



## CHAPTER 9

# Understanding Services

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Cisco Unified Serviceability service management includes working with feature and network services and servlets, which are associated with the Tomcat Java Webserver. Feature services allow you to use application features, such as Serviceability Reports Archive, while network services are required for your system to function.

If something is wrong with a service or servlet, an alarm gets written to an alarm monitor. After viewing the alarm information, you can run a trace on the service. Be aware that services and servlets display different trace levels in the Trace Configuration window.

This chapter, which provides a description of services/servlets, Service Activation, and Control Center, contains information on the following topics:

- [Feature Services, page 9-1](#)
- [Network Services, page 9-9](#)
- [Service Activation, page 9-17](#)
- [Control Center, page 9-17](#)
- [Services Configuration Checklist, page 9-18](#)
- [Where to Find More Information, page 9-18](#)

## Feature Services

In Cisco Unified Serviceability, you can activate, start, and stop feature services. Activation turns on and starts the service. After you activate a service in the Service Activation window, you do not need to start it in the Control Center—Feature Services window. If the service does not start for any reason, you must start it in the Control Center—Features Services window.

After the system is installed, it does not automatically activate feature services, which are related services that are required if you want to use your configuration features; for example, the Serviceability Reports Archive feature.

*Unified CM and Unified CM BE only:* After you activate feature services, you can modify associated service parameters in Cisco Unified Communications Manager Administration.

*Connection only:* After you activate feature services, you can modify associated settings in Cisco Unity Connection Administration.

*Unified CM only:* If you are upgrading Cisco Unified Communications Manager, those services that you activated on the system prior to the upgrade automatically activate and start after the upgrade.

In the Service Activation window, Cisco Unified Serviceability categorizes feature services into the following groups:

- [Database and Admin Services, page 9-2](#)
- [Performance and Monitoring Services, page 9-3](#)
- [CM Services, page 9-4](#)
- [CTI Services, page 9-6](#)
- [CDR Services, page 9-7](#)
- [Security Services, page 9-7](#)
- [Directory Services, page 9-8](#)
- [Voice Quality Reporter Services, page 9-9](#)

In the Control Center—Feature Services window, Cisco Unified Serviceability categorizes services into the same groups that display in the Service Activation window.



**Tip**

For service activation recommendations, see the [“Service Activation” section on page 9-17](#) and the [“Activating and Deactivating Feature Services” section on page 11-1](#).

## Database and Admin Services

This section describes the Database and Admin Services.

### Cisco AXL Web Service

The Cisco AXL Web Service allows you to modify database entries and execute stored procedures from client-based applications that use AXL.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

### Cisco UXL Web Service

The TabSync client in Cisco IP Phone Address Book Synchronizer uses the Cisco UXL Web Service for queries to the Cisco Unified Communications Manager database, which ensures that Cisco IP Phone Address Book Synchronizer users have access only to end-user data that pertains to them. The Cisco UXL Web Service performs the following functions:

- Conducts authentication checks by verifying the end user name and password when an end user logs in to Cisco IP Phone Address Book Synchronizer.
- Conducts a user authorization check by only allowing the user that is currently logged in to Cisco IP Phone Address Book Synchronizer to perform functions such as listing, retrieving, updating, removing, and adding contacts.

### Cisco Bulk Provisioning Service

This service does not support Cisco Unity Connection.

If your configuration supports clusters (Cisco Unified Communications Manager only), you can activate the Cisco Bulk Provisioning Service only on the first server. If you use the Cisco Unified Communications Manager Bulk Administration Tool (BAT) to administer phones and users, you must activate this service.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

#### **Cisco TAPS Service**

This service does not support Cisco Unity Connection.

The Cisco TAPS Service supports the Cisco Unified Communications Manager Auto-Register Phone Tool, which allows a user to upload a customized configuration on an auto registered phone after a user responds to Interactive Voice Response (IVR) prompts.

If your configuration supports clusters (Cisco Unified Communications Manager only), you activate this service on the first server. When you want to create dummy MAC addresses for the tool, ensure that the Cisco Bulk Provisioning Service is activated on the same server.



**Tip**

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The Cisco Unified Communications Manager Auto-Register Phone Tool relies on Cisco Customer Response Solutions (CRS). Before the tool can work as designed, verify that the CRS server is configured and running, as described in the CRS documentation.

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In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

## **Performance and Monitoring Services**

This section describes the Performance Monitoring Services.

#### **Cisco Serviceability Reporter**

The Cisco Serviceability Reporter service generates the daily reports that are described in [“Understanding Serviceability Reports Archive” section on page 10-1](#).

If your configuration supports clusters (Cisco Unified Communications Manager only), this service gets installed on all the Cisco Unified Communications Manager servers in the cluster. Reporter generates reports once a day based on logged information. You can access the reports that Reporter generates in Cisco Unified Serviceability from the Tools menu. Each summary report comprises different charts that display the statistics for that particular report. After you activate the service, report generation may take up to 24 hours.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager and Cisco Unity Connection.

#### **Cisco CallManager SNMP Service**

This service does not support Cisco Unity Connection.

This service, which implements the CISCO-CCM-MIB, provides SNMP access to provisioning and statistics information that is available for Cisco Unified Communications Manager.

If your configuration supports clusters (Cisco Unified Communications Manager only), activate this service on all servers in the cluster.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager.

## CM Services

This section describes the CM Services and does not apply to Cisco Unity Connection.

### Cisco CallManager

The Cisco CallManager service provides software-only call processing as well as signaling and call control functionality for Cisco Unified Communications Manager.

**Tip**

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*Unified CM clusters only:* Before you activate this service, verify that the Cisco Unified Communications Manager server displays in the Find and List Cisco Unified CMs window in Cisco Unified Communications Manager Administration. If the server does not display, add the Cisco Unified Communications Manager server before you activate this service. For information on how to find and add the server, refer to the *Cisco Unified Communications Manager Administration Guide*.

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**Tip**

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*Unified CM clusters only:* If you deactivate the Cisco CallManager or CTIManager services in Service Activation, the Cisco Unified Communications Manager server where you deactivated the service no longer exists in the database, which means that you cannot choose that Cisco Unified Communications Manager server for configuration operations in Cisco Unified Communications Manager Administration because it does not display in the graphical user interface (GUI). If you then reactivate the services on the same Cisco Unified Communications Manager server, the database creates an entry for Cisco Unified Communications Manager again and adds a “CM\_” prefix to the server name or IP address; for example, if you reactivate the Cisco CallManager or CTIManager service on a server with an IP address of 172.19.140.180, then CM\_172.19.140.180 displays in Cisco Unified Communications Manager Administration. You can now choose the server, with the new “CM\_” prefix, in Cisco Unified Communications Manager Administration.

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The following services rely on Cisco CallManager service activation:

- [Cisco CTIManager, page 9-5](#)
- [CDR Services, page 9-7](#)

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

### Cisco TFTP

Cisco Trivial File Transfer Protocol (TFTP) builds and serves files that are consistent with the trivial file transfer protocol, a simplified version of FTP. Cisco TFTP serves embedded component executable, ringer files, and device configuration files.

*Unified CM only:* A configuration file includes a list of Cisco Unified Communications Managers to which devices (telephones and gateways) make connections. When a device boots, the component queries a Dynamic Host Configuration Protocol (DHCP) server for its network configuration information. The DHCP server responds with an IP address for the device, a subnet mask, a default gateway, a Domain Name System (DNS) server address, and a TFTP server name or address. The device requests a configuration file from the TFTP server. The configuration file contains a list of Cisco Unified Communications Managers and the TCP port through which the device connects to those Cisco Unified Communications Managers. The configuration file contains a list of Cisco Unified Communications Managers and the TCP port through which the device connects to those Cisco Unified Communications Managers.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

#### **Cisco Messaging Interface**

The Cisco Messaging Interface allows you to connect a simplified message desk interface (SMDI)-compliant external voice-messaging system with the Cisco Unified Communications Manager. The SMDI defines a way for a phone system to provide a voice-messaging system with the information that is needed to intelligently process incoming calls.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

#### **Cisco Unified Mobile Voice Access Service**

The Cisco Unified Voice Access Service starts the mobile voice access capability within Cisco Unified Mobility; mobile voice access, which is an integrated voice response (IVR) system, allows Cisco Unified Mobility users to perform the following tasks:

- Make calls from the cellular phone as if the call originated from the desk phone.
- Turn Cisco Unified Mobility on.
- Turn Cisco Unified Mobility off.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

#### **Cisco IP Voice Media Streaming App**

The Cisco IP Voice Media Streaming Application service provides voice media streaming functionality for Cisco Unified Communications Manager for use with MTP, conferencing, music on hold (MOH), and annunciator. The Cisco IP Voice Media Streaming Application relays messages from Cisco Unified Communications Manager to the IP voice media streaming driver, which handles RTP streaming.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

#### **Cisco CTIManager**

The Cisco CTI Manager contains the CTI components that interface with applications. This service allows applications to monitor/control phones and virtual devices to perform call control functionality.

*Unified CM clusters only:* With CTI Manager, applications can access resources and functionality of all Cisco Unified Communications Managers in the cluster and have improved failover capability. Although one or more CTI Managers can be active in a cluster, only one CTI Manager can exist on an individual server. An application (JTAPI/TAPI) can have simultaneous connections to multiple CTI Managers; however, an application can only use one connection at a time to open a device with media termination.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

#### **Cisco Extension Mobility**

This service, which supports the Cisco Extension Mobility feature, performs the login and automatic logout functionality for the feature.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager.

**Cisco Dialed Number Analyzer**

The Cisco Dialed Number Analyzer service supports Cisco Unified Communications Manager Dialed Number Analyzer. When activated, this application consumes a lot of resources, so activate this service only during off-peak hours when minimal call-processing interruptions may occur.

*Unified CM clusters only:* Cisco does not recommend that you activate the service on all the servers in a cluster. Cisco recommends that you activate this service only on one of the servers of a cluster where call-processing activity is the least.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

**Cisco DHCP Monitor Service**

Cisco DHCP Monitor Service monitors IP address changes for IP phones in the database tables. When a change is detected, it modifies the `/etc/dhcpd.conf` file and restarts the DHCPD daemon.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

## CTI Services

This section describes the CTI Services and does not apply to Cisco Unity Connection.

**Cisco IP Manager Assistant**

This service supports Cisco Unified Communications Manager Assistant. After service activation, Cisco Unified Communications Manager Assistant enables managers and their assistants to work together more effectively. Cisco Unified Communications Manager Assistant supports two modes of operation: proxy line support and shared line support.

The feature comprises a call-routing service, enhancements to phone capabilities for the manager, and desktop interfaces that are primarily used by the assistant.

The service intercepts calls that are made to managers and routes them to selected assistants, to managers, or to other targets on the basis of preconfigured call filters. The manager can change the call routing dynamically; for example, by pressing a softkey on the phone, the manager can instruct the service to route all calls to the assistant and can receive status on these calls.

Cisco Unified Communications Manager users comprise managers and assistants. The routing service intercepts manager calls and routes them appropriately. An assistant user handles calls on behalf of a manager.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

**Cisco WebDialer Web Service for Cisco Unified Communications Manager Systems**

Cisco Web Dialer provides click-to-dial functionality. It allows users inside a Cisco Unified Communications Manager cluster to initiate a call to other users inside or outside the cluster by using a web page or a desktop application. Cisco Web Dialer provides a web page that enables users to call each other within a cluster. Cisco Web Dialer comprises two components: Web Dialer servlet and Redirector servlet.

The Redirector servlet provides the ability for third-party applications to use Cisco Web Dialer. The Redirector servlet finds the appropriate Cisco Unified Communications Manager cluster for the Cisco Web Dialer user and redirects the request to the Cisco Web Dialer in that cluster. The Redirector functionality only applies for HTTP/HTML-based Web Dialer client applications because it is not available for Simple Object Access Protocol (SOAP)-based Web Dialer applications.

#### **Cisco WebDialer Web Service for Cisco Unified Communications Manager Business Edition Systems**

Cisco Web Dialer, which is used in conjunction with Cisco Unified Communications Manager, allows Cisco Unified IP Phone users to make calls from web and desktop applications. For example, Cisco Web Dialer uses hyperlinked telephone numbers in a company directory to allow users to make calls from a web page by clicking on the telephone number of the person that they are trying to call.

This service supports Cisco Unified Communications Manager.

## CDR Services

This section describes the CDR Services and does not apply to Cisco Unity Connection.

#### **Cisco SOAP - CDRonDemand Service**

The Cisco SOAP - CDRonDemand Service, a SOAP/HTTPS-based service, runs on the CDR Repository server. It receives SOAP requests for CDR file name lists that are based on a user-specified time interval (up to a maximum of 1 hour) and returns a list of file names that fit the time duration that is specified in the request. This service also receives requests for delivery of a specific CDR/CMR file with the file name and the transfer method (SFTP/FTP, server name, login info, directory) that is specified in the request.

If you are using a third-party billing application that accesses CDR data via an HTTPS/SOAP interface, activate this service.

#### **CAR Web Service**

The Cisco CAR Web Service loads the user interface for CAR, a web-based reporting application that generates either CSV or PDF reports by using CDR data.

## Security Services

This section describes the Security Services and does not apply to Cisco Unity Connection.

#### **Cisco CTL Provider**

*Unified CM only:* The Cisco CTL Provider service, which runs with local system account privileges, works with the Cisco CTL Provider Utility, a client-side plug-in, to change the security mode for the cluster from nonsecure to mixed mode. When you install the plug-in, the Cisco CTL Provider service retrieves a list of all Cisco Unified Communications Manager and Cisco TFTP servers in the cluster for the CTL file, which contains a list of security tokens and servers in the cluster. You must install and configure the Cisco CTL Client and activate this service for the clusterwide security mode to change from nonsecure to secure.

*Unified CM BE only:* The Cisco CTL Provider service, which runs with local system account privileges, works with the Cisco CTL Provider Utility, a client-side plug-in, to change the clusterwide security mode for the server from nonsecure to mixed mode. You must install and configure the Cisco CTL Client and activate this service for the security mode to change from nonsecure to secure.

After you activate the service, the Cisco CTL Provider service reverts to the default CTL port, which is 2444. If you want to change the port, refer to the *Cisco Unified Communications Manager Security Guide* for more information.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

#### **Cisco Certificate Authority Proxy Function (CAPF)**

Working in conjunction with the CAPF application, the Cisco Certificate Authority Proxy Function (CAPF) service can perform the following tasks, depending on your configuration:

- Issue locally significant certificates to supported Cisco Unified IP Phone models.
- Using SCEP, request certificates from third-party certificate authorities on behalf of supported Cisco Unified IP Phone models.
- Upgrade existing certificates on the phones.
- Retrieve phone certificates for troubleshooting.
- Delete locally significant certificates on the phone.



#### **Note**

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*Unified CM only:* When you view real-time information in RTMT, the Cisco Certificate Authority Proxy Function (CAPF) service displays only for the first server.

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In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager.

## **Directory Services**

This section describes the Directory Services and does not apply to Cisco Unity Connection.

#### **Cisco DirSync**

Cisco does not support this service for the Cisco Unified Communications Manager Business Edition. This service displays in Cisco Unified Serviceability, but the system does not save the configuration for the activation; after you attempt to activate the service, a message displays in the Service Activation window to tell you that you cannot activate this service for Cisco Unified Communications Manager Business Edition.

*Unified CM only:* The Cisco DirSync service ensures that the Cisco Unified Communications Manager database stores all user information. If you use an integrated corporate directory, for example, Microsoft Active Directory or Netscape/iPlanet Directory, with Cisco Unified Communications Manager, the Cisco DirSync service migrates the user data to the Cisco Unified Communications Manager database. The Cisco DirSync service does not synchronize the passwords from the corporate directory.



## Voice Quality Reporter Services

This section describes the Voice Quality Reporter Services and does not apply to Cisco Unity Connection.

### Cisco Extended Functions

The Cisco Extended Functions service provides support for Cisco Unified Communications Manager voice-quality features, including Quality Report Tool (QRT). For more information about individual features, refer to the *Cisco Unified Communications Manager System Guide* and the *Cisco Unified IP Phone Administration Guide for Cisco Unified Communications Manager*.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

## Network Services

Installed automatically, network services include services that the system requires to function; for example, database and platform services. Because these services are required for basic functionality, you cannot activate them in the Service Activation window. If necessary, for example, for troubleshooting purposes, you may need to stop and start (or restart) a network service in the Call Control—Network Services window.

After the installation of your application, network services start automatically, as noted in the Call Control—Network Services window. In the Control Center—Network Services window, Cisco Unified Serviceability categorizes services into the following groups:

- [Performance and Monitoring Services, page 9-9](#)
- [Backup and Restore Services, page 9-11](#)
- [System Services, page 9-11](#)
- [Platform Services, page 9-12](#)
- [Security Services, page 9-14](#)
- [DB Services, page 9-14](#)
- [SOAP Services, page 9-15](#)
- [CM Services, page 9-15](#)
- [CDR Services, page 9-7](#)
- [Admin Services, page 9-17](#)

## Performance and Monitoring Services

This section describes the Performance and Monitoring Services.

### Cisco CallManager Serviceability RTMT

The Cisco CallManager Serviceability RTMT servlet supports the Cisco Unified Real-Time Monitoring Tool (RTMT), which allows you to collect and view traces, view performance monitoring objects, work with alerts, and monitor devices, system performance, CTI applications, and so on.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco RTMT Reporter Servlet**

The Cisco RTMT Reporter servlet allows you to publish reports for RTMT.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco Log Partition Monitoring Tool**

The Cisco Log Partition Monitoring Tool service supports the Log Partition Monitoring feature, which monitors the disk usage of the log partition on a server (or all servers in the cluster) by using configured thresholds and a polling interval.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco Tomcat Stats Servlet**

The Cisco Tomcat Stats Servlet allows you to monitor the Tomcat perfmon counters by using RTMT or the Command Line Interface. Do not stop this service unless you suspect that this service is using too many resources, such as CPU time.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco RIS Data Collector**

The Real-time Information Server (RIS) maintains real-time information such as device registration status, performance counter statistics, critical alarms generated, and so on. The Cisco RIS Data Collector service provides an interface for applications, such as the Cisco Unified Real-Time Monitoring Tool (RTMT), SOAP applications, and so on, to retrieve the information that is stored in the RIS server (or in all RIS servers in the cluster).

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco AMC Service**

Used for the Cisco Unified Communications Manager Cisco Unified Real-Time Monitoring Tool (RTMT), this service, Alert Manager and Collector service, allows RTMT to retrieve real-time information that exists on the server (or on all servers in the cluster).

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco Audit Event Service**

The Cisco Audit Event Service monitors and logs any configuration change to the Cisco Unified Communications Manager system by a user or as a result of the user action.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco RisBean Library**

Cisco RisBean Library comprises a library that some webapps use to communicate with other internal services.

You should leave trace settings at default level unless you are instructed by TAC to change them to debug an issue.

## Backup and Restore Services

This section describes the Backup and Restore Services.

### Cisco DRF Master

The CiscoDRF Master Agent service supports the DRF Master Agent, which works with the Disaster Recovery System graphical user interface (GUI) or command line interface (CLI) to schedule backups, perform restorations, view dependencies, check status of jobs, and cancel jobs, if necessary. The Cisco DRF Master Agent also provides the storage medium for the backup and restoration process.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

### Cisco DRF Local

The Cisco DRF Local service supports the Cisco DRF Local Agent, which acts as the workhorse for the DRF Master Agent. Components register with the Cisco DRF Local Agent to use the disaster recovery framework. The Cisco DRF Local Agent executes commands that it receives from the Cisco DRF Master Agent. Cisco DRF Local Agent sends the status, logs, and command results to the Cisco DRF Master Agent.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

## System Services

This section describes the System Services.

### Cisco CallManager Serviceability

The Cisco CallManager Serviceability service supports Cisco Unified Serviceability, the web application/interface that you use to troubleshoot issues and manage services. This service, which is installed automatically, allows you access to the Cisco Unified Serviceability graphical user interface (GUI). If you stop this service, you cannot access the Cisco Unified Serviceability GUI when you browse into that server.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

### Cisco CDP

Cisco CDP advertises the voice application to other network management applications, so the network management application, for example, SNMP or CiscoWorks Lan Management Solution, can perform network management tasks for the voice application.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

### Cisco Trace Collection Servlet

The Cisco Trace Collection Servlet, along with the Cisco Trace Collection Service, supports trace collection and allows users to view traces by using RTMT. If you stop this service on a server, you cannot collect or view traces on that server.

For SysLog Viewer and Trace and Log Central to work in RTMT, the Cisco Trace Collection Servlet and the Cisco Trace Collection Service must run on the server.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

#### **Cisco Trace Collection Service**

The Cisco Trace Collection Service, along with the Cisco Trace Collection Servlet, supports trace collection and allows users to view traces by using the RTMT client. If you stop this service on a server, you cannot collect or view traces on that server.

For SysLog Viewer and Trace and Log Central to work in RTMT, the Cisco Trace Collection Servlet and the Cisco Trace Collection Service must run on the server.



**Tip**

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If necessary, Cisco recommends that, to reduce the initialization time, you restart the Cisco Trace Collection Service before restarting Cisco Trace Collection Servlet.

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In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

## **Platform Services**

This section describes the Platform Services.

#### **A Cisco DB**

A Cisco DB service supports the Progres database engine.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

#### **A Cisco DB Replicator**

*Unified CM only:* The A Cisco DB Replicator service ensures database configuration and data synchronization between the first and subsequent servers in the cluster.

#### **Cisco Tomcat**

The Cisco Tomcat service supports the web server.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

#### **SNMP Master Agent**

This service, which acts as the agent protocol engine, provides authentication, authorization, access control, and privacy functions that relate to SNMP requests.



**Tip**

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After you complete SNMP configuration in Cisco Unified Serviceability, you must restart the SNMP Master Agent service in the Control Center—Network Features window.

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In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**MIB2 Agent**

This service provides SNMP access to variables, which are defined in RFC 1213, that read and write variables; for example, system, interfaces, IP, and so on.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager and Cisco Unity Connection.

**Host Resources Agent**

This service provides SNMP access to host information, such as storage resources, process tables, device information, and installed software base. This service implements the HOST-RESOURCES-MIB.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Native Agent Adaptor**

This service, which supports vendor MIBs, allows you to forward SNMP requests to another SNMP agent that runs on the system.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**System Application Agent**

This service provides SNMP access to the applications that are installed and executing on the system. This implements the SYSAPPL-MIB.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco CDP Agent**

This service uses the Cisco Discovery Protocol to provide SNMP access to network connectivity information on the Cisco Unified Communications Manager or Cisco Unity Connection server. This service implements the CISCO-CDP-MIB.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Cisco Syslog Agent**

This service supports gathering of syslog messages that various components generate. This service implements the CISCO-SYSLOG-MIB.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

**Caution**

Stopping any SNMP service may result in loss of data because the network management system no longer monitors the network. Do not stop the services unless the your technical support team tells you to do so.

**Cisco Certificate Expiry Monitor**

This service periodically checks the expiration status of certificates that the system generates and sends notification when a certificate gets close to its expiration date. You manage the certificates that use this service in Cisco Unified Operating System Administration.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

### Cisco License Manager

This service is not supported by Cisco Unity Connection.

Cisco License Manager keeps track of the Cisco Unified Communications Manager-related licenses that a customer purchases and uses. It controls license checkins and checkouts, and it takes responsibility for issuing and reclaiming Cisco Unified Communications Manager-related licenses. For Cisco Unified Communications Manager, Cisco License Manager manages the Cisco Unified Communications Manager application and the number of IP phone unit licenses. When the number of phones exceeds the number of licenses, it issues alarms.

*Unified CM clusters only:* This service runs on all the servers, but the service on the first server has the responsibility for issuing and reclaiming licenses.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.



Tip

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*Unified CM BE only:* For information on issuing Cisco Unity Connection licenses, refer to the *Cisco Unified Communications Manager System Guide*.

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## Security Services

This section describes the Security Services.

### Cisco Trust Verification Service

Cisco Trust Verification Service is a service running on a CallManager server or a dedicated server, that authenticates certificates on behalf of phones and other endpoints. It associates a list of roles for the owner of the certificate. A certificate or the owner can be associated with one or many roles.

The protocol between phones and Trust Verification Service allows phones to request for verification. Trust Verification Service validates the certificate and returns a list of roles associated with it. The protocol allows Trust Verification Service to authenticate a request and conversely, a phone to authenticate the response from Trust Verification Service. The protocol protects the integrity of the request and the response. Confidentiality of the request and the response is not required.

Multiple instances of Cisco Trust Verification Service run on different servers in the cluster to provide scalability. These servers may or may not be the same as the ones hosting the Cisco Unified CallManager. Phones obtain a list of Trust Verification Services in the network and connect to one of them using a selection algorithm (example: Round Robin). If the contacted Trust Verification Service does not respond, the phone switches to the next Trust Verification Service in the list.

## DB Services

This section describes the DB Services.

### Cisco Database Layer Monitor

The Cisco Database Layer Monitor service monitors aspects of the database layer. This service takes responsibility for change notification and monitoring.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

## SOAP Services

This section describes the SOAP Services.

### Cisco SOAP-Real-Time Service APIs

The Cisco SOAP-Real-Time Service APIs allow you to collect real-time information for devices and CTI applications. This service also provides APIs for activating, starting, and stopping services.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

### Cisco SOAP-Performance Monitoring APIs

The Cisco SOAP-Performance Monitoring APIs service allows you to use performance monitoring counters for various applications through SOAP APIs; for example, you can monitor memory information per service, CPU usage, performance monitoring counters, and so on.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

### Cisco SOAP-Log Collection APIs

The Cisco SOAP-Log Collection APIs service allows you to collect log files and to schedule collection of log files on a remote SFTP server. Examples of log files that you can collect include syslog, core dump files, Cisco application trace files, and so on.

In a Cisco Unified Communications Manager Business Edition system, this service supports both Cisco Unified Communications Manager and Cisco Unity Connection.

## CM Services

This section describes the CM Services and does not apply to Cisco Unity Connection.

### Cisco CallManager Personal Directory

The Cisco CallManager Personal Directory service supports Cisco Personal Directory.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

### Cisco Extension Mobility Application

The Cisco Extension Mobility Application service allows you to define login settings such as duration limits on phone configuration for the Cisco Extension Mobility feature.

*Unified CM only:* The Cisco Extension Mobility feature allows users within a Cisco Unified Communications Manager cluster to temporarily configure another phone in the cluster as their own phone by logging in to that other phone. After a user logs in, the phone adopts the personal phone number(s), speed dials, services links, and other user-specific properties of the user. After logout, the phone adopts the original user profile.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

### Cisco CallManager Cisco IP Phone Services

The Cisco CallManager Cisco IP Phone Service initializes the service URLs for the Cisco Unified IP Phone services that you configured in Cisco Unified Communications Manager Administration.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

## CDR Services

This section describes the CDR Services and does not apply to Cisco Unity Connection.

### Cisco CDR Repository Manager

This service maintains and moves the generated CDRs that are obtained from the Cisco CDR Agent service. In a system that supports clusters (Cisco Unified Communications Manager only), the service exists on the first server.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

### Cisco CDR Agent

**Note**

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Cisco Unified Communications Manager supports Cisco CDR Agent in Cisco Unified Communications Manager and Cisco Unified Communications Manager Business Edition systems. This service does not support Cisco Unity Connection.

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This service does not support Cisco Unity Connection.

The Cisco CDR Agent service transfers CDR and CMR files that are generated by Cisco Unified Communications Manager from the local host to the CDR repository server, where the CDR Repository Manager service runs over a SFTP connection.

This service transfers CDR and CMR files generated from the local host to the CDR repository server in a cluster. The CDR Agent in the CDR Repository Node/Standalone server (Files generated in the Standalone server itself) transfers the files to the Cisco CDR Repository Manager, over a SFTP connection, which maintains /moves the files.

For this service to work, activate the Cisco CallManager service on the server and ensure that it is running. If your configuration supports clusters (Cisco Unified Communications Manager only), activate the Cisco CallManager service on the first server.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

### Cisco CAR Scheduler

This service does not support Cisco Unity Connection.

The Cisco CAR Scheduler service allows you to schedule CAR-related tasks; for example, you can schedule report generation or CDR file loading into the CAR database.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.



## Admin Services

This section describes the Admin Services and does not apply to Cisco Unity Connection.

### Cisco CallManager Admin

The Cisco CallManager Admin service supports Cisco Unified Communications Manager Administration, the web application/interface that you use to configure Cisco Unified Communications Manager settings. After the Cisco Unified Communications Manager installation, this service starts automatically and allows you to access the graphical user interface (GUI). If you stop this service, you cannot access the Cisco Unified Communications Manager Administration graphical user interface when you browse into that server.

In a Cisco Unified Communications Manager Business Edition system, this service supports Cisco Unified Communications Manager only.

## Service Activation

You can activate or deactivate multiple feature services or choose default services to activate from the Service Activation window in Cisco Unified Serviceability.



### Note

Starting with Cisco Unified Communications Manager Release 6.1.1, end users can no longer access Cisco Unified Serviceability to start and stop services.

Cisco Unified Serviceability activates feature services in automatic mode and checks for service dependencies. When you choose to activate a feature service, Cisco Unified Serviceability prompts you to select all the other services, if any, that depend on that service to run. When you click the Set Default button, Cisco Unified Serviceability chooses those services that are required to run on the server.

*Unified CM only:* Even in a configuration that supports clusters, this process is based on a single-server configuration.

Activating a service automatically starts the service. You start/stop services from Control Center.

## Control Center

From Control Center in Cisco Unified Serviceability, you can view status and start and stop one service at a time. In a cluster configuration (Cisco Unified Communications Manager only), you can perform these functions for one server in the cluster. To perform these tasks, Cisco Unified Serviceability provides two Control Center windows. To start, stop, and restart network services, access the Control Center—Network Services window. To start, stop, and restart feature services, access the Control Center—Feature Services window.



### Tip

Use the Related Links drop-down list box and the Go button to navigate to Control Center and Service Activation windows.

*Unified CM only:* Starting and stopping a feature service causes all Cisco Unified IP Phones and gateways that are currently registered to that service to fail over to their secondary service. Devices and phones need to restart only if they cannot register with their secondary service. Starting and stopping a service may cause other installed applications (such as a conference bridge or Cisco Messaging Interface) that are homed to that Cisco Unified Communications Manager to start and stop as well.

**Caution**

*Unified CM and Unified CM BE only:* Stopping a service also stops call processing for all devices that the service controls. When a service is stopped, calls from an IP phone to another IP phone stay up; calls in progress from an IP phone to a Media Gateway Control Protocol (MGCP) gateway also stay up, but other types of calls drop.

## Services Configuration Checklist

Table 9-1 lists the steps for working with services.

**Table 9-1 Services Configuration Checklist**

Configuration Steps		Procedures and Related Topics
<b>Step 1</b>	Activate the feature services that you want to run.	<ul style="list-style-type: none"> <li>• <a href="#">Feature Services, page 9-1</a></li> <li>• <a href="#">Activating and Deactivating Feature Services, page 11-1</a></li> </ul>
<b>Step 2</b>	Configure the appropriate service parameters.	<ul style="list-style-type: none"> <li>• <i>Unified CM and Unified CM BE only:</i> All service parameters for the services in Cisco Unified Serviceability display in Cisco Unified Communications Manager Administration. For service parameter configuration, see the <i>Cisco Unified Communications Manager Administration Guide</i>.</li> <li>• <i>Connection only:</i> You configure service parameters in Cisco Unity Connection Administration. For service parameter configuration, see the <i>System Administration Guide for Cisco Unity Connection</i>.</li> </ul>
<b>Step 3</b>	If necessary, troubleshoot problems by using the Cisco Unified Serviceability trace tools.	<ul style="list-style-type: none"> <li>• <a href="#">Configuring Trace, page 7-1</a></li> <li>• <i>Cisco Unified Real-Time Monitoring Tool Administration Guide</i></li> </ul>

## Where to Find More Information

### Related Topics

- [Control Center, page 9-17](#)

- [Feature Services, page 9-1](#)
- [Network Services, page 9-9](#)

**Additional Cisco Documentation**

- *Unified CM and Unified CM BE only: Cisco Unified Communications Manager System Guide*
- *Unified CM and Unified CM BE only: Cisco Unified Communications Manager Administration Guide*
- *Unified CM and Unified CM BE only: Cisco Unified Communications Manager Features and Services Guide*
- *Unified CM and Unified CM BE only: Cisco Unified Communications Manager Security Guide*
- *Unified CM and Unified CM BE only: Troubleshooting Guide for Cisco Unified Communications Manager*
- *Unified CM BE and Connection only: Cisco Unity Connection Serviceability Administration Guide*
- *Connection only: System Administration Guide for Cisco Unity Connection*
- *Command Line Interface Reference Guide for Cisco Unified Solutions*

