Cisco Prime Collaboration Deployment Features

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Cisco Prime Collaboration Deployment Considerations

Cisco Prime Collaboration Deployment allows a user to perform tasks (such as migration or upgrade) on servers that are in the inventory.

Step	Tasks
Step 1: Inventory Creation	To perform any tasks, you must first have clusters in your inventory. To add a UC cluster that is already running UC applications to your inventory, use the **Inventory** > **Clusters** > **Discovery Cluster** feature. To migrate an existing cluster to new virtual machines, go to **Inventory** > **Clusters** > **Define Migration Destination Cluster**. (See Migration Task, on page 13.) To install a new cluster, use the **Inventory** > **Clusters** > **Define New UC Cluster** feature. (See Install Task, on page 33.) If you are migrating an existing cluster to a new virtual machine cluster, or installing a new cluster, you must first add the ESXi Hosts that contain those virtual machines to your inventory by using **Inventory** > **ESXi Hosts**. (See Add an ESXi Host Server, on page 9.)

Step	Tasks
Step 2: Create a Task	You can create a task to perform an operation on a cluster in your inventory. During task creation, options allow you to: • Choose the cluster **Note** This task depends on the type of cluster you require. For example, you may choose a discovered cluster or a migration cluster. • Determine when to run the task • Determine if the task should run independently or pause between steps To perform one of the following actions, select from these procedures: • To migrate from an existing cluster to a new cluster of VM machines, see Migration Task, on page 13. • To upgrade the Unified Communications Manager version of an existing cluster, see Upgrade Task, on page 24. • To switch the version of an existing cluster, see Switch Versions Task, on page 27. • To restart an existing cluster, see Server Restart Task, on page 29. • To change the hostname or IP address of one or more servers in an existing cluster, see Readdress Task, on page 31. • To create a new UC cluster from VM machines, see Install Task, on page 33.
Step 3: Monitor Tasks	After a task is created, you can use the Monitoring window to view or track any task. You can also use this page to cancel, pause, or resume tasks. To view the tasks you created, see Monitor Task Status, on page 37.
Step 4: Administrative Tasks	You can set up email notification. See Email Notification.

Supported Releases

The following list outlines the supported releases for each task:

Cluster Discovery

- Cisco Unified Communications Manager Releases Supported: 6.1(5), 7.1(3), 7.1(5), 8.0(1-3), 8.5(1), 8.6(1-2), 9.0.(1), 9.1(1), 9.1(2), 10.x
- Cisco Unified Presence Releases Supported: 8.5, 8.6
- Cisco Unified Communications Manager IM and Presence Service Releases Supported: 9.0(1), 9.1(1), 10.0(1), 10.5(1)

- Cisco Unified Contact Center Express Releases Supported: 8.5.1, 9.0, 9.0.2, and 10.0(1), 10.5(1)
- Cisco Unity Connection Releases Supported: 8.6.1, 8.6.2, 9.x and 10.0(1), 10.5(1)

Migration Cluster (Install Application and import data from old system)

- Cisco Unified Communications Manager Releases Supported: From 6.1(5), 7.1(3), 7.1(5), 8.0(1-3), 8.5(1), 8.6(1-2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1) to 10.0(1), 10.5(1)
- Cisco Unified Presence Releases Supported: From 8.5(4), 8.6(3), 8.6(4), 8.6(5) to 10.0(1), 10.5(1)
- Cisco Unified Communications Manager IM and Presence Service Releases Supported: From 9.0(1), 9.1(1), 10.0(1), 10.0(1) to 10.5(1), 10.5(1)
- Cisco Unified Contact Center Express Releases Supported: Migration Not Supported
- Cisco Unity Connection Releases Supported: Migration Not Supported

Upgrade Task (Upgrade Application Server or Install COP Files)

- Cisco Unified Communications Manager Releases Supported: From 8.6(1-2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1) to 10.0(1), 10.5(1)
- Cisco Unified Presence Releases Supported: From 8.6(3), 8.6(4), 8.6(5) to 10.0(1), 10.5(1)
- Cisco Unified Communications Manager IM and Presence Service Releases Supported: From 9.0(1), 9.1(1), 10.0(1), 10.5(1) to 10.0(1), 10.5(1)
- Cisco Unified Contact Center Express Releases Supported: From 9.0(2), 10.0(1), 10.5(1) to 10.0(1), 10.5(1)
- Cisco Unity Connection Releases Supported:
  - From 8.6(x) to 8.6(x)
  - From 8.6(x) to 9.x
  - From 9.x to 9.x
  - From 10.0(1) to 10.0(1)
  - From 10.5(1) to 10.5(1)

Restart Task

- Cisco Unified Communications Manager Releases Supported: 8.6(1-2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1)
- Cisco Unified Presence Releases Supported: 8.6(3), 8.6(4), 8.6(5)
- Cisco Unified Communications Manager IM and Presence Service Releases Supported: 9.0(1), 9.1(1), 10.0(1), 10.5(1)
- Cisco Unified Contact Center Express Releases Supported: 9.0(2), 10.0(1), 10.5(1)
- Cisco Unity Connection Releases Supported: 8.6(1-2), 9.x, 10.0(1), 10.5(1)

Switch Version Task

- Cisco Unified Communications Manager Releases Supported: 8.6(1-2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1)
- Cisco Unified Presence Releases Supported: 8.6(3), 8.6(4), 8.6(5)
- Cisco Unified Communications Manager IM and Presence Service Releases Supported: 9.0(1), 9.1(1), 10.0(1), 10.5(1)
- Cisco Unified Contact Center Express Releases Supported: 9.0(2), 10.0(1), 10.5(1)
- Cisco Unity Connection Releases Supported: 8.6(1-2), 9.x, 10.0(1), 10.5(1)

Fresh Install new Cluster or Edit/Expand an existing Cluster

- Cisco Unified Communications Manager Releases Supported: 10.0(1), 10.5(1)
- Cisco Unified Presence Releases Supported: Not applicable
- Cisco Unified Communications Manager IM and Presence Service Releases Supported: 10.0(1), 10.5(1)
- Cisco Unified Contact Center Express Releases Supported: 10.5(1)
- Cisco Unity Connection Releases Supported: 10.5(1)

Readdress Task (Change Hostname or IP Addresses for One or More Nodes in a Cluster)

- Cisco Unified Communications Manager Releases Supported: 10.5(1)
- Cisco Unified Presence Releases Supported: Not applicable
- Cisco Unified Communications Manager IM and Presence Service Releases Supported: Not Supported
- Cisco Unified Contact Center Express Releases Supported: 10.5(1)
- Cisco Unity Connection Releases Supported: 10.5(1)

Note The supported releases do not include the Engineering Special (ES)/ Service Update (SU) versions. To upgrade or migrate to ES/SU versions, see the release notes of the corresponding product, such as IM and Presence, Cisco Unified Communications Manager, and Unity.

Supported ESXi Server Versions

Following table lists the supported ESXi server versions for a Cisco Prime Collaboration Deployment virtual machine (VM). This VM integrates through the VMware APIs with a virtualization host that is running VMs for Cisco Unified Communications Manager or other applications. The table also lists the compatible versions of VMware vSphere ESXi server for a Cisco Prime Collaboration Deployment virtual machine that runs on a virtualization host.

Supported Version of VMware vSphere ESXi on Host having VM of Cisco Unified Communications Manager or Another Application	Cisco Prime Collaboration Deployment Version Compatibility for VMware APIs
5.1 and older	No
5.5	Yes
6.0	No

Upgrade and Migration Paths

You can upgrade or migrate Cisco Unified Communications Manager, IM and Presence Service, Cisco Unified Contact Center Express, and Cisco Unity Connection from earlier versions to virtual 10.5(2) version. Prime Collaboration Deployment (PCD) 10.5(2) is one of the ways to maintain or upgrade these products.

Following table lists the upgrade and migration paths with both old and new ways:

Table 1: Upgrade and Migration Paths

Upgrade Path	Migrate MCS to VM		Migrate VM to new VM		Upgrade in existing VM	
Release	**Old Way (Legacy Linux to Linux (L2)/Refresh Upgrade (RU)+ Disaster Recovery System (DRS)**	**New Way (PCD M1 Migration)**	**Old Way (Legacy L2/RU+(DRS)**	**New Way (PCD M1 Migration)**	**Old Way(Legacy L2/RU)**	**New Way(PCD Refresh Upgrade (RU)/Linux to Linux (L2)**

<table>
<tr><th>Upgrade Path</th><th colspan="2">Migrate MCS to VM</th><th colspan="2">Migrate VM to new VM</th><th colspan="2">Upgrade in existing VM</th></tr>
<tr><td>4.x
5.1(2)</td><td rowspan="8">Multi-step:
1 Migrate from MCS L2/RU to 8.0(3)+ virtual machine.
2 On MCS, back up DRS.
3 On MCS, restore DRS.
4 Reinstall 8.0(3)+ virtual machine.
5 Migrate the virtual machine from legacy RU to 10.5(2).</td><td>Multi hop:
1 Migrate the legacy W1/L2 to 6.1(5), 7.1(3), or 7.1(5).
2 Migrate PCD M1 to 10.5(2).</td><td colspan="2" rowspan="8">Not applicable, because these releases do not support virtualization.
VM-jump option is not available for these releases. This option is available only to 9.1(2) and not to 10.x.</td><td colspan="2" rowspan="8">Not applicable, because these releases do not support virtualization.
VM-jump option is not available for these releases. This option is available only to 9.1(2) and not to 10.x.</td></tr>
<tr><td>5.1(3)
6.0(x)
6.1(1)
6.1(2)
6.1(3)
6.1(4)</td><td>Two hop:
1 Migrate the legacy L2 to 6.1(5), 7.1(3), or 7.1(5).
2 Migrate PCD M1 to 10.5(2).</td></tr>
<tr><td>6.1(5)</td><td>Single Hop:
Migrate PCD M1 to 10.5(2)</td></tr>
<tr><td>7.0(1)
7.1(2)
7.1(4)</td><td>Two hop:
1 Migrate legacy L2 to 7.1(3) or 7.1(5).
2 Migrate PCD M1 to 10.5(2).</td></tr>
<tr><td>7.1(3)
7.1(5)
8.0(1)</td><td rowspan="3">Single Hop:
Migrate PCD M1 to 10.5(2).</td></tr>
<tr><td>8.0(2)</td></tr>
<tr><td>8.0(3)
8.5(1)</td></tr>
<tr><td>8.6(1)</td><td></td><td>Single hop:
Migrate PCD M1 to 10.5(2).</td><td>Single Hop:
Upgrade PCD RU to 10.5(2).</td><td>Two Hop:
1 Upgrade L2 to 8.6(2) and above.
2 Upgrade PCD RU to 10.5(2).</td></tr>
</table>

Upgrade Path	Migrate MCS to VM	Migrate VM to new VM	Upgrade in existing VM	
8.6(2) 9.0(1) 9.1(1) 9.1(2)	Multi-step: **1** MCS: DRS backup **2** VM: reinstall 8.0(3)+ **3** VM: DRS restore **4** VM: legacy RU to 10.5	Multi-step: **1** On old VM, back up DRS. **2** On new VM, reinstall 8.0(2+), 8.5, 8.6, 9.x, or 10.x. **3** On new VM, restore DRS. **4** On new VM, perform one of the following tasks: migrate L2 10.x to 10.5(2), or, migrate RU 8.x or 9.x to 10.5(2).		Single hop: Upgrade PCD RU to 10.5(2).
10.0(1) 10.5(1)	Not applicable, because Release 10.x supports only virtualization.		Single hop: Upgrade PCD L2 to 10.5(2)	Single Hop: Upgrade PCD L2 to 10.5(2)

Cluster Inventory

You must add a cluster to the Cisco Prime Collaboration Deployment inventory before you can use it in a task. The Discover Cluster feature is used to add existing clusters to the inventory. To create a new cluster by migrating an old cluster to new virtual machines, click **Define Migration Destination Cluster**. To install a new cluster, click **Define New UC Cluster**.

Discover a Cluster

The Discover Cluster feature allows Cisco Prime Collaboration Deployment to contact servers that are already running Unified Communications applications, and add that cluster information into the Cisco Prime Collaboration Deployment inventory.

When the Discover Cluster operation is performed, the Cisco Prime Collaboration Deployment server contacts the publisher of the cluster and retrieves the cluster information. It then contacts each server individually, installs a Cisco Options Package (COP) file on the server to retrieve configuration information, and collects information about the hostname, IP, product type, and both active and inactive versions for that server.

Note Discovering a cluster may take a few minutes. If you cancel the discovery before it is complete, you will have to restart the discovery procedure at another time. After the discovery is finished, you will see the information for each node in the cluster listed on the **Cluster Inventory** window.

Note To see which applications are supported, see Supported Releases, on page 2.

Note If a cluster includes Unified Communications Manager and Cisco Unified Presence (or Unified Communications Manager and IM and Presence Service) servers, the Cluster discovery will discover the Cisco Unified Presence or IM and Presence Service nodes as part of the Unified Communications Manager cluster. When a cluster is discovered, the product type and version of each node is displayed on the **Clusters** window.

Procedure

Step 1 Select **Inventory** > **Clusters** from the menu of the Cisco Prime Collaboration Deployment application.

Step 2 To discover existing clusters, click **Discover Cluster**.

Step 3 The Discover Cluster wizard appears. Under Step 1 of the wizard, enter the following required information:

a) Cluster Nickname (this is a name you create for this cluster)

b) Publisher Hostname/IP Address

Note For a cluster that has both Unified Communications Manager and IM and Presence Service nodes, enter the Unified Communications Manager publisher hostname or IP address.

c) OS Admin Username

d) OS Admin Password

Step 4 Click **Next**.

Important During discovery, a COP file (`ciscocm.ucmap_platformconfig.cop`) is installed automatically on the active partition of all nodes in the cluster. This COP file is used strictly for the cluster discovery process and does not otherwise affect the Unified Communications Manager.

Step 5 Under Step 2 of the wizard, Cisco Prime Collaboration Deployment generates a list of cluster nodes from the publisher's server inventory. This process may take several minutes to complete. After the list is generated, a message appears indicating that the cluster discovery process is complete.

Step 6 Click **Next**.

Step 7 (Optional) To assign functions to each of the cluster nodes, click **Assign Functions**.

Step 8 From the **Assign Functions** dialog box, select the node that you want to modify by clicking **Previous** or **Next**. The hostname field indicates which node you selected. For each node, you can assign a function or multiple functions, and add notes for the function assignment in the **Notes** field.

Note When you assign functions, you define the functions of each node, but this does not affect the services that will be activated. The assigned-functions information can, however, be used to determine the default sequencing of tasks.

Step 9 After you assign the functions that you want, click **OK**.

Step 10 Click **Finish**.
The cluster appears on the **Clusters** window, listing the cluster name, product and version, and a cluster type of "Discovered." Discovery Status should show "Successful."

Add an ESXi Host Server

Important When you add an ESXi host into Cisco Prime Collaboration Deployment, you mount the Cisco Prime Collaboration Deployment server as a network file system (NFS) mount on that host. In the future, if you are going to remove your Cisco Prime Collaboration Deployment machine, you should first delete the ESXi host from the Cisco Prime Collaboration Deployment so that it does not cause a stale NFS mount on that host.

Note When you shut down a Cisco Prime Collaboration Deployment server, we recommend that you use the **utils system shutdown** CLI command.

Note Make sure that the host with the Cisco Prime Collaboration Deployment VM and the host with the application VMs use the required Virtualization Software License. See Virtualization Software License Types.

Procedure

Step 1 Select **Inventory** > **ESXi Hosts** from the menu of the Cisco Prime Collaboration Deployment application.

Step 2 Click **Add ESXi Host**.

Step 3 The **Add Host Server** dialog box appears. Enter the following information:

a) Hostname/IP Address
b) Root login
c) Root password

Step 4 Click **OK** to add the ESXi host.

Create a Migration Cluster

Before You Begin

You must create a migration cluster. To do so, first discover the existing cluster you wish to migrate from (see Discover a Cluster, on page 7). Then, use this procedure to define a migration cluster.

Note After the migration cluster has been defined, go to Migration Task, on page 13 to define when and how to perform the migration.

Procedure

Step 1 Select **Inventory** > **Cluster**.

Step 2 Click **Define Migration Destination Cluster** to start the Configure Destination Cluster wizard.

Step 3 In Step 1, Specify Clusters, of the Configure Destination Cluster wizard, select the source UC cluster from the drop-down list. Enter a name in the Destination Cluster Name field and select the appropriate Destination Network Settings option:

- To keep you network options, select the **Use the source node network settings for all destination nodes** radio button.
- If you do not wish to keep you network options, select the **Enter new network settings for one or more destination nodes** radio button.

Step 4 Click **Next**.

Step 5 Step 2 of the wizard opens. Click **Assign Destination Cluster Nodes** to open the Configure Destination Cluster window.

Step 6 On this page, configure the destination cluster by selecting a destination VM for each source node. Source Node information (hostname) appears at the top of the page and the available virtual machines are shown at the bottom of the page. Select a VM by clicking the radio button that is associated with the VM name.

If you wish to keep the network information the same as the source node information (this is the default), leave the Network entry choice as **Use Source Node Network Settings**

If you wish to enter new network information for this node, select **Enter New network settings** in the "Network" box entry.

To change the IP address, enter the following:

1. New IP address
2. New hostname
3. Mask
4. Gateway

After the information for this node is entered, click **Next Node** at the bottom of the screen to go to the next node in the cluster. If there is more than one node in the cluster, you must repeat these steps (assigning VM, and entering new IP/hostname settings, if needed) for each node in the source cluster.

Note Cisco Prime Collaboration Deployment allows you to change the network information for specific nodes on the cluster, or change all of them.

Note If DHCP is in use on your source node, the destination node will also be configured to use DHCP, and you will not have the option of changing your network settings in this wizard.

Step 7 When all nodes are assigned a destination VM, click **Done** to close the Configure Destination Cluster window. Click **Next** to move to Step 3 of the wizard.

Step 8 Step 3 of the wizard, Configure NTP/SMTP settings, opens. This window is auto-populated with the information from the source node. Enter the Network Time Protocol (NTP) server settings to be applied to the migration nodes when the migration task runs. Enter the SMTP server settings (optional). Click **Next**.

Important In a proxy TFTP setup, if a network migration is performed "off-cluster", you need to manually configure the new hostname and IP address of that off-cluster in the proxy TFTP. Off-cluster refers to situations where TFTP functionality is performed by a proxy that is not part of that specific Unified Communications Manager cluster. During a migration, that TFTP server (that is not part of the cluster) is not modified in any way. If you want to change the hostname/IP address of that server, it must be done as a separate process (and not with Cisco Prime Collaboration Deployment).

Step 9 Step 4 of the Define Migration Destination wizard, Configure DNS Settings, opens. You can configure DNS for the migration cluster nodes. To change the DNS setting for a node, select the node or nodes from the table and click **Assign DNS Settings**. Enter the primary and secondary DNS, and then click **OK** to apply the changes.

Important You cannot change the domain name during a migration.

Step 10 Click **Finish** to close the wizard and save your changes.
A row is added to the clusters table to reflect the new migration cluster that you created.

Add a New Cluster for a Fresh Install

Procedure

Step 1 Select **Inventory** > **Clusters** from the menu of the Cisco Prime Collaboration Deployment application.

Step 2 Click **Define New UC Cluster**.

Step 3 The Define Cluster wizard appears. Under Step 1 of the wizard, enter the Cluster name. Click **Next**.

Step 4 Step 2 of the Add Cluster wizard allows you to add nodes to your cluster. Begin by clicking **Add Node** at the top of the Cluster Name table.

Step 5 The Add Node dialog box appears. The dialog box contains a table that lists all available VMs, sorted by name and by host. At the top of the page, fill in the Network settings for this Node. In the middle of the page, choose the Functions for the node, and near the bottom, choose a VM for this node. Select the VM you wish to add and then enter the following information in the sections below the VM table:

a) Under Network, select either **Use DHCP with reservations** or **Static IP Address**. If you select the DHCP with reservations option, you must enter the IP address you have a reservation for on your DHCP server

(associated with the MAC address for that VM) in addition to the hostname. If you select Static IP Address, you must enter the IP Address and subnets.
If you are adding a UCCX server, do not use DHCP for network settings.

b) Under Functions, assign specific functions to your VM by checking the applicable check boxes. You must check the **Publisher** function for at least one node in the cluster being defined, for each application type. You can also add a note about the function or functions assigned in the Notes field below.

c) Under Virtual Machines, choose the VM for this node. VMs to be used for fresh install clusters should be new VMs that are in the powered off state. Do not install over an existing running Unified Communications Manager node, this must be a fresh VM created with the appropriate OVA for the application you will be installing.

Step 6 Click **OK**.

Step 7 The VM you added is now listed in the Cluster Name table. (To add more nodes to the cluster, repeat steps 4 through 6 until all nodes are added.) After all nodes are added to the Cluster Node table, click **Next**.

Step 8 The Configure Cluster Wide Settings page appears. Enter the OS Administration Credentials, Application Credentials, Security Password, SMTP Settings, and Certificate Information for this cluster. Click **Next**.

Note The certificate attributes consist of the following:

- Country
- Organization
- Organizational Unit
- State/Province
- Time Zone

Step 9 The Configure DNS Settings screen appears. DNS settings are optional. If you wish to add a DNS setting for a node, select the node and click **Assign DNS Settings**.
The Cisco Unified Contact Center Express application must use DNS.

Step 10 The Configure NTP Settings screen appears. You must enter at least one NTP server. If you are not using DNS, you must enter an IP address. If you are using DNS, you can enter an FQDN.

Note We recommend that you define at least two NTP servers.

Click **Next**.

Step 11 The Configure NIC Settings page appears. This step is optional. To use the default value of 1500, click **Next** to continue. Or, if you wish to change the settings, choose the server, and enter an MTU size between 552 and 1500, and click **Apply to Selected**. Click **Next** after you configure the NIC settings.

Step 12 Choose a time zone for each node in the cluster. To choose the time zone, select the node and choose the desired time zone settings in the boxes at the top, and click the **Apply to Selected**.
When you finish setting time zones for all the nodes, click **Finish**.

Step 13 The new install cluster is listed on the Clusters screen, with a cluster type of "New Install." The cluster is defined but not yet created. When you are ready to install the cluster, create an install task. The install task uses the install cluster that you defined, and creates the cluster.

Task Management

After you add your clusters and ESXi hosts to the Cisco Prime Collaboration Development inventory, you can create tasks to manage your clusters. Each task has the following common features:

- Each task is applied to a single cluster.
- The default sequence for each task (for example, what servers are affected and when) is applied based on the server functions you defined.
- The sequence of each task can be customized to fit your needs.
- Each task can be scheduled to start immediately or at a later date.
- Tasks can also be created without a specific start time. You can then manually start the task through the Monitoring page at the appropriate time.

Migration, install, and upgrade tasks require you to select one or more Cisco Option Packages (COP) or ISO files. You must download these files from Cisco.com and upload them to the Cisco Prime Collaboration Deployment server before you create the task. You can use any SFTP client to upload the files using the "adminsftp" account and the OS Administation password. Upload migration and .iso install files into the `/fresh_install` directory, and place upgrade .iso files or .cop files to be installed on an existing server in the `/upgrade` directory.

Note Migration and install .iso files must be bootable.

Migration Task

Before You Begin

To perform cluster migration, the destination virtual machine must be ready for installation before you create the migration task. Be sure that the following steps are completed:

1. **VMware—**Deploy the hardware for the new cluster and install ESXi.

Note Make sure that the host with the Cisco Prime Collaboration Deployment VM and the host with the application VMs use the required Virtualization Software License. See Virtualization Software License Types.

2. **ISO file—**Download the recommended OVA and ISO images for the target release, and use SFTP to send the ISO file to the Cisco Prime Collaboration Deployment server, `/fresh_install` directory.
3. **VMware—**Deploy the Cisco-recommended OVA to create the VMs for the destination nodes. Create the appropriate number of target virtual machines on your ESXi hosts (one new virtual machine for each server in the existing cluster) using the Cisco OVAs that you downloaded in Step 2. Configure the network settings on new VMs.

4 **Cisco Prime Collaboration Deployment GUI—**Add the ESXi Hosts that contain your virtual machines to the Cisco Prime Collaboration Deployment inventory. For information about adding an ESXi host to Cisco Prime Collaboration Deployment, see Add an ESXi Host Server, on page 9.

5 **Cisco Prime Collaboration Deployment GUI—**Ensure that you performed a cluster discovery for the existing cluster (source cluster) so that it appears in the Cluster Inventory. For information about cluster discovery, see Discover a Cluster.

6 **Cisco Prime Collaboration Deployment GUI—**Create the migration cluster (**Inventory** > **Clusters**) to define the mapping between MCS source nodes and target virtual machines.

Important When the migration cluster is created, you must indiciate whether all destination nodes will maintain the same hostname or IP address, or whether some of these addresses will change.

- Using the source node settings for all destination nodes option is called a simple migration. See the migration flow chart for more information.
- Entering new network settings for one or more destination nodes is called a network migration. See the migration flow chart for more information.

7 **Cisco Prime Collaboration Deployment GUI—**Setup Email Notification (Optional)

- Navigate to **Administration** > **Email Notification**.
- When email notification is set up, the Cisco Prime Collaboration Deployment server emails the error conditions that may occur during the migration task.

8 **Cisco Prime Collaboration Deployment GUI—**Create the migration task.

9 Install the `ciscocm.migrate_export_10_0_1.sh_v1.1.cop.sgn` cop file on both IM and Presence publisher and subscriber nodes.

Special Considerations

- If you are migrating a cluster that is security enabled, see CTL Update for special instructions. If you are performing a migration with network migration (where one or more hostnames or IP addresses change between the source and destination nodes), update the IP addresses or hostnames of destination nodes in your DNS server before you begin the migration task.

Create a Migration Task

Follow these steps to create or edit a new migration task to simultaneously upgrade and migrate a cluster to new virtual machines.

Procedure

Step 1 Select **Task** > **Migrate** from the main menu.

Step 2 Click the **Add Migration Task**. The Add Migration Task wizard appears.

Step 3 From the **Source UC Cluster** drop-down list, select the cluster on which the nodes to be migrated from are located.

Step 4 From the **Destination Cluster** drop-down list, select the destination cluster or migration map. The migration maps are associated with the source cluster you have selected. Click **Next**.

Step 5 In the **Choose Migration Files** section, choose the ISO file you wish to install on the destination cluster by clicking **Browse**. The **Choose a Migration File** window opens. Select the ISO file from the list and click **OK**.

Important The ISO file is visible here only if it was placed in the directory under `/fresh_install`, uploaded through a standard SFTP client (Admin Name: adminsftp, Password: Administration password). For more information, see the task management information at the beginning of this section.

Step 6 Click **Next**.

Step 7 In the **Set Start Time** section, choose between scheduling a particular start time, starting the task immediately, or starting the task manually at some point in the future. Click **Next**.

Step 8 In the **Specify Migration Procedure** section, you will see the default sequence for the migration task. If you wish, you can change the sequence of steps in the migration procedure. (For example, the default is to install each subscriber individually. You might want to change this to install more than one subscriber in a step.) You have the following options:

Option	Description
Pencil icon	Edit a step.
Page icon	Add a new step after the current step.
X mark	Delete the current step. If you remove all the nodes from a step, the step is removed by default. You cannot remove a step that contains the Publisher node.
Up arrow	Move the step up to be performed earlier.
Down arrow	Move the step down to be performed later.

- The Pencil icon opens up an **Edit Step** window. Add nodes to be migrated in this step from the list of available nodes. The available nodes are the ones that you chose for migration.
- The step to which each node is assigned displays next to the node. If a node is not assigned to any step, it shows as unassigned.
- When you assign all the nodes to a step, a default sequencing is available.

Important You cannot proceed to the next step until you assign all the nodes.

- The **Pause task after step completes** option pauses the task after completion of this step. You must manually start the next step to complete the task.

For more information about sequencing tasks, see the task management information at the beginning of this section.

Step 9 Click **Next**.

Step 10 In the **Review** section, you can review the selections that you made. You can also add notes to your new migration task.

Step 11 If there are no changes required, click **Finish** to add your new migration task.

Step 12 The new migration task appears in the table on the Migrate screen.

Important If you are performing a migration with network migration, the sequence automatically inserts a "Forced Pause" step into the sequence after all the servers are installed to allow the user to perform procedures. See the "Run a Migration Task" section for details on when manual procedures are needed. The "Forced Pause" step cannot be edited and moved, and it has no nodes assigned. This step is inserted before the source node shutdown step, because if CTL Updates or certificate management steps are required, these steps must be completed before the source node is shut down.

Run a Migration Task

If you scheduled the task to start at a later date, or if you chose Manual Start, then the task is listed in the task list, but has not started yet. In this case, a validation button will be associated with the task. Click **Validate** to check the task before it runs. If there are any problems with the task (such as a missing ISO file, or VMs not in Off state), the validation will alert you, so the issues can be fixed before the task starts.

For a task that was scheduled to start, you can click the Start button to begin the task.

While the migration task is running, depending on the type of migration task, some user operations might be needed. For example, if you are performing a "migration with network migration," the sequence automatically inserts a "Forced Pause" into the sequence after all the servers have been installed. This will cause the migration task to pause after all the new servers are installed but before any of the source machines are shut down.

Consult the table below and the applicable Migration Procedure flow chart (see the "Migration Procedure Flow Charts" section) to determine if any user interaction will be needed during the migration task.

Important When the migration cluster is created, you must indicate whether all destination nodes will keep the same hostname or IP address, or if some of these addresses will be changing.

- Using the source node settings for the all destination nodes option is referred to as a "simple migration" in the "Migration Procedure Flow Charts" section.
- Entering new network settings for one or more destination nodes option is referred as "network migration" in the "Migration Procedure Flow Charts" section.

Unified CM source cluster - from Release	Simple Migration or Network Migration	Unified CM source cluster - (secure or nonsecure)	User procedures to be performed during migration
6.1(5), 7.1(3), 7.1(5)	Simple migration	Secure	No steps are required during migration
6.1(5), 7.1(3), 7.1(5)	Simple migration	Nonsecure	No steps are required during migration
6.1(5), 7.1(3), 7.1(5)	Network migration	Secure	When migration task reaches the Forced Pause step, click the Resume button.
6.1(5), 7.1(3), 7.1(5)	Network migration	Nonsecure	When migration task reaches the Forced Pause step, click the Resume button.
8.x, 9.x, and 10.x	Simple migration	Secure	No steps required during migration
8.x, 9.x, and 10.x	Simple migration	Nonsecure	No steps required during migration
8.x, 9.x, and 10.x	Network migration	Secure	When the migration task reaches the Forced Paused step, perform the following steps: **1** CTL Update **2** Bulk Certificate Management **3** Resume the task on Cisco Prime Collaboration Deployment GUI.
8.x, 9.x, and 10.x	Network migration	Nonsecure	When the migration task reaches the Forced Paused step, perform the following steps: **1** Bulk Certificate Management **2** Resume the task on Cisco Prime Collaboration Deployment GUI.

Postmigration Tasks for Cisco Unified Communication Manager Nodes in the Cluster

“After the migration task runs successfully, if a migration task with network migration was performed, some additional steps are required. (No postmigration tasks are required if a simple migration was performed.) ” Consult the following table and the applicable migration Use Case flowchart to determine whether any user tasks must be performed after the migration task is successful.

Unified CM source cluster - from Release	Simple Migration or Network Migration	Unified CM source cluster (Secure or Non-secure)	User procedures to be performed after migration
6.1(5), 7.1(3), 7.1(5)	Network migration	Secure	**1** Perform CTL Update **2** Restart Services on Unified Communications Manager **3** Change TFTP Server IP Address **4** Verify Phone Registration
	Network migration	Nonsecure	**1** Change TFTP Server IP Address **2** Verify Phone Registration
8.x, 9.x, and 10.x	Network migration	Secure	**1** Change TFTP Server IP Address **2** Verify Phone Registration
	Network migration	Nonsecure	**1** Change TFTP Server IP Address **2** Verify Phone Registration

Post Migration Tasks for IM and Presence Service

If the migrated cluster contains IM and Presence Service nodes, and you are performing a network migration, these postinstallation tasks must be performed for any pre-Release 10.x IM and Presence Service cluster.

Procedure

	Command or Action	Purpose
Step 1	Configure certificates and certificate trust stores.	If the old cluster had CA-signed certificates in any of the component trust stores, be aware that the components contain self-signed certificates on the migrated Release 10.x cluster. Also, the root and intermediate certificates of the Certificate Authority are not preserved in their respective trust stores. You should sign the certificates with the old Certificate Authority, similar to how it would have been done initially. For more information, see the IM and Presence Service OS platform chapter from the *Cisco Unified Communications Operating System Administration Guide*.
Step 2	Configure intercluster peers.	If the old cluster had an intercluster peer relationship, you need to delete the configuration from all peer clusters. Once this is done, add the appropriate interclustering based on the network details of the new cluster. For example, Cluster A, Cluster B, and Cluster C are all intercluster peers. If Cluster A was migrated, then you should delete all interclustering configuration from the old Cluster A and likewise Cluster A from Cluster B and Cluster C and then add interclustering with the network details of the new Cluster A. You do not need to configure anything from the new Cluster A since the migration brings over

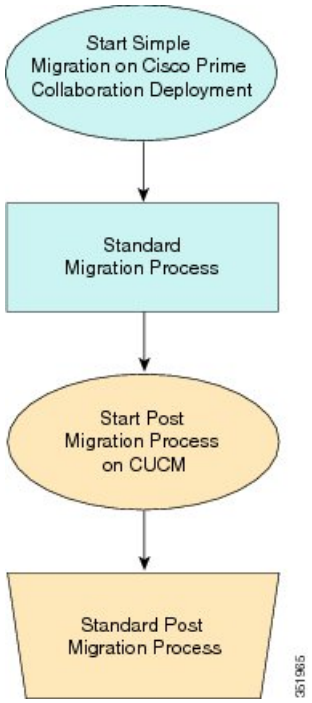
	Command or Action	Purpose
		the old data. For more information, see *Deployment Guide for IM and Presence Service on Cisco Unified Communications Manager.*
Step 3	Re-publish SIP Federation.	If the old cluster was front-ending SIP Interdomain with Microsoft OCS/Lync/AOL or SIP Intradomain federation with OCS/Lync, then your enterprise will need to re-publish the DNS-SRV of your federating domain to reflect the new network details. If the far side has SIP static routes configured instead of DNS-SRV based routing, then the SIP static routes need to be changed to reflect the new network address. Similarly, all intermediate network elements (including ASA or any other similar components that route or inspect traffic to the old cluster from the external federation entities) need to be re-configured for successful routing to the new cluster. For Interdomain configuration, see *Interdomain Federation for IM and Presence Service on Cisco Unified Communications Manager*. For Intradomain federation, see *Partitioned Intradomain Federation for IM and Presence Service on Cisco Unified Communications Manager*.
Step 4	Re-publish XMPP Federation.	If the old cluster was front-ending XMPP Interdomain federation to any external XMPP servers, then your enterprise will need to republish your federating domain's DNS-SRV records to reflect the new network details. Refer to *Interdomain Federation for IM and Presence Service on Cisco Unified Communications Manager*.
Step 5	Configure Cisco Jabber/Cisco Unified Personal Communicator connectivity.	Jabber or Unified Personal Communicator caches the hostname information from the old cluster and does not have new hostname information unless you are able to push the configuration to the desktop of the user, or that user manually enters one of the node names. A fail safe approach for users that are unassigned from the old cluster, and as a result are unable to log in, involves the user manually entering the hostname or IP address of one of the nodes in the new cluster (of which they were informed of prior to migration). In this scenario, the user's client finds the right home node by way of redirected login.

Migration Procedure Flow Charts

Use the following task flows as a guide to perform migration tasks.

Simple Migration

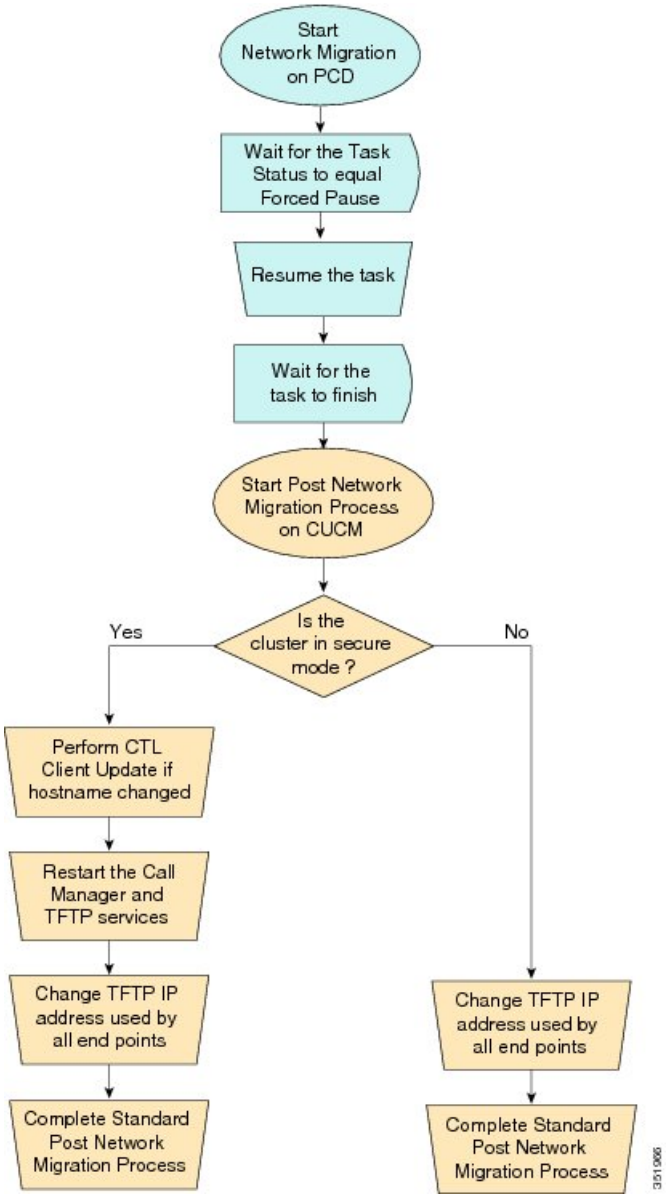
Figure 1: Flow Chart for Simple Migration



Note Cisco Prime Collaboration Deployment does not support migration of Business Edition 5000 Appliance running on MCS 7828H3.

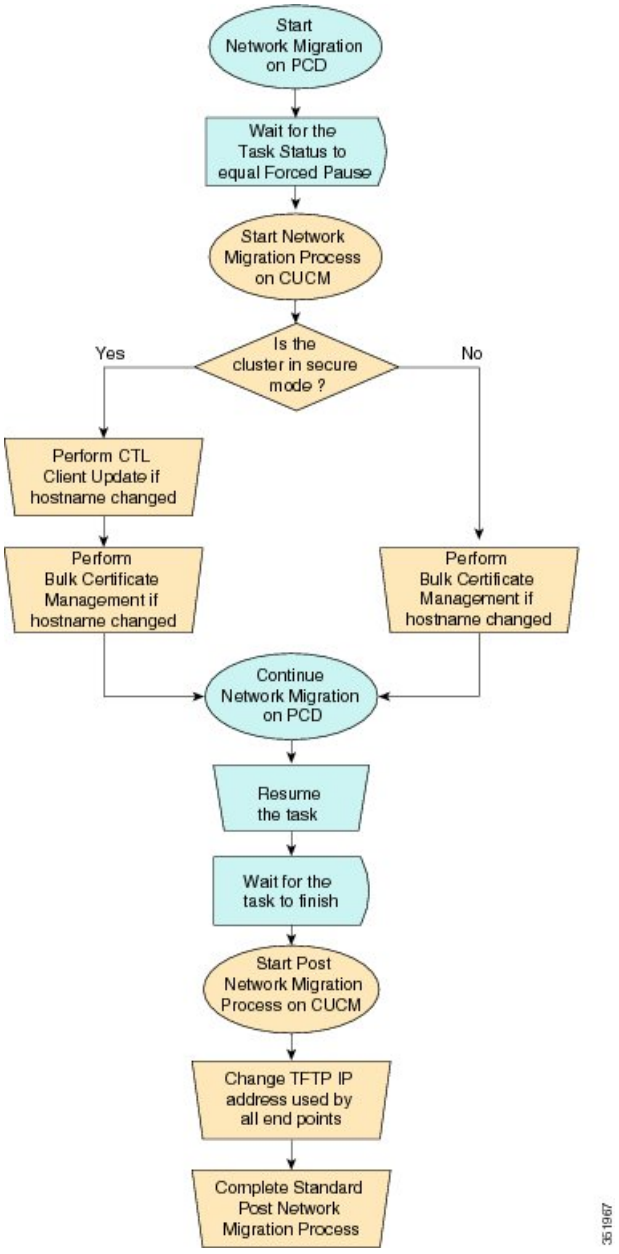
Pre Release 8.0.1 Unified CM Network Migration

Figure 2: Flow Chart for Pre Release 8.0.1 Unified Network Migration



Release 8.0.1 And Later Unified CM Network Migration

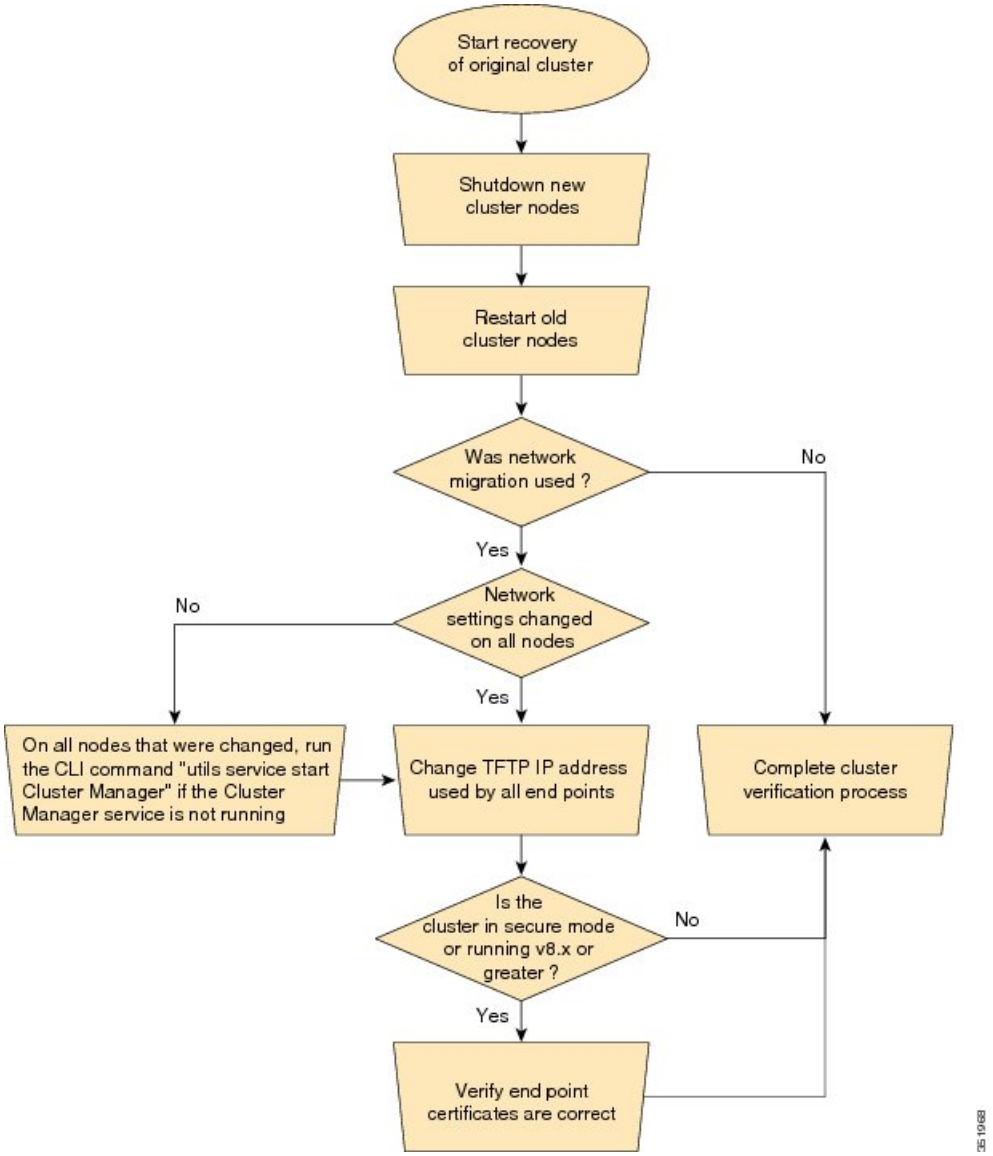
Figure 3: Flow Chart for Release 8.0.1 and later Unified CM Network Migration



Recovery of Original Cluster

Use the following procedure when a cluster fails to migrate successfully, and some nodes are installed on the new cluster.

Figure 4: Flow Chart for Recovery of Original Cluster



Check the Status of the Cluster Manager Service on All Source Nodes

The steps below are used if a migration task fails when there were network migration changes on one or more nodes. Following the failure, you may need to perform some steps to get the old cluster nodes running again.

See the flow chart above for all steps to be followed. Below are detailed steps for running the CLI command to restart cluster manager on old nodes.

Perform the following steps manually on all subscriber nodes that were supposed to have network changes (for example, hostname, IP address, or both) after all old cluster nodes are up and running.

Use cases that may require the restart of Cluster manager on source nodes are:

Use Case 1

No hostname and no IP address change on Publisher, host name change on Subscriber

The user is required to check Cluster Manager service on source Subscriber

Use Case 2

No hostname and no IP address change on Publisher, IP address change on Subscriber

The user is required to check Cluster Manager service on source Subscriber

Use Case 3

No hostname and no IP address change on Publisher, hostname and IP address change on Subscriber

The user is required to check Cluster Manager service on source Subscriber

Use Case 4

No hostname change on Publisher, IP address change on Publisher, no hostname and no IP Subscriber

The user is required to check Cluster Manager service on source Publisher

Procedure

Step 1 Enter the following CLI command at the command prompt: **utils service list**. The following output appears:

```
Requesting service status, please wait...
System SSH [STARTED]
Cluster Manager [STOPPED]
```

Step 2 If Cluster Manager Service status is STOPPED, type the following command to start the service on the old subscriber node:
utils service start Cluster Manager

Upgrade Task

Create an Upgrade Task

Use the upgrade task to perform software version upgrades on a cluster. You can also use an upgrade task to install .cop files on all or a subset of servers in a cluster.

To know which applications and releases are supported for upgrade tasks, see Supported Releases.

Note Cisco Prime Collaboration Deployment uses the standard upgrade process, and therefore the standard validation rules will be applied. For more information, see the application-specific documentation.

Use the Add Upgrade Task wizard to create and edit upgrade tasks.

To create or edit a new upgrade task to automatically run on one or more clusters at scheduled times, follow these steps.

Before You Begin

1. Perform a cluster discovery for the cluster that you wish to upgrade, so it appears in the Cluster Inventory. See Discover a Cluster.
2. Download the ISO files you wish to upgrade to, and use SFTP to send this file to Cisco Prime Collaboration Deployment in the upgrade folder. If you are using the upgrade task to install a .cop file, upload the .cop file to the /upgrade folder using an SFTP client.
3. For the application servers in the cluster to be upgraded, ensure that the Platform Administrative Web Service is active on that server.

Procedure

Step 1 Select **Tasks** > **Upgrade** from the main menu.

Step 2 Click **Add Upgrade Task**.

Step 3 From the **Cluster** drop-down list, select the cluster on which the nodes to be upgraded are located.

Step 4 From the **Products** drop-down list, select the products to be upgraded.

Step 5 Select the nodes that are part of the upgrade from the list of nodes.

Step 6 Click **Next**.

Note The **Next** button is dimmed if no nodes are selected.

Step 7 Click the respective **Browse** buttons to select the upgrade files from the file server.

Note The option to select upgrade files is available only for the selected product types and applications that are currently supported in the cluster.

Step 8 Select a valid upgrade file or files.

Note Click the **Show** drop-down list to see all the available upgrade files on the file server.

Note To create an upgrade task, while selecting ISO files, ensure that the ISO files are common across all the required SFTP servers which are associated to cluster nodes. If the ISO files are not common to all the required SFTP servers which are associated to cluster nodes, the valid files do not appear even though they are valid for upgrade. To view all the ISO files, from the **Show** drop-down list, choose **All**.

Step 9 Click **Choose File**.

Step 10 Click **Next**.

Note The **Next** button is dimmed if no valid upgrade files are selected.

Step 11 Select the date and time when you want the upgrade task to begin. You have the following options to schedule upgrades:

- Select **Schedule for a specific time** to enter the date and time when you want the upgrade task to start. Any start time that you set is based on the time zone of the Cisco Prime Collaboration Deployment server as denoted by the time zone that is displayed with this option.
  Note If you schedule a task for a few minutes in the future, but do not save it until that scheduled time passes, then the task will start automatically.

- Select **Start task manually** to keep the task in a manual start.
  Note If you choose to start the task manually, a task is created, but will not start until you click the **Start task** button on the Monitoring page, or the **Start task** link on the task page.

- Select **Start task immediately upon completion of this wizard** to start the task immediately after you click **Finish**.

- If you want the system to automatically switch to the new version, choose the option **Upgrade Option to Automatically Switch to New Version after Successful Upgrade**. Otherwise, the server, or servers, will be upgraded but remain on the current version of software. In that case, the user can schedule a switch version task to switch over to the upgraded version of software.

Step 12 Click **Next**.

Step 13 Specify the sequence of steps to complete the task. You have the following options:

Option	Description
Pencil icon	Edit a step.
Page icon	Add a new step after the current step.
X mark	Delete the current step. If you remove all the nodes from a step, the step is removed by default. You cannot remove a step that contains the Publisher node.
Up arrow	Move the step up to be performed earlier.
Down arrow	Move the step down to be performed later.

- The Pencil icon opens up an **Edit Step** window. Add nodes to be upgraded in this step from the list of available nodes. The available nodes are the ones that you chose for an upgrade.

- The step to which each node is assigned displays next to the node. If a node is not assigned to any step, it shows as unassigned.

- When you assign all the nodes to a step, a default sequencing is available.
  Important You cannot proceed to next step until you assign all the nodes.

- The **Pause task after step completes** option pauses the task after completion of this step. You must manually start the next step to complete the task.

Step 14 Click **OK**.

Step 15 Click **Next**.

Note The **Next** button remains enabled, which allows the user to click to be informed of any configuration errors.

Step 16 See the **Review** section to verify the details of the task you created. You can add notes for the task if required. The notes are saved with the task and are visible if the task is edited before completion.

Step 17 Click **Finish** to schedule the task.

Reuse Sequence from Previous Task

The Reuse Sequence from Previous Task feature uses a previously defined task sequence in the task you are currently creating. This feature is useful for upgrade, restart, switch version, migration, and readdress tasks. It allows you to reuse a previously configured task sequence as opposed to having to rescript the sequence from scratch.

During task creation, the task wizard progresses to the sequence pane where a user can configure the ordering and pause characteristics. If there is a task in the system of similar type, the sequence from that task is presented as the default sequence.

In this case, a check box labeled **Use Last Configured Run Sequence** is visible just above the sequence table. You can check the check box to use the sequence from the previous task or leave the check box unchecked to use the default sequence that the system generates.

To be considered a task of similar type, the selected cluster, task type, and nodes in the task must match exactly. If multiple tasks meet the similar type criteria, the most recently created task is used and its sequence is presented as the default to the user.

In the case of an upgrade task, there is an additional requirement. The type of installation must be either ISO based or COP based. The COP and ISO installations can be performed with different sequencing.

Switch Versions Task

Create a Switch Versions Task

Use the switch versions task to automatically switch one or more nodes in a cluster to the upgraded or inactive version.

Use the Switch Versions Task wizard to create and edit switch versions tasks.

To know which applications and releases are supported for upgrade tasks, see Supported Releases.

To create or edit a switch versions task to automatically switch one or more nodes in a cluster to the upgraded or inactive version at scheduled times, follow this procedure.

Note The Automatic Switch version option is not available on clusters which contain Unity Connection nodes. For clusters with Cisco Unity Connection, create an upgrade task and then create a switch version task to switch to the new version. You can create the switch version task after the upgrade task runs successfully.

Before You Begin

1 Perform a cluster discovery for the cluster on which you want to switch versions, so that the cluster appears in the Cluster inventory. See Discover a Cluster. If you previously used Cisco Prime Collaboration Deployment to upgrade or migrate a cluster, the cluster should already be in the inventory.

2 For each application server in the cluster, ensure that the Platform Administrative Web Service is active on that server.

Procedure

Step 1 Select **Tasks** > **Switch Versions** from the main menu.

Step 2 Click **Add Switch Versions Task**.

Step 3 From the **Cluster** drop-down list, select the cluster on which you want to switch the versions.

Step 4 Select the version to which you want all the nodes to be switched.

Note If there is more than one product, you can select the applicable versions of all the different products. You also can choose to switch the version for one product and to not switch the version for another product.

Step 5 Click **Next**.

Step 6 Select the date and time when you want the switch versions task to begin. You have the following options to schedule switch versions task:

- Select **Schedule for a specific time** to enter the date and time when you want the switch versions task to start. Any start time that you set is based on the time zone of the Cisco Prime Collaboration Deployment server as denoted by the time zone that is displayed with this option.

  Note If you schedule a task for a few minutes in the future, but do not save it until that scheduled time passes, then the task will start automatically.

- Select **Start task manually** to keep the task in a manual start.

- Select **Start task immediately upon completion of this wizard** to start the task immediately afer you click **Finish**.

  Note You can also start the task from the Monitoring page.

- If you want the server to automatically switch to the new version, check the check box next to **Automatically switch to new version after successful upgrade**.

Step 7 Click **Next**.

Step 8 Specify the sequence of steps to complete the task. You have the following options:

Option	Description
Pencil icon	Edit a step.
Page icon	Add a new step after the current step.
X mark	Delete the current step. If you remove all the nodes from a step, the step is removed by default. You cannot remove a step that contains the Publisher node.

Option	Description
Up arrow	Move the step up to be performed earlier.
Down arrow	Move the step down to be performed later.

- The Pencil icon opens up an **Edit Step** window. Add the nodes on which the versions must be switched in this step from the list of available nodes. The available nodes are the ones that you chose for the switch versions task.
- The step to which each node is assigned displays next to the node. If a node is not assigned to any step, it shows as unassigned.
- When you assign all the nodes to a step, a default sequencing is available.
  Important You cannot proceed to next step until you assign all the nodes.
- The **Pause task after step completes** option pauses the task after completion of this step. You must manually start the next step to complete the task.

Step 9 Click **OK**.

Step 10 Click **Next**.
Note The **Next** button remains enabled, which allows the user to click to be informed of any configuration errors.

Step 11 Use the **Review** section to verify the details of the task that you created. You can add notes for the task if required. The notes are saved with the task and are visible if the task is edited before completion.

Step 12 Click **Finish** to schedule the task.

Server Restart Task

To know the supported applications and releases for server restart tasks, see Supported Releases.

Create a Server Restart Task

Use the Restart Task wizard to create and edit restart tasks.

To create or edit a restart task to automatically restart one or more nodes in a cluster at scheduled times, follow this procedure.

Before You Begin

1. Perform a cluster discovery for the cluster you wish to restart, so that it appears in the Cluster inventory. See Discover a Cluster.
2. For each application server in the cluster, ensure that the Platform Administrative Web Service is active on that server.

Procedure

Step 1 Select **Tasks** > **Server Restart** from the main menu.

Step 2 Click **Add Server Restart Task**. The Add Restart Task wizard displays.

Step 3 From the **Clusters** drop-down list, select the cluster on which you want to restart the nodes.

Step 4 From the table, select the nodes to be restarted. If you do not select any nodes, you cannot continue.

Step 5 Click **Next**.

Step 6 Select the date and time when you want the server restart task to begin. You have the following options to schedule restart tasks:

- Select **Schedule for a specific time** to enter the date and time when you want the restart task to start. Any start time that you set is based on the time zone of the Cisco Prime Collaboration Deployment server.
  Note If you schedule a task for a few minutes in the future, but do not save it until that scheduled time passes, then the task will start automatically.
- Select **Start the task manually** to keep the task in a manual start.
- Select **Start task immediately upon completion of the wizard** to start the task immediately after you click **Finish**.
  Note You can also start the task from the Monitoring page.

Step 7 Click **Next**.

Step 8 Specify the sequence of steps to complete the task. You have the following options:

Option	Description
Pencil icon	Edit a step.
Page icon	Add a new step after the current step.
X mark	Delete the current step. If you remove all the nodes from a step, the step is removed by default. You cannot remove a step that contains the Publisher node.
Up arrow	Move the step up to be prepared earlier.
Down arrow	Move the step down to be prepared later.

- The Pencil icon opens up an **Edit Step** window. In this step, add nodes to be restarted from the list of available nodes. The available nodes are the ones that you chose for a restart.
- The step to which each node is assigned appears next to the node. If a node is not assigned to any step, that node shows as unassigned.
- When you assign all the nodes to a step, a default sequencing is available.
  Important You cannot proceed to the next step until you assign all the nodes.

- The **Pause task after step completes** option pauses the task after completion of this step. You must manually start the next step to complete the task.

Step 9 Click **OK**.

Step 10 Click **Next**.

Note The **Next** button remains enabled, which allows the user to click to be informed of any configuration errors.

Step 11 See the **Review** section to verify the details of the task you created. You can add notes for the task if required. The notes are saved with the task and are visible if the task is edited before completion.

Step 12 Click **Finish** to schedule the task.

Readdress Task

Create a Readdress Task

Use the readdress task change the hostname or IP address for one or more nodes in a cluster. To use the readdress feature, the servers must be Release 10.0 or later.

Note the difference between a hostname and a fully qualified domain name (FQDN) The network-level DNS default domain name of the node is combined with the hostname to form the FQDN for the node. For example, a node with hostname “cucm-server” and domain “example.com” has an FQDN of “imp-server.example.com.”

Note Cisco Prime Collaboration Deployment does not support changing the FQDN, only hostnames.

Use the Readdress Task wizard to create and edit readdress tasks.

Before You Begin

If you have not already done so, perform a cluster discovery for the cluster you wish to readdress, so that it appears in the Cluster inventory. See Discover a Cluster.

Procedure

Step 1 Select **Tasks** > **Readdress** from the main menu.

Step 2 Click **Add Readdress Task**.

Step 3 From the **Cluster** drop-down list, select the cluster on which you want to change the address of the nodes. Click **View Nodes** to view the Cluster nodes.

Step 4 Click **Next**.

Step 5 Click **Edit** next to a node to enter an alternate Hostname, IP Address, Subnet Mask or Gateway.

Note If DHCP is configured for a cluster, you cannot edit using the readdress task.

Step 6 Click **OK**.

Step 7 Click **Next**.

Important When you click **Next**, Cisco Prime Collaboration Deployment performs a validation test automatically. If the test on a cluster fails, the error message describes the failed test. You can continue to create the tasks, but you must resolve the errors described or the task will fail.

Step 8 Select the date and time when you want the readdress task to begin. You have the following options to schedule readdress tasks:

- Select **Schedule for a specific time** to enter the date and time when you want the readdress task to start. Any start time that you set is based on the time zone of the Cisco Prime Collaboration Deployment server as denoted by the time zone that is displayed with this option.
  Note If you schedule a task for a few minutes in the future, but do not save it until that scheduled time passes, then the task will start automatically.
- Select **Start task manually** to keep the task in a manual start.
- Select **Start task immediately upon completion of wizard** to start the task immediately afer you click **Finish**.
  Note You can also start the task from the Monitoring page.

Step 9 Click **Next**.

Step 10 Specify the sequence of steps to complete the task. You have the following options here:

Option	Description
Pencil icon	Edit a step.
Page icon	Add a new step after the current step.
Up arrow	Move the step up to be executed earlier.
Down arrow	Move the step down to be executed later.

- The Pencil icon opens up an **Edit Step** window. Add nodes to be readdressed in this step from the list of available nodes. The available nodes are the ones that you chose for a readdress.
  Note IM and Presence Service nodes do not have an **Edit** button, since readdress is not supported on Cisco Prime Collaboration Deployment for IM and Presence Service servers.
- The step to which each node is assigned displays next to the node. If a node is not assigned to any step, it shows as unassigned.
- When you assign all the nodes to a step, there will be a default sequencing available.
  Important You cannot proceed to next step until you assign all the nodes that were selected for this task.
- Cisco Prime Collaboration Deployment automatically inserts a Forced Pause after each sequence step in a Readdress task.
- For a readdress task, only one node can be assigned to each step. Multiple nodes cannot be combined and assigned in a single step.

Step 11 Click **OK**.

Step 12 Click **Next**.

Note The **Next** button remains enabled, which allows the user to click to be informed of any configuration errors.

Step 13 See the **Review** section to verify the details of the task you created. You can add notes for the task if required. The notes are saved with the task and are visible if the task is edited before completion.

Step 14 Click **Finish** to schedule the task.

Run a Readdress Task

If you scheduled the task to start at a later date, or if you chose Manual Start, then the task will be listed in the task list but will not start yet.

For a task that was scheduled for manual start, click the **Start** button that is associated with this task to begin the task.

While the readdress task is running, if there is more than one server to be readdressed in the task, some user operations are needed. The readdress task sequence automatically inserts a Forced Pause into the sequence after the address of a server is changed.

This allows the user to perform any manual steps (for example, changes in DNS) and to check that the phones associated with the server successfully registered, and the system is successfully replicating, before Resuming the readdress task.

For more information, see *Changing the IP Address and Hostname for Cisco Unified Communications Manager*.

Before You Begin

Important Before running a readdress task, you may need to perform certain steps (for example, updating entries on the DNS server).

It is very important that you read *Changing the IP Address and Hostname for Cisco Unified Communications Manager* before you run the readdress task.

Post Readdress Task

When you determine that the server successfully changed the address, go to the Cisco Prime Collaboration Deployment GUI and click **Resume** to resume the task.

The Cisco Prime Collaboration Deployment server proceeds to the next server in the sequence to be readdressed. Repeat the steps of waiting for the forced pause, checking the server state, and resuming the task, when the server readdress is verified.

Install Task

Use this task to fresh install a cluster containing Unified Communications Manager or IM and Presence Service servers. You cannot use this task to add a new server to an existing cluster.

Create an Install Task

Before You Begin

1 VMware—Deploy the hardware for the new cluster and install ESXi

Note Make sure that the host with the Cisco Prime Collaboration Deployment VM and the host with the application VMs use the required Virtualization Software License. See Virtualization Software License Types.

2 ISO files—Download the necessary OVA and ISO images for target release, and use SFTP transfer the ISO files to the `/fresh_install` directory of Cisco Prime Collaboration Deployment.

Note The ISO file must be bootable.

Note Do not edit the file name of the bootable ISO that is being used for a PCD task.

3 VMware—Deploy Cisco-recommended OVA to create the VMs for the nodes to be installed. Create the appropriate number of target virtual machines on your ESXi hosts (one new virtual machine for each server to be installed in the cluster) using the Cisco OVAs that you downloaded in Step 2. Configure the network settings on new VMs.

4 Cisco Prime Collaboration Deployment GUI—Add the ESXi Hosts that contain your virtual machines to the Cisco Prime Collaboration Deployment inventory. For information about adding and ESXi host to Cisco Prime Collaboration Deployment, see Add an ESXi Host Server, on page 9.

5 Cisco Prime Collaboration Deployment GUI—Define the new installation cluster (**Inventory** > **Clusters**) to define the nodes to be installed, and their associated virtual machines. (See Add New Cluster for Fresh Install.)

6 Cisco Prime Collaboration Deployment GUI—Setup Email Notification (Optional)

- Navigate to **Administration** > **Email Notification**.
- When email notification is set up, the Cisco Prime Collaboration Deployment server emails the error conditions that may occur during the migration task.

7 Cisco Prime Collaboration Deployment GUI—Create the Install task.

8 Be sure to enter the IP addresses or hostnames of the cluster nodes to be installed into your DNS server before you create the install task.

Add Install Task

Follow this procedure to automatically install one or more nodes in a cluster at scheduled times.

Procedure

Step 1 Select **Tasks** > **Install** from the main menu.

Step 2 Click **Add Install Task**.

Note If you have no Install tasks, a **Cluster Installation** popup window appears with the prerequisites to run the wizard. Click **Close** to close the popup window.

Step 3 From the **Installation Cluster** drop-down list, select the cluster on which the nodes to be installation are located.

Step 4 Click **Next**.

Step 5 Click the respective **Browse** buttons to select the Unified Communications Manager Installation file and the Cisco Unified Presence Installation file from the server.

Note The ISO file is visible here only if it was placed in the directory under `/fresh_install`, uploaded through a standard SFTP client (Admin Name: adminsftp, Password: Administration password). For more information, see the task management information at the beginning of this section.

Note By default, only files that can be installed on the selected nodes are displayed. The option to select install files is available only for the selected product types and applications that are currently supported in the cluster.

Step 6 Click **Choose File**.

Step 7 Click **Next**.

Note The **Next** button is dimmed if no valid upgrade files are selected.

Step 8 Select the date and time when you want the upgrade task to begin. You have the following options to schedule upgrades:

- Select **Schedule for a specific time** to enter the date and time when you want the upgrade task to start. Any start time that you set is based on the time zone of the Cisco Prime Collaboration Deployment server as denoted by the time zone that is displayed with this option.

  Note If you schedule a task for a few minutes in the future, but do not save it until that scheduled time passes, then the task will start automatically.

- Select **Start task manually** to keep the task in a manual start.

- Select **Start task immediately upon completion of this wizard** to start the task immediately afer you click **Finish**.

  Note You can also start the task from the Monitoring page.

Step 9 Click **Next**.

Step 10 Specify the sequence of steps to complete the task. You have the following options:

Option	Description
Pencil icon	Edit a step.
Page icon	Add a new step after the current step.
X mark	Delete the current step. If you remove all the nodes from a step, the step is removed by default. You cannot remove a step that contains the Publisher node.

Option	Description
Up arrow	Move the step up to be performed earlier.
Down arrow	Move the step down to be performed later.

- The Pencil icon opens up an **Edit Step** window. Add nodes to be installed in this step from the list of available nodes. The available nodes are the ones that you chose to install in this cluster.
- The step to which each node is assigned displays next to the node. If a node is not assigned to any step, it shows as unassigned.
- When you assign all the nodes to a step, a default sequencing is available.
  Important You cannot proceed to next step until you assign all the nodes.
- The **Pause task after step completes** option pauses the task after completion of this step. You must manually start the next step to complete the task.

Step 11 Click **OK**.

Step 12 Click **Next**.

Note The Next button remains enabled, which allows the user to click to be informed of any Misconfiguration.

Step 13 See the **Review** section to verify the details of the task you created. You can add notes for the task if required. The notes are saved with the task and are visible if the task is edited before completion.

Step 14 Click**Finish** to schedule the install task.

Important When you create a fresh install cluster with both Unified Communications Manager and IM and Presence Service nodes, be sure to indicate which IM and Presence server is the publisher. Later, when the task is running, and it pauses after the Unified Communications Manager publisher installation to allow for entry of the subscriber nodes into the Unified Communications Manager publisher (**System** > **Server** GUI menu), it is important that the IM and Presence Service publisher be the first IM and Presence Service server added to this list. This ensures that IM and Presence Service is installed as the first node.

Note The Unified Communications Manager publisher requires that all subsequent servers in the cluster be added to the Cisco Unified Communications Manager Administration GUI, after the Publisher is installed. Because of this requirement, when you create an install task, Cisco Prime Collaboration Deployment automatically inserts a Forced Pause in the sequence steps after the Unified CM Publisher is installed.

When this forced pause occurs (following the successful publisher install), you must access the Unified Communications Manager GUI and define any subsequent servers (nodes) in the **Server Configuration** window using Cisco Unified Communications Manager Administration. This definition of subsequent nodes must be done before the task is resumed.

Run an Install Task

If you scheduled a task to start at a later date or if you chose Manual Start, the task is listed in the Task list, but has not started yet. In this case, a validation button is associated with the install task. Click **Validation** to

check the task before you run it. By running validation before you start the task, you are alerted to any potential problems with the task (such as a missing ISO file or VMs not in the Off state). You can then fix these issues before you start the task.

Note Clicking the **Validation** button will not start the task; this button only checks the resources to be used when the task starts.

For a task that was scheduled for manual start, click the **Start** button that is associated with this task to begin the task.

When a fresh install task includes more than just one server, some user interaction is required while the task is running. The installation task automatically installs the Unified Communications Manager publisher first, and then the task sequence will have a forced pause. This forced pause stops the install task to allow the user to go to the Unified Communications Manager GUI of the newly installed publisher, and add the other servers in the cluster into the **System** > **Servers** window. To define the subsequent nodes, click **Add New** and configure the server.

After all the subscribers to be installed in this cluster (Unified Communications Manager subscribers, IM and Presence Service publisher and IM and Presence Service subscribers) are added to the Unified Communications Manager publisher GUI, return to the Monitoring page in the Cisco Prime Collaboration Deployment GUI and click the **Resume** button for the install task to resume. The install task continues and installs the Unified Communications Manager or IM and Presence Service software on the subsequent server (or servers).

Post-Install Task

After the install task, no further actions are required. The new cluster is ready for use.

Monitor Task Status

Use the Monitoring page to view the status of tasks in Cisco Prime Collaboration Deployment.

Note For a description of the information that is available through the Monitoring page, see Monitoring View Elements.

Procedure

Step 1 Click the **Monitoring** link on the main menu to view the Monitoring page.

Step 2 The column on the left side of the Monitoring page lists each task and an icon that shows its current status. Also shown is the type of task (Migrate, Upgrade, Install, and so on), and the cluster nickname for the task. The task start time is also shown. Click the task in this left column to view the detailed data for that task in the panel on the right.

Step 3 The upper right section of the page provides the following data:

- Status
- Start time

- Task data (for example: cluster nickname and ISO name)

Click **View Log** to see the detailed log messages for the task. If you see any errors or warnings in this log, refer to the Troubleshooting section more information.

In the upper right are buttons that you use to perform various operations on the task. For example, if the task is paused, click the **Resume** button to resume the task.

A button will appear if it is valid for the current state of the task. For example, after a task is finished, it will not have a **Cancel** button, but instead will have a Delete button (if you wish to remove the data for the task).

Step 4 The bottom right section of the page provides detailed steps for the task, along with the status for that step. Click on the triangle that corresponds to a step to expand the step description.
Each step also has a View Log link, to show the log messages for that step.

Note The Monitoring page refreshes automatically every 3 minutes. To deactivate automatic refresh, click the **Disable** button.

Action Buttons on the Monitoring Page

- **Start—**This button appears if a task is created with the "Start Task Manually" option. The task starts after you click the Start button.
- **Cancel—**Cancel the task. This button appears when a task is in the scheduled or running state. If the task has already started, this button does not undo any steps that are already complete, but it will stop the task as soon as possible.
- **Delete—**Delete the task from the system. This removes the task and all its history.
- **Resume—**This button appears when a task is in a paused state. It allows the user to resume the task at the next step.
- **Retry—**This button appears when the task is in a "Paused due to error" state. Clicking this button retries the last step of the task that failed because of an error.

Automatic Refresh

The Monitoring page refreshes automatically every 3 minutes. To deactivate automatic refresh, click the **Disable** button in the top left corner of the Monitoring page.

Administration Tools

Email Notification

The Email Notification feature sends email notifications to you that contain details about certain task events. You can choose whether the system sends emails for all standard task events (such as when task is scheduled, started, successful, paused, failed and canceled), or for only task errors. Emails are sent for all types of tasks: cluster discovery, upgrade, migration, switch version, restart, fresh install, and readdress.

When Email Is Sent

If you choose to receive email notifications in **Standard mode**, an email message is sent when a task enters any of the following states:

- Scheduled
- Failed to Schedule
- Started
- Successful
- Failed
- Canceled
- Canceling
- Failed to Cancel
- Paused on Error
- Paused
- Paused – Required

If you choose to receive email notifications in **Error only mode**, an email message is sent when the task enters the following states:

- Failed to Schedule
- Failed
- Failed to Cancel
- Paused on Error

SFTP Datastore

The Cisco Prime Collaboration Deployment server serves as a local SSH File Transfer Protocol or Secure File Transfer Protocol (SFTP) server that is used to store the ISO and COP files to be used by upgrade, fresh install, and migrate tasks.

In Release 10.x, Cisco Prime Collaboration Deployment does not support the use of external SFTP. ISO and COP files that are used for install and upgrade tasks must be uploaded to Cisco Prime Collaboration Deployment using the following procedures.

Note These procedures describe how to place files on the Cisco Prime Collaboration Deployment server using Linux. You can use an SFTP client instead of Linux.

Migration or Fresh Install Tasks

Follow this procedure to send the ISO file to the Cisco Prime Collaboration Deployment server using the adminsftp account and Cisco Prime Collaboration Deployment GUI (or CLI password with any SFTP client).

Procedure

Step 1 From a Linux shell, type `sftp adminsftp@<Cisco Prime Collaboration Deployment server>` and then provide the password (the same in both the CLI and GUI).

Step 2 Change the directory to the `fresh_install` directory.

Example:
From a Linux shell, type `cd fresh_install` and press Return.

Step 3 Upload the ISO file.

Example:
Type `put UCSInstall_UCOS_10.0.x.xxx.sgn.iso`.

Upgrade Task

Follow this procedure to use SFTP to upload ISO or COP files that will be used for upgrade tasks on the Cisco Prime Collaboration Deployment server.

Procedure

Step 1 From a Linux shell, type `sftp adminsftp@<Cisco Prime Collaboration Deployment server>` and then provide the password (the same in both the CLI and GUI).

Step 2 Change the directory to the `upgrade` directory.

Example:
From a Linux shell, type `cd upgrade` and press Return.

Step 3 Upload the ISO file or COP file.

Example:
Type `put UCSInstall_UCOS_10.0.x.xxx.sgn.iso`.

Verify or View an ISO Filename

Procedure

Step 1 From the main menu in Cisco Prime Collaboration Deployment, select **Administration** > **SFTP Datastore**.

Step 2 On this page, you can view and manage files that are stored on the SFTP datastore of this Cisco Prime Collaboration Deployment server.
It displays the filename of the ISO and COP files that are stored on the server, and where they are located in the directory (for example: fresh_install or upgrade).

Delete ISO or COP Files

Use the following procedure to delete ISO or COP files on a Cisco Prime Collaboration Deployment SFTP server using the Cisco Prime Collaboration Deployment GUI.

Procedure

Step 1 Log in to Cisco Prime Collaboration Deployment.

Step 2 From the main menu in Cisco Prime Collaboration Deployment, select **Administration** > **SFTP Datastore**.

Step 3 Check the check box next to the ISO or COP file.

Step 4 Click **Delete**.

Important We recommend that you periodically delete ISO or COP files that are no longer needed to save space, especially before upgrading the Cisco Prime Collaboration Deployment server software.