Performance Objects and Counters

This chapter provides an overview of Cisco CallManager-related objects and counters and the real-time information monitoring applications that Cisco CallManager supports.

The following sections provide information about Cisco CallManager-related objects and counters and monitoring applications and how Cisco CallManager uses them:

Performance Objects and Counters

Cisco CallManager directly updates Performance counters (called PerfMon counters), which are call-processing-related counters. The counters contain simple, useful counts such as number of registered phones, number of active calls, and number of available conference bridge resources.

The following list identifies the Cisco CallManager-related performance objects (objects contain the counters). For a complete list, including descriptions, of all performance objects and associated counters, see Appendix C, "Performance Objects and Counters."

- Cisco ACB Device
- Cisco Analog Access
- Cisco Annunciator Device
- Cisco CallManager
- Cisco CallManager System Performance
- Cisco CTI Manager
- Cisco Extension Mobility
- Cisco GateKeeper
- Cisco H323
- Cisco Hunt Lists
- Cisco HW Conference Bridge Device
- Cisco IPMA Service
- Cisco Lines
- Cisco Locations
- Cisco Media Streaming Application
- Cisco Messaging Interface
- Cisco MGCP FXO Device
- Cisco MGCP FXS Device
- Cisco MGCP Gateways
- Cisco MGCP PRI Device
- Cisco MGCP T1CAS Device
- Cisco MOH Device
- Cisco MTP Device
- Cisco Phones
- Cisco SIP
- Cisco SW Conference Bridge Device
- Cisco TcdSrv
- Cisco TFTP Server
- Cisco Transcode Device

- Cisco Video Conference Bridge
- Cisco WebDialer

The Cisco CallManager object contains most of the performance counters, and these counters have only one instance. The instance-based counters that belong to the other objects can have zero or more instances. For example, if two phones are registered to Cisco CallManager, two instances of each counter that belong to the Cisco phones object exist.

The counters within each object contain descriptions. The Microsoft Performance counter descriptions match the Real-Time Monitoring Tool counter descriptions. See Chapter 12, "Microsoft Performance," for detailed information about Microsoft performance. See Appendix C, "Performance Objects and Counters," for a complete list, including descriptions, of all the performance objects and counters that are used in Cisco CallManager and Microsoft Performance.

Real-Time Monitoring Tool

The Real-Time Monitoring tool (RTMT), available in Cisco CallManager Serviceability, provides monitoring of Cisco CallManager-related performance objects and devices. The device information includes device registration status, IP address, description, and model type. RTMT provides clusterwide information that is stored in eight tables. The tables include phone, gateway devices, media, H.323 devices, SIP trunk, hunt list, computer telephony integration (CTI), and voice messaging.

RTMT also displays object and counter information that each Cisco CallManager node in the cluster keeps. RTMT directly monitors the performance object and counters.

For more information about Real-Time Monitoring, see Chapter 9, "Real-Time Monitoring Tool."

SNMP MIBs

The Cisco CallManager Simple Network Management Protocol (SNMP) extension agent resides in each Cisco CallManager node and exposes the CISCO-CCM-MIB that provides detailed information about devices that are

known to the node. The CISCO-CCM-MIB provides device information such as device registration status, IP address, description, and model type for the node (not the cluster).

Note To locate the CISCO-CCM-MIB, go to the following link: ftp://ftp.cisco.com/pub/mibs/supportlists/callmanager/callmanager-supportlist.html.

The following list identifies the CISCO-CCM-MIB device tables:

- ccmPhoneTable
- ccmPhoneExtensionTable
- ccmPhoneFailedTable
- ccmPhoneStatusUpdateTable
- ccmPhoneExtnTable
- ccmGatewayTable
- ccmMediaDeviceTable
- ccmProductTypeTable
- ccmCTIDeviceTable
- ccmCTIDeviceDirNumTable
- ccmSIPDeviceTable
- ccmH323DeviceTable
- ccmVoiceMailDeviceTable
- ccmVoiceMailDirNumTable

CCM_SNMP_MIB supports the following counters:

- ccmRegisteredPhones
- ccmUnregisteredPhones
- ccmRejectedPhones
- ccmRegisteredGateways
- ccmUnregisteredGateways
- ccmRejectedGateways

- ccmRegisteredMediaDevices
- ccmUnregisteredMediaDevices
- ccmRejectedMediaDevices
- ccmRegisteredCTIDevices
- ccmUnregisteredCTIDevices
- ccmRejectedCTIDevices
- ccmRegisteredVoiceMailDevices
- ccmUnregisteredVoiceMailDevices
- ccmRejectedVoiceMailDevices

For more information about SNMP, see Chapter 18, "Simple Network Management Protocol."

Counter Similarities

The performance counters for phones and gateways have related or overlapping information that RTMT device monitoring and CISCO-CCM-MIB also use. See Appendix A, "Cisco CallManager Performance Counters, RTMT, and CISCO-CCM-MIB," for related information.

Where to Find More Information

Related Topics

- Chapter 9, "Real-Time Monitoring Tool"
- Chapter 12, "Microsoft Performance"
- Chapter 18, "Simple Network Management Protocol"
- Appendix A, "Cisco CallManager Performance Counters, RTMT, and CISCO-CCM-MIB"
- Appendix C, "Performance Objects and Counters"
- Understanding Performance Monitoring, *Cisco CallManager Serviceability Administration Guide*

- Viewing Performance Statistics, *Cisco CallManager Serviceability Administration Guide*

Additional Cisco Documentation

- *Troubleshooting Guide for Cisco CallManager*