



Replace single server or cluster



Caution

Because this process is designed to work as a server replacement, you must perform it in the live environment. Cisco does not recommend doing this process on a “dead net” because a duplication of entire network environment is required, which is highly risky.

This section provides checklists of the steps that are required to replace a single server or a cluster:

- If you are replacing an entire cluster, replace the servers in the order that is described in the following steps.
- If you are replacing a publisher node in a cluster, or a single server that is not part of a cluster, go to the applicable procedure.
- If you are replacing one or more subscriber nodes or dedicated TFTP servers, go to the applicable procedure.

Procedure

- Step 1** Replace the publisher node.
 - Step 2** Replace any dedicated TFTP servers or other non-Cisco Unified Communications Manager cluster nodes.
 - Step 3** Replace all backup subscriber nodes.
 - Step 4** Replace all primary subscriber nodes.
 - Step 5** Perform any remaining post-replacement tasks.
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Replace publisher node

Complete the following tasks to replace the Cisco Unified Communications Manager publisher server. If you are replacing a single server that is not part of a cluster, follow this procedure to replace your server.

Procedure

- Step 1** Perform the preparatory tasks.
- Step 2** Gather the necessary information about the old publisher server.
- Step 3** Back up the publisher server to a remote SFTP server by using Disaster Recovery System (DRS) and verify that you have a good backup.
- Step 4** Get new licenses of all the license types before system replacement.
Get new licenses of all the license types: Software License Feature, CCM Node License Feature, and Phone License Feature.
You only need a new license if you are replacing the publisher node.
- Step 5** Shut down and turn off the old server.
- Step 6** Connect the new server.
- Step 7** Install the same Cisco Unified Communications Manager release on the new server that was installed on the old server, including any Engineering Special releases. Configure the server as the publisher server for the cluster.
- Step 8** Restore backed-up data to the publisher server by using DRS.
- Step 9** Reboot all nodes in the cluster, starting with the subscriber nodes. Reboot the publisher node after all subscriber nodes finish rebooting. If the server is not in a cluster, then reboot the server.
- Step 10** Upload all of the new license files to the publisher server.
Upload new license files for all of the license types: Software License Feature, CCM Node License Feature, and Phone License Feature.
- Step 11** Delete all invalid license files (those based on the old server MAC address).
- Step 12** Perform the post-replacement tasks.
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Related Topics

- [Before you begin](#)
- [System configuration information](#)
- [Create backup](#)
- [Obtain license file](#)
- [Install software on publisher server](#)
- [Restore backup file](#)
- [Upload license file](#)
- [Delete invalid license files](#)
- [Complete replacement](#)

Replace subscriber or dedicated TFTP server

Complete the following tasks to replace a subscriber node or dedicated TFTP server (or another server type that is not a Cisco Unified Communications Manager server). A dedicated TFTP server is a node with Cisco Unified Communications Manager installed but with the Cisco Unified Communications Manager service disabled. The TFTP service runs as a dedicated TFTP server for the cluster.

If you are also replacing the publisher node, you must replace it before replacing or reinstalling any other nodes. If the cluster uses backup subscriber nodes, replace or reinstall all backup subscriber nodes before replacing or reinstalling primary subscriber nodes.

You can replace all backup subscriber nodes at the same time if this does not cause outages or oversubscription of primary subscriber nodes. You can replace all primary subscriber nodes at the same time if this does not cause outages or oversubscription of backup subscriber nodes.

Follow the references in the For More Information column to get more information about a step.

Procedure

- Step 1** Gather the necessary information about the old server.
 - Step 2** If you are getting the system time from an NTP server, verify that the publisher node can synchronize with the NTP server before you install a subsequent node.
 - Step 3** Shut down and turn off the old server.
 - Step 4** Connect the new server.
 - Step 5** Install the same Cisco Unified Communications Manager release on the new server that was installed on the old server, including any Engineering Special releases. Configure the new server to use the same configuration information as the old server.
 - Step 6** Restore backed up data to the node by using DRS.
 - Step 7** Reboot the new server.
 - Step 8** Verify that the new server has the same number and status for all Critical services that you gathered before replacing the server.
 - Step 9** Verify that the db Replicate state has a value of 2. This indicates that the database is set up on this node.
 - Step 10** Perform the post-replacement tasks.
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Related Topics

- [Replace single server or cluster, on page 1](#)
- [System configuration information](#)
- [Verify NTP status](#)
- [Install software on subscriber server](#)
- [Restore backup file](#)
- [Before you begin](#)
- [Complete replacement](#)
- [Replace publisher node, on page 2](#)
- [Replace subscriber or dedicated TFTP server, on page 3](#)

Replace MCS hardware with virtual machines

You can migrate an existing cluster of Unified Communication Manager nodes that are running on MCS hardware to a new virtualized cluster using the Cisco Prime Collaboration Deployment application. For information, see the *Cisco Prime Collaboration Deployment Administration Guide*.

Replace a virtual machine and migrate the cluster

You can migrate an existing cluster of virtualized Unified Communication Manager nodes to a new virtualized cluster using the Cisco Prime Collaboration Deployment application. For information, see the *Cisco Prime Collaboration Deployment Administration Guide*.

Upgrade vSphere ESXi

Use the following procedure when you need to update your vSphere ESXi hypervisor in order to upgrade to a new release of Unified Communications Manager.

Procedure

- Step 1** Move the virtual machine that is running Unified Communications Manager off the host server using one of the following methods:
- If you have a hot standby host, use vMotion to migrate the virtual machine from one physical server to another.
 - If you do not have a hot standby host, power down the virtual machine and copy it to a different location.
- Step 2** Upgrade the vSphere ESXi using the upgrade procedures provided by VMware.
- Step 3** Verify that the vSphere ESXi upgraded successfully.
- Step 4** Move the virtual machine that is running Unified Communications Manager back to the host server using one of the following methods:
- If you have a hot standby host, use vMotion to migrate the virtual machine from one physical server to another.
 - If you do not have a hot standby host, power down the virtual machine and copy it the host server.
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What to Do Next

If you need to update the virtual machine version or the VMware compatibility version in order to upgrade the vSphere ESXi, proceed to [Change virtual machine configuration specifications, on page 5](#)

Migrate from single to multi-vDisk virtual machine

If you are migrating to a larger virtual machine (VM) deployment that requires multiple vDisks, perform the following procedure. After you complete this procedure, you must [Change virtual machine configuration specifications, on page 5](#) to ensure that the specifications match the requirements of the release.

Procedure

- Step 1** Perform a backup of the existing virtual machine (VM).
 - Step 2** Power off the existing VM and remove it from the network.
 - Step 3** Deploy a new VM at the correct user count using the appropriate OVA template.
 - Step 4** Perform a fresh installation of the same software release of IM and Presence or Cisco Unified Communications Manager on the new VM using the same hostname and IP address.
 - Step 5** Perform a DRS restore on the new VM.
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Change virtual machine configuration specifications

Use the following procedure when you need to change the configuration specifications on your virtual machine (VM) in order to upgrade to a new release of Unified Communications Manager or IM and Presence Service. Configuration specifications include the vCPU, vRAM, and vDisk size. For information about VM requirements, see the Readme file with the OVA template that supports your release. Details about OVA templates are available on the Virtualization Docwiki at http://docwiki.cisco.com/wiki/Implementing_Virtualization_Deployments.

Procedure

- Step 1** Perform a Disaster Recovery System (DRS) backup.
For more information about performing a backup, see the *Cisco Unified Communications Manager Disaster Recovery Administration Guide*.
- Step 2** (Optional.) If you need to increase the vDisk space to meet the space requirements of a refresh upgrade, install the following COP file:
`ciscocm.vmware-disk-size-reallocation-<latest_version>.cop.sgn`
- Step 3** Change the configuration of the virtual machine as needed:
 - a) Change the Guest OS version to match the requirements of the new release (Red Hat Enterprise Linux 6 (64-bit)).
 - b) To change the vCPU, make the change in vSphere Client. Ensure that you change the reservation value to match the specifications of the new release.
 - c) To change the vRAM, make the change in vSphere Client. Ensure that you change the reservation value to match the specifications of the new release.
 - d) To increase the vDisk space, edit the disk size using vDisk. If the virtual machine has two disks, expand the second one.

The new space is automatically added to the common partition when you restart the virtual machine.

Note You need to change the disk size changes only if you need additional space to complete the upgrade. The disk space requirements are specified in the Readme file for the OVA template.

For more information about making configuration changes using vSphere Client, refer to the user manual for the product.

- Step 4** Modify the Network Adapter to use the VMXNET 3 Adapter type.
For information about modifying the Network Adapter to meet the requirements of this release, see the Readme file for the OVA template.
- Step 5** Upgrade the software to the latest version.
- Step 6** Shut down the virtual machine.
- Step 7** Power on the virtual machine.
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