



## Services

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## Feature Services

Use the Serviceability GUI to activate, start, and stop Cisco Unified Communications Manager and IM and Presence services. Activation turns on and starts a service. You must manually activate the feature service for all features that you want to use. For service-activation recommendations, see topics related to service activation.



**Note** If you try to access a Unified Communications Manager server from an IM and Presence node or vice versa, you may encounter the following error: "Connection to the Server cannot be established (unable to access Remote Node)". If this error message appears, see the *Administration Guide for Cisco Unified Communications Manager*.



**Note** Devices using IM and Presence are configured to use a Postgres external database to support persistent chat, compliance, and file transfer. However, the connection between IM and Presence server and Postgres is not secured and the data passes without any check. For the services or devices that do not support TLS, there is another way to provide secure communication by configuring IP Sec, which is a standard protocol for secure communications by authenticating and encrypting each IP packet of a communication session.

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 - Feature Services** window.

After the system is installed, it does not automatically activate feature services. You need to activate the feature service to use your configuration features, for example, the Serviceability Reports Archive feature.

Unified Communications Manager and Cisco Unified IM and Presence Service only: If you are upgrading Unified Communications Manager, those services that you activated on the system before the upgrade automatically start after the upgrade.

After you activate feature services, you can modify service parameter settings using the administrative GUI for your product:

- Cisco Unified Communications Manager Administration
- Cisco Unity Connection Administration

### Feature Services Categories

In Cisco Unified Serviceability, the **Service Activation** window and the **Control Center - Feature Services** window categorize feature services into the following groups:

- Database and administration services
- Performance and monitoring services
- CM services
- CTI services
- CDR services
- Security services
- Directory services
- Voice quality reporter services

In Cisco Unified IM and Presence Serviceability, the **Service Activation** window and the **Control Center - Feature Services** window categorize feature services into the following groups:

- Database and administration services
- Performance and monitoring services
- IM and Presence Service services

## Database and Administration Services

### Locations Bandwidth Manager

This service is not supported by IM and Presence Service.

The Locations Bandwidth Manager service assembles a network model from configured Location and Link data in one or more clusters, determines the Effective Paths between pairs of Locations, determines whether to admit calls between a pair of Locations based on the availability of bandwidth for each type of call, and deducts (reserves) bandwidth for the duration of each call that is admitted.

### 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 an IM and Presence Service system, this service supports both Unified Communications Manager and Cisco Unity Connection.

## Cisco UXL Web Service

This service is not supported by IM and Presence Service.

The TabSync client in Cisco IP Phone Address Book Synchronizer uses the Cisco UXL Web Service for queries to the 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 username 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 (Unified Communications Manager only), you can activate the Cisco Bulk Provisioning Service only on the first server. If you use the Unified Communications Manager Bulk Administration Tool to administer phones and users, you must activate this service.

## Cisco TAPS Service

This service does not support Cisco Unity Connection or IM and Presence Service.

The Cisco Tools for Auto-Registered Phones Support (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 (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**

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.

## Platform Administrative Web Service

The Platform Administrative Web Service is a Simple Object Access Protocol (SOAP) API that can be activated on Unified Communications Manager, IM and Presence Service, and Cisco Unity Connection systems to allow the PAWS-M server to upgrade the system.

**Important**

Do not activate the Platform Administrative Web Service on the PAWS-M server.

## Performance and monitoring services

### Cisco Serviceability Reporter

The Cisco Serviceability Reporter service generates daily reports. For details, see topics that are related to the serviceability reports archive.

If your configuration supports clusters (Unified Communications Manager only), this service is installed on all the 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.

#### Related Topics

[Serviceability Reports Archive](#)

### Cisco CallManager SNMP Service

This service does not support IM and Presence Service and Cisco Unity Connection.

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

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

## CM Services

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

### Cisco CallManager

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



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

Unified Communications Manager clusters only: If you deactivate the Cisco CallManager or CTIManager services in Service Activation, the Unified Communications Manager server where you deactivated the service no longer exists in the database, which means that you cannot choose that 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 Unified Communications Manager server, the database creates an entry for 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.

The following services rely on Cisco CallManager service activation:

- [CM Services](#)
- [CDR Services](#)

## 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, ringier files, and device configuration files.

Unified Communications Manager only: A configuration file includes a list of Unified Communications Manager's 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 Unified Communications Manager's and the TCP port through which the device connects to those Unified Communications Manager's. The configuration file contains a list of Unified Communications Managers and the TCP port through which the device connects to those Unified Communications Manager's.

## 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.

## Cisco IP Voice Media Streaming App

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

The Cisco IP Voice Media Streaming Application service does not generate the Call Management Record (CMR) files for call legs that involve any IP Voice Media Streaming Application components like conference, MOH, annunciator, or MTP.

## Cisco CTIManager

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

Unified Communications Manager clusters only: With CTI Manager, applications can access resources and functionality of all Unified Communications Manager's 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 use only one connection at a time to open a device with media termination.

## Cisco Extension Mobility

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

## Cisco Dialed Number Analyzer

The Cisco Dialed Number Analyzer service supports 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 Communications Manager 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.

## Cisco Dialed Number Analyzer Server

The Cisco Dialed Number Analyzer Server service along with the Cisco Dialed Number Analyzer service supports Cisco Unified Communications Manager Dialed Number Analyzer. This service needs to be activated only on the node that is dedicated specifically for the Cisco Dialed Number Analyzer service.

Unified Communications Manager 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.

## 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.

## Cisco Intercluster Lookup Service

The Intercluster Lookup Service (ILS) runs on a cluster-wide basis. ILS allows you to create networks of remote Unified Communications Manager clusters. The ILS cluster discovery feature allows Unified Communications Manager to connect to remote clusters without the need for an administrator having to manually configure connections between each cluster. The ILS Global Dial Plan Replication feature enables clusters in the ILS network with the ability to exchange global dial plan data with the other clusters in an ILS network.

ILS can be activated from the ILS Configuration window that can be accessed in Cisco Unified Communications Manager Administration by selecting **Advanced Features > ILS Configuration**.

## Cisco UserSync Service

Cisco UserSync service synchronizes the data from Unified Communications Manager end-user table to the LDAP database.

## Cisco UserLookup Web Service

Cisco UserLookup Web service routes the commercial calls (calls through external gateways) to an alternate internal number of the called party in order to avoid the commercial cost of calling an external number.

If a caller within a Unified Communications Manager network makes a call on an external number, Unified Communications Manager checks if an internal number exists for the called party in the LDAP database. If an internal number exists, the call is routed to that internal number. If the internal number is not found in the LDAP database, the call is routed to the original (external) number.

## Cisco Headset Service

Cisco Headset Service enables you to manage inventory, configuration updates, and diagnostics data of your Cisco Headset if you use compatible Cisco IP Phones, Cisco Jabber, or other Cisco devices.

**Note**

Cisco Headset service should be activated on all the Unified Communications Manager nodes wherever Cisco CallManager service is already running. Ensure that you activate the Cisco Headset service on the Unified Communications Manager nodes where you want to administer headsets using the Cisco Unified CM Administration interface. The Cisco CallManager service will be automatically activated when you enable the Cisco Headset service. Deactivate the Cisco CallManager service if you do not need it.

## IM and Presence Services

IM and Presence services apply only to IM and Presence Service.

## Cisco SIP Proxy

The Cisco SIP Proxy service is responsible for providing the SIP registrar and proxy functionality. This includes request routing, requestor identification, and transport interconnection.

## Cisco Presence Engine

The Cisco Presence Engine collects, aggregates, and distributes user capabilities and attributes using the standards-based SIP and SIMPLE interface. It collects information about the availability status and communications capabilities of a user.

## Cisco XCP Text Conference Manager

The Cisco XCP Text Conference Manager supports the chat feature. The chat feature allows users to communicate with each other in online chat rooms. It supports chat functionality using ad hoc (temporary) and permanent chat rooms, which remain on a Cisco-supported external database until they are deleted.

## Cisco XCP Web Connection Manager

The Cisco XCP Web Connection Manager service enables browser-based clients to connect to IM and Presence Service.

## Cisco XCP Connection Manager

The Cisco Unified Presence XCP Connection Manager enables XMPP clients to connect to the Cisco Unified Presence server.

## Cisco XCP SIP Federation Connection Manager

The Cisco XCP SIP Federation Connection Manager supports interdomain federation with Microsoft OCS over the SIP protocol. You must also turn on this service when your deployment contains an intercluster connection between an IM and Presence Service Release 9.0 cluster, and a Cisco Unified Presence Release 8.6 cluster.

## Cisco XCP XMPP Federation Connection Manager

The Cisco XCP XMPP Federation Connection Manager supports interdomain federation with third party enterprises such as IBM Lotus Sametime, Cisco Webex Meeting Center, and GoogleTalk over the XMPP protocol, as well as supports interdomain federation with another IM and Presence Service enterprise over the XMPP protocol.

## Cisco XCP Message Archiver

The Cisco XCP Message Archiver service supports the IM Compliance feature. The IM Compliance feature logs all messages sent to and from the IM and Presence Service server, including point-to-point messages, and messages from ad hoc (temporary) and permanent chat rooms for the Chat feature. Messages are logged to an external Cisco-supported database.

## Cisco XCP Directory Service

The Cisco XCP Directory Service supports the integration of XMPP clients with the LDAP directory to allow users to search and add contacts from the LDAP directory.

## Cisco XCP Authentication Service

The Cisco XCP Authentication Service handles all authentication requests from XMPP clients that are connecting to IM and Presence Service.



## CTI Services

This section describes the CTI Services and does not apply to Cisco Unity Connection or IM and Presence Service.

### 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.

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.

### Cisco WebDialer Web Service

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

Cisco Web Dialer provides click-to-dial functionality. It allows users inside a 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 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 applies only for HTTP/HTML-based Web Dialer client applications because it is not available for Simple Object Access Protocol (SOAP)-based Web Dialer applications.

### Self-Provisioning IVR

With the introduction of Self-Provisioning IVR Service, the autoregistered IP phones on the Unified Communications Manager are assigned to users quickly with less effort. When you dial the CTI RP DN, that is configured on the Self-Provisioning page, from an extension of a user that uses the IVR service, the phone connects to the Self-Provisioning IVR application and prompts you to provide the Self-Service credentials. Based on the validation of the Self-Service credentials that you provide, the IVR service assigns the autoregistered IP phones to the users.

You can configure self-provisioning even if the service is deactivated, but the administrator cannot assign IP phones to users using the IVR service. By default, this service is deactivated.

To enable the Self-Provisioning IVR service, you must also enable the Cisco CTI Manager service.

For more information about how to configure self-provisioning, see the *Administration Guide for Cisco Unified Communications Manager*.

## CDR Services

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

### 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.

### 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 filename lists that are based on a user-specified time interval (up to a maximum of 1 hour) and returns a list of filenames 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 filename 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 through an HTTPS/SOAP interface, activate this service.

For Unified Communications Manager Release 12.x and later releases, CDR onDemand Service is not enabled by default. If you want to enable the CDR onDemand service, the service should be activated manually.

Execute the following command at the root level to activate the CDR onDemand service:

```
/usr/local/cm/bin/soapservicecontrol2.sh CDRonDemandService CDRonDemand deploy 8443.
```

## Security Services

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

### Cisco CTL Provider

Unified Communications Manager only: The Cisco Certificate Trust List (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 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 can install and configure the Cisco CTL Client or the CLI command set **utils ctl**, and then activate this service for the clusterwide 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, see the *Cisco Unified Communications Manager Security Guide* for more information.

### Cisco Certificate Authority Proxy Function (CAPF)

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

- Issue locally significant certificates to 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** Unified Communications Manager only: When you view real-time information in the Real-Time Monitoring Tool (RTMT), the CAPF service displays only for the first server.

## Directory Services

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

### Cisco DirSync

Unified Communications Manager: The Cisco DirSync service ensures that the 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 Unified Communications Manager, the Cisco DirSync service migrates the user data to the Unified Communications Manager database. The Cisco DirSync service does not synchronize the passwords from the corporate directory.



**Note** Users with duplicate email IDs are not synchronized and the administrator receives no notification about the list of users which are not synced. These IDs are shown in the DirSync error logs from Unified RTMT.

Cisco Unity Connection: When Cisco Unity Connection is integrated with an LDAP directory, the Cisco DirSync service synchronizes a small subset of user data (first name, last name, alias, phone number, and so on) in the Unified Communications Manager database on the Cisco Unity Connection server with the corresponding data in the LDAP directory. Another service (CuCmDbEventListener) synchronizes data in the Cisco Unity Connection user database with data in the Unified Communications Manager database. When a Cisco Unity Connection cluster is configured, the Cisco DirSync service runs only on the publisher server.

## Location Based Tracking Services

This section describes Location Based Tracking Services.

### Cisco Wireless Controller Synchronization Service

This service supports the Location Awareness feature, which provides a status of your network's wireless access points and associated mobile devices.

This service must be running to synchronize Unified Communications Manager with a Cisco wireless access point controller. When the service is running, and synchronization is configured, Unified Communications Manager syncs its database with a Cisco wireless access point controller and saves status information for the wireless access points that the controller manages. You can schedule syncs to occur at regular intervals so that the information stays current.

**Note**

Make sure that this service is running when adding a new Cisco wireless access point controller.

## Voice Quality Reporter Services

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

### Cisco Extended Functions

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

## 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 Control Center - Network Services window.

After the installation of your application, network services start automatically, as noted in the Control Center - Network Services window. The serviceability GUI categorizes services into logical groups.

## Performance and Monitoring Services

### Cisco CallManager Serviceability RTMT

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

### Cisco RTMT Reporter Servlet

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

### 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 node (or all nodes in the cluster) by using configured thresholds and a polling interval.

### Cisco Tomcat Stats Servlet

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

**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 IM and Presence Real-Time Monitoring Tool (RTMT), SOAP applications, and so on, to retrieve the information that is stored in all RIS nodes in the cluster.

**Cisco AMC Service**

Used for the 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).

**Cisco Audit Event Service**

The Cisco Audit Event Service monitors and logs any administrative configuration change to the Unified Communications Manager or IM and Presence system by a user or as a result of the user action. The Cisco Audit Event Service also monitors and logs end user events such as login, logout, and IM chat room entry and exit.

## Backup and Restore Services

**Cisco DRF Master**

This does not apply to IM and Presence Service.

The CiscoDRF Master Agent service supports the DRF Master Agent, which works with the Disaster Recovery System GUI or 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.

**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.

## System Services

**Cisco CallManager Serviceability**

The Cisco CallManager Serviceability service supports Cisco Unified Serviceability and the IM and Presence Service serviceability GUIs, which are web application/interfaces that you use to troubleshoot issues and manage services. This service, which is installed automatically, allows you access to the serviceability GUIs. If you stop this service on the server, you cannot access the serviceability GUI when you browse into that server.

**Cisco CDP**

Cisco Discovery Protocol (CDP) advertises the voice application to other network management applications, so the network management application, for example, SNMP or Cisco Unified Operations Manager, can perform network management tasks for the voice application.

### 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.

### 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

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

## Platform Services

### A Cisco DB

A Cisco DB service supports the Progres database engine on Unified Communications Manager. On IM and Presence Service, A Cisco DB service supports the IDS database engine.

### A Cisco DB Replicator

Unified Communications Manager and IM and Presence 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.

### 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

After you complete SNMP configuration in the serviceability GUI, you must restart the SNMP Master Agent service in the **Control Center—Network Features** window.

### MIB2 Agent

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

### 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.

### Native Agent Adaptor

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

For IM and Presence Service and Unified Communications Manager, this service will not be present if installed on a Virtual Machine.

### System Application Agent

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

### Cisco CDP Agent

This service uses the Cisco Discovery Protocol to provide SNMP access to network connectivity information on the node. This service implements the CISCO-CDP-MIB.

### Cisco Syslog Agent

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



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**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 your technical support team tells you to do so.

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### Cisco Certificate Change Notification

This service keeps certificates of components like Tomcat, CallManager, and XMPP automatically synchronized across all nodes in the cluster. When the service is stopped and you regenerate certificates, then you have to manually upload them to Certificate Trust on the other nodes.

### Platform Administrative Web Service

The Platform Administrative Web Service is a Simple Object Access Protocol (SOAP) API that can be activated on Unified Communications Manager, IM and Presence Service, and Cisco Unity Connection systems to allow the PAWS-M server to upgrade the system.



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**Important**

Do not activate the Platform Administrative Web Service on the PAWS-M server.

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### Platform Communication Web Service

Platform Communication Web Service is a Representational State Transfer Protocol (REST) API which runs on Unified Communications Manager, IM and Presence Service, and Cisco Unity Connection systems.



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**Note** You cannot start or stop the **Platform Communication Web Service** manually.

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### **Cisco Certificate Expiry Monitor**

This service periodically checks the expiration status of certificates that the system generates and sends notification when a certificate is close to its expiration date. For Unified Communications Manager, you manage the certificates that use this service in Cisco Unified Operating System Administration. For IM and Presence Service, you manage the certificates that use this service in Cisco Unified IM and Presence Operating System Administration.

### **Cisco Smart License Manager**

Cisco Smart License Manager is a network service that runs only on the publisher. It manages all the Cisco Smart Licensing operations on the Unified Communications Manager publisher. Cisco Smart License Manager service reports the product's license or entitlement usage to Cisco Smart Software Manager or Cisco Smart Software Manager satellite and gets the authorization status from Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

## **Security Services**

### **Cisco Certificate Enrollment Service**

This service creates an online connection between an online third-party CA and the Certificate Authority Proxy Function. This service must be activated in order to use an Online CA with the Certificate Authority Proxy Function for signing LSC certificates.

### **Cisco Trust Verification Service**

This service is not supported by IM and Presence 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.



## Database Services

### Cisco Database Layer Monitor

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

**Note**

Unified Communications Manager uses Automatic Update Statistics, an intelligent statistics update feature that monitors the changes that are made in the database tables and updates only tables that need statistic updates. This feature saves considerable bandwidth, especially on VMware deployments of Unified Communications Manager. Automatic Update Statistics is the default indexing method.

## SOAP Services

### Cisco SOAP-Real-Time Service APIs

IM and Presence Service only: The Cisco SOAP-Real-Time Service APIs support client login and third-party APIs for presence data.

Unified Communications Manager and Cisco Unity Connection only: 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.

### 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, and performance monitoring counters.

### 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, and Cisco application trace files.

### SOAP-Diagnostic Portal Database Service

The Cisco Unified Real-Time Monitoring Tool (RTMT) uses the SOAP-Diagnostic Portal Database Service to access the RTMT Analysis Manager hosting database. RTMT gathers call records based on operator-defined filter selections. If this service is stopped, RTMT cannot collect the call records from the database.

## CM Services

This section describes the Unified Communications Manager CM Services and does not apply to IM and Presence Service and Cisco Unity Connection.

### 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 Communications Manager only: The Cisco Extension Mobility feature allows users within a 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 numbers, speed dials, services links, and other user-specific properties of the user. After logout, the phone adopts the original user profile.

### Cisco User Data Services

Cisco User Data Services provides Cisco Unified IP Phones with the ability to access user data from the Cisco Unified Communications Manager database. Cisco User Data Services provides support for Cisco Personal Directory.

### Cisco Push Notification Service

The Cisco Push Notification Service provides functionality to send push notification for incoming calls to Apple iOS devices from Cisco Unified Communications Manager. This service relays push notification messages from the Cisco CallManager service to the Cisco Collaboration Cloud. This service also manages the access tokens used to send push notifications.

### Cisco Headset Service

Cisco Headset Service enables you to manage inventory, configuration updates, and diagnostics data of your Cisco Headset if you use compatible Cisco IP Phones, Cisco Jabber, or other Cisco devices.

**Note**

Cisco Headset service should be activated on all the Unified Communications Manager nodes wherever Cisco CallManager service is already running. Ensure that you activate the Cisco Headset service on the Unified Communications Manager nodes where you want to administer headsets using the Cisco Unified CM Administration interface. The Cisco CallManager service will be automatically activated when you enable the Cisco Headset service. Deactivate the Cisco CallManager service if you do not need it.

## IM and Presence Service Services

IM and Presence Service services apply only to IM and Presence Service.

### Cisco Login Datastore

The Cisco Login Datastore is a real-time database for storing client sessions to the Cisco Client Profile Agent.

### Cisco Route Datastore

The Cisco Route Datastore is a real-time database for storing a cache of route information and assigned users for the Cisco SIP Proxy and the Cisco Client Profile Agent.

### Cisco Config Agent

The Cisco Configuration Agent is a change-notification service that notifies the Cisco SIP Proxy of configuration changes in the IM and Presence Service IDS database.

### Cisco Sync Agent

The Cisco Sync Agent keeps IM and Presence data synchronized with Unified Communications Manager data. It sends SOAP requests to the Unified Communications Manager for data of interest to IM and Presence and subscribes to change notifications from Unified Communications Manager and updates the IM and Presence IDS database.

### Cisco OAM Agent

The Cisco OAM Agent service monitors configuration parameters in the IM and Presence Service IDS database that are of interest to the Presence Engine. When a change is made in the database, the OAM Agent writes a configuration file and sends an RPC notification to the Presence Engine.

### Cisco Client Profile Agent

The Cisco Client Profile Agent service provides a secure SOAP interface to or from external clients using HTTPS.

### Cisco Intercluster Sync Agent

The Cisco Intercluster Sync Agent service provides the following: DND propagation to Unified Communications Manager and syncs end user information between IM and Presence Service clusters for intercluster SIP routing.

### Cisco XCP Router

The XCP Router is the core communication functionality on the IM and Presence Service server. It provides XMPP-based routing functionality on IM and Presence Service; it routes XMPP data to the other active XCP services on IM and Presence Service, and it accesses SDNS to allow the system to route XMPP data to IM and Presence Service users. The XCP router manages XMPP sessions for users, and routes XMPP messages to and from these sessions.

After IM and Presence Service installation, the system turns on Cisco XCP Router by default.



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**Note**

If you restart the Cisco XCP Router, IM and Presence Service automatically restarts all active XCP services. Note that you must select the Restart option to restart the Cisco XCP Router; this is not the same as turning off and turning on the Cisco XCP Router. If you turn off the Cisco XCP Router, rather than restart this service, IM and Presence Service stops all other XCP services. Subsequently when you turn on the XCP router, IM and Presence Service does not automatically turn on the other XCP services; you need to manually turn on the other XCP services.

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### Cisco XCP Config Manager

The Cisco XCP Config Manager service monitors the configuration and system topology changes made through the administration GUI (as well as topology changes that are synchronized from an InterCluster Peer) that affect other XCP components (for example, Router and Message Archiver), and updates these components as needed. The Cisco XCP Config Manager service creates notifications for the administrator indicating when

an XCP component requires a restart (due to these changes), and it automatically clears the notifications after the restarts are complete.

### **Cisco Server Recovery Manager**

The Cisco Server Recovery Manager (SRM) service manages the failover between nodes in a presence redundancy group. The SRM manages all state changes in a node; state changes are either automatic or initiated by the administrator (manual). Once you turn on high availability in a presence redundancy group, the SRM on each node establishes heartbeat connections with the peer node and begins to monitor the critical processes.

### **Cisco IM and Presence Data Monitor**

The Cisco IM and Presence Data Monitor monitors IDS replication state on the IM and Presence Service. Other IM and Presence services are dependent on the Cisco IM and Presence Data Monitor. These dependent services use the Cisco service to delay startup until such time as IDS replication is in a stable state.

The Cisco IM and Presence Data Monitor also checks the status of the Cisco Sync Agent sync from Unified Communications Manager. Dependent services are only allowed to start after IDS replication has set up and the Sync Agent on the IM and Presence database publisher node has completed its sync from Unified Communications Manager. After the timeout has been reached, the Cisco IM and Presence Data Monitor on the Publisher node will allow dependent services to start even if IDS replication and the Sync Agent have not completed.

On the subscriber nodes, the Cisco IM and Presence Data Monitor delays the startup of feature services until IDS replication is successfully established. The Cisco IM and Presence Data Monitor only delays the startup of feature services on the problem subscriber node in a cluster, it will not delay the startup of feature services on all subscriber nodes due to one problem node. For example, if IDS replication is successfully established on node1 and node2, but not on node3, the Cisco IM and Presence Data Monitor allows feature services to start on node1 and node2, but delays feature service startup on node3.

### **Cisco Presence Datastore**

The Cisco Presence Datastore is a real-time database for storing transient presence data and subscriptions.

### **Cisco SIP Registration Datastore**

The Cisco Presence SIP Registration Datastore is a real-time database for storing SIP Registration data.

### **Cisco RCC Device Selection**

The Cisco RCC Device Selection service is the Cisco IM and Presence user device selection service for Remote Call Control.

## **CDR Services**

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

### **Cisco CDR Repository Manager**

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

### Cisco CDR Agent



**Note** Unified Communications Manager supports Cisco CDR Agent in Cisco Unified Communications Manager systems.

This service does not support IM and Presence Service and Cisco Unity Connection.

The Cisco CDR Agent service transfers CDR and CMR files that are generated by 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 transfers the files that are generated by the standalone server to the Cisco CDR Repository Manager over a SFTP connection. The CDR Agent maintains and 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 (Unified Communications Manager only), activate the Cisco CallManager service on the first server.

### Cisco CAR Scheduler

The Cisco CDR Analysis and Reporting (CAR) Scheduler service does not support IM and Presence Service and 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.

### Cisco SOAP-CallRecord Service

The Cisco SOAP-CallRecord service runs by default on the publisher as a SOAP server, so that the client can connect to CAR database through the SOAP API. This connection happens through the use of the CAR connector (with a separate CAR IDS instance).

### Cisco CAR DB

Cisco CAR DB manages the Informix instance for the CAR database, which allows Service Manager to start or stop this service and to bring up or shut down the CAR IDS instance respectively. This is similar to the Unified Communications Manager database that is used to maintain the CCM IDS instance.

The Cisco CAR DB service is activated on the publisher by default. The CAR DB instances are installed and actively run on the publisher, to maintain the CAR database. This network service is used only on the publisher and is not available on the subscribers.

## Admin Services

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

### Cisco CallManager Admin

The Cisco CallManager Admin service is not supported by IM and Presence Service and Cisco Unity Connection.

The Cisco CallManager Admin service supports Cisco Unified Communications Manager Administration, the web application/interface that you use to configure Unified Communications Manager settings. After the 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.

### Cisco IM and Presence Admin

The Cisco IM and Presence Admin service is not supported by Unified Communications Manager and Cisco Unity Connection.

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

## Services setup

### Control Center

From Control Center in the serviceability GUI, you can view status and start and stop one service at a time. 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 Communications Manager and IM and Presence only: In a cluster configuration, you can view status and start and stop services for one server in the cluster at a time.

Unified Communications Manager 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 Unified Communications Manager to start and stop as well.



#### Caution

Unified Communications Manager 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.

## Set Up Services

You can perform the following tasks when working with services:

### Procedure

- Step 1** Activate the feature services that you want to run.
- Step 2** Configure the appropriate service parameters.
- Step 3** If necessary, troubleshoot problems by using the serviceability GUI trace tools.

## Service Activation



**Note** You can activate or deactivate multiple feature services or choose default services to activate from the Service Activation window in the serviceability GUI. You can view, start, and stop Unified Communications Manager services from an IM and Presence node and vice versa. You may encounter the following error: "Connection to the Server cannot be established (unable to access Remote Node)". If this error message appears, see the *Administration Guide for Cisco Unified Communications Manager*.



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

Feature services are activated in automatic mode and the serviceability GUI checks for service dependencies based on a single-node configuration. When you choose to activate a feature service, you are prompted to select all the other services, if any, that depend on that service to run. When you click **Set Default**, the serviceability GUI chooses those services that are required to run on the server.

Unified Communications Manager and IM and Presence Service 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 and stop services from Control Center.

## ClusterServiceActivationRecommendationsforCiscoUnifiedCommunications Manager

Before you activate services in a cluster, review the following table, which provides service recommendations for multiserver Unified Communications Manager configurations.

**Table 1: Cisco Unified Communications Manager Service Activation Recommendations**

Service/Servlet	Activation Recommendations
CM Services	

Service/Servlet	Activation Recommendations
Cisco CallManager	<p>This service supports Unified Communications Manager.</p> <p>In the Control Center - Network Services, ensure that the Cisco RIS Data Collector service and Database Layer Monitor service are running on the node.</p> <p><b>Tip</b> Before you activate this service, verify that the Unified Communications Manager server displays in the Unified Communications Manager Find/List window in Cisco Unified Communications Manager Administration. If the server does not display, add the Unified Communications Manager server before you activate this service.</p> <p>For information on how to add a server, see the <i>System Configuration Guide for Cisco Unified Communications Manager</i>.</p>
Cisco Messaging Interface	Activate only if using an SMDI integration to a third-party Voicemail system using a server-attached USB-to-serial adapter.
Cisco Unified Mobile Voice Access Service	For mobile voice access to work, you must activate this service on the first node in the cluster after you configure the H.323 gateway to point to the first VXML page. In addition, make sure that the Cisco CallManager and the Cisco TFTP services run on one server in the cluster, not necessarily the same server where the Cisco Unified Mobile Voice Access Service runs.
Cisco IP Voice Media Streaming App	If you have more than one node in the cluster, activate on one or two servers per cluster. You may activate on a node that is dedicated specifically for music on hold. This service requires that you activate Cisco TFTP on one node in the cluster. Do not activate this service on the first node or on any nodes that run the Cisco CallManager service.
Cisco CTIManager	Activate on each node to which JTAPI/TAPI applications will connect. CTIManager activation requires the Cisco CallManager service also to be activated on the node. See topics related to CM services for more information on CTIManager and Cisco CallManager services interaction.
Cisco Extension Mobility	Activate on all nodes in the cluster.



Service/Servlet	Activation Recommendations
Cisco Extended Functions	Activate this service, which supports the Quality Report Tool (QRT), on one or more servers that run the Cisco RIS Data Collector. Make sure that you activate the Cisco CTIManager service on a node in the cluster.
Cisco DHCP Monitor Service	When the DHCP Monitor service is enabled, it detects changes in the database that affect IP addresses for the IP phones, modifies the /etc/dhcpd.conf file, and stops and restarts the DHCPD daemon with the updated configuration file. Activate this service on the node that has DHCP enabled.
Cisco Location Bandwidth Manager	If you plan to use Cisco Location Call Admission Control functionality to manage bandwidth allocation for audio and video calls, you must activate this service. This service works in conjunction with the Cisco CallManager service. It is recommended to run the Cisco Location Bandwidth Manager on the same server that runs the Cisco CallManager service. If the Location Bandwidth Manager is not running on the same server as the CallManager service, ensure that you configure the Location Bandwidth Manager Group correctly.
Cisco Intercluster Lookup Service	If you plan to propagate the URI and numeric routing information between multiple Unified Communications Manager clusters, you must activate this service on the publisher of the cluster that participates in this exchange.
Cisco Dialed Number Analyzer Server	If you have more than one node in the cluster, activate this service on one node that is dedicated specifically for the Cisco Dialed Number Analyzer service.
Cisco Dialed Number Analyzer	If you are planning to use Unified Communications Manager Dialed Number Analyzer, activate this service. This service may consume a lot of resources, so only activate this service on the node with the least amount of call-processing activity or during off-peak hours.
Cisco TFTP	If you have more than one node in the cluster, activate this service on one node that is dedicated specifically for the Cisco TFTP service. Configure Option 150 if you activate this service on more than one node in the cluster.

Service/Servlet	Activation Recommendations
Cisco Headset Service	<p>Activate this service if you plan to manage your Cisco headsets from Unified Communications Manager.</p> <p><b>Note</b> Cisco Headset service should be activated on all the Unified Communications Manager nodes wherever Cisco CallManager service is already running. Ensure that you activate the Cisco Headset service on the Unified Communications Manager nodes where you want to administer headsets using the Cisco Unified CM Administration interface. The Cisco CallManager service will be automatically activated when you enable the Cisco Headset service. Deactivate the Cisco CallManager service if you do not need it.</p>
CTI Services	
Cisco IP Manager Assistant	<p>If you are planning to use Cisco Unified Communications Manager Assistant, activate this service on any two servers (Primary and Backup) in the cluster. Ensure that Cisco CTI Manager service is activated in the cluster.</p> <p>See the <i>Feature Configuration Guide for Cisco Unified Communications Manager</i> for more details on Cisco IP Manager Assistant.</p>
Cisco WebDialer Web Service	Activate on one node per cluster.
Self-Provisioning IVR	<p>To enable the Self-Provisioning IVR service, you must also enable the Cisco CTI Manager service.</p> <p>You can configure self-provisioning even if the service is deactivated, but the administrator cannot assign IP phones to users using the IVR service. By default, this service is deactivated.</p>
CDR Services	

Service/Servlet	Activation Recommendations
Cisco SOAP-CDRonDemand Service	<p>You can activate the Cisco SOAP-CDRonDemand Service only on the first server, and it requires that the Cisco CDR Repository Manager and Cisco CDR Agent services are running on the same server.</p> <p>For Unified Communications Manager Release 12.x and later releases, CDR onDemand Service is not enabled by default. If you want to enable the CDR onDemand service, the service should be activated manually. Execute the following command at the root level to activate the CDR onDemand service:</p> <pre>/usr/local/bin/servicectl -s CDRonDemandService CDRonDemand</pre>
Cisco CAR Web Service	<p>You can activate the Cisco CAR Web Service only on the first server, and it requires that the Cisco CAR Scheduler service is activated and running on the same server and that the CDR Repository Manager service also is running on the same server.</p>
Database and Admin Services	
Cisco AXL Web Service	<p>Following installation, Cisco AXL Web Service is enabled by default on all cluster nodes. Cisco recommends that you always leave the service activated on the publisher node. This ensures that you are able to configure products that are dependent on AXL, such as Unified Provisioning Manager.</p> <p>Based on your needs, you can activate or deactivate the service on specific subscriber nodes in Cisco Unified Serviceability under Feature Services.</p>
Cisco Bulk Provisioning Service	<p>You can activate the Cisco Bulk Provisioning Service only on the first node. If you use the Bulk Administration Tool (BAT) to administer phones and users, you must activate this service.</p>
Cisco UXL Web Service	<p>This service performs authentication and user authorization checks. 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.</p> <p>If you plan to use the Cisco IP Phone Address Book Synchronizer, you must activate this service on one node, preferably publisher. If you are not using Cisco IP Phone Address Book Synchronizer, then Cisco recommends that you deactivate this service . By default, this service is deactivated.</p>

Service/Servlet	Activation Recommendations
Cisco Platform Administrative Web Service	You must activate this service if you plan to use a Cisco Prime Collaboration Deployment (PCD) server to manage upgrades, switch version, restart or readdress operations. Platform Administrative Web Service (PAWS) allows SOAP communication between the Call Manager and Prime Collaboration Deployment (PCD). If you have more than one node in the cluster, you must activate this service on each server in the cluster.
Cisco TAPS Service	Before you can use the Cisco Unified Communications Manager Auto-Register Phone Tool, you must activate this service on the first node. When you create dummy MAC addresses for the Cisco Unified Communications Manager Auto-Register Phone Tool, ensure that the Cisco Bulk Provisioning Service is activated on the same node.
Performance and Monitoring Services	
Cisco Serviceability Reporter	Activate on only the first node. <b>Note</b> The service only generates reports on the first node even if you activate the service on other nodes.
Cisco CallManager SNMP Service	If you use SNMP, activate this service on all servers in the cluster.
Security Services	
Cisco CTL Provider	Activate on all servers in the cluster.
Cisco Certificate Authority Proxy Function (CAPF)	Activate on only the first node.
Directory Services	
Cisco DirSync	Activate only on the first node.

## Cluster Service Activation Recommendations for IM and Presence Service



### Caution

Before you turn on any services for a feature, you must complete all the required configuration on IM and Presence for that feature. See the relevant documentation for each IM and Presence feature.

Before you turn on services in a cluster, review the following table, which provides service recommendations for multinode IM and Presence configurations.

**Table 2: IM and Presence Service Activation Recommendations**

Service/Servlet	Recommendations
<b>Database and Admin Services</b>	
Cisco AXL Web Service	<p>Following installation, Cisco AXL Web Service is enabled by default on all cluster nodes. Cisco recommends that you always leave the service activated on the IM and Presence Service database publisher node. This ensures that you are able to configure products that are dependent on AXL. If intercluster communication is configured, this service must be enabled on both nodes in the sub-cluster where remote peers are configured to sync from. If this service is not enabled on both nodes presence and IM capabilities will be lost in failover scenarios.</p> <p>Based on your needs, you can activate or deactivate the service on specific IM and Presence subscriber nodes in Cisco Unified Serviceability under Feature Services.</p>
Cisco Bulk Provisioning Service	<ul style="list-style-type: none"> <li>• You turn on the Cisco Bulk Provisioning Service only on the first node.</li> <li>• If you use the Bulk Administration Tool (BAT) to administer users, you must turn on this service.</li> </ul>
<b>Performance and Monitoring Services</b>	
Cisco Serviceability Reporter	<p>Turn on this service on the publisher node only.</p> <p><b>Note</b> The service only generates reports on the publisher node even if you turn on the service on other nodes.</p>
<b>IM and Presence Services</b>	
Cisco SIP Proxy	Turn on this service on all nodes in the cluster.
Cisco Presence Engine	Turn on this service on all nodes in the cluster.
Cisco Sync Agent	Turn on this service on all nodes in the cluster.

Service/Servlet	Recommendations
Cisco XCP Text Conference Manager	<ul style="list-style-type: none"> <li>• Turn on this service if you deploy the chat feature on IM and Presence.</li> <li>• Turn on this service on each node that runs the chat feature.</li> </ul> <p><b>Note</b> The permanent chat feature requires an external database. If you enable the permanent chat feature, you must also configure an external database before starting the Text Conference Manager service. The Text Conference Manager service will not start if the permanent chat feature is enabled and an external database is not configured. See the <i>Database Setup Guide for IM and Presence on Unified Communications Manager</i>.</p>
Cisco XCP Web Connection Manager	<ul style="list-style-type: none"> <li>• Turn on this service if you integrate web clients with IM and Presence.</li> <li>• Turn on this service on all nodes in the cluster.</li> </ul>
Cisco XCP Connection Manager	<ul style="list-style-type: none"> <li>• Turn on this service if you integrate XMPP clients with IM and Presence.</li> <li>• Turn on this service on all nodes in the cluster.</li> </ul>
Cisco XCP SIP Federation Connection Manager	<p>Turn on this service if you deploy any of the following configurations:</p> <ul style="list-style-type: none"> <li>• Interdomain federation over the SIP protocol on IM and Presence. Turn on this service on each node that runs SIP federation.</li> <li>• Intercluster deployment between a IM and Presence Release 9.x cluster and a Cisco Unified Presence Release 8.6(x) cluster. Turn on this service on all nodes in the Release 9.x cluster.</li> </ul>

Service/Servlet	Recommendations
Cisco XCP XMPP Federation Connection Manager	<ul style="list-style-type: none"> <li>• Turn on this service only if you deploy interdomain federation over the XMPP protocol on IM and Presence.</li> <li>• Turn on this service on each node that runs XMPP federation.</li> </ul> <p><b>Note</b> Before you turn on the XMPP Federation Connection Manager service on a node, you must turn on XMPP Federation in Cisco Unified Communications Manager IM and Presence Administration on that node. See <i>Interdomain Federation for IM and Presence on Unified Communications Manager</i>.</p>
Cisco XCP Message Archiver	<ul style="list-style-type: none"> <li>• Turn on this service if you deploy the Compliance feature on IM and Presence.</li> <li>• Turn on this service on any node that runs the IM Compliance feature.</li> </ul> <p><b>Note</b> If you turn on the Message Archiver before you configure an external database, the service will not start. Also, if the external database is not reachable, the service will not start. See the <i>Database Setup Guide for IM and Presence on Unified Communications Manager</i>.</p>
Cisco XCP Directory Service	<ul style="list-style-type: none"> <li>• Turn on this service if you integrate XMPP clients on IM and Presence with an LDAP directory.</li> <li>• Turn on this service on all nodes in the cluster.</li> </ul> <p><b>Note</b> If you turn on the Directory Service before you configure the LDAP contact search settings for third-party XMPP clients, the service will start, and then stop again. See <i>Configuration and Administration of IM and Presence Service on Unified Communications Manager</i>.</p>
Cisco XCP Authentication Service	<ul style="list-style-type: none"> <li>• Turn on this service if you integrate XMPP clients with IM and Presence.</li> <li>• Turn on this service on all nodes in the cluster.</li> </ul>

## Activate Feature Services

You activate and deactivate feature services in the **Service Activation** window in the serviceability GUI. Services that display in the **Service Activation** window do not start until you activate them.

You can activate and deactivate only features services (not network services). You may activate or deactivate as many services as you want at the same time. Some feature services depend on other services, and the dependent services get activated before the feature service activates.



**Tip** Unified Communications Manager and IM and Presence Service only: Before you activate services in the Service Activation window, review topics related to cluster service activation recommendations.

### Procedure

**Step 1** Choose **Tools > Service Activation**.

The **Service Activation** window displays.

**Step 2** Select the server (node) from the **Server** drop-down list, and then click **Go**.

You can access Unified Communications Manager services from an IM and Presence Service node and vice versa. You may encounter the following error when trying to access a remote node: "Connection to the Server cannot be established (unable to connect to Remote Node)". If this error message appears, see the *Administration Guide for Cisco Unified Communications Manager*.

**Step 3** Perform one of the following actions to turn on or turn off services:

a) To turn on the default services required to run on a single server, select **Set to Default**.

**Note** This option selects default services based on the configuration of a single server, and checks for service dependencies.

b) To turn on all services, check **Check All Services**.

c) To turn on a specific service, check the check box for the service that you want to turn on

d) To turn off a service, uncheck the check box for the services that you want to turn off.

**Step 4** Unified Communications Manager and IM and Presence Service only: For a cluster configuration, review the cluster service activation recommendations, and then check the check boxes next to the services that you want to activate.

**Step 5** After you check the check boxes for the services that you want to activate, click **Save**.

**Tip** To deactivate services that you activated, uncheck the check boxes next to the services that you want to deactivate; then, click **Save**.

**Tip** To obtain the latest status of the services, click the **Refresh** button.

### Related Topics

[Cluster Service Activation Recommendations for Cisco Unified Communications Manager](#), on page 23

[Cluster Service Activation Recommendations for IM and Presence Service](#), on page 28



## Start, Stop, and Restart Services in Control Center or CLI

To perform these tasks, the serviceability GUI 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** list box and the **Go** button to navigate to Control Center and Service Activation windows.

### Start, Stop, and Restart Services in Control Center

Control Center in the serviceability GUI allows you to:

- view status
- refresh status
- start, stop, and restart feature and network services on a particular server, or for a server in a cluster in a cluster configuration

When a service is stopping, you cannot start it until after the service is stopped.



**Caution** Unified Communications Manager 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 remain connected; calls in progress from an IP phone to a Media Gateway Control Protocol (MGCP) gateway also remain connected, but other types of calls get dropped.

#### Procedure

**Step 1** Depending on the service type that you want to start/stop/restart/refresh, perform one of the following tasks:

- Choose **Tools > Control Center - Feature Services**.

**Tip** Before you can start, stop, or restart a feature service, it must be activated.

- Choose **Tools > Control Center - Network Services**.

**Step 2** Choose the server from the Server drop-down list, and then click **Go**.

The window displays the following items:

- The service names for the server that you chose.
- The service group.
- The service status, for example, Started, Running, Not Running, and so on. (Status column).
- The exact time that the service started running. (Start Time column).
- The amount of time that the service has been running. (Up Time column).

**Step 3** Perform one of the following tasks:

- Click the radio button next to the service that you want to start, and then click **Start**. The Status changes to reflect the updated status.
- Click the radio button next to the service that you want to stop, and then click **Stop**. The Status changes to reflect the updated status.
- Click the radio button next to the service that you want to restart, and then click **Restart**. A message indicates that restarting may take a while. Click **OK**.
- Click **Refresh** to get the latest status of the services.
- To go to the **Service Activation** window or to the other Control Center window, choose an option from the Related Links drop-down list, and then click **Go**.

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## Start, Stop, and Restart Services Using Command Line Interface

You can start and stop some services through the CLI. For a list of services that you can start and stop through the CLI and for information on how to perform these tasks, refer to the *Command Line Interface Reference Guide for Cisco Unified Solutions*.

**Tip**

You must start and stop most services from Control Center in the serviceability GUI.

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