Services

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Service descriptions

After the installation of the Cisco HCM-F platform, most services start automatically. You can configure services by setting service parameters for each service. If necessary, for example, for troubleshooting purposes, you may need to stop and start (or restart) a service. You perform these task by using the command line interface (CLI) on the Cisco HCM-F platform.

This section describes the network services that exist of the Cisco HCM-F platform and are grouped by the following functional areas:

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Cisco HCS services

This section describes the Cisco HCS services that are specific to Cisco HCS.

Cisco CDM Database service

The Cisco CDM Database service supports the Shared Data Repository.

Cisco HCS Shared Data Repository Change Notification service

The Cisco HCS Shared Data Repository Change Notification service informs other services of data changes in the HCS Shared Data Repository.

Cisco JMS Broker service

The Cisco JMS Broker service provides a messaging infrastructure that other services use to communicate with each other. The broker is used by services such as CUCDMSync, VCenterSync, Fulfillment and DMA-SA.

Cisco HCS Admin UI service

The Cisco HCS Admin UI service supports the administrative interface.

Cisco HCS API Gateway Proxy web service

The API Gateway Proxy provides a single point of integration for the Cisco HCM-F APIs from a web services node and provides access to Service Fulfillment APIs of supported applications.

Cisco HCS DMA-SA service

The Cisco HCS DMA-SA service is an interface between the HCS Shared Data Repository and Cisco Prime Collaboration Assurance. The key function of the DMA is to automatically configure Cisco Prime Collaboration Assurance to monitor Cisco HCS devices and application instances such as Cisco Unified Communication Manager, Cisco Unified Presence, and Cisco Unity Connection based on data from the HCS Shared Data Repository.

Cisco HCS DMA-CUOM Servlet service

The Cisco HCS DMA-CUOM Servlet service listens for Cisco Unified Operations Manager NBI notifications and forwards them to the main DMA-Cisco Unified Operations Manager service. This makes the provisioning work the DMA-CUOM does slightly more efficient, and it also allows DMA-CUOM to be notified when the devices in Cisco Unified Operations Manager are altered.

Cisco HCS Fulfillment service

The Cisco HCS Fulfillment service triggers provisioning of Cisco Prime Collaboration Assurance by automatically detecting data changes in the SDR related to devices. It triggers the DMA-SA to provision those devices on Cisco Prime Collaboration Assurance. The Cisco HCS Fulfillment service also coordinates provisioning done by CHPA. In addition, it automatically links blades to ESXi Hosts, Cisco Prime Collaboration Assurance customers, and virtual machines to application instances within the HCS Shared Data Repository.

Cisco HCS IPA service

The Cisco HCS IPA service creates the Infrastructure Platform Automation job within the HCM-F jobs table and communicates the job ID to the NBI.

Cisco HCS License Manager service

HCS License Manager provides centralized license management for Cisco HCS. HCS License Manager leverages the functionality of Prime License Manager and extends beyond the scope of a single enterprise for use in the service provider.

HCS License Manager utilizes the Cisco HCM-F framework. There will be one HCS License Manager per install of Cisco HCS.

Cisco HCS North Bound Interface Web service

The Cisco HCS North Bound Interface Web service is a set of SOAP APIs that expose Cisco HCM-F functionality to the service provider OSS/BSS. These APIs provide the ability to configure, service, and control a Cisco HCM-F deployment.

HCS NBI REST FF Web Service

Provides a REST API similar to the existing NBI API. In particular, this REST API is used for the interface to Cisco Unified Communications Domain Manager

HCS NBI REST HCS Shared Data Repository Web Service

Provides a REST API similar to the existing NBI API. In particular, this REST API is used for the interface to Cisco Unified Communications Domain Manager. This service provides access to the HCS Shared Data Repository database.

Cisco Platform Manager service

The Cisco Platform Manager service supports the Platform Manager administrative interface.

Cisco HCS Provisioning Adapter service

The Cisco HCS Provisioning Adapter service provisions credentials and SNMP information, as well as provisions remote Syslog data on Cisco Unified Communications Manager devices.

Cisco HCS Shared Data Repository UI service

The Cisco HCS Shared Data Repository UI service supports the Infrastructure Manager administrative interface.

Cisco HCS Service Inventory

The Cisco HCS Service Inventory supports Service Inventory reporting features.

Cisco HCS SI UI

The Cisco HCS SI UI supports the Service Inventory administrative interface.

Cisco HCS UCSMSync service

The Cisco HCS UCSMSync service monitors configuration data of Cisco UCS Managers and maintains synchronization between the Cisco HCS Shared Data Repository. Cisco HCM-Service Assurance uses the UCS Manager configuration to perform fault correlation and event enrichment.

Cisco HCS VCenterSync service

The Cisco HCS VCenterSync service monitors configuration data on one or more vCenter servers, copies data from the vCenter servers to the Cisco HCS Shared Data Repository, and maintains synchronization between the vCenter servers and the Cisco HCS Shared Data Repository. Cisco HCM-Service Assurance uses the vCenter configuration to perform fault correlation and event enrichment.

Cisco Unity Connection Provisioning Adapter service

For deployments without CUCDM, UCPA uses the UCCxn REST interface to pull customer data directly from the UCCxn server for input into Service Inventory reports.

Performance and Monitoring services

This section describes the Performance and Monitoring services.

Cisco AMC service

The Alert Manager and Collector service allows you to retrieve real-time information that exists on the server.

Cisco Audit Event service

The Cisco Audit Event service monitors and logs any configuration change to the Cisco HCM-F platform by a user or as a result of the user action.

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 the Cisco HCM-F platform by using configured thresholds and a polling interval.

Cisco RIS Data Collector

The Real-Time Information Server (RIS) maintains real-time information, such as critical alarms generated.

Cisco RTMT Web service

The Cisco RTMT Web service is a performance and monitoring service that activates trace for the RTMT servlets. Running this trace creates the server-side log for RTMT client queries.

Backup and Restore services

This section describes the Backup and Restore services.

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.

Cisco DRF Master

The Cisco DRF Master Agent service supports the DRF Master Agent, which works with the 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.

System services

This section describes the System services.

Cisco CDP

Cisco CDP advertises the voice application to other network management applications, so the network management application can perform network management tasks for the voice application.

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. If you stop this service, you cannot collect or view traces on the Cisco HCM-F platform.

For SysLog Viewer and trace and log collection, the Cisco Trace Collection Servlet and the Cisco Trace Collection service must run on the server.

Platform Services

This section describes the Platform Services.

Cisco CDP Agent

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

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.

Cisco Configuration Manager

This service manages administration and configuration settings used by the other services.

Cisco Syslog Agent

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

Cisco Tomcat

The Cisco Tomcat service supports the web server.

Cisco Tomcat Stats Servlet

The Cisco Tomcat Stats servlet collects the Tomcat statistics.

Host Resources Agent

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

MIB2 Agent

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

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 CLI, you must restart the SNMP Master Agent service.

System Application Agent

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

Remote Access Portal Node Services

This section describes Remote Access Portal (RAP) node services.

Cisco HCS RAP API Service

This service supports API access via the Remote Access Portal.

Cisco HCS RAP SSO Service

This service is responsible for establishing a secure connection to Cisco Unified Communications Domain Manager from the Remote Access Portal.

Cisco HCS RAP WWW Service

This service serves up static content for Cisco Unified Communications Domain Manager from the Remote Access Portal.

Cisco HCS RAP Help Service

This service supports Cisco Unified Communications Domain Manager Online Help access via the Remote Access Portal.

Infrastructure Platform Automation Description

Infrastructure Platform Automation (IPA) automates the provisioning steps for onboarding customers inside both the Cisco Unified Communications Manager application and the Cisco Unity Connection by using an XML configuration file that is loaded in Infrastructure Manager within the Cisco Hosted Collaboration Mediation-Fulfillment (HCM-F) interface. The automation process includes Virtual Machine cloning and running identity on the Cisco Unified Communications Manager or Cisco Unity Connection Publisher and Subscriber Virtual Machines. If the Virtual Machines are pre-cloned, for example by Cloud-O or manually, IPA performs only identity operations on Virtual Machines.

Both Unified Communications Manager clusters and Cisco Unity Connection clusters can have only one Publisher, and only one Unity Subscriber node per cluster is supported. The IPA XML must always contain the Unified Communications Manager Cluster information, but the Cisco Unity Connection Cluster information is optional. You can deploy Cisco Unified Communications Manager without Cisco Unity Connection but not the reverse. Cisco Unity Connection Publishers and Subscribers both use the skip install process. Cisco Unity Connection and Cisco Unified Communications Manager share the same ISO file for installation, but they each have their own OVA file which must be used for deploying VMs for IPA use.

Note IPA supports only specific versions of Cisco Unified Communications Manager and Cisco Unity Connection cluster deployments. See the *Cisco Hosted Collaboration Solution Compatibility Matrix* for details on which Cisco HCM-F version works with Cisco Unified Communications Manager and Cisco Unity Connection versions. The cluster ID is one of the manual parameters, and you must configure the cluster on the Cisco Unified Communications Manager or Cisco Unity Connection before configuring in the Cisco Unified Communications Domain Manager.

Note Cisco Prime Collaboration Deployment helps you manage Unified Communications (UC) applications (release 10.x and later). Its primary high-level functions are to:

- Migrate a cluster of UC servers to a new cluster (such as MCS to virtual, or virtual to virtual).

  Tip Cisco Prime Collaboration Deployment does not delete the source cluster V after migration is complete. You can fail over to the source VMs if there is problem with the new VMs. When you are satisfied with the migration, you manually delete the source VMs.

- Perform operations on clusters, such as:
  - Upgrade
  - Switch version
  - Restart
- Fresh install a new release 10.x UC cluster
- Change IP addresses or hostnames in release 10.x clusters (for a network migration).

  Cisco Prime Collaboration Deployment supports simple migration and network migration. Changing IP addresses or hostnames is not required for a simple migration. For more information, see the *Cisco Prime Collaboration Deployment Administration Guide*.

For additional information on Prime Collaboration Deployment and HCS see Prime Collaboration Deployment for UC Applications

Infrastructure Manager Sync Services Introduction

The following sections introduce the sync services available within Infrastructure Manager.

Cisco HCS VCenterSync services

The Cisco HCS VCenterSync service monitors configuration data on one or more vCenter servers, copies data from the vCenter servers to the Cisco HCS Shared Data Repository, and maintains synchronization between the vCenter servers and the Cisco HCS Shared Data Repository.

The following list outlines the data that is synced from vCenter:

- VMware Data Center
- VMware Clusters
- Virtual Machines
- ESXi Hosts

The VCenterSync service synchronizes configuration changes in vCenter using a notification mechanism and configuration changes in vCenter are synced in immediately.

Note You must configure Virtual Machines in a VMware Cluster on the vCenter itself (not in the SDR or Infrastructure Manager) for VCenterSync to work.

Cisco HCS UCSMSync services

The Cisco UCSMSync service monitors configuration data on one or more UCS Managers, copies data from the UCS Managers to the Cisco HCS Shared Data Repository, and maintains synchronization between the UCS Managers and the Cisco HCS Shared Data Repository.

The following section outlines the data that is synced from UCS Manager:

- Chassis
- Blades
- Linkage between Blade and ESXi Host

The UCSMsync service synchronizes configuration changes in UCS Manager using a polling mechanism, based on the polling interval. The default polling interval is 15 minutes. You can change the polling interval in the UCS Manager configuration page in Infrastructure Manager.