check only occurs if Enable Digest Authentication and Enable Application Level Authorization checkboxes are enabled in the SIP Trunk Security Profile Configuration window.
SIPTrunkAuthorizationFailures	-	Represents the number of trunk-level authorization failures for incoming SIP requests that have occurred on Cisco Communications Manager SIP trunks. A trunk-level authorization failure occurs when Cisco Communications Manager compares an incoming SIP request to the SIP feature authorization settings on the SIP Trunk Security Profile Configuration window in Cisco Communications Manager Administration and finds that authorization for one or more of the SIP features on that window is not allowed.
SIPTrunkAuthorizations	-	Represents the number of trunk-level authorization checks for incoming SIP requests that Cisco Communications Manager has issued to SIP trunks. A trunk-level authorization check occurs when Cisco Communications Manager compares an incoming SIP request to the SIP feature authorization settings on the SIP Trunk Security Profile Configuration window in Cisco Communications Manager Administration.
SIPTrunkServerAuthenticationChallenges	-	Represents the number of authentication challenges for incoming SIP requests that that Cisco Communications Manager has issued to SIP trunks. An authentication challenge occurs when a SIP trunk sends a SIP request to Cisco Communications Manager and Digest Authentication is enabled for that trunk.

Monitor Name	Units	Description
SIPTrunkServerAuthenticationFailures	-	Represents the number of authentication challenge failures for incoming SIP requests from SIP trunks to Cisco Communications Manager. An authentication failure occurs when a SIP trunk sends a SIP request with bad credentials to Cisco Communications Manager and Digest Authentication is enabled for that trunk.
SWConferenceActive	-	Represents the number of active conferences on all software conference devices registered with this Communications Manager.
SWConferenceCompleted	-	Represents the total number of conferences that used a software conference bridge allocated from this Communications Manager and have been completed, which means that the conference bridge has been allocated and released. A conference is activated when the first call is connected to the bridge. The conference is completed when the last call disconnects from the bridge.
SWConferenceOutOfResources	-	Represents the total number of times Communications Manager attempted to allocate a software conference resource from those that are registered to this Communications Manager when none were available. This counter includes failed attempts to add a new participant to an existing conference.
SWConferenceResourceActive	-	Represents the total number of conference resources that are in use on all software conference devices registered with this Communications Manager. A conference is considered active when one or more calls are connected to a bridge. One resource is equal to one stream.
SWConferenceResourceAvailable	-	Represents the number of new software-based conferences that can be started at this point in time for this Communications Manager. A minimum of three streams must be available for each new conference. One resource is equal to one stream.
SWConferenceResourceTotal	-	Represents the total number of software conference resources provided by all software conference bridge devices that are currently registered with this Communications Manager.
SystemCallsAttempted	-	Represents the total number of server Originated calls and attempted calls to Unity Message waiting indicator(MWI) numbers.
T1ChannelsActive	-	Represents the number of T1 CAS voice channels that are in an active call on this Communications Manager.
T1SpansInService	-	Represents the number of T1 CAS spans that are currently available for use.
TLSConnectedSIPTrunks	-	Represents the number of SIP Trunks configured and connected via Transport Layer Security (TLS).
TLSConnectedWSM	-	Represents the number of WSM Connectors configured and connected to Motorola WSM via Transport Layer Security (TLS).
TranscoderOutOfResources	-	Represents the total number of times Communications Manager attempted to allocate a transcoder resource from one of the transcoder devices that is registered to this Communications Manager when none were available.

Monitor Name	Units	Description
TranscoderRequestsThrottled	-	Represents the total number of transcoder resource requests that have been denied due to throttling (a resource from this transcoder was not allocated because, as specified by the Cisco Communications Manager service parameter, MTP and Transcoder Resource Throttling Percentage, the transcoder was being utilized beyond the configured throttle percentage). This counter increments each time a request for a transcoder on this Cisco Unified Communications Manager (Unified CM) node is requested and denied due to transcoder throttling and reflects a running total since the start of the Cisco Communications Manager service.
TranscoderResourceActive	-	Represents the total number of transcoders that are in use on all transcoder devices registered with this Communications Manager. A transcoder in use is one transcoder resource that has been allocated for use in a call. Each transcoder resource uses two streams.
TranscoderResourceAvailable	-	Represents the total number of transcoders that are not in use and are available to be allocated on all transcoder devices that registered with this Communications Manager. Each transcoder resource uses two streams.
TranscoderResourceTotal	-	Represents the total number of transcoder resources provided by all transcoder devices that are currently registered with this Communications Manager.
VCBConferencesActive	-	Represents the total number of active video conferences on all video conference bridge devices registered with this Communications Manager.
VCBConferencesAvailable	-	Represents the total number of new video conferences that can be started on all video conference bridge devices registered with this Communications Manager.
VCBConferencesCompleted	-	Represents the total number of video conferences that used a video conference bridge allocated from this Communications Manager and have been completed, which means that the conference bridge has been allocated and released. A conference is activated when the first call is connected to the bridge. The conference completes when the last call disconnects from the bridge that were connected and released.
VCBConferencesTotal	-	Represents the total number of video conferences supported on all video conference bridge devices registered with this -Communications Manager.
VCBOutOfConferences	-	Represents the total number of failed new video conference requests. A conference request can fail because, for example, the configured number of conferences are already in use.
VCBOutOfResources	-	Represents the total number of times that Communications Manager attempted to allocate a video conference resource from those that are registered to this Communications Manager when none were available.
VCBResourceActive	-	Represents the total number of video conference resources that are currently in use on all video conference devices that are registered with this Communications Manager.

Monitor Name	Units	Description
VCBResourceAvailable	-	Represents the total number of video conference resources that are not active and are currently available.
VCBResourceTotal	-	Represents the total number of video conference resources provided by all video conference bridge devices that are currently registered with this Communications Manager.
VideoCallsActive	-	Represents the number of active video calls with active video streaming connections on all video conference bridge devices registered with this Communications Manager.
VideoCallsCompleted	-	Represents the number of video calls that were actually connected with video streams and then released.
VideoOutOfResources	-	Represents the total number of times Communications Manager attempted to allocate a video streaming resource from one of the video conference bridge devices that is registered to this Communications Manager when none were available.
Cisco Unified Communications Manager System Performance		
AverageExpectedDelay	-	Represents the current average expected delay to handle any incoming message.
CallsRejectedDueToThrottling	-	Represents the total number of calls rejected since the start of service due to call throttling.
CallThrottlingGenericCounter3	-	Represents a generic counter used for call throttling purposes.
CodeRedEntryExit	-	Indicates whether Communications Manager has entered or exited a Code Red state (call throttling mode). Valid values are 0 (Exit) and 1 (Entry).
CodeYellowEntryExit	-	Indicates whether Communications Manager has entered or exited a Code Yellow state (call throttling mode). Valid values are 0 (Exit) and 1 (Entry).
EngineeringCounter1	-	This counter is not used unless directed by a Cisco Engineering Special build. Information in this counter will be used by Cisco for diagnostic purposes.
QueueSignalsPresent 1-High	-	Indicates the number of high-priority signals in the Cisco Unified Communications Manager (Unified CM) queue. High priority signals include timeout events, internal Cisco Unified Communications Manager KeepAlives, certain gatekeeper events, and internal process creation, among other events. A large number of high priority events will cause degraded performance on Unified CM, resulting in slow call connection or loss of dial tone. Use this counter in conjunction with the QueueSignalsProcessed 1-High counter to determine the processing delay on Unified CM.

Monitor Name	Units	Description
QueueSignalsPresent 2-Normal	-	Indicates the number of normal-priority signals in the Cisco Unified Communications Manager (Unified CM) queue. Normal priority signals include call processing functions, key presses, on-hook and off-hook notifications, among other events. A large number of normal priority events will cause degraded performance on Unified CM, sometimes resulting in delayed dial tone, slow call connection, or loss of dial tone. Use this counter in conjunction with the QueueSignalsProcessed 2-Normal counter to determine the call processing delay on Unified CM. Remember that high priority signals must complete before normal priority signals begin to process, so check the high priority counters as well to get an accurate picture of the potential delay.
QueueSignalsPresent 3-Low	-	Indicates the number of low-priority signals in the Cisco Unified Communications Manager queue. Low priority signals include station device registration (except the initial station registration request message), among other events. A large number of signals in this queue could result in delayed device registration, among other events.
QueueSignalsPresent 4-Lowest	-	Indicates the number of lowest-priority signals in the Cisco Unified Communications Manager queue. Lowest priority signals include the initial station registration request message during device registration, among other events. A large number of signals in this queue could result in delayed device registration, among other events.
QueueSignalsPresent 5-Database	-	Indicates the number of database-priority signals in the Cisco Unified Communications Manager queue. Database priority signals are generally restricted to database updates (add, move, and delete operations). A large number of signals in this queue will not affect call processing.
QueueSignalsPresent 6-Interleaved	-	Indicates the number of interleaved-priority signals in the Cisco Unified Communications Manager queue. Interleaved priority signals include gatekeeper unregistration, among other events. A large number of signals in this queue will not significantly affect call processing. Note that signals in this queue interleave (alternate) with the signals from all other queues, regardless of the signal priority.
QueueSignalsProcessed 1-High	-	Indicates the number of high-priority signals processed by Cisco Unified Communications Manager (Unified CM) for each one-second interval. Use this counter in conjunction with the QueueSignalsPresent 1-High counter to determine the processing delay on this queue.
QueueSignalsProcessed 2-Normal	-	Indicates the number of normal-priority signals processed by Cisco Unified Communications Manager for each one-second interval. Use this counter in conjunction with the QueueSignalsPresent 2-Normal counter to determine the processing delay on this queue. Remember that high priority signals are processed before normal priority signals.

Monitor Name	Units	Description
QueueSignalsProcessed 3-Low	-	Indicates the number of low-priority signals processed by Cisco Unified Communications Manager for each one-second interval. Use this counter in conjunction with the QueueSignalsPresent 3-Low counter to determine the processing delay on this queue. The number of signals processed gives an indication of how much device registration activity is being processed in this time interval.
QueueSignalsProcessed 4-Lowest	-	Indicates the number of lowest-priority signals processed by Cisco Unified Communications Manager for each one-second interval. Use this counter in conjunction with the QueueSignalsPresent 4-Lowest counter to determine the processing delay on this queue. The number of signals processed gives an indication of how many devices began the Communications Manager registration process in this time interval.
QueueSignalsProcessed 5-Database	-	Indicates the number of database priority signals processed by Cisco Unified Communications Manager for each one-second interval. Use this counter in conjunction with the QueueSignalsPresent 5-Database counter to determine the processing delay on this queue.
QueueSignalsProcessed 6-Interleaved	-	Indicates the number of interleaved-priority signals processed by Cisco Unified Communications Manager for each one-second interval. Use this counter in conjunction with the QueueSignalsPresent 6-Interleaved counter to determine the processing delay on this queue.
QueueSignalsProcessed Total	-	Provides a sum total of all queue signals processed by Cisco Unified Communications Manager for each one-second period for all queue levels: high, normal, low, and lowest.
SkinnyDevicesThrottled	-	Represents the total number of Skinny devices being throttled. A Skinny device is throttled (asked to shutdown and reregister) when the total number of events generated by a Skinny device exceeds the configured maximum threshold value (default value is 2000 events) within a 5 second time period.
ThrottlingSampleActivity	-	Indicates how many samples, out of configured sample size, are having non-zero averageExpectedDelay values. This counter gets reset when any sample has zero averageExpectedDelay value. This process is repeated for each batch of samples. A batch represents the configured sample size.
TotalCodeYellowEntry	-	Indicates the number of times CCM call processing enters code yellow state. This counter is cumulative since the start of the CCM process.
Cisco Car Database		
(CAR_DB_Perfmon_Instance)\CARDBSpaceUsed	-	Represents the amount in percentage (%) of cardbspace consumed. The CAR DB space cardbspace is used by CAR database in CAR IDS instance.
(CAR_DB_Perfmon_Instance)\CARTempDBSpaceUsed	-	Represents the amount in percentage (%) of cartempdbs consumed. The CAR Temp DB space cartempdbs is used by temporary tables in CAR IDS instance, used by CAR applications.

Monitor Name	Units	Description
(CAR_DB_Perfmon_Instance)\FreeSharedMemory	-	Represents the total shared memory that is free in kilobytes (KB). Shared memory is used by database system and all database applications in CAR IDS instance.
(CAR_DB_Perfmon_Instance)\RootDBSpaceUsed	-	Represents the amount in percentage (%) of rootdbs consumed. The root DB space rootdbs is used by IDS system tables in CAR IDS instance.
(CAR_DB_Perfmon_Instance)\UsedSharedMemory	-	Represents the total shared memory that is used in kilobytes (KB). Shared memory is used by database system and all database applications in CAR IDS instance.
Cisco CTI Manager		
CcmLinkActive	-	Represents the active Communications Manager link to CTIManager.
CTIConnectionActive	-	Represents the number of applications connected to this CTIManager.
DevicesOpen	-	Represents the number of devices open by all applications connecting to this CTIManager.
LinesOpen	-	Represents the number of lines open by all applications connecting to this CTIManager.
QBEVersion	-	Represents the QBE Protocol version supported by CTIManager.
Cisco Extension Mobility		
Active Inter-cluster Sessions	-	Represents the total number of inter cluster Extension Mobility requests that are currently in progress.
EMCC Check User Requests Handled	-	Represents the total number of EMCC check user requests that came from remote clusters.
Number of Unknown Remote Users	-	Represents the total number of users who were not found in any of the remote cluster during inter-cluster extension mobility login.
Requests Handled	-	Represents the total number of HTTP requests handled by the Extension Mobility service since the last restart of the service. A typical login would constitute two HTTP requests: one to query the initial login state of the device and another to login the user on a device. Similarly, a typical logout also results in two HTTP requests.
Requests In Progress	-	Represents the number of HTTP requests currently being handled by the Extension Mobility service. A typical login would constitute two HTTP requests: one to query the initial login state of the device and another to login the user on a device. Similarly, a typical logout also results in two HTTP requests.
Requests Throttled	-	Represents the total number of Login/Logout Requests that failed due to throttling.
Successful Logins	-	Represents the total number of successful login requests completed through EM Service.

Monitor Name	Units	Description
Successful Logouts	-	Represents the total number of successful logout requests completed through EMService.
Total Attempted Login/Logout Requests	-	Represents the total number of Login and Logout requests attempted through this EM Service. This includes both successful and unsuccessful attempts.
Total Number of EMCC Messages	-	Represents the total number of messages related to EMCC Requests that came from remote clusters.
Total Number of Remote Devices	-	Represents the total number of devices from other clusters that are currently using an EMCC Base Device (EMCC Logged in).
Total Number of Remote Users	-	Represents the total number of users from other cluster who use a local device of this cluster and have logged into a remote cluster.
Cisco H323		
(InterClusterTrunkToAvaya)\CallsActive	-	Represents the number of streaming connections that are currently active (in use) on the configured H.323 device. In other words, the number of calls that actually have a voice path connected.
(InterClusterTrunkToAvaya)\CallsAttempted	-	Represents the total number of calls that have been attempted on this device, including both successful and unsuccessful call attempts.
(InterClusterTrunkToAvaya)\CallsCompleted	-	Represents the total number of successful calls made from the device.
(InterClusterTrunkToAvaya)\CallsInProgress	-	Represents the number of calls currently in progress on this device.
(InterClusterTrunkToAvaya)\CallsRejectedDueToICTCallThrottling	-	Represents the total number of calls rejected since the start of the Cisco Communications Manager service due to Intercluster Trunk (ICT) call throttling. When the threshold limit of 140 calls per 5 seconds is met, the ICT will start throttling (rejecting) new calls. One cause for ICT call throttling occurs when calls across an ICT enter a route loop condition.
(InterClusterTrunkToAvaya)\VideoCallsActive	-	Represents the number of video calls with video streaming connections that are currently active (in use) on all H.323 trunks registered with this Communications Manager. In other words, the number of calls that actually have video streaming connections on this Communications Manager.
(InterClusterTrunkToAvaya)\VideoCallsCompleted	-	Represents the number of video calls that were actually connected with video streams for all H.323 trunks registered with this Communications Manager. This number increments when the call is terminated.
Cisco IP Manager Assistant		
AssistantsActive	-	Represents the number of assistant consoles that are currently active. An assistant console is considered active when an assistant is logged in from his or her assistant console desktop application.

Monitor Name	Units	Description
LinesOpen	-	Represents the number of phone lines opened by the Cisco IPMA application. A phone line is considered open when the IPMA application assumes line control from CTI.
ManagersActive	-	Represents the current number of manager consoles that are currently being serviced by the Cisco IPMA application.
SessionsCurrent	-	Represents the total number of managers/assistants currently using the Cisco IPMA application. Each manager and each assistant constitutes an active session, so for one manager/assistant pair, this counter would reflect two sessions.
Cisco Lines		
(5001)\Active	-	Represents the state of the line, either active or not active. A zero indicates the line is not in use. If the number is greater than zero, the line is active and the number represents the number of calls currently in progress on that line. If more than one call is active, this indicates the call is on hold either because of being placed on hold specifically (user hold), or because of a network hold operation (for example, a transfer is in progress and it is on transfer hold). This applies to all directory numbers assigned to any device.
Cisco Locations		
(Hub_None)\BandwidthAvailable	-	Represents the current bandwidth available in a given location. A value of zero indicates that no bandwidth is available. Note that when Directionalization is configured, this counter represents the sum of the AudioBWAvailableInbound, AudioBWAvailableOutbound and AudioBWAvailableCommon counters. Calls in progress on this Unified CM and on other Unified CM nodes impact this value.
(Hub_None)\BandwidthMaximum	-	Represents the maximum bandwidth available in a given location. A value of zero indicates that unlimited bandwidth is available. Note that when Directionalization is configured, this counter represents the sum of the AudioBWReservedInbound, AudioBWReservedOutbound and AudioBWReservedCommon counters.
(Hub_None)\CallsInProgress	-	Represents the number of calls currently in progress on this Unified CM.
(Hub_None)\OutOfResources	-	Represents the total number of times that a call on this Communications Manager through the location failed due to lack of bandwidth.
(Hub_None)\RSVP AudioReservationErrorCounts	-	Represents the number of RSVP reservation error counts for audio stream.
(Hub_None)\RSVP MandatoryConnectionInProgress	-	Represents the number of connections in progress that has mandatory RSVP.

Monitor Name	Units	Description
(Hub_None)\RSVP OptionalConnectionsIn Progress	-	Represents the number of connections in progress that has optional RSVP.
(Hub_None)\RSVP TotalCallsFailed	-	Represents the number of total calls that failed due to RSVP reservation failure.
(Hub_None)\RSVP VideoCallsFailed	-	Represents the number of video calls that failed due to RSVP reservation failure.
(Hub_None)\RSVP VideoReservationError Counts	-	Represents the number of RSVP reservation error counts for video stream.
(Hub_None)\VideoBan dwidthAvailable	-	Represents the bandwidth currently available for video in the location where the video call participant resides. A value of zero indicates that no bandwidth is available.
(Hub_None)\VideoBan dwidthMaximum	-	Represents the maximum bandwidth available for video in the location where the video call participant resides. A value of zero indicates no bandwidth is allocated for video while a value of -1 indicates that unlimited video bandwidth is available.
(Hub_None)\VideoOut OfResources	-	Represents the total number of failed video calls in the location where the video call participant resides.
Cisco Media Streaming App		
ANNConnectionsLost	-	Represents the total number of times since the last restart of the Cisco IP Voice Media Streaming Application that a Communications Manager connection was lost.
ANNConnectionState	-	Represents the total number of annunciator instances that have been started since the Cisco IP Voice Media Streaming Application service started.
ANNConnectionsTotal	-	Represents the total number of annunciator instances that have been started since the Cisco IP Voice Media Streaming Application service started.
ANNInstancesActive	-	Represents the number of actively playing (currently in use) announcements.
ANNStreamsActive	-	Represents the total number of currently active simplex (one direction) streams for all connections. Each stream direction counts as one stream. There is one internal stream providing the audio input and another output stream to the endpoint device.

Monitor Name	Units	Description
ANNStreamsAvailable	-	Represents the remaining number of streams allocated for the annunciator device that are available for use. This counter starts as 2 multiplied by the number of configured connections (defined in the Cisco IP Voice Media Streaming App service parameter for the Annunciator, Call Count) and is reduced by one for each active stream started.
ANNStreamsTotal	-	Represents the total number of simplex (one direction) streams that have been connected to the annunciator device since the Cisco IP Voice Media Streaming Application service started.
CFBConferencesActive	-	Represents the number of active (currently in use) conferences.
CFBConferencesTotal	-	Represents the total number of conferences that have been started since the Cisco IP Voice Media Streaming Application service started.
CFBConferencesLost	-	Represents the total number of times since the last restart of the Cisco IP Voice Media Streaming Application that a Communications Manager connection was lost.
CFBConferenceState	-	For each Communications Manager associated with a SW Conference Bridge, this represents the current registration state to Communications Manager; 0 indicates no registration to Communications Manager; 1 indicates registration to the primary Communications Manager; 2 indicates connection to the secondary Communications Manager (connected to Communications Manager but not registered until the primary Communications Manager connection fails).
CFBStreamsActive	-	Represents the total number of currently active simplex (one direction) streams for all conferences. Each stream direction counts as one stream. In a three-party conference, the number of active streams is 6.
CFBStreamsAvailable	-	Represents the remaining number of streams allocated for the conference bridge that are available for use. This counter starts as 2 multiplied by the number of configured connections (defined in the Cisco IP Voice Media Streaming App service parameter for Conference Bridge, Call Count) and is reduced by one for each active stream started.
CFBStreamsTotal	-	Represents the total number of simplex (one direction) streams that have been connected to the conference bridge since the Cisco IP Voice Media Streaming Application service started.

Monitor Name	Units	Description
MOHAudioSourcesActive	-	Represents the number of active (currently in use) audio sources for this MOH server. Some of these audio sources may not be actively streaming audio data if there are no devices listening. The exception is for multicast audio sources, which will always be streaming audio. NOTE: Current behavior for this counter is such that when an audio source is in use, even after the listener has disconnected, this counter will always have one input stream for each configured MOH codec. For unicast streams, the stream may be in a suspended state where no audio data is received until a device connects to listen to the stream. Each MOH multicast resource uses one stream for each audio source and codec combination. For example, if you have configured the default audio source for multicast, G.711 mu-law and wideband codecs, then two streams are used (default audio source + G.711 mu-law and default audio source + wideband).
MOHConnectionsLost	-	Represents the total number of times since the last restart of the Cisco IP Voice Media Streaming Application that a Communications Manager connection was lost.
MOHConnectionState	-	For each Communications Manager associated with an MOH, this represents the current registration state to Communications Manager; 0 indicates no registration to Communications Manager; 1 indicates registration to the primary Communications Manager; 2 indicates connection to the secondary Communications Manager (connected to Communications Manager but not registered until the primary Communications Manager connection fails).
MOHStreamsActive	-	Represents the total number of active (currently in use) simplex (one direction) streams for all connections. There is one output stream for each device listening to a unicast audio source and one input stream for each active audio source, multiplied by the number of MOH codecs. NOTE: Current behavior for this counter is such that when an audio source has been used once, it will always have one input stream for each configured MOH codec. For unicast streams, the stream may be in a suspended state where no audio data is received until a device connects to listen to the stream. Each MOH multicast resource uses one stream for each audio source and codec combination. For example, if you have configured the default audio source for multicast, G.711 mu-law and wideband codecs, then two streams are used (default audio source + G.711 mu-law and default audio source + wideband).
MOHStreamsAvailable	-	Represents the remaining number of streams allocated for the MOH device that are available for use. This counter starts as 408 plus the number of configured half-duplex unicast connections, and is reduced by 1 for each active stream started. The counter is reduced by 2 for each multicast audio source, multiplied by the number of MOH codecs configured. The counter is reduced by 1 for each unicast audio source, multiplied by the number of MOH codecs configured.

Monitor Name	Units	Description
MOHStreamsTotal	-	Represents the total number of simplex (one direction) streams that have connected to the MOH server since the Cisco IP Voice Media Streaming Application service started.
MTPConnectionsLost	-	Represents the total number of times since the last restart of the Cisco IP Voice Media Streaming Application that a Communications Manager connection was lost.
MTPConnectionsState	-	For each Communications Manager associated with an MTP, this represents the current registration state to Communications Manager; 0 indicates no registration to Communications Manager; 1 indicates registration to the primary Communications Manager; 2 indicates connection to the secondary Communications Manager (connected to Communications Manager but not registered until the primary Communications Manager connection fails).
MTPConnectionsTotal	-	Represents the total number of MTP instances that have been started since the Cisco IP Voice Media Streaming Application service started.
MTPInstancesActive	-	Represents the number of active (currently in use) instances of MTP.
MTPStreamsActive	-	Represents the total number of currently active simplex (one direction) streams for all connections. Each stream direction counts as one stream.
MTPStreamsAvailable	-	Represents the remaining number of streams allocated for the MTP device that are available for use. This counter starts as 2 multiplied by the number of configured connections (defined in the Cisco IP Voice Media Streaming App service parameter for MTP, Call Count) and is reduced by one for each active stream started.
MTPStreamsTotal	-	Represents the total number of simplex (one direction) streams that have been connected to the MTP device since the Cisco IP Voice Media Streaming Application service started.
Cisco Messaging Interface		
HeartBeat	-	Represents the heartbeat of the CMI service. This is an incremental count that indicates that CMI service is alive and running. If the count does not increment, then the CMI service is down (dead).
SMDIMessageCountInbound	-	Represents the running count of inbound SMDI messages since the last restart of the CMI service.
SMDIMessageCountInbound24Hour	-	Represents the rolling count of inbound SMDI messages in the last 24 hours.
SMDIMessageCountOutbound	-	Represents the running count of outbound SMDI messages since the last restart of the CMI service.
SMDIMessageCountOutbound24Hour	-	Represents the rolling count of outbound SMDI messages in the last 24 hours.

Monitor Name	Units	Description
StartTime	-	Represents the time in milliseconds when the CMI service started. This time is based on the real-time clock in the computer, which is simply a reference point that indicates the current time and the length of time that has elapsed, in milliseconds, since the service started. The reference point is midnight, January 1, 1970.
Cisco MGCP Gateways		
(nclabrtr01.ca.com)\BRIChannelsActive	-	Represents the number of BRI voice channels that are currently active in a call in the gateway.
(nclabrtr01.ca.com)\BRISpansInService	-	Represents the number of BRI spans that are currently available for use in the gateway.
(nclabrtr01.ca.com)\FXOPortsActive	-	Represents the number of FXO ports that are currently active in a call in the gateway.
(nclabrtr01.ca.com)\FXOPortsInService	-	Represents the number of FXO ports that are currently available for use in the gateway.
(nclabrtr01.ca.com)\FXSPortsActive	-	Represents the number of FXS ports that are currently active in a call in the gateway.
(nclabrtr01.ca.com)\FXSPortsInService	-	Represents the number of FXS ports that are currently available for use in the gateway.
(nclabrtr01.ca.com)\PRIChannelsActive	-	Represents the number of PRI voice channels that are currently active in a call in the gateway.
(nclabrtr01.ca.com)\PRISpansInService	-	Represents the number of PRI spans that are currently available for use in the gateway.
(nclabrtr01.ca.com)\T1ChannelsActive	-	Represents the number of T1 CAS voice channels that are currently active in a call in the gateway.
(nclabrtr01.ca.com)\T1SpansInService	-	Represents the number of T1 CAS spans that are currently available for use in the gateway.
Cisco MGCP PRI Device		
(nclabrtr01.ca.com::S0_SU1_DS1-0)\CallsActive	-	Represents the number of calls that are currently active (in use) on this MGCP PRI device.
(nclabrtr01.ca.com::S0_SU1_DS1-0)\CallsCompleted	-	Represents the total number of successful calls made from this MGCP PRI device.

Monitor Name	Units	Description
(nclabrtr01.ca.com::S0_SU1_DS1-0)\Channel 1 Status	-	Represents the status of the indicated B-Channel associated with this MGCP PRI device. Possible values: 0 (Unknown) indicates the status of the channel could not be determined; 1 (Out of service) indicates that this channel is not available for use; 2 (Idle) indicates that this channel has no active call and is ready for use; 3 (Busy) indicates an active call on this channel; 4 (Reserved) indicates that this channel has been reserved for use as a D-channel or for use as a Synch-Channel for E-1.
(nclabrtr01.ca.com::S0_SU1_DS1-0)\DataLinkInService	-	Represents the state of the Data Link (D-Channel) on the corresponding Digital Access gateway. This value will be set to 1 (one) if the Data Link is up (in service) or 0 (zero) if the Data Link is down (out of service).
(nclabrtr01.ca.com::S0_SU1_DS1-0)\OutboundBusyAttempts	-	Represents the total number of times a call through this MGCP PRI device was attempted when there were no voice channels available.
Cisco Mobility Manager		
MobileCallsAnchored	-	Represents the total number of call legs associated with single-mode/dual-mode phones currently anchored in Cisco Communications Manager. Call anchoring occurs when a call enters an enterprise gateway and connects to a mobility application that, in turn, uses redirection to send the call back out an enterprise gateway. For example, this counter increments twice for a dual-mode phone-to-dual-mode phone call: once for the originating call and once for the terminating call. When the call is terminated, this counter decrements accordingly.
MobileHandinsCompleted	-	Represents the total number of handins completed by dual-mode phones. A completed handin occurs when the call successfully connects in the enterprise network when the phone moves from WAN to WLAN.
MobileHandoutsCompleted	-	Represents the total number of handouts (calls on mobile devices that move from the enterprise WLAN network to the cellular network) that were completed. A completed handout occurs when the call successfully connects.
MobileHandoutsFailed	-	Represents the total number of handouts (calls on mobile devices that move from cellular to the wireless network) that failed.
MobilityFollowMeCallsAttempted	-	Represents the total number of follow-me calls attempted.
MobilityFollowMeCallsIgnoredDueToAnswerTooSoon	-	Represents the total number of follow-me calls ignored before AnswerTooSoon timer pops.
MobilityHandinsAborted	-	Represents the total number of handins aborted.
MobilityHandinsFailed	-	Represents the total number of handins (calls on mobile devices that move from cellular to the wireless network) that failed.

Monitor Name	Units	Description
MobilityHandoutsAborted	-	Represents the total number of handouts aborted.
MobilityIVRCallsAttempted	-	Represents the total number of IVR calls attempted.
MobilityIVRCallsFailed	-	Represents the total number of failed IVR calls.
MobilityIVRCallsSucceeded	-	Represents the total number of successful IVR calls.
MobilitySCCPDualModeRegistered	-	Represents the total number of dual mode SCCP devices registered.
MobilitySIPDualModeRegistered	-	Represents the total number of dual mode SIP devices registered.
Cisco MOH Device		
(MOH_2)\MOHHighestActiveResources	-	Represents the largest number of simultaneously active MOH connections for this MOH server. This includes both multicast and unicast connections.
(MOH_2)\MOHMulticastResourceActive	-	Represents the number of currently active multicast connections to multicast addresses served by this MOH server.
(MOH_2)\MOHMulticastResourceAvailable	-	Represents the number of multicast MOH connections to multicast addresses served by this MOH server that are not active and are still available to be used at the current time for this MOH server.
(MOH_2)\MOHOutOfResources	-	Represents the total number of times that the Media Resource Manager attempted to allocate an MOH resource when all available resources on all MOH servers registered with this Communications Manager were already active.
(MOH_2)\MOHTotalMulticastResources	-	Represents the total number of multicast MOH connections allowed to multicast addresses served by this MOH server.
(MOH_2)\MOHTotalUnicastResources	-	Represents the total number of unicast MOH connections allowed by this MOH server. Each MOH unicast resource uses one stream.
(MOH_2)\MOHUnicastResourceActive	-	Represents the number of active unicast MOH connections to this MOH server. Each MOH unicast resource uses one stream.
(MOH_2)\MOHUnicastResourceAvailable	-	Represents the number of unicast MOH connections that are not active and are still available to be used at the current time for this MOH server. Each MOH unicast resource uses one stream.
Cisco MTP Device		
(MTP_2)\AllocatedResourceCannotOpenPort	-	Represents the total number of calls that failed when the allocated MTP resource failed to open a port for media transmission.

Monitor Name	Units	Description
(MTP_2)\OutOfResources	-	Represents the total number of times an attempt was made to allocate an MTP resource from this MTP device and failed, for example, because all resources were already in use.
(MTP_2)\RequestsThrottled	-	Represents the total number of media termination point (MTP) resource requests that have been denied due to throttling (a resource from this MTP was not allocated because, as specified by the Cisco Communications Manager service parameter, MTP and Transcoder Resource Throttling Percentage, the MTP was being utilized beyond the configured throttle percentage). This counter increments each time a resource is requested and denied from this MTP due to throttling. This counter reflects a running total since the MTP device registered with the Cisco Communications Manager service.
(MTP_2)\ResourceActive	-	Represents the number of MTP resources that are currently in use (active) for this MTP device. Each MTP resource uses two streams. An MTP in use is one MTP resource that has been allocated for use in a call.
(MTP_2)\ResourceAvailable	-	Represents the total number of MTP resources that are not active and are still available to be used at the current time for the MTP device. Each MTP resource uses two streams. An MTP in use is one MTP resource that has been allocated for use in a call.
(MTP_2)\ResourceTotal	-	Represents the total number of MTP resources provided by this MTP device. This counter is equal to the sum of the counters ResourceAvailable and ResourceActive.
Cisco Phones		
(SEP00170EF03493)\CallsAttempted	-	Represents the number of calls that has been attempted to and from this phone. This increments each time a phone Goes Offhook/Onhook, or when it receives a call. No increments take place under call waiting. However it gets incremented for every call leg that is Destroyed in the case of Hold/Resume, Park, Pickup Conference, CallForward No Answer etc.
Cisco Presence Features		
ActiveCallListAndTrunkSubscriptions	-	Represents the active presence subscriptions for the call list feature as well as presence subscriptions through SIP trunk.
ActiveSubscriptions	-	Represents all active incoming and outgoing Presence subscriptions.
CallListAndTrunkSubscriptionsThrottled	-	Represents the cumulative count of rejected call list and trunk side presence subscriptions due to throttling.
IncomingLineSideSubscriptions	-	Represents cumulative count of presence subscriptions received on the line side.
IncomingTrunkSideSubscriptions	-	Represents cumulative count of presence subscriptions received on the trunk side.

Monitor Name	Units	Description
OutgoingTrunkSideSubscriptions	-	Represents cumulative count of presence subscriptions sent on the trunk side.
Cisco QSIG Features		
(CiscoQSIGFeatureObject)\CallForwardByRerouteCompleted	-	Represents the number of successful call forward by reroutes that have occurred. Call forward by reroute enables the path for a forwarded call to be as optimal (minimize the number of B-Channels in use) as possible from the originator's perspective. This counter resets when the Communications Manager service parameter Call Forward by Reroute Enabled is enabled or disabled, or when the Cisco Communications Manager service restarts.
(CiscoQSIGFeatureObject)\PathReplacementCompleted	-	Represents the number of successful path replacements that have occurred. Path replacement is used in a QSIG network to optimize the path between two edge PINX (PBXs) involved in a call. This counter resets when the Communications Manager service parameter Path Replacement Enabled is enabled or disabled, or when the Cisco Communications Manager service restarts.
Cisco SAF Client		
SAFFConnectionsFailed	-	Represents the total number of SAF client connections that have failed on this Unified CM node. A failed connection is a connection that did not register with the SAF Forwarder.
SAFFConnectionsSucceeded	-	Represents the total number of SAF client connections currently active on this Unified CM node.
Cisco Signaling		
SIPTCPConnectionsClosed	-	Represents the total number of TCP connections closed because they exceeded the per-second dataRateLimit threshold for number of incoming bytes allowed from a single IP address. The threshold is set via the Cisco Communications Manager service parameters, SIP Station TCP Port Throttle Threshold and SIP Trunk TCP Port Throttle Threshold. This counter increments for every TCP connection closed since the last restart of the Cisco Communications Manager service.
TCPSIPMaxIncomingMessageHeadersExceeded	-	Represents the number of incoming TCP SIP messages that were dropped and caused the TCP connection to be reset because they exceeded the maximum number of allowed headers.
TCPSIPMaxIncomingMessageSizeExceeded	-	Represents the number of incoming TCP SIP messages that were dropped and caused the TCP connection to be reset because they exceeded the maximum allowed message size.

Monitor Name	Units	Description
UDPPacketsThrottled	-	Represents the total number of incoming UDP packets that were throttled (dropped) because they exceeded the per-second threshold for number of incoming packets allowed from a single IP address. The threshold is configured via the SIP Station UDP Port Throttle Threshold and SIP Trunk UDP Port Throttle Threshold service parameters in the Cisco Communications Manager service. This counter increments for every throttled UDP packet since the last restart of the Cisco Communications Manager service.
UDPSIPMaxIncomingMessageHeadersExceeded	-	Represents the number of incoming UDP SIP messages that were dropped because they exceeded the maximum number of allowed headers..
UDPSIPMaxIncomingMessageSizeExceeded	-	Represents the number of incoming UDP SIP messages that were dropped because they exceeded the maximum allowed message size.
Cisco SIP		
(InterClusterTrunkToCM80)\CallsActive	-	Represents the number of calls that are currently active (in use) on this SIP device.
(InterClusterTrunkToCM80)\CallsAttempted	-	Represents the number of calls which have been attempted on this SIP device, including both successful and unsuccessful call attempts.
(InterClusterTrunkToCM80)\CallsCompleted	-	Represents the number of calls that were actually connected (a voice path was established) from this SIP device. This number increments when the call is terminated.
(InterClusterTrunkToCM80)\CallsInProgress	-	Represents the number of calls that are currently in progress on this SIP device, including all active calls. When all calls that are in progress are connected, the number of CallsInProgress and the number of CallsActive are the same.
(InterClusterTrunkToCM80)\VideoCallsActive	-	Represents the number of video calls with streaming video connections that are currently active (in use) on this SIP device.
(InterClusterTrunkToCM80)\VideoCallsCompleted	-	Represents the number of video calls that were actually connected with video streams for this SIP device. This number increments when the call is terminated.
Cisco SIP Stack		
AckIns	-	Represents the total number of ACK requests received by the SIP device.
AckOuts	-	Represents the total number of ACK requests sent by the SIP device.
ActiveTcpTlsConnections	-	Represents the total number of TCP and TLS connections currently in use by the SIP stack.
ByeIns	-	Represents the total number of BYE requests received by the SIP device, including retransmissions.

Monitor Name	Units	Description
ByeOuts	-	Represents the total number of BYE requests sent by the SIP device, including retransmissions.
CancelIns	-	Represents the total number of CANCEL requests received by the SIP device, including retransmissions.
CancelOuts	-	Represents the total number of CANCEL requests sent by the SIP device, including retransmissions.
CCBsAllocated	-	Represents the number of Call Control Blocks (CCB) that are currently in use by the SIP stack. One CCB is used for each active SIP dialog.
GlobalFailedClassIns	-	Represents the total number of 6xx class SIP responses received by the SIP device, including retransmissions. This class of responses indicates failure responses received by a SIP device that provides a client function. The responses generally indicate that a server has definitive information about a particular called party, not just the particular instance indicated in the Request-URI.
GlobalFailedClassOuts	-	Represents the total number of 6xx class SIP responses sent by the SIP device, including retransmissions. This class of responses indicates failure responses sent by a SIP device that provides a server function. The responses generally indicate that a server has definitive information about a particular called party, not just the particular instance indicated in the Request-URI.
InfoClassIns	-	Represents the total number of 1xx class SIP responses received by the SIP device, including retransmissions. This class of responses provides information concerning the progress of processing a SIP request.
InfoClassOuts	-	Represents the total number of 1xx class SIP responses sent by the SIP device, including retransmissions. This class of responses provides information concerning the progress of processing a SIP request.
InfoIns	-	Represents the total number of INFO requests received by the SIP device, including retransmissions.
InfoOuts	-	Represents the total number of INFO requests sent by the SIP device, including retransmissions.
InviteIns	-	Represents the total number of INVITE requests received by the SIP device, including retransmissions.
InviteOuts	-	Represents the total number of INVITE requests sent by the SIP device, including retransmissions.
NotifyIns	-	Represents the total number of NOTIFY requests received by the SIP device, including retransmissions.
NotifyOuts	-	Represents the total number of NOTIFY requests sent by the SIP device, including retransmissions.

Monitor Name	Units	Description
OptionsIns	-	Represents the total number of OPTIONS requests received by the SIP device, including retransmissions.
OptionsOuts	-	Represents the total number of OPTIONS requests sent by the SIP device, including retransmissions.
PRackIns	-	Represents the total number of PRACK requests received by the SIP device, including retransmissions.
PRackOuts	-	Represents the total number of PRACK requests sent by the SIP device, including retransmissions.
PublishIns	-	Represents the total number of PUBLISH requests received by the SIP device, including retransmissions.
PublishOuts	-	Represents the total number of PUBLISH requests sent by the SIP device, including retransmissions.
RedirClassIns	-	Represents the total number of 3xx class SIP responses received by the SIP device, including retransmissions. This class of responses provides information about redirections to addresses where the callee might be reachable.
RedirClassOuts	-	Represents the total number of 3xx class SIP responses sent by the SIP device, including retransmissions. This class of responses provides information about redirections to addresses where the callee might be reachable.
ReferIns	-	Represents the total number of REFER requests received by the SIP device, including retransmissions.
ReferOuts	-	Represents the total number of REFER requests sent by the SIP device, including retransmissions.
RegisterIns	-	Represents the total number of REGISTER requests received by the SIP device, including retransmissions.
RegisterOuts	-	Represents the total number of REGISTER requests sent by the SIP device, including retransmissions.
RequestsFailedClassIns	-	Represents the total number of 4xx class SIP responses received by the SIP device, including retransmissions. This class of responses indicates request failure by a SIP device that provides a client function.
RequestsFailedClassOuts	-	Represents the total number of 4xx class SIP responses sent by the SIP device, including retransmissions. This class of responses indicates request failure by a SIP device that provides a server function.
RetryByes	-	Represents the total number of BYE retries that have been sent by the SIP device. To determine the number of 'first attempt' BYEs, subtract the value of this counter from the value of the sipStatsByeOuts counter.

Monitor Name	Units	Description
RetryCancels	-	Represents the total number of CANCEL retries that have been sent by the SIP device. To determine the number of 'first attempt' CANCELS, subtract the value of this counter from the value of the sipStatsCancelOuts counter.
RetryInfo	-	Represents the total number of INFO retries that have been sent by the SIP device. To determine the number of 'first attempt' INFOS, subtract the value of this counter from the value of the sipStatsInfoOuts counter.
RetryInvites	-	Represents the total number of INVITE retries that have been sent by the SIP device. To determine the number of 'first attempt' INVITES, subtract the value of this counter from the value of the sipStatsInviteOuts counter.
RetryNotify	-	Represents the total number of NOTIFY retries that have been sent by the SIP device. To determine the number of 'first attempt' NOTIFYs, subtract the value of this counter from the value of the sipStatsNotifyOuts counter.
RetryPRACK	-	Represents the total number of PRACK retries that have been sent by the SIP device. To determine the number of 'first attempt' PRACKs, subtract the value of this counter from the value of the sipStatsPRACKOuts counter.
RetryPublish	-	Represents the total number of PUBLISH re tries that have been sent by the SIP device. To determine the number of 'first attempt' PUBLISHs, subtract the value of this counter from the value of the sipStatsPublishOuts counter.
RetryRefer	-	Represents the total number of REFER retries that have been sent by the SIP device. To determine the number of 'first attempt' REFERs, subtract the value of this counter from the value of the sipStatsReferOuts counter.
RetryRegisters	-	Represents the total number of REGISTER retries that have been sent by the SIP device. To determine the number of 'first attempt' REGISTERs, subtract the value of this counter from the value of the sipStatsRegisterOuts counter.
RetryRel1xx	-	Represents the total number of Reliable 1xx retries that have been sent by the SIP device.
RetryRequestsOut	-	Represents the total number of Request retries that have been sent by the SIP device.
RetryResponsesFinal	-	Represents the total number of Final Response retries that have been sent by the SIP device.
RetryResponsesNonFinal	-	Represents the total number of non-Final Response retries that have been sent by the SIP device.
RetrySubscribe	-	Represents the total number of SUBSCRIBE retries that have been sent by the SIP device. To determine the number of 'first attempt' SUBSCRIBEs, subtract the value of this counter from the value of the sipStatsSubscribeOuts counter.

Monitor Name	Units	Description
RetryUpdate	-	Represents the total number of UPDATE retries that have been sent by the SIP device. To determine the number of 'first attempt' UPDATES, subtract the value of this counter from the value of the sipStatsUpdateOuts counter.
SCBsAllocated	-	Represents the number of Subscription Control Blocks (SCB) that are currently in use by the SIP stack. One SCB is used for each subscription.
ServerFailedClassIns	-	Represents the total number of 5xx class SIP responses received by the SIP device, including retransmissions. This class of responses indicates failure responses received by a SIP device that provides a client function.
ServerFailedClassOuts	-	Represents the total number of 5xx class SIP responses sent by the SIP device, including retransmissions. This class of responses indicates failure responses sent by a SIP device that provides a server function.
SIPHandlerSDLQueueSignalsPresent	-	Represents the number of SDL signals currently on all four of the SIPHandler component's SDL priority queues. The SIPHandler component contains the SIP stack.
SIPMessagesAllocated	-	Represents the number of SIPMessage_t objects that are currently in use by the SIP stack.
SIPNewRegistrationPending	-	Represents the number of SIP device registrations that are pending. The counter increments when Cisco Unified Communications Manager (Unified CM) receives a Register message from a SIP endpoint and decrements when Unified CM acknowledges the Register message. Information in this counter will be used by Cisco for diagnostic purposes.
StatusCode100Ins	-	Represents the total number of 100 Trying response messages received by the SIP device, including retransmissions.
StatusCode100Outs	-	Represents the total number of 100 Trying response messages sent by the SIP device, including retransmissions.
StatusCode180Ins	-	Represents the total number of 180 Ringing response messages received by the SIP device, including retransmissions.
StatusCode180Outs	-	Represents the total number of 180 Ringing response messages sent by the SIP device, including retransmissions.
StatusCode181Ins	-	Represents the total number of 181 Call Is Being Forwarded response messages received by the SIP device, including retransmissions.
StatusCode181Outs	-	Represents the total number of 181 Call Is Being Forwarded response messages sent by the SIP device, including retransmissions.
StatusCode182Ins	-	Represents the total number of 182 Queued response messages received by the SIP device, including retransmissions.
StatusCode182Outs	-	Represents the total number of 182 Queued response messages sent by the SIP device, including retransmissions.

Monitor Name	Units	Description
StatusCode183Ins	-	Represents the total number of 183 Session Progress response messages received by the SIP device, including retransmissions.
StatusCode183Outs	-	Represents the total number of 183 Session Progress response messages sent by the SIP device, including retransmissions.
StatusCode200Ins	-	Represents the total number of 200 OK response messages received by the SIP device, including retransmissions.
StatusCode200Outs	-	Represents the total number of 200 OK response sent received by the SIP device, including retransmissions.
StatusCode202Ins	-	Represents the total number of 202 Success Accepted response messages received by the SIP device, including retransmissions.
StatusCode202Outs	-	Represents the total number of 202 Success Accepted response messages sent by the SIP device, including retransmissions.
StatusCode300Ins	-	Represents the total number of 300 Multiple Choices response messages received by the SIP device, including retransmissions.
StatusCode301Ins	-	Represents the total number of 301 Moved Permanently response messages received by the SIP device, including retransmissions.
StatusCode302Ins	-	Represents the total number of 302 Moved Temporarily response messages received by the SIP device, including retransmissions.
StatusCode302Outs	-	Represents the total number of 302 Moved Temporarily response messages sent by the SIP device, including retransmissions.
StatusCode303Ins	-	Represents the total number of 303 Incompatible Bandwidth Units response messages received by the SIP device, including retransmissions.
StatusCode305Ins	-	Represents the total number of 305 Use Proxy response messages received by the SIP device, including retransmissions.
StatusCode380Ins	-	Represents the total number of 380 Alternative Service response messages received by the SIP device, including retransmissions.
StatusCode400Ins	-	Represents the total number of 400 Bad Request response messages received by the SIP device, including retransmissions.
StatusCode400Outs	-	Represents the total number of 400 Bad Request response messages sent by the SIP device, including retransmissions.
StatusCode401Ins	-	Represents the total number of 401 Unauthorized response messages received by the SIP device, including retransmissions.
StatusCode401Outs	-	Represents the total number of 401 Unauthorized response messages sent by the SIP device, including retransmissions.
StatusCode402Ins	-	Represents the total number of 402 Payment Required response messages received by the SIP device, including retransmissions.

Monitor Name	Units	Description
StatusCode402Outs	-	Represents the total number of 402 Payment Required response messages sent by the SIP device, including retransmissions.
StatusCode403Ins	-	Represents the total number of 403 Forbidden response messages received by the SIP device, including retransmissions.
StatusCode403Outs	-	Represents the total number of 403 Forbidden response messages sent by the SIP device, including retransmissions.
StatusCode404Ins	-	Represents the total number of 404 Not Found response messages received by the SIP device, including retransmissions.
StatusCode404Outs	-	Represents the total number of 404 Not Found response messages sent by the SIP device, including retransmissions.
StatusCode405Ins	-	Represents the total number of 405 Method Not Allowed response messages received by the SIP device, including retransmissions.
StatusCode405Outs	-	Represents the total number of 405 Method Not Allowed response messages sent by the SIP device, including retransmissions.
StatusCode406Ins	-	Represents the total number of 406 Not Acceptable response messages received by the SIP device, including retransmissions.
StatusCode406Outs	-	Represents the total number of 406 Not Acceptable response messages sent by the SIP device, including retransmissions.
StatusCode407Ins	-	Represents the total number of 407 Proxy Authentication Required response messages received by the SIP device, including retransmissions.
StatusCode407Outs	-	Represents the total number of 407 Proxy Authentication Required response messages sent by the SIP device, including retransmissions.
StatusCode408Ins	-	Represents the total number of 408 Request Timeout response messages received by the SIP device, including retransmissions.
StatusCode408Outs	-	Represents the total number of 408 Request Timeout response messages sent by the SIP device, including retransmissions.
StatusCode409Ins	-	Represents the total number of 409 Conflict response messages received by the SIP device, including retransmissions.
StatusCode409Outs	-	Represents the total number of 409 Conflict response messages sent by the SIP device, including retransmissions.
StatusCode410Ins	-	Represents the total number of 410 Gone response messages received by the SIP device, including retransmissions.
StatusCode410Outs	-	Represents the total number of 410 Gone response messages sent by the SIP device, including retransmissions.
StatusCode413Ins	-	Represents the total number of 413 Request Entity Too Large response messages received by the SIP device, including retransmissions.

Monitor Name	Units	Description
StatusCode413Outs	-	Represents the total number of 413 Request Entity Too Large response messages sent by the SIP device, including retransmissions.
StatusCode414Ins	-	Represents the total number of 414 Request-URI Too Long response messages received by the SIP device, including retransmissions.
StatusCode414Outs	-	Represents the total number of 414 Request-URI Too Long response messages sent by the SIP device, including retransmissions.
StatusCode415Ins	-	Represents the total number of 415 Unsupported Media Type response messages received by the SIP device, including retransmissions.
StatusCode415Outs	-	Represents the total number of 415 Unsupported Media Type response messages sent by the SIP device, including retransmissions.
StatusCode416Ins	-	Represents the total number of 416 Unsupported URI Scheme response messages received by the SIP device, including retransmissions.
StatusCode416Outs	-	Represents the total number of 416 Unsupported URI Scheme response messages sent by the SIP device, including retransmissions.
StatusCode417Ins	-	Represents the total number of 417 Unknown Resource-Priority response messages received by the SIP device, including retransmissions.
StatusCode417Outs	-	Represents the total number of 417 Unknown Resource-Priority response messages sent by the SIP device, including retransmissions.
StatusCode420Ins	-	Represents the total number of 420 Bad Extension response messages received by the SIP device, including retransmissions.
StatusCode420Outs	-	Represents the total number of 420 Bad Extension response messages sent by the SIP device, including retransmissions.
StatusCode422Ins	-	Represents the total number of 422 Session Expires Value Too Small response messages received by the SIP device, including retransmissions.
StatusCode422Outs	-	Represents the total number of 422 Session Expires Value Too Small response messages sent by the SIP device, including retransmissions.
StatusCode423Ins	-	Reflects the total number of 423 Interval Too Brief response messages received by the SIP device, including retransmissions.
StatusCode423Outs	-	Reflects the total number of 423 Interval Too Brief response messages sent by the SIP device, including retransmissions.
StatusCode424Ins	-	Reflects the total number of 424 Bad Location Information response messages received by the SIP device, including retransmissions.
StatusCode424Outs	-	Reflects the total number of 424 Bad Location Information response messages sent by the SIP device, including retransmissions.
StatusCode480Ins	-	Represents the total number of 480 Temporarily Unavailable response messages received by the SIP device, including retransmissions.

Monitor Name	Units	Description
StatusCode480Outs	-	Represents the total number of 480 Temporarily Unavailable response messages sent by the SIP device, including retransmissions.
StatusCode481Ins	-	Represents the total number of 481 Call/Transaction Does Not Exist response messages received by the SIP device, including retransmissions.
StatusCode481Outs	-	Represents the total number of 481 Call/Transaction Does Not Exist response messages sent by the SIP device, including retransmissions.
StatusCode482Ins	-	Represents the total number of 482 Loop Detected response messages received by the SIP device, including retransmissions.
StatusCode482Outs	-	Represents the total number of 482 Loop Detected response messages sent by the SIP device, including retransmissions.
StatusCode483Ins	-	Represents the total number of 483 Too Many Hops response messages received by the SIP device, including retransmissions.
StatusCode483Outs	-	Represents the total number of 483 Too Many Hops response messages sent by the SIP device, including retransmissions.
StatusCode484Ins	-	Represents the total number of 484 Address Incomplete response messages received by the SIP device, including retransmissions.
StatusCode484Outs	-	Represents the total number of 484 Address Incomplete response messages received by the SIP device, including retransmissions.
StatusCode485Ins	-	Represents the total number of 485 Ambiguous response messages received by the SIP device, including retransmissions.
StatusCode485Outs	-	Represents the total number of 485 Ambiguous response messages sent by the SIP device, including retransmissions.
StatusCode486Ins	-	Represents the total number of 486 Busy Here response messages received by the SIP device, including retransmissions.
StatusCode486Outs	-	Represents the total number of 486 Busy Here response messages sent by the SIP device, including retransmissions.
StatusCode487Ins	-	Represents the total number of 487 Request Terminated response messages received by the SIP device, including retransmissions.
StatusCode487Outs	-	Represents the total number of 487 Request Terminated response messages sent by the SIP device, including retransmissions.
StatusCode488Ins	-	Represents the total number of 488 Not Acceptable Here response messages received by the SIP device, including retransmissions.
StatusCode488Outs	-	Represents the total number of 488 Not Acceptable Here response messages sent by the SIP device, including retransmissions.
StatusCode489Ins	-	Represents the total number of 489 Bad Subscription Event response messages received by the SIP device, including retransmissions.

Monitor Name	Units	Description
StatusCode489Outs	-	Represents the total number of 489 Bad Subscription Event response messages sent by the SIP device, including retransmissions.
StatusCode491Ins	-	Represents the total number of 491 Request Pending response messages received by the SIP device, including retransmissions.
StatusCode491Outs	-	Represents the total number of 491 Request Pending response messages sent by the SIP device, including retransmissions.
StatusCode500Ins	-	Represents the total number of 500 Server Internal Error response messages received by the SIP device, including retransmissions.
StatusCode500Outs	-	Represents the total number of 500 Server Internal Error response messages sent by the SIP device, including retransmissions.
StatusCode501Ins	-	Represents the total number of 501 Not Implemented response messages received by the SIP device, including retransmissions.
StatusCode501Outs	-	Represents the total number of 501 Not Implemented response messages sent by the SIP device, including retransmissions.
StatusCode502Ins	-	Represents the total number of 502 Bad Gateway response messages received by the SIP device, including retransmissions.
StatusCode502Outs	-	Represents the total number of 502 Bad Gateway response messages sent by the SIP device, including retransmissions.
StatusCode503Ins	-	Represents the total number of 503 Service Unavailable response messages received by the SIP device, including retransmissions.
StatusCode503Outs	-	Represents the total number of 503 Service Unavailable response messages sent by the SIP device, including retransmissions.
StatusCode504Ins	-	Represents the total number of 504 Server Time-out response messages received by the SIP device, including retransmissions.
StatusCode504Outs	-	Represents the total number of 504 Server Time-out response messages sent by the SIP device, including retransmissions.
StatusCode505Ins	-	Represents the total number of 505 Version Not Supported response messages received by the SIP device, including retransmissions.
StatusCode505Outs	-	Represents the total number of 505 Version Not Supported response messages sent by the SIP device, including retransmissions.
StatusCode580Ins	-	Represents the total number of 580 Precondition Failed response messages received by the SIP device, including retransmissions.
StatusCode580Outs	-	Represents the total number of 580 Precondition Failed response messages sent by the SIP device, including retransmissions.
StatusCode600Ins	-	Represents the total number of 600 Busy Everywhere response messages received by the SIP device, including retransmissions.

Monitor Name	Units	Description
StatusCode600Outs	-	Represents the total number of 600 Busy Everywhere response messages sent by the SIP device, including retransmissions.
StatusCode603Ins	-	Represents the total number of 603 Decline response messages received by the SIP device, including retransmissions.
StatusCode603Outs	-	Represents the total number of 603 Decline response messages sent by the SIP device, including retransmissions.
StatusCode604Ins	-	Represents the total number of 604 Does Not Exist Anywhere response messages received by the SIP device, including retransmissions.
StatusCode604Outs	-	Represents the total number of 604 Does Not Exist Anywhere response messages sent by the SIP device, including retransmissions.
StatusCode606Ins	-	Represents the total number of 606 Not Acceptable response messages received by the SIP device, including retransmissions.
StatusCode606Outs	-	Represents the total number of 606 Not Acceptable response messages sent by the SIP device, including retransmissions.
SubscribeIns	-	Represents the total number of SUBSCRIBE requests received by the SIP device, including retransmissions.
SubscribeOuts	-	Represents the total number of SUBSCRIBE requests sent by the SIP device, including retransmissions.
SuccessClassIns	-	Represents the total number of 2xx class SIP responses received by the SIP device, including retransmissions. This class of responses provides information about the successful completion of a SIP request.
SuccessClassOuts	-	Represents the total number of 2xx class SIP responses sent by the SIP device, including retransmissions. This class of responses provides information about the successful completion of a SIP request.
SummaryRequestsIn	-	Represents the total number of SIP request messages received by the SIP device, including retransmissions.
SummaryRequestsOut	-	Represents the total number of SIP request messages sent out (originated and relayed) by the device. Where a particular message is sent more than once, for example as a retransmission or as a result forking, each transmission is counted separately.
SummaryResponsesIn	-	Represents the total number of SIP response messages received by the SIP device, including retransmissions.
SummaryResponsesOut	-	Represents the total number of SIP response messages sent (originated and relayed) by the SIP device, including retransmissions.
UpdateIns	-	Represents the total number of UPDATE requests received by the SIP device, including retransmissions.
UpdateOuts	-	Represents the total number of UPDATE requests sent by the SIP device, including retransmissions.

Monitor Name	Units	Description
Cisco SIP Station		
ConfigMismatchesPersistent	-	Represents the number of times since the last restart of the Cisco Unified Communications Manager service that a SIP phone was persistently unable to register due to a configuration version mismatch between the TFTP server and Cisco Unified Communications Manager. This counter increments each time Cisco Unified Communications Manager cannot resolve this condition automatically and manual intervention is required (such as a configuration update or device reset).
ConfigMismatchesTemporary	-	Represents the number of times since the last restart of the Cisco Unified Communications Manager service that a SIP phone was temporarily unable to register due to a configuration version mismatch between the TFTP server and Cisco Unified Communications Manager. This counter increments each time Cisco Unified Communications Manager is able to resolve this condition automatically.
ConfigMismatchesTracking	-	Represents the number of phones that are currently being monitored for configuration mismatches. It is incremented each time a new config mismatch is detected from a phone. It is decremented each time a phone sends 4 successful register refresh messages in a row.
ConnectionsDedicated	-	Represents the number of non-shared TCP/TLS connections in use for SIP devices.
ConnectionsShared	-	Represents the number of shared TCP/TLS connections in use for SIP devices.
DBTimeouts	-	Represents the number of new registrations that failed because of a timeout when attempting to retrieve the device configuration from the database.
DeviceEntries	-	Represents the total number of SIP endpoints that have registered, requested a fallback token, and/or sent a Transport Layer Security (TLS) certificate to Cisco Communications Manager. This counter increments once for every SIP device that performs one or more of the preceding actions and decrements once for each device that unregisters.
DevicesByContactSocket	-	Represents the number of SIP devices that are known by their contact sockets. The contact socket is the 'user@ip:port' string from the Contact socket in the REGISTER message.
DevicesByName	-	Represents the number of SIP devices that are known by their device name. The device name is usually based on the MAC address (e.g. SEPmac) or an arbitrary string. These are the identifiers configured on the Device Configuration web page.
DeviceTypeAssociated	-	Represents the number of SIP statically allocated devices. This includes Remote Destinations.
DeviceTypeDualMode	-	Represents the number of SIP DualMode devices.

Monitor Name	Units	Description
NewRegAccepted	-	Represents the total number of new REGISTRATION requests that have been removed from the NewRegistration queue and processed since the last Cisco Communications Manager restart.
NewRegQueueSize	-	Represents the number of REGISTRATION requests currently on the NewRegistration queue. REGISTRATION requests received from devices that are not currently registered are placed on this queue before being processed.
NewRegRejected	-	Represents the total number of new REGISTRATION requests that have been rejected with a 486 Busy Here response and not placed on the NewRegistration queue since the last Cisco Communications Manager restart. REGISTRATION requests are rejected if the NewRegistration queue exceeds a programmed size.
StationErrors	-	Represents the total number of errors encountered while processing SIP station requests. These errors correspond to LVL_ERROR traces in the SDI log files.
StationErrorsMsgRouting	-	Represents the total number of errors encountered while routing an incoming SIP message. This counter will increment each time Cisco Communications Manager receives a SIP message from a device that is not registered.
TokensAccepted	-	Represents the total number of token requests that have been granted since the last Cisco Communications Manager restart. Cisco Communications Manager grants tokens as long as the number of outstanding tokens are below the number specified in the Cisco Communications Manager service parameter Maximum Phone Fallback Queue Depth.
TokensOutstanding	-	Represents the number of devices which have been granted a token but have not yet registered. Devices falling back to a higher priority Cisco Communications Manager must be granted a token before registering. Tokens protect Cisco Communications Manager from being overloaded with registration requests when it comes back online after a failover situation.
TokensRejected	-	Represents the total number of token requests that have been rejected since the last Cisco Communications Manager restart. CCM will reject token request if the number of outstanding tokens is greater than the number specified in the Cisco Communications Manager service parameter Maximum Phone Fallback Queue Depth.
Cisco SW Conference Bridge Device		
(CFB_2)\AllocatedResourceCannotOpenPort	-	Represents the total number of calls that failed when the allocated SW Conference bridge device failed to open a port for media transmission.
(CFB_2)\OutOfResources	-	Represents the total number of times an attempt was made to allocate a conference resource from this SW Conference device and failed, for example, because all resources were already in use.

Monitor Name	Units	Description
(CFB_2)\ResourceActive	-	Represents the number of resources that are currently in use (active) for this SW Conference device. One resource is equal to one stream.
(CFB_2)\ResourceAvailable	-	Represents the total number of resources that are not active and are still available to be used at the current time for this SW Conference device. One resource is equal to one stream.
(CFB_2)\ResourceTotal	-	Represents the total number of conference resources provided by this SW Conference device. One resource is equal to one stream. This counter is equal to the sum of the counters ResourceAvailable and ResourceActive.
(CFB_2)\SWConferenceActive	-	Represents the number of software-based conferences that are currently active (in use) on this SW Conference bridge device.
(CFB_2)\SWConferenceCompleted	-	Represents the total number of conferences that have been allocated and released on this SW Conference device. A conference is started when the first call is connected to the bridge. The conference is completed when the last call disconnects from the bridge.
Cisco TFTP		
BuildAbortCount	-	Represents the number of times Build was aborted due to Incoming build ALL request. This counter is updated every time building of device/unit/softkey/dialrule is aborted due to Group Level change notifications.
BuildCount	-	Represents the number of times since the TFTP service started that the TFTP server has built all the configuration files in response to a database change notification that affects all devices or a start of the TFTP service. This counter increments by one every time the TFTP server performs a new build of all the configuration files.
BuildDeviceCount	-	Represents the number of devices processed in the last build of all the configuration files. This counter is also updated while processing device change notifications. The counter increments when a new device is added and decrements when an existing device is deleted.
BuildDialruleCount	-	Represents the number of Dialrules processed in the last build of all the configuration files. This counter is also updated while processing Dialrule change notifications. The counter increments when a new Dialrule is added and decrements when an existing Dialrule is deleted.
BuildDuration	-	Represents the length of time in seconds that the last build of all the configuration files took.
BuildFeaturePolicyCount	-	Represents the number of Feature Control Policy files processed in the last build of all the configuration files. This counter is also updated while processing FeatureControlPolicy change notifications. The counter increments when a new Feature Control Policy is added and decrements when an existing Feature Control Policy is deleted.

Monitor Name	Units	Description
BuildSignCount	-	Represents the number of security-enabled phone devices for which the configuration file was digitally signed with the Communications Manager server key in the last build of all the configuration files. This counter is also updated while processing security-enabled phone device change notifications.
BuildSoftkeyCount	-	Represents the number of Softkeys processed in the last build of all the configuration files. This counter is also updated while processing Softkey change notifications. The counter increments when a new Softkey is added and decrements when an existing Softkey is deleted.
BuildUnitCount	-	Represents the number of gateways processed in the last build of all the configuration files. This counter is also updated while processing unit change notifications. The counter increments when a new gateway is added and decrements when an existing gateway is deleted.
ChangeNotifications	-	Represents the total number of all the Communications Manager database change notifications received by the TFTP server. Each time a device configuration is updated in Cisco Communications Manager Administration, the TFTP server is sent a database change notification to rebuild the XML file for the updated device.
DeviceChangeNotifications	-	Represents the number of times the TFTP server has received database change notification to create, update or delete configuration files for devices.
DialruleChangeNotifications	-	Represents the number of times the TFTP server has received database change notification to create, update or delete configuration files for Dialrules.
EncryptCount	-	Represents the number of config files that were encrypted. This counter is updated each time a config file is successfully encrypted.
FeaturePolicyChangeNotifications	-	Represents the number of times the TFTP server has received database change notification to create, update or delete configuration files for Feature Control Policies.
GKFoundCount	-	Represents the number of GK files that were found in the cache. This counter is updated each time a GK file is found in the cache.
GKNotFoundCount	-	Represents the number of GK files that were not found in the cache. This counter is updated each time a request to get a GK file results in the cache not finding it.
HeartBeat	-	Represents the heartbeat of the TFTP server. This is an incremental count that indicates that the TFTP server is alive and running. If the count does not increment, then the TFTP server is down (dead).
HttpConnectRequests	-	Represents the number of clients currently requested HTTP connect request to GET the file request.

Monitor Name	Units	Description
HttpRequests	-	Represents the total number of file requests (such as requests for XML configuration files, phone firmware files, audio files, etc.) handled by the HTTP server. This counter represents the sum total of the following counters since the HTTP service started: RequestsProcessed, RequestsNotFound, RequestsOverflow, RequestsAborted, RequestsInProgress.
HttpRequestsAborted	-	Represents the total number of HTTP requests that were canceled (aborted) unexpectedly by the HTTP server. Requests could be aborted if the requesting device cannot be reached (for instance, the device lost power) or if the file transfer was interrupted due to network connectivity problems.
HttpRequestsNotFound	-	Represents the total number of HTTP requests where the requested file was not found. When the HTTP server does not find the requested file, an error message is sent to the requesting device.
HttpRequestsOverflow	-	Represents the total number of HTTP requests that were rejected because the maximum number of allowable client connections was exceeded, because requests arrived while the TFTP server was building the configuration files, or because of some other resource limitation. The maximum number of allowable connections is set in the Cisco TFTP advanced service parameter, Maximum Serving Count.
HttpRequestsProcessed	-	Represents the total number of HTTP requests successfully processed by the HTTP server.
HttpServedFromDisk	-	Represents the number of requests served from the files on disk, while serving files that are not cached in memory by the HTTP server.
LDFoundCount	-	Represents the number of LD files that were found in the cache. This counter is updated each time a LD file is found in the cache.
LDNotFoundCount	-	Represents the number of LD files that were not found in the cache. This counter is updated each time a request to get an LD file results in the cache not finding it.
MaxServingCount	-	Represents the maximum number of client connections that can be served files simultaneously by the TFTP server. This value is set in the Cisco TFTP advanced service parameter, Maximum Serving Count.
Requests	-	Represents the total number of file requests (such as requests for XML configuration files, phone firmware files, audio files, etc.) handled by the TFTP server. This counter represents the sum total of the following counters since the TFTP service started: RequestsProcessed, RequestsNotFound, RequestsOverflow, RequestsAborted, RequestsInProgress.
RequestsAborted	-	Represents the total number of TFTP requests that were canceled (aborted) unexpectedly by the TFTP server. Requests could be aborted if the requesting device cannot be reached (for instance, the device lost power) or if the file transfer was interrupted due to network connectivity problems.

Monitor Name	Units	Description
RequestsInProgress	-	represents the number of file requests currently being processed by the TFTP server. This counter increments for each new file request and decremented for each file request completed. This counter gives you an indication of the current load of the TFTP server.
RequestsInProgress	-	Represents the number of file requests currently being processed by the TFTP server. This counter increments for each new file request and decremented for each file request completed. This counter gives you an indication of the current load of the TFTP server.
RequestsNotFound	-	Represents the total number of TFTP requests where the requested file was not found. When the TFTP server does not find the requested file, an error message is sent to the requesting device. In a cluster that is configured as secure, it is usually an indicator of an error condition if this counter increments. However, when the cluster is configured as non-secure it is normal for the CTL file to be absent (not found), resulting in an error message being sent to the requesting device and a corresponding increment in this counter. For non-secure clusters, this occurrence is normal and does not represent an error condition.
RequestsOverflow	-	Represents the total number of TFTP requests that were rejected because the maximum number of allowable client connections was exceeded, because requests arrived while the TFTP server was building the configuration files, or because of some other resource limitation. The maximum number of allowable connections is set in the Cisco TFTP advanced service parameter, Maximum Serving Count.
RequestsProcessed	-	Represents the total number of TFTP requests successfully processed by the TFTP server.
SegmentsAcknowledged	-	Represents the total number of data segments acknowledged by the client devices. Files are sent to the requesting device in data segments of 512 bytes and for each 512 byte segment, the device sends the TFTP server an acknowledgment message. Each additional data segment is sent upon receipt of the acknowledgement for the previous data segment until the complete file has been successfully transmitted to the requesting device.
SegmentsFromDisk	-	Represents the number of data segments read from the files on disk, while serving files that are not cached in memory by the TFTP server.
SegmentsSent	-	Represents the total number of data segments sent by the TFTP server. Files are sent to the requesting device in data segments of 512 bytes.
SEPFoundCount	-	Represents the number of SEP files that were found in the cache. This counter is updated each time a SEP file is found in the cache.
SEPNotFoundCount	-	Represents the number of SEP files that were not found in the cache. This counter is updated each time a request to get a SEP file results in the cache not finding it.

Monitor Name	Units	Description
SIPFoundCount	-	Represents the number of SIP files that were found in the cache. This counter is updated each time a SIP file is found in the cache.
SIPNotFoundCount	-	Represents the number of SIP files that were not found in the cache. This counter is updated each time a request to get a SIP file results in the cache not finding it.
SoftkeyChangeNotifications	-	Represents the number of times the TFTP server has received database change notification to create, update or delete configuration files for Softkeys.
UnitChangeNotifications	-	Represents the number of times the TFTP server has received database change notification to create, update or delete gateway-related configuration files.
Cisco Tomcat Connector		
(http-8080)\Errors	-	Represents the total number of HTTP errors (for example, 401 Unauthorized) encountered by the Connector. A Tomcat Connector represents an endpoint that receives requests and sends responses. The Connector handles HTTP/HTTPS requests and sends HTTP/HTTPS responses that occur when Cisco Communications Manager-related web pages are accessed. The instance name for each Tomcat Connector is based on the Secure Sockets Layer (SSL) status of the URLs for the web application. For example, https://IP Address:8443 for SSL or http://IP Address:8080 for non-SSL.
(http-8080)\MBytesReceived	-	Represents the amount of data that the Connector has received. A Tomcat Connector represents an endpoint that receives requests and sends responses. The Connector handles HTTP/HTTPS requests and sends HTTP/HTTPS responses that occur when Cisco Communications Manager-related web pages are accessed. The instance name for each Tomcat Connector is based on the Secure Sockets Layer (SSL) status of the URLs for the web application. For example, https://IP Address:8443 for SSL or http://IP Address:8080 for non-SSL.
(http-8080)\MBytesSent	-	Represents the amount of data that the Connector has sent. A Tomcat Connector represents an endpoint that receives requests and sends responses. The Connector handles HTTP/HTTPS requests and sends HTTP/HTTPS responses that occur when Cisco Communications Manager-related web pages are accessed. The instance name for each Tomcat Connector is based on the Secure Sockets Layer (SSL) status of the URLs for the web application. For example, https://IP Address:8443 for SSL or http://IP Address:8080 for non-SSL.

Monitor Name	Units	Description
(http-8080)\Requests	-	Represents the total number of requests that have been handled by the Connector. A Tomcat Connector represents an endpoint that receives requests and sends responses. The Connector handles HTTP/HTTPS requests and sends HTTP/HTTPS responses that occur when Cisco Communications Manager-related web pages are accessed. The instance name for each Tomcat Connector is based on the Secure Sockets Layer (SSL) status of the URLs for the web application. For example, https://IP Address:8443 for SSL or http://IP Address:8080 for non-SSL.
(http-8080)\ThreadsBusy	-	Represents the Connector's current number of busy/in-use request processing threads. A Tomcat Connector represents an endpoint that receives requests and sends responses. The Connector handles HTTP/HTTPS requests and sends HTTP/HTTPS responses that occur when Cisco Communications Manager-related web pages are accessed. The instance name for each Tomcat Connector is based on the Secure Sockets Layer (SSL) status of the URLs for the web application. For example, https://IP Address:8443 for SSL or http://IP Address:8080 for non-SSL.
(http-8080)\ThreadsMax	-	Represents the Connector's max number of request processing threads. Each incoming request on a Cisco Communications Manager-related web page requires a thread for the duration of that request. If more simultaneous requests are received than the available request processing threads can handle, additional threads are created up to the maximum shown in this counter. If still more simultaneous requests occur, they accumulate in the server socket created by the Connector, up to a fixed maximum. Any further simultaneous requests receive Connection Refused errors until resources are freed. A Tomcat Connector represents an endpoint that receives requests and sends responses. The Connector handles HTTP/HTTPS requests and sends HTTP/HTTPS responses that occur when Cisco Communications Manager-related web pages are accessed. The instance name for each Tomcat Connector is based on the Secure Socket Layer (SSL) status of the URLs for the web application. For example, https://IP Address:8443 for SSL or http://IP Address:8080 for non-SSL.
(http-8080)\ThreadsTotal	-	Represents the Connector's current total number of request processing threads, including available and in-use threads. A Tomcat Connector represents an endpoint that receives requests and sends responses. The Connector handles HTTP/HTTPS requests and sends HTTP/HTTPS responses that occur when Cisco Communications Manager-related web pages are accessed. The instance name for each Tomcat Connector is based on the Secure Sockets Layer (SSL) status of the URLs for the web application. For example, https://IP Address:8443 for SSL or http://IP Address:8080 for non-SSL.
Cisco Tomcat JVM		

Monitor Name	Units	Description
KBytesMemoryFree	KBytes	Represents the amount of free dynamic memory block (heap memory) in the Tomcat Java Virtual Machine. The dynamic memory block stores all objects created by Tomcat and its web applications such as Cisco Communications Manager Administration and Cisco Communications Manager Serviceability. When the amount of free dynamic memory is low, more memory is automatically allocated and total memory size (represented by the KbytesMemoryTotal counter) increases but only up to the maximum (represented by the KbytesMemoryMax counter). You can determine the amount of memory in use by subtracting KBytesMemoryFree from KbytesMemoryTotal.
KBytesMemoryMax	KBytes	Represents the Tomcat Java Virtual Machine maximum dynamic memory block size. The dynamic memory block stores all objects created by Tomcat and its web applications such as Cisco Communications Manager Administration and Cisco Communications Manager Serviceability.
KBytesMemoryTotal	KBytes	Represents the Tomcat Java Virtual Machine current total dynamic memory block size including free and in-use memory. The dynamic memory block stores all objects created by Tomcat and its web applications such as Cisco Communications Manager Administration and Cisco Communications Manager Serviceability.
Cisco Tomcat Web Application		
(_root)\Errors	-	Represents the total number of HTTP errors (for example, 401 Unauthorized) encountered by a Cisco Communications Manager-related web application. The instance name for each Tomcat Web Application is based on the URLs for the web application. For example, Cisco Communications Manager Administration (https://IP Address:8443/ccmadmin) is identified by ccmadmin, Cisco Communications Manager Serviceability is identified by ccmservice, Cisco Communications Manager User Options is identified by ccmuser, and URLs that do not have an extension, such as https://IP Address:8443 or http://IP Address:8080), are identified by _root.
(_root)\Requests	-	Represents the total number of requests handled by the web application. Each time a web application is accessed, its Requests counter will increment accordingly. The instance name for each Tomcat Web Application is based on the URLs for the web application. For example, Cisco Communications Manager Administration (https://IP Address:8443/ccmadmin) is identified by ccmadmin, Cisco Communications Manager Serviceability is identified by ccmservice, Cisco Communications Manager User Options is identified by ccmuser, and URLs that do not have an extension, such as https://IP Address:8443 or http://IP Address:8080), are identified by _root.

Monitor Name	Units	Description
(_root)\SessionsActive	-	Represents the number of currently active (in use) sessions the web application currently has. The instance name for each Tomcat Web Application that displays is based on the URLs for the web application. For example, Cisco Communications Manager Administration (https://IP Address:8443/ccmadmin) is identified by ccmadmin, Cisco Communications Manager Serviceability is identified by ccmserve, Cisco Communications Manager User Options is identified by ccmuser, and URLs that do not have an extension, such as https://IP Address:8443 or http://IP Address:8080), are identified by _root.
Cisco WebDialer		
CallsCompleted	-	Represents the number of Make Call and End Call requests that have been successfully completed by the WebDialer servlet.
CallsFailed	-	Represents the number of Make Call and End Call requests that were unsuccessful.
RedirectorSessionsHandled	-	Represents the total number of HTTP sessions handled by the Redirector servlet since the last service startup.
RedirectorSessionsInProgress	-	Represents the number of HTTP sessions currently being serviced by the Redirector servlet.
RequestsCompleted	-	Represents the number of Make Call and End Call requests that have been successfully completed by the WebDialer servlet.
RequestsFailed	-	Represents the number of Make Call and End Call requests that were unsuccessful.
SessionsHandled	-	Represents the total number of CTI sessions handled by the WebDialer servlet since the last service startup.
SessionsInProgress	-	Represents the number of CTI sessions currently being serviced by the WebDialer servlet.
DB Change Notification Client		
MessagesProcessed	-	Represents the number of database change notifications that have been processed. This counter refreshes every 15 seconds by default.
MessagesProcessing	-	Represents the number of change notification messages in the change notification queue for this client that are currently being processed or are waiting to be processed. This counter refreshes every 15 seconds by default.
QueueHeadPointer	-	Represents the head pointer of the change notification queue. The head pointer is the starting point in the change notification queue. To determine the number of notifications in the queue, subtract the head pointer value from the tail pointer value. This counter refreshes every 15 seconds by default.

Monitor Name	Units	Description
QueueMax	-	Represents the largest number of change notification messages to be processed for this client. This counter is cumulative since the last restart of the Cisco Database Layer Monitor service.
QueueTailPointer	-	Represents the tail pointer of change notification queue. The tail pointer represents the ending point in the change notification queue. To determine the number of notifications in the queue, subtract the head pointer value from the tail pointer value. This counter refreshes every 15 seconds by default.
TablesSubscribed	-	Represents the number of tables to which this client has subscribed.
DB Change Notification Server		
Clients	-	Represents the total number of change notification clients.
CNProcessed	-	Represents the total number of change notification messages processed by server since reboot.
QueueDelay	-	Provides the number of seconds that the change notification process has messages to process, but is not processing them. This condition is true if either Change Notification Requests Queued in Database (QueuedRequestsInDB) and Change Notification Requests Queued in Memory (QueuedRequestsInMemory) are non-zero. Or, the Latest Change Notification Messages Processed count must not be changing. This condition is checked every 15 seconds.
QueuedRequestsInDB	-	Represents the number of records from DBCNQueue table.
QueuedRequestsInMemory	-	Represents the number of change notification requests queued in memory.
DB Change Notification Subscription		
SubscribedTable	-	Represents the table(s) for which the service or servlet will receive change notifications. This information is provided for informational purposes only; no counter will increment.
DB Local DSN		
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\CcmDbSpace_Used	-	Represents the amount of ccm dbspace consumed.
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\CcmtempDbSpace_Used	-	Represents the amount of ccmtmp dbspace consumed.

Monitor Name	Units	Description
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\CNDbSpac e_Used	-	Represents the percentage of CN dbspace consumed.
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\LocalDSN	-	Displays the data source name (DSN) that is being referenced from the local machine.
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\RootDbSpa ce_Used	-	Represents the amount of root dbspace consumed.
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\SharedMe memory_Free	-	Represents total shared memory that is free.
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\SharedMe memory_Used	-	Represents total shared memory that is used.
DB User Host Information Counters		
(ccm8_6_2_22900_9:d atabase:cisco-ucm85)\ DB>User:Host Instances	-	Displays the number of connections that is present for each instance of DB>User:Host.
Enterprise Replication DBSpace Monitors		
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\ERDbSpace _Used	-	Represents the amount of enterprise replication DbSpace consumed.
(DSN=ccm;; NodeName = cisco-ucm85.HCLT.CO RP.HCL.IN)\ERSBDbSp ace_Used	-	Represents the amount of ERDbSpace consumed.
External Call Control		

Monitor Name	Units	Description
ConnectionsActiveToPDP Server	-	Specifies the total number of connections that Cisco Unified Communications Manager has established (currently active) with PDP servers.
ConnectionsLostToPDP Server	-	Specifies the total number of times that active connections between Cisco Unified Communications Manager and the PDP servers were disconnected. This is a cumulative count since the last restart of the Cisco Communications Manager service.
PDPServersInService	-	Defines the total number of in-service (active) PDP servers.
PDPServersOutOfService	-	Defines the total number of times that PDP servers have transitioned from in-service to out-of-service. This is a cumulative count of out-of-service PDP servers since the last restart of the Cisco Communications Manager service.
PDPServersTotal	-	Defines the total number of PDP servers in all External Call Control Profiles configured in Cisco Unified CM Administration. This counter increments when a new PDP server is added and decrements when a PDP server is removed.
IME Client		
CallsAccepted	-	Indicates the number of IME calls that have been successfully received by Unified CM and answered by the called party, resulting in an IP call.
CallsAttempted	-	Indicates the number of all calls initiated by Unified CM through Cisco Intercompany Media Engine (IME), including calls that are accepted, busy, unanswered, and failed calls. This counter increments each time a call through IME is initiated.
CallsReceived	-	Indicates the number of calls received by Unified CM through IME, including calls that are accepted (connected), busy, unanswered and failed calls. This counter increments each time a call is received by Unified CM through IME.
CallsSetup	-	Indicates the number of IME calls that have been successfully placed by Unified CM and answered by the remote party, resulting in an IP call.
DomainsUnique	-	Indicates the number of unique domain names of peer enterprises discovered by IME client. It is an indicator of overall usage of the system.
FallbackCallsFailed	-	Indicates the total number of unsuccessful fallback attempts.
FallbackCallsSuccessful	-	Indicates the total number of IME calls that have fallen back to the PSTN mid-call due to a quality problem, including calls initiated and calls received by this Unified CM.
IMESetupsFailed	-	Indicates the total number of call attempts for which an IME route was available but which the call was set up through the PSTN due to a failure to connect to the target over the IP network.

Monitor Name	Units	Description
RoutesLearned	-	Indicates the total number of distinct phone numbers that have been learned by Unified CM and are present as routes in Unified CM Administration. If this number grows too large, it may exceed the per-cluster limit and require additional clusters to scale to the demand.
RoutesPublished	-	Indicates the total number of DIDs published successfully into the IME distributed cache across all IME services. It is a dynamic measurement, and as such, gives you an indication of your own provisioned usage in addition to a sense of how successful the system has been in storing the DIDs into the network.
RoutesRejected	-	Indicates the number of learned routes which were rejected because the number or domain were configured as Untrusted. This provides an indication of the number of missed opportunities: cases where a VoIP call could happen in the future, but will not due to the blocked validation.
VCRUploadRequests	-	Indicates the number of voice call record (VCR) upload requests that have been sent by the Unified CM to the IME server to be stored in the IME distributed cache. This is a cumulative count since the last restart of the Cisco Communications Manager service.
IP and IP6		
Frag Creates	-	Represents the number of IP datagrams fragments that have been generated as a result of fragmentation at this entity.
Frag Fails	-	Represents the number of IP datagrams that have been discarded because they needed to be fragmented at this entity but could not, for example because their Do not Fragment flag was set.
Frag OKs	-	Represents the number of IP datagrams that have been successfully fragmented at this entity.
In Delivers	-	Represents the total number of input datagrams successfully delivered to IP user-protocols (including Internet Control Message Protocol [ICMP]).
In Discards	-	Represents the number of input IP datagrams for which no problems were encountered to prevent their continued processing, but which were discarded (for example, for lack of buffer space). This counter does not include any datagrams that were discarded while awaiting reassembly.
In HdrErrors	-	Represents the number of input datagrams discarded due to errors in their IP header, including bad checksums, version number mismatch, other format errors, time-to-live exceeded, errors discovered in processing their IP options, etc.
In Receives	-	Represents the number of input datagrams received from all network interfaces, including those received with errors.
In UnknownProtos	-	Represents the number of locally-addressed datagrams that were received successfully but discarded because of unknown or unsupported protocols (protos).

Monitor Name	Units	Description
InOut Requests	-	Represents the total number of IP datagrams received and the number of IP datagrams sent.
Out Discards	-	Represents the number of output IP datagrams that was not transmitted and was discarded. One reason may be a lack of buffer space.
Out Requests	-	Represents the total number of IP datagrams which local IP user-protocols (including Internet Control Message Protocol [ICMP]) supply to IP in requests transmission. This counter does not include any datagrams counted in ForwDatagrams.
Reasm Fails	-	Represents the number of failures detected by the IP reassembly algorithm (for various reasons, for example timed out, errors, and so on). This is not necessarily a count of discarded IP fragments since some algorithms, notably the algorithm in RFC 815, can lose track of the number of fragments by combining them as they are received.
Reasm OKs	-	Represents the number of IP datagrams that have been successfully reassembled.
Reasm Reqds	-	Represents the number of IP fragments received which needed to be reassembled at this entity.
Memory		
% Mem Used	Percent	Represents the percentage of system physical memory utilization on the system. The value of the % Mem Used counter is equal to the value derived from either of the following equations: (Total KBytes - Free KBytes - Buffers KBytes - Cached KBytes + Shared KBytes) / Total KBytes; OR: Used Mem KBytes / Total KBytes.
% Page Usage	Percent	Represents the percentage of active pages.
% VM Used	Percent	Represents the percentage of system virtual memory utilization on the system. The value of the % VM Used counter is equal to the value derived from either of the following two equations: (Total KBytes - Free KBytes - Buffers KBytes - Cached KBytes + Shared KBytes + Used Swap KBytes) / (Total KBytes + Total Swap KBytes); OR: Used VM KBytes / Total VM KBytes.
Buffers KBytes	KBytes	Represents the capacity of buffers in the system in kilobytes.
Cached KBytes	KBytes	Represents the amount of cached memory in kilobytes.
Free KBytes	KBytes	Represents the total amount of memory that is available in the system in kilobytes.
Free Swap KBytes	KBytes	Represents the amount of free swap space, in kilobytes, that is available in the system.

Monitor Name	Units	Description
HighFree	-	Represents the amount of free memory in the high region. Linux kernel splits the virtual memory address space into memory regions. The high memory is memory above certain physical address, and its amount depends on the total memory and the type of kernel on the system. For the Cisco Unified Communications Manager system with 4GB memory, the high memory is roughly in the address of 896M to 4096M.
HighTotal	-	Represents the total amount of memory in the high region. Linux kernel splits the virtual memory address space into memory regions. The high memory is memory above certain physical address, and its amount depends on the total memory and the type of kernel on the system. For the Cisco Unified Communications Manager system with 4GB memory, the high memory is roughly in the address of 896M to 4096M.
Low Free	-	Represents the free low (non-paged) memory for kernel.
Low Total	-	Represents the total low (non-paged) memory for kernel.
Page Faults Per Sec	-	Represents the number of page faults (major + minor) made by the system per second (post 2.5 kernels only). This is not a count of page faults that generate I/O, because some page faults can be resolved without I/O.
Page Major Faults Per Sec	-	Represents the number of major faults the system has made per second, those which have required loading a memory page from disk (post 2.5 kernels only).
Pages	Pages	Represents the number of pages that the system paged in from the disk plus the number of pages that the system paged out to the disk.
Pages Input	Pages	Represents the number of pages that the system paged in from the disk.
Pages Input Per Sec	Pages	Represents the total number of kilobytes the system paged in from disk per second.
Pages Output	Pages	Represents the number of pages that the system paged out to the disk.
Pages Output Per Sec	Pages	Represents the total number of kilobytes the system paged out to disk per second.
Shared KBytes	KBytes	Represents the amount of shared memory in the system in kilobytes.
SlabCache		Represents all memory used by created slabcaches by various kernel components, as a macroscopic counter representing the sum of all the individual entries in the proc's slabinfo.
SwapCached		Represents the amount of Swap used as cache memory. Memory that once was swapped out, is swapped back in, but is still in the swapfile.
Total KBytes	KBytes	Represents the total amount of memory in the system in kilobytes.
Total Swap KBytes	KBytes	Represents the total amount of swap space, in kilobytes, in the system.

Monitor Name	Units	Description
Total VM KBytes	KBytes	Represents the total amount of system physical memory and swap space that is in use, in kilobytes, in the system. The value of the Total VM KBytes counter is equal to the value derived from the following equation: Total KBytes + Total Swap KBytes.
Used KBytes	KBytes	Represents the amount of system physical memory that is in use, in kilobytes, in the system. The value of the Used KBytes counter is equal to the value derived from the following equation: Total KBytes - Free KBytes - Buffers KBytes - Cached KBytes + Shared KBytes. The Used KBytes value is different from the Linux term used value shown in top or free command output. The used value shown in Linux top or free command output is equal to Total KBytes - Free KBytes, and it also includes the sum of Buffer KBytes and Cached KBytes.
Used Swap KBytes	KBytes	Represents the amount of swap space, in kilobytes, that is in use on the system.
Used VM KBytes	KBytes	Represents the system physical memory and the amount of swap space that is in use, in kilobytes, in the system. The value of the Used VM KBytes counter is equal to the value derived from the following equation: Total KBytes - Free KBytes - Buffers KBytes - Cached KBytes + Shared KBytes + Used Swap KBytes; OR: Used Mem KBytes + Used Swap KBytes.
Network Interface		
(eth0)\Rx Bytes	-	Represents the number of bytes, including framing characters, that was received on the interface.
(eth0)\Rx Dropped	-	Represents the number of inbound packets that was chosen to be discarded even though no errors had been detected. Discarding packets prevents the packet from being delivered to a higher layer protocol, for example, to free up buffer space.
(eth0)\Rx Errors	-	Represents the number of inbound packets (for packet-oriented interfaces) and the number of inbound transmission units (for character-oriented or fixed-length interfaces) that contained errors that prevented them from being deliverable to a higher layer protocol.
(eth0)\Rx Multicast	-	Represents the number of multicast packets that was received on this interface.
(eth0)\Rx Packets	-	Represents the number of packets that this sublayer delivered to a higher sublayer. This does not include the packets that were addressed to a multicast or broadcast address at this sublayer.
(eth0)\Total Bytes	-	Represents the total number of received (Rx) bytes and transmitted (Tx) bytes.
(eth0)\Total Packets	-	Represents the total number of received (Rx) packets and transmitted (Tx) packets.
Number of Replicates Created and State of Replication		

Monitor Name	Units	Description
(ReplicateCount)\Number of Replicates Created	-	Represents the number of replicates created by Informix for the DB tables. For every table there should be one replicate. This counter displays information during Replication Setup
(ReplicateCount)\Replicate_State	-	Displays the state of replication: Thus 0 = Initializing ReplTask thread; 1 = Replication setup script fired from this node; 2 = Replication is good, replication is setup correctly and most of the tables in the database should be in sync for all nodes of the cluster. Please run -- utils dbreplication status -- to see if any tables are out of sync.; 3 = Replication data transfer is bad in the cluster; 4 = Replication Setup didn't succeed. When the counter shows a value of 3, it means replication is bad in the cluster. It doesn't mean that replication is bad on that particular node. It is advised that the user run utils dbreplication status cli to find out where and what exactly is broken.
Partition		
(Active)\% CPU Time	Percent	Represents the percentage of CPU time that is dedicated to handling IO requests that were issued to the disk.
(Active)\% Used	Percent	Represents the percentage of disk space that is in use on this file system.
(Active)\Await Read Time	ms	Represents the average time, measured in milliseconds, for read requests issued to the device to be served.
(Active)\Await Time	ms	Represents the average time, measured in milliseconds, for I/O requests issued to the device to be served. This includes the time spent by the requests in queue and the time spent servicing them.
(Active)\Await Write Time	ms	Represents the average time, measured in milliseconds, for write requests issued to the device to be served.
(Active)\Queue Length	-	Represents the average queue length for the requests that were issued to the disk.
(Active)\Read Bytes Per Sec	Bytes per second	Represents the amount of data that was read from the disk, measured in bytes per second.
(Active)\Total Mbytes	Mbytes	Represents the amount of total disk space, in megabytes, that is on this file system. The number in this counter may differ from other total size values for disk space that you may see on the system. That is because the value of the Total Mbytes counter is the sum of Used Mbytes performance counter and the Free value shown in the CLI (show status) output. The Total Mbytes value is less than this CLI output for Total which includes the minfree percentage of reserved file system disk blocks. Keeping a minfree reserved is one way to ensure a sufficient amount of disk space for the file system to operate at high efficiency.
(Active)\Used Mbytes	Mbytes	Represents the amount of disk space, in megabytes, that is in use on this file system.
(Active)\Write Bytes Per Sec	Bytes per second	Represents the amount of data that was written to the disk, measured in bytes per second.

Monitor Name	Units	Description
Process		
(acpid)\% CPU Time	Percent	Expressed as a percentage of total CPU time, represents the tasks share of the elapsed CPU time since the last update.
(acpid)\% Memory Usage	Percent	Represents the percentage of physical memory that a task is currently using.
(acpid)\Data Stack Size	-	Represents the stack size for task memory status.
(acpid)\Nice	-	Represents the nice value of the task. A negative nice value indicates that the process has a higher priority while a positive nice value indicates that the process has a lower priority. If the nice value equals zero, do not adjust the priority when you are determining the dispatchability of a task.
(acpid)\Page Fault Count	-	Represents the number of major page faults that a task encountered that required the data to be loaded into memory.
(acpid)\PID	-	Represents the task's unique process ID, which periodically wraps, though never restarting at zero.
(acpid)\Process Status		Displays the task's process status: 0 - Running, 1 - Sleeping, 2 - Uninterruptible disk sleep, 3 - Zombie, 4 - Traced or stopped (on a signal), 5 - Paging, 6 - Unknown.
(acpid)\Shared Memory Size	KBytes	Displays the amount of shared memory, in KB, that a task is using. Other processes could potentially share the same memory.
(acpid)\STime	Jiffies	Displays the amount of system time (STime), measured in jiffies, for which this process has been scheduled in kernel mode. A jiffy corresponds to a unit of CPU time and gets used as a base of measurement. One second is equal to 100 jiffies.
(acpid)\Thread Count	-	Displays the number of threads that are currently grouped with the task. A negative value -1 indicates that this counter is currently not available because thread statistics (including all performance counters in the Thread object as well as the Thread Count counter in the Process object) have been turned off because the system's total processes and threads have exceeded the default threshold value.
(acpid)\Total CPU Time Used	Jiffies	Displays the total CPU time, measured in jiffies that the task has consumed in user mode and kernel mode since the start of the task. One second is equal to 100 jiffies.
(acpid)\UTime	Jiffies	Displays the amount of time, measured in jiffies, that the task has been scheduled for in user mode. One second is equal to 100 jiffies.
(acpid)\VmData	KBytes	Displays the virtual memory usage of the heap for the task in kilobytes (KB).
(acpid)\VmRSS	KBytes	Displays the virtual memory (Vm) resident set size (RSS) that is currently in physical memory in kilobytes (KB), including Code, Data, and Stack.

Monitor Name	Units	Description
(acpid)\VmSize	KBytes	Displays the total amount of virtual memory, in KB, that the task is using. It includes all code, data, shared libraries, and pages that have been swapped out: Virtual Image = swapped size + resident size.
Processor		
(_Total)\% CPU Time	Percent	Indicates the processor's share of the elapsed CPU time excluding the idle time since last update, expressed as a percentage of CPU time.
(_Total)\Idle Percentage	Percent	Displays the percentage of time that the CPU or CPUs were idle and the system did not have an outstanding disk I/O request.
(_Total)\IOwait Percentage	Percent	Displays the percentage of time that the CPU or CPUs were idle, during which the system had an outstanding disk I/O request.
(_Total)\Irq Percentage	Percent	Displays the percentage of time that the processor is executing the interrupt request which is assigned to devices for interrupt, or sending a signal to the computer when it is finished processing.
(_Total)\Nice Percentage	Percent	Displays the percentage of CPU utilization that occurred while executing at the user level with nice priority.
(_Total)\Softirq Percentage	Percent	Displays the percentage of time that the processor is executing the softirq, which means that task switching is deferred until later to achieve better performance.
(_Total)\System Percentage	Percent	Displays the percentage of CPU utilization that occurred while executing at the system level (kernel).
(_Total)\User Percentage	Percent	Displays the percentage of CPU utilization that occurred while executing at the user level (application).
Ramfs		
(ccm_callogs)\FilesTotal	-	Represents the total number of files in the ram-based filesystem (ramfs).
(ccm_callogs)\SpaceFree	-	Represents the amount of free data blocks in the ram-based filesystem (ramfs). A block is a uniformly sized unit of data storage for a filesystem. The block size specifies the size that the filesystem will use to read and write data; on the Cisco Unified Communications Manager system, the block size is 4096 bytes.
(ccm_callogs)\SpaceUsed	-	Represents the amount of used data blocks in the ram-based filesystem (ramfs). A block is a uniformly sized unit of data storage for a filesystem. The block size specifies the size that the filesystem will use to read and write data; on the Cisco Unified Communications Manager system, the block size is 4096 bytes.
System		
Allocated FDs	FDs	Represents the total number of allocated file descriptors.

Monitor Name	Units	Description
Being Used FDs	FDs	Represents the number of file descriptors that is currently in use in the system.
Freed FDs	FDs	Represents the total number of allocated file descriptors on the system that is freed.
IOAwait	Milliseconds	Represents the average time, in milliseconds, for I/O requests issued to all devices to be served. This includes the time spent by the requests in queue and the time spent servicing the requests.
IOCpuUtil	Percent	Represents the percentage of CPU time during which I/O requests were issued to the device (bandwidth utilization for the device) on this server.
IOKBytesReadPerSecond	-	Represents the total number of KBytes read per second from all devices on this server.
IOKBytesWrittenPerSecond	-	Represents the total number of KBytes written per second to all devices on this server.
IOPerSecond	-	Represents the total number of input/output operations on all disk partitions per second on this server. If you experience a system performance issue, use the information in this counter to measure the impact of the aggregate I/O operations on this server.
IOReadReqMergedPerSecond	-	Represents the total number of read requests merged per second that were queued to all devices on this server.
IOReadReqPerSecond	-	Represents the total number of read requests per second that were issued to all devices on this server.
IOReqQueueSizeAvg	-	Represents the average queue length of the requests that were issued to all devices on this server.
IOSectorsReadPerSecond	-	Represents the total number of sectors read per second from all devices on this server.
IOSectorsReqSizeAvg	-	Represents the average size in sectors of the requests that were issued to all devices on this server.
IOSectorsWrittenPerSecond	-	Represents the total number of sectors written per second to all devices on this server.
IOServiceTime	-	Represents the average service time, in milliseconds, for I/O requests that were issued to all devices on this server.
IOWriteReqMergedPerSecond	-	Represents the total number of write requests merged per second that were queued to all devices on this server.
IOWriteReqPerSecond	-	Represents the total number of write requests per second that were issued to all devices on this server.
Max FDs	FDs	Represents the maximum number of file descriptors that is allowed on the system.

Monitor Name	Units	Description
Total CPU Time	Jiffies	Represents the total time, measured in jiffies, that the system has been up and running. A jiffy corresponds to a unit of CPU time and gets used as a base of measurement. One second is equal to 100 jiffies.
Total Processes	-	Represents the total number of processes on the system.
Total Threads	-	Represents the total number of threads on the system.
TCP		
Active Opens	-	Represents the number of times that TCP connections have made a direct transition to the SYN-SENT state from the CLOSED state.
Attempt Fails	-	Represents the number of times that TCP connections have made a direct transition to the CLOSED state from either the SYN-RCVD state or the SYN-RCVD state, plus the number of times TCP connections have made a direct transition to the LISTEN state from the SYN-RCVD state.
Curr Estab	-	Represents the number of TCP connections for which the current state is either ESTABLISHED or CLOSE-WAIT.
Estab Resets	-	Represents the number of times that the TCP connections have made a direct transition to the CLOSED state from either the ESTABLISHED state or the CLOSE-WAIT state.
In Segs	-	Represents the total number of segments received, including those received in error. This count includes segments received on currently established connections.
InOut Segs	-	Represents the total number of segments that were sent and the total number of segments that were received.
Out Segs	-	Represents the total number of segments sent, including those on current connections but excluding those containing only retransmitted octets.
Passive Opens	-	Represents the number of times that TCP connections have made a direct transition to the SYN-RCVD state from the LISTEN state.
RetransSegs	-	Represents the total number of segments retransmitted, that is, the number of TCP segments transmitted containing one or more previously transmitted octets.
Thread		
ccm_8782\% CPU Time	Percent	Displays the thread's share of the elapsed CPU time since the last update, expressed as percentage of total CPU time.
ccm_8782\PID	-	Represents the thread's leader process ID.

cisco_ucm Alert Metrics Default Settings

The following table describes the default settings for the cisco_ucm alert metrics.

Alert Metric	Error Threshold	Error Severity	Description
MsgAgentError	-	Critical	Alarms to be issued when the host is not responding.
MsgAuthError	-	Critical	Alarms to be issued when the host authentication has failed.
MsgSessionError	-	Critical	Alarms to be issued when it is unable to create session.
MsgServices	-	Critical	Alarms to be issued when the service is not created.
MsgWarning	-	Warning	Alarms to be issued when the monitor is below threshold.
MsgCritical	-	Critical	Alarms to be issued when the monitor is below threshold.