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 16.) To install a new cluster, use the **Inventory** > **Clusters** > **Define New UC Cluster** feature. (See Install Task, on page 37.) 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 12.)

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 16. • To upgrade the Unified Communications Manager version of an existing cluster, see Upgrade Task, on page 27. • To switch the version of an existing cluster, see Switch Versions Task, on page 30. • To restart an existing cluster, see Server Restart Task, on page 32. • To change the hostname or IP address of one or more servers in an existing cluster, see Readdress Task, on page 34. • To create a new UC cluster from VM machines, see Install Task, on page 37.
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 43.
Step 4: Administrative Tasks	You can set up email notification. See Email Notification.

Network Address Translation Support

Cisco Prime Collaboration Deployment supports Network Access Translation (NAT). You can use Cisco Prime Collaboration Deployment in the following scenarios:

- When Cisco Prime Collaboration Deployment is in a local network or private network and application nodes are behind the NAT.
- When Cisco Prime Collaboration Deployment is behind the NAT and application nodes are in a private network.

To support application nodes behind the NAT, Cisco Prime Collaboration Deployment tracks the private IP address and the NAT IP address. Use Cisco Prime Collaboration Deployment to specify the NAT IP address

for deployment nodes and the application. Cisco Prime Collaboration Deployment uses the NAT IP address to communicate with the application node. However, when you configure a node using the `platformConfig.xml` file, the node uses its private address.

Configure Cisco Prime Collaboration Deployment Behind the NAT

When Cisco Prime Collaboration Deployment is behind the NAT and communicates with an application virtual machine or an ESXi host, the communication occurs using the NAT IP address.

Note When Cisco Prime Collaboration Deployment is behind the NAT and application nodes are in a private network, the application nodes communicate with the NAT IP address.

Use the **NAT Settings** window in the **Administration** menu to set the NAT IP address for Cisco Prime Collaboration Deployment. The NAT IP address that you enter on this window does not appear on any window on the GUI.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Administration** > **NAT Settings**.
The **NAT Settings** window appears and is prepopulated with the hostname and the private IP address.

Step 2 Enter the NAT IP address in the **NAT IP** field.

Step 3 Click **Save**.
The NAT IP address is saved as an entry in a configuration file on Cisco Prime Collaboration Deployment. This entry is used when the application nodes try to contact Cisco Prime Collaboration Deployment, then the application nodes read the configuration file to get the NAT IP address, and then try to communicate Cisco Prime Collaboration Deployment with that IP address.

Step 4 (Optional) Click **Reset**.
The NAT IP address is reset to the earlier saved NAT IP address.

Supported Releases

Table 1: Supported Releases for Each Task in Cisco Prime Collaboration Deployment

Product and Functions	Cluster Discovery	Migrate Cluster (Install Application and Import Data from Old System)	Upgrade Cluster (Upgrade Application Version or Install COP Files)	Restart Task	Switch Version Task	Fresh Install New Cluster or Edit/Expand an Existing Cluster	Readdress Task (Change Hostname or IP Addresses for One or More Nodes in a Cluster)
Cisco Unified Communications Manager	6.1(5), 7.1(3), 7.1(5), 8.0(1), 8.0(2), 8.0(3), 8.5(1), 8.6(1), 8.6(2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1), 10.5(2), 11.0(1)	From 6.1(5), 7.1(3), 7.1(5), 8.0(1), 8.0(2), 8.0(3), 8.5(1), 8.6(1), 8.6(2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1), 10.5(2), 11.0(1) To 10.x or 11.0(1)	From 8.6(1), 8.6(2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1), 10.5(2), 11.0(1) To 10.x or 11.0(1)	8.6(1), 8.6(2), 9.0.(1), 9.1(1), 9.1(2), 10.0(1), 10.5(1), 10.5(2), 11.0(1)	8.6(1), 8.6(2), 9.0.(1), 9.1(1), 9.1(2), 10.0(x), 10.5(1), 10.5(2), 11.0(1)	10.x, 10.5(1), 10.5(2), 11.0(1)	10.x, 11.0(1)
Cisco Unified Presence	8.5(x), 8.6(x)	From 8.5(4), 8.6(3), 8.6(4), 8.6(5) To 10.x or 11.0(1)	From 8.6(3), 8.6(4), 8.6(5) To 10.x or 11.0(1)	8.6(3), 8.6(4), 8.6(5)	8.6(3), 8.6(4), 8.6(5)	—	—

Product and Functions	Cluster Discovery	Migrate Cluster (Install Application and Import Data from Old System)	Upgrade Cluster (Upgrade Application Version or Install COP Files)	Restart Task	Switch Version Task	Fresh Install New Cluster or Edit/Expand an Existing Cluster	Readdress Task (Change Hostname or IP Addresses for One or More Nodes in a Cluster)
IM and Presence Service	9.0(1), 9.1(1), 10.x, 11.0(1)	From 9.0(1), 9.1(1), 10.x, 11.0(1) To 10.x or 11.0(1)	From 9.0(1), 9.1(1), 10.x, 11.0(1) To 10.x or 11.0(1)	9.0(1), 9.1(1), 10.x, 11.0(1)	9.0(1), 9.1(1), 10.x, 11.0(1)	10.x, 10.5(1), 10.5(2), 11.0(1)	Not Supported
Cisco Unified Contact Center Express	8.5(1), 9.0, 9.0(2), and 10.x, 11.0(1)	Not Supported	From 9.0(2), 10.x, 11.0 To 10.x or 11.0(1)	9.0(2), 10.x, 11.0	9.0(2), 10.x, 11.0	10.5(x), 11.0	10.5(x), 11.0
Cisco Unity Connection	8.6.1, 8.6.2, 9.x, 10.x, 11.0	Not 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.x From 10.x to 11.0(1) From 11.0 to 11.0(1)	8.6(1), 8.6(2), 9.x, 10.x, 11.0(1)	8.6(1), 8.6(2), 9.x, 10.x, 11.0(1)	10.5(x), 11.0(1)	10.5(x), 11.0(1)

Note The supported releases table does 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.

The following table lists the supported paths of restricted and unrestricted versions in Cisco Prime Collaboration Deployment.

Table 2: Supported Paths

From	To	Task Types Supported
Export Restricted (K9)	Export Restricted (K9)	Supported for Upgrade paths Supported for Migration paths
Export Restricted (K9)	Export Unrestricted (XU)	Not supported for Upgrade paths Supported for Migration paths
Export Unrestricted (XU)	Export Restricted (K9)	Not supported for Upgrade paths Not supported for Migration paths
Export Unrestricted (XU)	Export Unrestricted (XU)	Supported for Upgrade paths Supported for Migration paths

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. To view the list of compatible versions of VMware vSphere ESXi server for a Cisco Prime Collaboration Deployment virtual machine that runs on a virtualization host, see http://docwiki.cisco.com/wiki/Unified_Communications_in_a_Virtualized_Environment.

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—For Release 11.5(1) • Yes—For Release 11.5(1) SU1 and later

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 11.0(1) version. Cisco Prime Collaboration Deployment 11.0(1) 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 3: 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)+ MCS.
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 11.0(1).</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 11.0(1).</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 11.0(1).</td></tr>
<tr><td>6.1(5)</td><td>Single Hop:
Migrate PCD M1 to 11.0(1).</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 11.0(1).</td></tr>
<tr><td>7.1(3)
7.1(5)
8.0(1)</td><td rowspan="4">Single Hop:
Migrate PCD M1 to 11.0(1).</td></tr>
<tr><td>8.0(2)</td></tr>
<tr><td>8.0(3)
8.5(1)</td><td rowspan="2">Single hop:
Migrate PCD M1 to 11.0(1).</td><td rowspan="2">Single Hop:
Upgrade PCD RU to 11.0(1).</td><td rowspan="2">Two Hop:
1 Upgrade L2 to 8.6(2) and above.
2 Upgrade PCD RU to 11.0(1).</td></tr>
<tr><td>8.6(1)</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 11.0(1), or, migrate RU 8.x or 9.x to 11.0(1).			Single hop: Upgrade PCD RU to 11.0(1).
10.0(1)	Not applicable, because Release 10.x supports only virtualization.				Single hop: Upgrade PCD L2 to 11.0(1).	Single Hop: Upgrade PCD L2 to 11.0(1).
10.5(1) 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

With the Discover Cluster feature, Cisco Prime Collaboration Deployment communicates with the servers that are already running Unified Communications applications and adds that cluster information into the Cisco Prime Collaboration Deployment inventory.

When you perform the Discover Cluster operation, the Cisco Prime Collaboration Deployment server communicates with the publisher of the cluster and retrieves the cluster information. Then, it communicates with each server, installs the `ciscocm.ucmap_platformconfig.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 When the publisher is behind the NAT, providing the private IP address of the publisher does not reach to the node. You must provide the proper IP address for successful node discovery.

To see which applications are supported, see "Supported Releases" in the Related Topics section.

Note If a cluster includes Cisco Unified Communications Manager and Cisco Unified Presence (Cisco Unified Communications and IM and Presence Service servers), the Cluster Discovery discovers the Cisco Unified Presence or IM and Presence Service nodes as part of the Cisco Unified Communications Manager cluster.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **Clusters**.
The **Clusters** window appears.

Step 2 Click the **Discover Cluster** button to discover the existing clusters.
The Discover Cluster wizard appears.

Step 3 Enter details in the following fields:

- **Choose a Nickname for this Cluster**
- **Hostname/IP Address of Cluster Publisher**
  Note For a cluster that has both Unified Communications Manager and IM and Presence Service nodes, enter the hostname or IP address of the Cisco Unified Communications Manager publisher.
- **OS Admin Username**
- **OS Admin Password**
- **Enable NAT**

Step 4 (Optional) Check the **Enable NAT** check box, and then click **Next**.
Important During discovery, the `ciscocm.ucmap_platformconfig.cop` file is installed automatically on the active partition of all nodes in the cluster. This COP file is used for the cluster discovery process and does not affect Cisco Unified Communications Manager.
Note When a cluster is behind NAT, the application tries to establish communication with each node using its private address. So, the nodes are unreachable. A pop-up shows the unreachable nodes.
Cisco Prime Collaboration Deployment generates a list of cluster nodes from the inventory of the publisher server. The list generation process may take several minutes to complete. After the list is generated, a confirmation message appears indicating the completion of the cluster discovery process.

Step 5 Click **Edit** to add NAT IP address, and click **OK**.
The Nat IP address is set for the hostname.

Step 6 Click **Resume Discovery** to resume the discovery of unreachable nodes.

Cisco Prime Collaboration Deployment retries to discover the cluster with the NAT IP address instead of the private IP address and to get the cluster details, such as version. The discovery is successful when the cluster details appear on the window.

Step 7 Click **Next**.

Step 8 (Optional) Click **Assign Functions** to assign functions to each of the cluster nodes.

Note The assignment of functions has no effect on the services that are to be activated. However, this information can be used to determine the default sequence of tasks.

The **Assign Functions** dialog box appears.

Step 9 Click **Finish**.

The cluster appears in the **Clusters** window, showing the cluster name, the product and version, the cluster type as `Discovered`, and the discovery status.

Note It might take a few minutes to discover a cluster. After the discovery is complete, the information for each node in the cluster is listed in the **Cluster Inventory** window. If you cancel the discovery before it is complete, the data is lost and you will have to repeat the discovery procedure.

Note The following are the different statuses that appear for the **Discovery Status** field:

- **Contacting—**Indicates that Cisco Prime Collaboration Deployment is establishing communication with clusters.
- **Discovering—**Indicates that the cluster discovery is in process.
- **Successful—**Indicates that the cluster discovery is successful.
- **Node Unreachable—**Indicates that the cluster node is inaccessible.
- **Timeout—**Indicates that the duration that is configured for the cluster discovery is complete but no cluster was discovered.
- **Internal Error—**Indicates that cluster discovery is failed because of an incorrect NAT IP address.

Related Topics

Supported Releases, on page 4

Modify and View a Cluster

You can select one or multiple virtual machines that you have added as nodes in a cluster to view and modify them.

Note The cluster nodes that you need to install appear as editable and have **Edit** and **Delete** links. The installed cluster nodes appear dimmed and you cannot edit or delete them.

Note When you add new nodes to the installed cluster, all fields on **Configure NTP Settings** page appear dimmed and are non-editable. The fields on the other pages will populate the values of the already installed nodes as the default. If needed, you can change the values for the newly added nodes.

Procedure

Step 1 Discover a cluster by following the Discover a Cluster procedure. See Discover a Cluster, on page 9.

Step 2 Check the check box of one of the discovered or newly installed clusters to choose a cluster, and click the **Edit** link.

Step 3 On the **Edit Link** window, view the details in the fields, and modify the details, as required.

Step 4 Click **OK**.

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

To create a migration task, perform the following procedure:

1 Discover the existing cluster you wish to migrate. See the "Discover a Cluster" procedure at Discover a Cluster, on page 9.

2 Define a migration cluster.

Note After you define the migration cluster, see "Migration Task" at Migration Task, on page 16 to define when and how to perform the migration.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **Cluster**.

Step 2 Click **Define Migration Destination Cluster**.
The **Define Migration Destination Cluster** wizard appears.

Step 3 In the Specify Clusters section, specify the name of the cluster, select the source UC cluster from the drop-down list. Enter a name in the Destination Cluster Name field and select one of the following Destination Network Settings options:

- To retain the default network options, select the **Use the source node network settings for all destination nodes** option.
- To modify the default network settings or enter new network options, select the **Enter new network settings for one or more destination nodes** option.

Note If you select the **Use the source node network settings for all destination nodes** option, same IP address appears for both the source node **NAT IP** and **Dest NAT IP** columns **Assign Destination Cluster Nodes**. If you select the **Enter new network settings for one or more destination nodes** option, only source hostname appears and not the destination hostname on the **Assign Destination Cluster Nodes** window.

Step 4 Click **Next**.
The **Assign Destination Cluster Nodes** window appears.

Step 5 Click the **Assign Destination Cluster Nodes** button to select the destination virtual machine for each source node.

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.

The **Configure Destination Cluster** window appears.

Step 6 Select a virtual machine, click **Next Node** to go to the next node in the cluster, and select another virtual machine for the destination virtual machine, and click **Done**.

Note If there is more than one node in the cluster, repeat these steps - (assigning VM, and entering new IP/hostname settings, if needed) for each node in the source cluster.

Step 7 Click **Next**.
The **Configure NTP/SMTP Settings** window appears.

Step 8 Enter the Network Time Protocol (NTP) server settings to be applied to the migration nodes when the migration task runs, and optionally, enter the SMTP server settings.

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 being 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. If you want to change the hostname or IP address of that server, you must do it as a separate process and not with Cisco Prime Collaboration Deployment.

Step 9 Click **Next**.
The **Define DNS Settings** window appears.

Step 10 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, then click **OK** to apply the changes.

Important You cannot change the domain name during a migration.

Step 11 Click **Finish**.
The changes are saved and a row is added to the clusters table to reflect the new migration cluster that you have created.

Add New Cluster for Fresh Install

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **Clusters**.

Step 2 Click **Define New UC Cluster**.
The **Define Cluster** wizard appears.

Step 3 In the Specify Cluster Name section, enter the cluster name, and click **Next**.
The **Add Virtual Machines** window appears.

Step 4 Click **Add Node** to add nodes to the cluster.
The **Add Node** dialog box appears showing the list of the available VMs that are sorted by name and by host.

Step 5 On the **Add Node** window, enter the network settings for the node that you have added, choose the functions for the node, and choose a VM for this node. Select the VM that you wish to add and then enter the following information in the sections below the VM table:

a) In Network section, select either **Static IP Address** or **Use DHCP with reservations**. If you select the **Static IP Address** option, enter the hostname, IP Address, subnet mask, gateway, and NAT IP. If you

select **Use DHCP with reservations** option, enter the IP address that you have a reservation for on your DHCP server (associated with the MAC address for that VM) in addition to the hostname.
If you are adding a Cisco Unified Contact Center Express server, do not use DHCP for network settings.

Note **NAT IP** is an optional field. In Step 4, if you have selected a node that is behind NAT, enter the IP address in the **NAT IP** field, else leave this field blank. The value that you enter in this field appears in the **NAT IP** column. If the NAT IP address is associated with a port, you can enter port value which should be in the range of 1 to 65535.

b) From the **Products and Functions** list box, select a product.

c) In the Functions section, check the appropriate function check boxes for your VM.

Note
- Check the **Publisher** check box for at least one node in the cluster that you have defined, for each application type.
- (Optional) Add a note about the functions that you have assigned in the **Notes** field below the **Publisher** field.

d) Click **OK**.

e) In Virtual Machines section, choose a VM for this node.

Note
- Choose a new VM for fresh install clusters and that new VMs must be in turned off state.
- Do not install over an existing running Cisco Unified Communications Manager node. The installation must be a fresh VM that you create with the appropriate OVA for the application that you will install.

Step 6 Click **OK**.
The VM is added and is listed in the **Cluster Name** table.

Step 7 (Optional) To add more nodes to the cluster, repeat steps 4 through 6.

Step 8 Click **Next**.
The **Configure Cluster Wide Settings** window appears.

Step 9 Enter the OS administration credentials, application credentials, security password, SMTP settings, and certificate information for this cluster, and click **Next**.
The **Configure DNS Settings** window appears.

Step 10 (Optional) 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.
The **Configure NTP Settings** window appears.

Step 11 Enter IP address of at least one NTP server.

Note
- It is recommended that you define at least IP addresses of two NTP servers.
- If you are not using DNS, NTP server must be an IP address. If you are using DNS, NTP server can be an FQDN.

Step 12 Click **Next**.
The **Configure NIC Settings** window appears.

Step 13 (Optional) Choose the server, and enter an MTU size between 552 and 1500, and click **Apply to Selected**.

Step 14 Click **Next**.
The **Configure Time Zones** window appears.

Step 15 Select a node, choose the region and time zone from the **Region** and **Time Zones** list boxes, and click **Apply to Selected**.

Step 16 Click **Finish**.

The new install cluster is listed on the Clusters screen, with a Cluster Type as **New Install**. The cluster is defined but is yet to be created. To install the cluster, create an install task. The install task uses the install cluster you have 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 12.

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, on page 9.

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.
- You can specify a different NAT address for source and destination, so that the source is not abruptly shut down. If you want to perform a simple migration but need to specify different Network Address Translation (NAT) entries for source and destination, you must select “Network Migration” and provide the same details for source and destination (all hostnames and IP addresses).

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.

Note the supported restricted and unrestricted paths. See “Supported Releases” in the Related Topics section.

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.

Related Topics

Supported Releases, on page 4

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 *Administration Guide for Cisco Unified Communications Manager 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

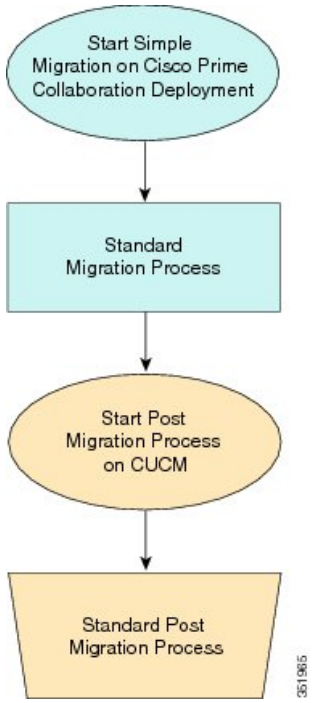
	Command or Action	Purpose
		the old data. For more information, see *Deployment Guide for IM and Presence Service on Cisco Unified Communications Manager.*
Step 3	Re-publish SIP Federation.	If the old cluster was front-ending SIP Interdomain with Microsoft OCS/Lync/AOL or SIP Intradomain federation with 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

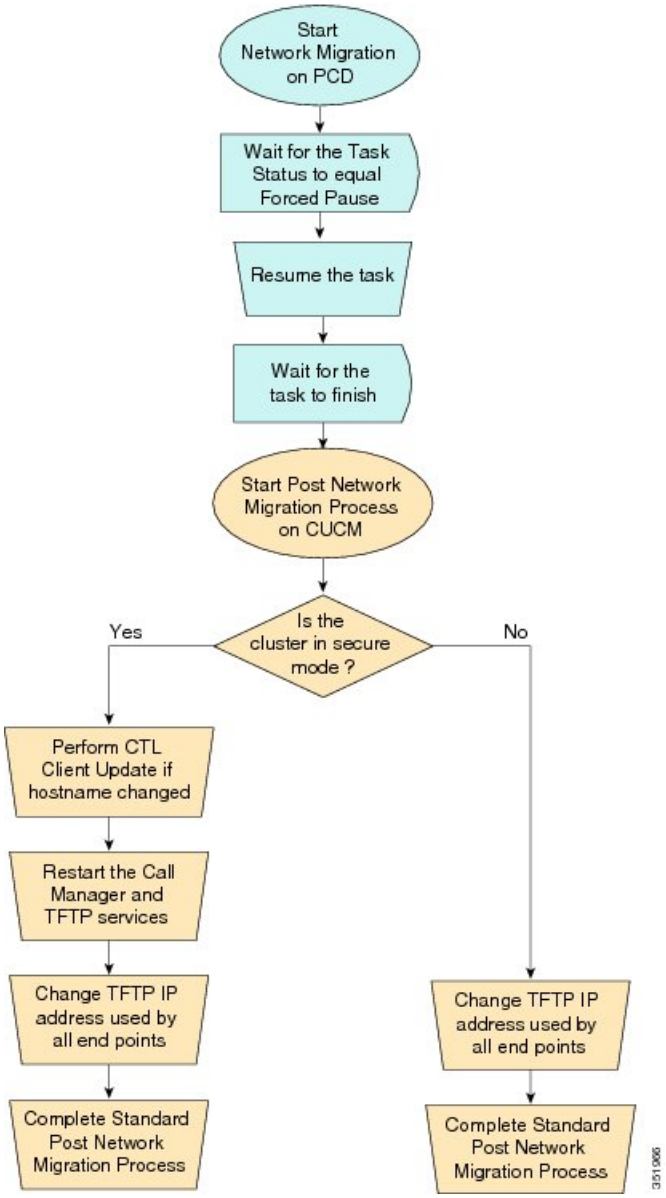
Figure 1: Flow Chart for Simple Migration



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

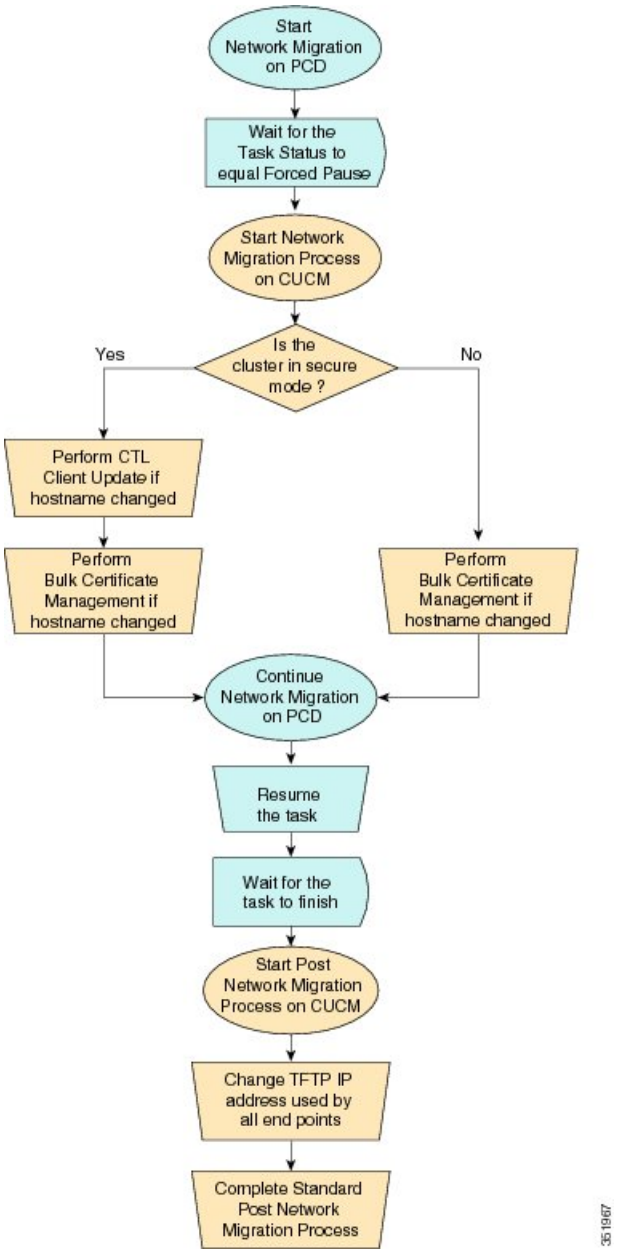
Pre Release 8.0.1 Unified CM Network Migration

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



Release 8.0.1 And Later Unified CM Network Migration

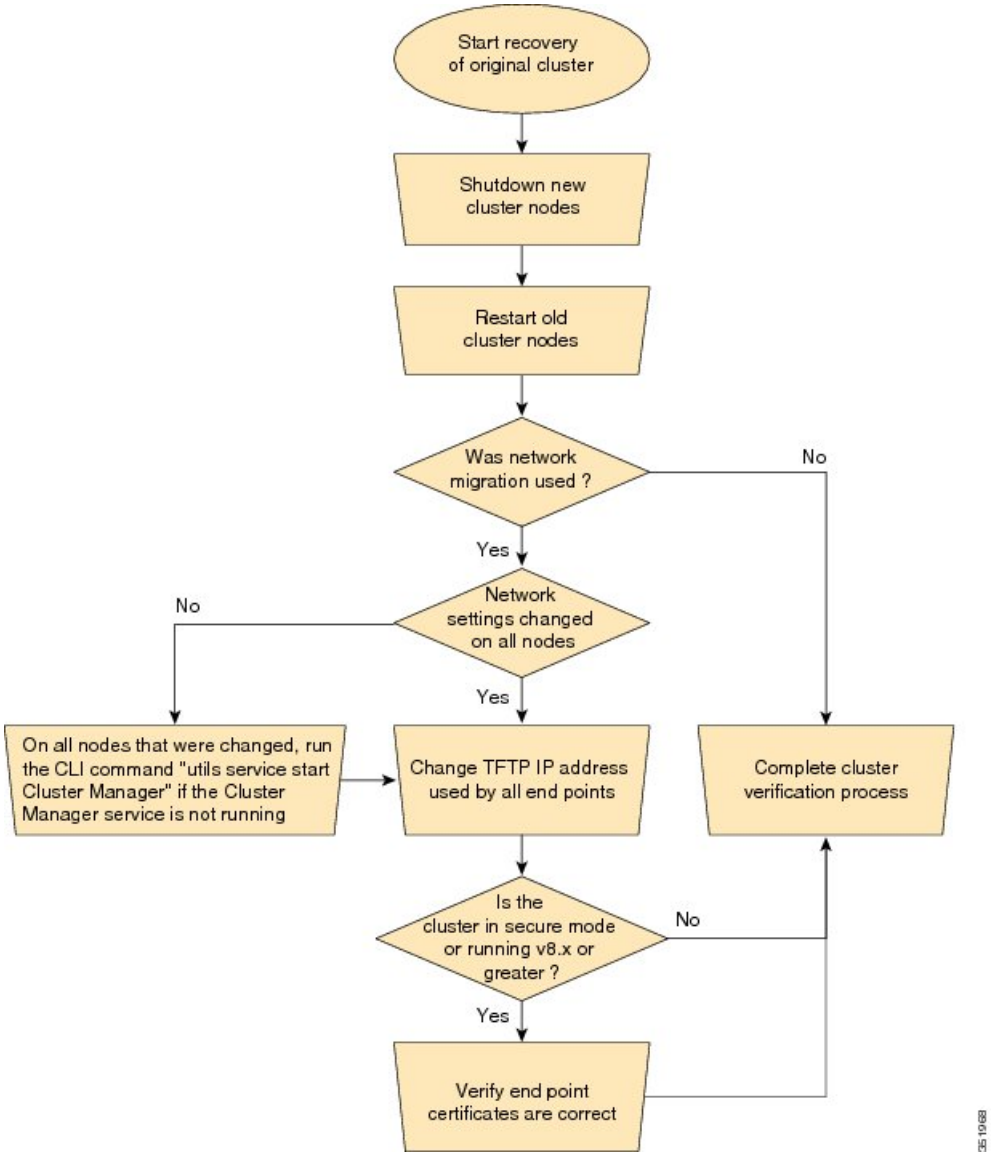
Figure 3: Flow Chart for Release 8.0.1 and later Unified CM Network Migration



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” in the Related Topics section.

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. Note the supported restricted and unrestricted paths. See "Supported Releases" in the Related Topics section.
2. Perform a cluster discovery for the cluster that you wish to upgrade, so it appears in the Cluster Inventory. See Discover a Cluster, on page 9.
3. 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.
4. 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.

Related Topics

Supported Releases, on page 4

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, sees “Supported Releases” in the Related Topics section.

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, on page 9. 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.
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.

Related Topics

Supported Releases, on page 4

Server Restart Task

To know the supported applications and releases for server restart tasks, see “Supported Releases” in the Related Topics section.

Related Topics

Supported Releases, on page 4

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, on page 9.

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.

Option	Description
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, on page 9.

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 *Administration Guide 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 *Administration Guide 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 12.

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, on page 14.)

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.
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.
- If you are installing Cisco Unified Communications Manager between Releases 10.0(1) and 10.5(1), the task is paused after publisher node is installed completely. You must enter details of subscriber nodes into the publisher node before you manually start the next step. Cisco Unified Communications Manager Release 10.5(2) onward does not pause during a fresh installation; the install task continues automatically.

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 Communications Manager (Releases from 10.0(1) to 10.5(1)) publisher is installed.

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).

Cancel Install Task

Use this procedure to cancel a fresh install task or an existing installation in a migration task.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment main menu, select **Tasks** > **Install**.

The existing install tasks appear in the **Task List** section.

Step 2 Select an existing install task and click **Cancel**.

Note If you cancel the currently running install task, you will have to delete the virtual machine and then recreate it.

The virtual machine of the selected install task turns off and the task status is displayed as **Canceled**.

Post-Install Task

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

Edit and Expand Cluster Support

If you deployed a Cisco Unified Communications Manager cluster, the Edit and Expand Cluster support feature in Cisco Prime Collaboration Deployment eliminates migration issues and barriers. You can perform the following actions:

- Add IM and Presence Service to an existing Unified Communications Manager cluster.
- Add new nodes to the existing cluster—for example, add subscriber nodes.
- Select nodes from a cluster to perform installation.

This feature works with only a previously installed 10.x or later system and uses the Fresh Install Task to add the nodes.

Note After you add and install new nodes to an existing cluster, if you later perform the Discovery task, the entire cluster with the new nodes is discovered.

Edit or Delete a New Install Cluster

Edit or delete an added new node that has not yet been installed. A node that has not been installed appears active.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **Clusters**.

Step 2 Click a cluster that has the cluster type as **New Install** and click **Edit**.

Step 3 In the Specify Cluster Name section, view the pre-populated cluster name, and click **Next**.

Step 4 In the Add Virtual Machines section, select a node from the existing nodes, and click **Edit**.

The **Add Node** window appears.

Step 5 In the **Add Node** window, edit the node details, and click **OK**.

Step 6 In the Configure Cluster Wide Settings section, edit the OS administration credentials, application credentials, security password, SMTP settings, and certificate information for all nodes of a cluster, as required, and click **Next**.

Step 7 (Optional) In the Configure DNS Settings section, edit the DNS settings for the migration cluster nodes, and click **Next**.

Note If the previous nodes in the cluster have the same values for DNS and domain, then the value from the other nodes becomes the default value for the new nodes and is auto-populated. If the previous nodes have multiple values for DNS or domain, then no default value is applied.

Step 8 In the Configure NTP Settings section, edit the configuration of the NTP servers for the nodes in a cluster, and click **Next**.

Note The changes you make in this section apply to publisher node only.

Step 9 (Optional) In the Configure NIC Settings section, choose a server, and enter an MTU size between 552 and 1500, click **Apply to Selected**, and then click **Next**.

Step 10 In the Configure Time Zones section, select a node, edit the region and time zone from the Region and Time Zones list boxes, click **Apply to Selected**, and then click **Finish**.

Note If the previous nodes in the cluster have the same values for time zone, then the value from the other nodes becomes the default value for the new nodes and is auto-populated. If the previous nodes have multiple values for time zone, then no default value is applied.

The changes are saved. You can install one or multiple nodes in a cluster. See Add Install Task, on page 38 for details.

Edit or Delete a Discovered Cluster

You can edit or delete a node that has not yet been installed. A node that has not been installed appears active and the installed nodes appear inactive.

Note After you add or install a new node, you cannot delete the node with this feature. You must delete the node from an existing installed cluster by using your application administration web page or the CLI.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **Clusters**.

Step 2 Click a cluster that has the cluster type as **Discovered** and click **Edit**.

Step 3 In the Specify Cluster Name section, enter the cluster name, and click **Next**.

Note If the discovered cluster is already installed, the cluster name is non-editable.

Step 4 In the Add Virtual Machines section, select a node from the existing nodes that has not been installed, and click **Edit**.

The **Add Node** window appears.

Step 5 In the **Add Node** window, edit the node details, and click **OK**, and then click **Next** in the Add Virtual Machines section.

Note If you add a new node to an existing cluster, the new nodes cannot use the **Publisher** function

Step 6 In the Configure Cluster Wide Settings section, view the OS administration credentials, application credentials, security password, SMTP settings, and certificate information for all nodes of a cluster and click **Next**.

Note The fields in this section are editable only if the cluster type is **New Install**.

Step 7 (Optional) In the Configure DNS Settings section, edit the DNS settings for the migration cluster nodes, and click **Next**.

Note If the previous nodes in the cluster have the same values for DNS and domain, then the value from the other nodes becomes the default value for the new nodes. If the previous nodes have multiple values for DNS or domain, then no default value is applied.

Step 8 In the Configure NTP Settings section, view the configuration of the NTP servers for the nodes in a cluster, and click **Next**.

Note The fields in this section are non-editable.

Step 9 (Optional) In the Configure NIC Settings section, edit the server details for the uninstalled nodes, enter an MTU size between 552 and 1500, and then click **Next**.

Step 10 In the Configure Time Zones section, select a node, edit the region and time zone from the Region and Time Zones list boxes, click **Apply to Selected**, and then click **Finish**.

Note If the previous nodes in the cluster have the same values for time zone, then the value from the other nodes becomes the default value for the new nodes. If the previous nodes have multiple values for time zone, then no default value is applied.

The changes are saved. You can install one or multiple nodes in a cluster. See Add Install Task, on page 38 for details.

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.

Note These procedures describe how to place files on the Cisco Prime Collaboration Deployment server using Linux. You can push a file from a Linux machine for SFTP client.

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 **Inventory** > **SFTP Servers and 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 **Inventory** > **SFTP Servers and 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.

Remote SFTP Server Support

The remote SFTP server support feature leverages Cisco Prime Collaboration Deployment for upgrades. Use of this feature avoids the issues that are caused by large application image files streamed over WAN that are only supported by Cisco Prime Collaboration Deployment 11.0(1) and later.

Examples of where this feature is useful are listed as follows:

- Geographically distributed deployments, such as multi-site distributed IP Telephony with multiple clusters at separate sites from the Cisco Prime Collaboration Deployment virtual machine.
- Clustering over WAN (CoW), where the application virtual machines are at different sites than the Cisco Prime Collaboration Deployment virtual machine.
- Deployments where Cisco Prime Collaboration Deployment is in central data center; however Cisco Unified Communications Manager clusters are remote over the WAN.

These SFTP servers used for the upgrade of Cisco Unified Communications Manager are same as the SFTP servers that are used for the upgrade of Cisco Unified Communications Manager. Following is the list of the supported SFTP servers that are used for the upgrade:

- Open SSH
- Cygwin
- Titan

Note The remote SFTP server support is available for upgrade task only and no other task types, including the migration task.

Add Remote SFTP server

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **SFTP Servers and Datastore**. The **SFTP Servers/Datastore** table on this window shows the PCD details by default.

Step 2 From the **SFTP Servers/Datastore** table, click **Add Server**.
The **Add SFTP Server** window appears.

Step 3 In the **Address and access credentials** section, enter values in the **IP / Host Name**, **Username**, and **Password** fields.

Step 4 In the **Path to Datastore Directory on Server** section, click a **Add Directory** button to add a value in the **Directory** field.

Note For an upgrade, ensure that a directory includes .iso datastore files.

Step 5 (Optional) In the **Additional Information** section, enter description in the **Description** field.

Step 6 Click **Add**.

Note If the SFTP server is not added, you get any of the following error messages:

- **Connection Timeout—**Indicates that the connection to SFTP server failed due to timeout.
- **Login Failure—**Indicates that the login to the SFTP server failed.
- **Directory Not Found—**Indicates that the directory that you selected is not found on the SFTP server.
- **Directory Already Entered—**Indicates that the directory that you selected already exists in the list of directories. You can view the list of available directories by clicking the **Add Directory** button.
- **Directory Already Exists—**Indicates that the directory that you entered already exists in the list of the SFTP servers.
- **Mandatory Fields Missed—**Indicates that you did not enter values in the mandatory fields.
- **Mentioned Server Could Not Be Located—**Indicates that the server that you entered is not configured with DNS. This error message appears if you enter host name instead of IP address.

The **SFTP Servers/Datastore** table shows the remote SFTP server that you added. The **SFTP/Datastore Files** table shows the list of files from the remote SFTP server and from Cisco Prime Collaboration Deployment. In addition, the existing Cisco Prime Collaboration Deployment server is added automatically and the files in the `upgrade` and `fresh_install` folders in the Cisco Prime Collaboration Deployment server appear by default in the **SFTP/Datastore Files** table.

Associate Nodes to Remote SFTP Server

Before You Begin

- Add an SFTP server.
- Ensure that the cluster node you choose to associate to an SFTP server is not in the **Scheduled**, **Running**, or **Wait_for_manual_start** states.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **Clusters**.
The **Clusters** window appears.

Step 2 Click **Discover Cluster** button to search for the existing clusters. To discover a cluster, see the Discover a Cluster, on page 9 procedure.

Step 3 From the available cluster nodes in the **Cluster Nodes** table, click **Edit** for a cluster node.
The **Edit Node** window appears.

Step 4 From the **SFTP Server** drop-down list, choose an SFTP server.
By default, this field shows the localhost option as the SFTP Server.

Step 5 Click **OK**.
The SFTP server is associated with the cluster node that you selected and the details appear in the **SFTP Server** column of the **Cluster Nodes** table.

Edit Remote SFTP Server

For the existing remote SFTP server, you can edit the details, such as username, password, or description. You can also add multiple directories to the remote SFTP server while editing other field values.

Before You Begin

- Ensure that a cluser node is not associated with remote SFTP server directory that you choose to edit.
- Ensure that no upgrade task is associated with the SFTP server.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **SFTP Servers and Datastore**.

The **SFTP Servers/Datastore** table on this window shows the PCD details by default.

Step 2 From the available SFTP servers in the **SFTP Servers/Datastore** table, click **Edit** for an SFTP server. The **Edit SFTP Server** window appears.

Step 3 Edit the values for the fields in the **Address and access credentials**, **Path to Datastore Directory on Server**, and **Additional Information** sections.
In **Path to Datastore Directory on Server** section, by clicking the **Add Directory** button, you can edit an existing directory and also add multiple directories.

Step 4 Click **Save**.

Delete Remote SFTP Server

You can delete one or multiple remote SFTP servers that are available in the Cisco Prime Collaboration Deployment application. However, you cannot delete any datastore.

Before You Begin

- Ensure that no upgrade task is associated and running with the cluster node that uses the SFTP server that you choose to delete.
- Disassociate the cluster nodes from the SFTP server that you choose to delete.

Note You can disassociate a cluster node even if no upgrade task is associated and running with the cluster node that uses the SFTP server that you selected to delete.

- Ensure to change the node association of the SFTP server, which you choose to delete, from `remote/external` SFTP server to the `localhost` SFTP server.

Note If you do not change the node association from `remote/external` SFTP server to the `localhost` SFTP server, the association of cluster nodes changes to the `localhost` SFTP server from the remote SFTP server and the remote SFTP server that you selected is deleted.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **SFTP Servers and Datastore**. The **SFTP Servers/Datastore** table on this window shows the PCD details by default.

Step 2 From the available SFTP servers in the **SFTP Servers/Datastore** table, check the check box of one or multiple remote SFTP servers that you want to delete.

Step 3 Click **Delete**.

Delete Local SFTP/Datastore ISO files

You can delete ISO and COP files from the SFTP server running locally in the Cisco Prime Collaboration Deployment virtual machine. However, you cannot delete ISO files from the remote SFTP server.

Before You Begin

Ensure that the SFTP and datastore ISO files that you choose to delete are not associated with the upgrade in these states—**Scheduled**, **Running**, or **Wait_for_manual_start**.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Inventory** > **SFTP Servers and Datastore**. The **SFTP Servers/Datastore** table on this window shows the PCD details by default.

Step 2 From the available SFTP and datastore files in the **SFTP/Datastore Files** table, check the check box of one or multiple remote SFTP and datastore files that you want to delete.

Note You cannot delete remote SFTP files.

Step 3 Click **Delete**.

Disk Space Warning Level

Use this feature to view and configure a disk space warning level for tasks through the **Disk Space Warning Level Configuration** window. When the available disk space value drops below the value that you assign as the warning level disk space, the system warns you that it is running out of disk space to perform tasks.

Configure Disk Space Warning Level

Use this procedure to configure the available disk space threshold where the system warns you that it is running out of disk space to perform tasks.

Note Disk space warning level is applicable and is validated for migration and install tasks. This level is also validated each time you log in to Cisco Prime Collaboration Deployment.

Procedure

Step 1 From the Cisco Prime Collaboration Deployment application, select **Administration** > **Disk Space Warning Level**.
The **Disk Space Warning Level** window appears showing the total disk space and the available disk space.

Step 2 View the total disk space and the available disk space in the **Total Disk Space (GB)** and **Available Disk Space (GB)** fields.

Step 3 Enter the value that you want to assign for the **Warning Level Disk Space (GB)** field.
You can click the information link to check if the space value you entered is available for use on the server.

Step 4 Click **Save**.

Step 5 (Optional) Click **Reset**.
The page is reset with the default values.