CHAPTER 6

Service Inventory Configuration

Cisco HCS supports Service Inventory, an application that periodically queries the Cisco Unified Communications Domain Manager server and reports the current operating state of the underlying Unified Communications applications. The data provides information about customers, subscribers, devices, and other details that are currently provisioned for Cisco HCS through Cisco Unified Communications Domain Manager. This data gets used by the service provider to generate appropriate billing records for end customers as part of regular business processes. It also can report on the overall state of the system. For more information on the data that is generated, see "Service Inventory Common Format" section on page 13-1.

The Service Inventory administrative interface allows you to schedule, configure, and generate Service Inventory billing reports, which use a Cisco common format. The generated reports get backed up for a configured amount of time, which is 60 days by default. Service Inventory automatically transfers the report files at regular intervals to the remote SFTP servers that you configure in the Service Inventory administrative interface. If report generation fails, Service Inventory sends you an email failure notification if an email address is configured.

Tip Service Inventory also provides the ability to customize reports. To customize reports, contact Cisco Advanced Services for assistance.

Service Inventory requires specific user accounts for administrative and SFTP access. To access the Cisco HCS administrative interface and Cisco HCM-F CLI for service inventory, you must use the administrator username and password that was set up during the Cisco HCM-F platform installation (unless you changed the administrator username and password). SFTP access requires that the adminsftp user has the same password as the Cisco HCS administrator.

This chapter contains information on the following topics:

- Configuration Checklist for Service Inventory, page 6-2
- How Report Generation Works for Service Inventory, page 6-3
- Configure Infrastructure Manager for Service Inventory Support, page 6-3
- Configure General Settings for Service Inventory, page 6-5
- Configure the Schedule for Daily Report Generation, page 6-7
- Display the List of Generated Reports, page 6-8
- Transfer a Report to the Remote SFTP Server, page 6-8
- Related Topics, page 6-8

Configuration Checklist for Service Inventory

Table 6-1 lists the steps that you must perform to get Service Inventory up and running. Service Inventory uses configuration data from Cisco Unified Communications Domain Manager, so this section assumes that you have configured the data in Cisco Unified Communications Domain Manager.

If you want to do so, you can use the Cisco HCM-F NBI to configure Service Inventory, instead of the Service Inventory administrative interface.

Table 6-1 Configuration Checklist for Service Inventory

	Tasks	For More Information
Step 1	If you have not already done so, install the Cisco HCM-F platform, which installs Service Inventory. You perform this task if you are installing Cisco HCM-F for 8.6(2) for the first time or migrating Service Inventory from Cisco HCS 8.6(1).	Installation of Cisco HCM-F, page 2-1
Step 2	If you used Service Inventory in Cisco HCS 8.6(1), perform migration tasks.	*Upgrading the Components for Cisco Hosted Collaboration Solutions (HCS) 8.6(2)*
Step 3	Verify that you have added an Cisco Unified Communications Domain Manager application instance in the Infrastructure Manager administrative interface. (**Management Network > Management Application**)	Configure Infrastructure Manager for Service Inventory Support, page 6-3
Step 4	If you have not already done so, enter **utils service activate Cisco HCS Inventory Service** through the CLI on the Cisco HCM-F platform. If you have not already done so, enter **utils services list** through the CLI on the Cisco HCM-F platform to verify that the following services are running: • Cisco CDM Database • Cisco Tomcat • Cisco HCS SI UI —Use this service if you plan on configuring Service Inventory through the Service Inventory administrative interface. • Cisco HCS North Bound Interface Web Service—Use this service if you plan on configuring Service Inventory through the Cisco HCM-F NBI. • Cisco HCS Fulfillment Service—Ensure that this service is running if you plan to run Cisco HCS CUCDMSync Service. • Cisco HCS CUCDMSync Service—Use this service so that automatic synchronization can propagate Cisco Unified Communications Domain Manager data to the Shared Data Repository. Service Inventory obtains the connection data for Cisco Unified Communications Domain Manager from the Shared Data Repository.	Command Line Interface for Cisco HCM-F, page 10-1

Table 6-1 Configuration Checklist for Service Inventory (continued)

	Tasks	For More Information
Step 5	Configure general settings for Service Inventory. In the Service Inventory administrative interface, click **Configuration**.	Configure General Settings for Service Inventory, page 6-5
Step 6	Set up the schedule to generate daily reports. In the Service Inventory administrative interface, click **Overview**. If you activated the Cisco HCS CUCDMSync service, ensure that the service has performed at least one synchronization before you generate a daily report. Verify the synchronization occurred in the Jobs page in Infrastructure Manager.	Configure the Schedule for Daily Report Generation, page 6-7
Step 7	If you want to do so, transfer a backup report to the remote SFTP server. In the Service Inventory administrative interface, click **Backup**.	Display the List of Generated Reports, page 6-8 Transfer a Report to the Remote SFTP Server, page 6-8
Step 8	Interpret the data in the report.	Service Inventory Common Format, page 13-1

How Report Generation Works for Service Inventory

This section describes how service inventory generates reports. This section assumes that you have configured the system, as described in the "Configuration Checklist for Service Inventory" section on page 6-2.

At the time that is specified in the Service Inventory configuration, Service Inventory sends a real-time query request to Cisco Unified Communications Domain Manager for information. Cisco Unified Communications Domain Manager generates the necessary files and sends the files to Service Inventory through SFTP. Service Inventory processes the files, including but not limited to backing up the files for troubleshooting purposes, creating the report, and transferring the report to the SFTP servers that are configured in the Service Inventory administrative interface.

The generated report contains data for the previous 24 hours, up to and including the end time that you specify on the Overview page in the Service Inventory administrative interface.

Configure Infrastructure Manager for Service Inventory Support

For Service Inventory to interact with Cisco Unified Communications Domain Manager, verify that an application instance is configured for Cisco Unified Communications Domain Manager on the Management Network page in the Infrastructure Manager administrative interface (**Management Network > Management Application**). If you determine that an instance does not exist, configure the settings in Table 6-2.

Table 6-2 Settings for CUCDM in Infrastructure Manager (Management Application Page)

Field	Description
General Information	
Application Type	From the drop-down list box, select **CUCDM**.

Table 6-2 Settings for CUCDM in Infrastructure Manager (Management Application Page)

Field	Description
Name	Enter the hostname of the Cisco Unified Communications Domain Manager platform.
Software Version	From the drop-down list box, select the version of software that is running on the Cisco Unified Communications Domain Manager platform; for example, 7.4.0 or 8.0.0.
Port	Enter a SOAP port number for the Cisco Unified Communications Domain Manager platform. The default port is 8181.
Description	Enter a description for the CUCDM.
Virtual Machine	Enter the location of the virtual machine where CUCDM is installed.
Host ID	Enter the unique host identifier for the Cisco Unified Communications Domain Manager platform. **Tip** Service Inventory requires a value of 1 or greater.
Sync Enabled	Check this check box to enable synchronization of data from Cisco Unified Communications Domain Manager. For synchronization to work, make sure that the Cisco HCS CUCDMSync service is activated and running on the Cisco HCM-F platform. Unchecking this check box disables automatic synchronization. If you do not enable sync, you must perform a manual sync before a Service Inventory report can be generated. Verify that the Service Provider name in the Administration page in Infrastructure Manager matches the name that is configured in Cisco Unified Communications Domain Manager.
Sync Interval (Minutes)	Enter how often you want the Cisco HCS CUCDMSync service to attempt to synchronize the data from Cisco Unified Communications Domain Manager. For example, if you enter 15, the service attempts to synchronize the data every 15 minutes. This setting works only if you checked the Sync Enabled check box and the Cisco HCS CUCDM Sync service is activated and running on the Cisco HCM-F platform.
Credentials	
Credentials Type	From the drop-down list box, select **ADMIN**.
User ID	Enter the User ID that is used to access CUCDM.
Password and Re-enter Password	Enter the password that for the User ID. Re-enter the same password for the User ID.
Access Type	Service Inventory require Read Only, but you can select either option.
Network Addresses	
Network Space	From the drop-down list box, select **SP_SPACE**.

Table 6-2 Settings for CUCDM in Infrastructure Manager (Management Application Page)

Field	Description
IPv4 Address	If your CUCDM platform uses IPv4, enter the IPv4 address for the CUCDM platform.
IPv6 Address	If your CUCDM platform uses IPv6, enter the IPv6 address for the CUCDM platform.
Hostname	If you use DNS, enter the hostname for the CUCDM platform.
Domain	Enter the domain for the CUCDM platform.
SRV Address	This setting does not apply to Service Inventory.

Configure General Settings for Service Inventory

In the Service Inventory administrative interface, you manage credentials and configure general settings for Service Inventory on the Configuration page. Table 6-3 provides a list of settings that you configure on the Configuration page.

Tip Service Inventory works with Cisco Unified Communications Domain Manager. For service inventory to work, make sure that you configure Cisco Unified Communications Domain Manager in the Infrastructure Manager administrative interface, as described in the "Configuration Checklist for Service Inventory" section on page 6-2.

In the Service Inventory administrative interface, click **Configuration**. Enter the configuration for the settings in Table 6-3; then click **Save**.

Table 6-3 Settings for Configuration Page in Service Inventory

Field	Description
Service Inventory Settings Use this section to configure a Service Inventory server.	
Hostname	Enter the hostname of the Service Inventory server. The Service Inventory hostname must be entered as an IP address or a fully qualified domain name. **Note** If the Cisco Unified Communications Domain Manager server is not configured with DNS enabled, enter an IP address in the Hostname field.
Port	Enter the SFTP port number that is used by the Cisco Unified Communications Domain Manager server to send the requested SI billing data to this Service Inventory server. The default is 22.
Username	Cisco Unified Communications Domain Manager uses the username, adminsftp, to transfer data to the Service Inventory application. You cannot update this field.

Table 6-3 Settings for Configuration Page in Service Inventory (continued)

Field	Description
Password	Enter the password for the adminsftp user account. This step is required as an identity confirmation for security purposes. This password is the same as the HCS administrator password that you set up during the Cisco HCM-F installation (or changed after installation).
Service Provider SFTP and Remote Backup SFTP Settings Use this section to configure and enable transfer of Service Inventory reports to remote SFTP servers. Remote SFTP servers configured on this page also serve as the destination of files when you initiate a transfer from the Backup page. You must configure a primary remote SFTP server. If you want to do so, you may configure a secondary remote SFTP server. If you configure the secondary remote SFTP server, the generated report files get sent to the location for the secondary remote SFTP server in addition to the primary remote SFTP location. **Note** The Backup page sends selected files to the primary SFTP server but not the backup server, while scheduled jobs send files to both servers.	
Hostname	Enter the hostname of the primary remote SFTP server.
Port	Enter a port number for the primary remote SFTP server or use the default, which is 22.
Username	Enter a valid username to access the remote SFTP server.
Password	Enter the password to access the remote SFTP server.
Destination Path	Enter a path on the SFTP server where the billing files will be stored.
Retry Count	Set the number of times the Service Inventory service will attempt to transfer billing reports if the SFTP transfer does not succeed on the first try. **Tip** The Retry Count and Maximum File Size that you specified under the Remote SFTP Server settings also apply to the Remote Backup SFTP Server settings.
Maximum File Size (MB)	Enter the maximum individual file size (in MB) for Service Inventory reports that are transferred to remote SFTP servers. The Service Inventory application will split and rename files to meet this size requirement before transfer. The maximum value you can enter is 2047 MB.
Local Settings Use this section to configure the local settings for report backup retention, for log trace levels, to enable report customization and to set up the failure notification email feature.	
Local Backup Retention period (days)	Set the number of days that you want to retain backup copies of generated Service Inventory reports. Enter between 30 and 60, with 60 being the default.
Log Trace Level	Set the log trace level. Available trace levels are Fatal, Error, Warning, Informational, and Detailed.

Table 6-3 Settings for Configuration Page in Service Inventory (continued)

Field	Description
Enable Report Customization	Check to enable additional customization of Service Inventory reports. Verify that an appropriate Cisco Advanced Services application plug-in is installed. Service Inventory application executes the plug-in to provide additional report customization after basic processing if this option is enabled and the plug-in is installed.
Failure Notification The Service Inventory service provides the ability to receive email notifications in the event of application errors and failures. This notification service is optional, but is used if configured. **Tip** For email notification to work, you must use DNS.	
SMTP Hostname	Enter the outbound SMTP hostname or use the default of local host.
SMTP Port	Enter the SMTP port number or use the default, which is 25.
Email Address (From)	Enter the outbound email address.
Email Address (To)	Enter the inbound email address.

Configure the Schedule for Daily Report Generation

The Overview page in the Service Inventory administrative interface displays the current status for Service Inventory and any events that you scheduled.

Tip Before you schedule a report generation time, ensure that you have performed the tasks that are described in the "Configuration Checklist for Service Inventory" section on page 6-2. If you do not configure the required options on the Configuration page in the Service Inventory administrative interface, the report generation fails.

If the Enable Schedule check box is unchecked, the report does not get generated at the specified time. Keep the Enable Schedule check box unchecked until you are ready to send billing files and until you have performed the tasks from the "Configuration Checklist for Service Inventory" section on page 6-2. If the Configuration page is not configured correctly, the report generation fails.

To schedule the generation of daily reports, perform the following procedure:

Step 1 Check **Enable Schedule**.

Step 2 Set a time when you want the reporting to be executed. Enter a format that uses HH:MM:SS, where HH equals hours, MM equals minutes, and SS equals seconds.

Set the time that you want the reporting to end. The generated report contains data for the previous 24 hours, up to and including this end time.

Tip Enter the report time by using GMT; you can hover over the i icon to see the GMT report time converted to your local client (browser) time.

Step 3 Select the version for the report format that you want to view.

Tip The Cisco HCS 8.6(2) report format version is only compatible with Cisco Unified Communications Domain Manager 8.0 (and later). The Cisco HCS 8.6(1) report format version is compatible with Cisco Unified Communications Domain Manager 7.4 and 8.0 (and later).

Step 4 Click **Save**.

Display the List of Generated Reports

In the Service Inventory administrative interface, the Backup page displays a list of generated report files. The Backup page displays the file name, date, and file size for the generated report. Filter the results by selecting an option from the Show drop-down list box or by clicking one of the columns on the page.

Tip The configuration for the Local Backup Retention Period setting on the Configuration page determines the files that appear in the list on the Backup page. Service Inventory deletes reports based on the value that you configure for this setting. For example, if you configure this setting as 35, and the report is 36 days old, the report name does not appear in the list.

Transfer a Report to the Remote SFTP Server

You can transfer a report to the remote SFTP server that you configured on the Configuration page in the Service Inventory administrative interface. To transfer a report, perform the following procedure:

Step 1 In the Service Inventory administrative interface, click **Backup**.

Step 2 The list of generated reports appear. Locate and select the files that you want to transfer to the remote SFTP server.

Step 3 Click **Transfer Selected Files**.

Step 4 To view the file backup job status in the Infrastructure Manager administrative interface, select **Administration > Jobs**.

Review the Data in the Report

To understand the data that displays in the Service Inventory report, see "Service Inventory Common Format" section on page 13-1.

Related Topics

- Installation of Cisco HCM-F, page 2-1

- Service Inventory Common Format, page 13-1
- Troubleshooting Service Inventory, page 12-8
- *Upgrading the Components for Cisco Hosted Collaboration Solutions (HCS) 8.6(2)*
- *Developer Guide for Cisco Hosted Collaboration Mediation Fulfillment 8.6(2)*