



## CHAPTER 8

# Migrating a Cisco Unity Connection Server from Physical Server to a Virtual Machine

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**Added April 16, 2010**

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- [Changing the Boot Order of the Virtual Machine, page 8-4](#)

## Task List for Migrating from a Physical Server to a Virtual Machine

**Revised April 28, 2010**

1. Review the section “Requirements for Installing Cisco Unity Connection 8.x on a Virtual Machine” in *System Requirements for Cisco Unity Connection Release 8.x* at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/requirements/8xcucsysreqs.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/requirements/8xcucsysreqs.html).
2. In the *Cisco Unity Connection 8.x Supported Platforms List*, in the table of virtualization specifications, determine which VMware configuration you want to deploy on the Connection server, based on the maximum number of ports and the maximum number of users. Then make note of the VMware OVA template that corresponds with that configuration. The document is available at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/supported\\_platforms/8xcucspl.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/supported_platforms/8xcucspl.html).
3. *Optional:* Download the VMware OVA template that you identified in Task 2. See the “Installing Cisco Unity Connection for the First Time on a Virtual Machine” section in the applicable *Release Notes for Cisco Unity Connection* at [http://www.cisco.com/en/US/products/ps6509/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/ps6509/prod_release_notes_list.html).

You can also manually configure a virtual machine; if you prefer that option, you do not need the OVA template.



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**Note** Information on downloading a VMware OVA template appears in the *Release Notes for Cisco Unity Connection* for versions 8.0(2) and later.

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4. *If the Connection physical server is running version 7.1(3), or version 8.0(2) or later:* Skip to Task 5.

*If the Connection physical server is running version 8.0(1):* Upgrade to Connection 8.0(2) or later. See the “[Upgrading Cisco Unity Connection 7.x, 8.0, or 8.5 to the Shipping 8.0 or 8.5 Version](#)” chapter of this guide.

*If the Connection physical server is running version 7.1(2) or earlier:* Upgrade to Connection 7.1(3). See the applicable chapter in the *Upgrade Guide for Cisco Unity Connection Release 7.x* at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/7x/upgrade/guide/7xcucrugx.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/7x/upgrade/guide/7xcucrugx.html). (You upgrade to version 8.0(2) or later in a later task.)



**Caution** Running Connection 7.1(3) in a virtual environment for any longer than is required for the migration is not supported.

5. Provision the physical host where the Connection virtual machine will run, according to the “Requirements for Installing a Cisco Unity Connection 8.x Virtual Machine” section in *System Requirements for Cisco Unity Connection Release 8.x* at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/requirements/8xcucsysreqs.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/requirements/8xcucsysreqs.html).
6. *If you downloaded the VMware OVA template in Task 3.:* Deploy the template, which creates a virtual machine and configures it.  
*If you did not download the VMware OVA template in Task 3.:* Create a virtual machine for the Connection server, and configure the virtual machine hardware properties to match the settings in the “Requirements for Installing a Cisco Unity Connection 8.x Virtual Machine” section in *System Requirements for Cisco Unity Connection Release 8.x* at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/requirements/8xcucsysreqs.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/requirements/8xcucsysreqs.html).
7. *If the physical server has more total available disk space than the virtual machine:* Change the VMware virtual machine hardware configuration so the Connection virtual machine has as much as or more total available disk space than the physical server.  
Total available disk space is the amount of disk space usable by Connection after accounting for the RAID configuration. (For example, two 146-GB hard disks configured as RAID 1 provide only 146 GB of total available disk space.)
8. In the VMware vSphere Client, configure the virtual disks that are assigned to the Connection virtual machine in independent-persistent mode. This provides the best storage performance.
9. On the virtual machine, change the BIOS setting so the virtual machine boots first from the DVD virtual device, then from the virtual hard disk. See the “[Changing the Boot Order of the Virtual Machine](#)” section on page 8-4.
10. Back up the Connection physical server by using the Disaster Recovery System. For more information, see the applicable *Disaster Recovery System Administration Guide for Cisco Unity Connection* at [http://www.cisco.com/en/US/products/ps6509/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html).
11. Shut down the Connection physical server by using the CLI command **utils system shutdown**. For more information, see the applicable *Command Line Interface Reference Guide for Cisco Unified Communications Solutions* at [http://www.cisco.com/en/US/products/ps6509/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html).
12. On the virtual machine, install the exact version of Connection that is installed on the physical server, including engineering specials, if any. See the *Installation Guide for Cisco Unity Connection Release 8.x* at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/installation/guide/8xcucigx.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/installation/guide/8xcucigx.html).

The following two installation settings must be the same on the Connection virtual machine as on the Connection physical server, or using the Disaster Recovery System to transfer data from the physical server to the virtual machine will fail:

- Hostname of the server
- IP address of the server

The following settings are used to create the license MAC value for the Connection virtual machine. If you change one of these settings later, you must get new license files for the virtual machine. We recommend that you enter settings that are unlikely to change for the foreseeable future:

- Time zone
- NTP server
- NIC speed and duplex settings
- DHCP settings
- Primary DNS settings
- SMTP hostname
- X.509 Certificate information (Organization, Unit, Location, State, and Country)

The hostname and IP address are also used to create the license MAC value. You must give the Connection virtual machine the same hostname as the Connection physical server so you can restore data. After you have restored data and before you get the Connection license, you may change the hostname and/or IP address of the Connection virtual machine.

13. Restore data on the Connection virtual machine by using the backup that you made in Task 10.
14. *Optional:* Change the hostname of the Connection virtual machine. See the “[Renaming Cisco Unity Connection 8.x Servers](#)” chapter of this guide.
15. *If you installed Connection 7.1(3) on the virtual machine:* Upgrade to version 8.0(2) or later. See the “[Upgrading Cisco Unity Connection 7.x, 8.0, or 8.5 to the Shipping 8.0 or 8.5 Version](#)” chapter of this guide.
16. On the Connection virtual machine, run the CLI command **show status**.

The command will return a value such as:

```
License MAC : 78acc1573f20
```

Write down the license MAC value.

17. Use the license MAC value that you wrote down in Task 16. to obtain and install Connection licenses. See the “[Managing Licenses in Cisco Unity Connection 8.x](#)” chapter of the *System Administration Guide for Cisco Unity Connection Release 8.x* at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/administration/guide/8xcucsagx.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/administration/guide/8xcucsagx.html).

## Replacing the Publisher and Subscriber Servers or the Hard Disks in Both Servers

To replace the Publisher and Subscriber servers or the Hard Disk in both the servers in a cluster, see the following section [Replacing the Publisher and Subscriber Servers or the Hard Disks in Both Servers](#), page 10-8.

# Changing the Boot Order of the Virtual Machine

Do the procedure in this section to change the BIOS setting so the virtual machine boots first from the DVD virtual device, then from the virtual hard disk.

## To Change the Boot Order of the Connection 8.x Virtual Machine

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- Step 1** In VMware vSphere Client, power off the virtual machine on which you deployed the OVA template.
  - Step 2** In the left pane of vSphere Client, right-click the name of the virtual machine, and select **Edit Settings**.
  - Step 3** In the Virtual Machine Properties dialog box, select the **Options** tab.
  - Step 4** In the Settings column, under Advanced, select **Boot Options**.
  - Step 5** Under Force BIOS Setup, check the **The Next Time the Virtual Machine Boots, Force Entry into the BIOS Setup Screen** check box.
  - Step 6** Select **OK** to close the Virtual Machine Properties dialog box.
  - Step 7** Power on the virtual machine. The virtual machine boots into the BIOS menu.
  - Step 8** Navigate to the Boot menu, and change the boot device order so the CD-ROM device is listed first and the Hard Drive device is listed second.
  - Step 9** Save the change, and exit BIOS setup.
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