

Contents

- 1 Some content has been moved!
- 2 Migrating and upgrading Unified CCX from physical to virtual server
 - ◆ 2.1 Pre-migration checklist
 - ◆ 2.2 Migrating Unified CCX
 - ◆ 2.3 Upgrading Unified CCX
 - ◆ 2.4 Modifying Virtual Machine Settings after Upgrade (L2 and RU) to Version 10.0(1) and later
 - ◇ 2.4.1 Modifying RAM
 - ◇ 2.4.2 Modifying vNIC
 - ◇ 2.4.3 Modifying vNIC when MAC Address Is Automatic
 - ◇ 2.4.4 Modifying Guest OS and Update VMWare Tools
 - ◆ 2.5 Modifying Virtual Machine Settings after Upgrade (L2 and RU) to Version 11.0(1) and later
 - ◇ 2.5.1 Modifying Video card settings
- 3 New Identity Support for Unified CCX or IPIVR 9.0(2)

Some content has been moved!

Its new location is :

http://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-con

Please update your bookmark.

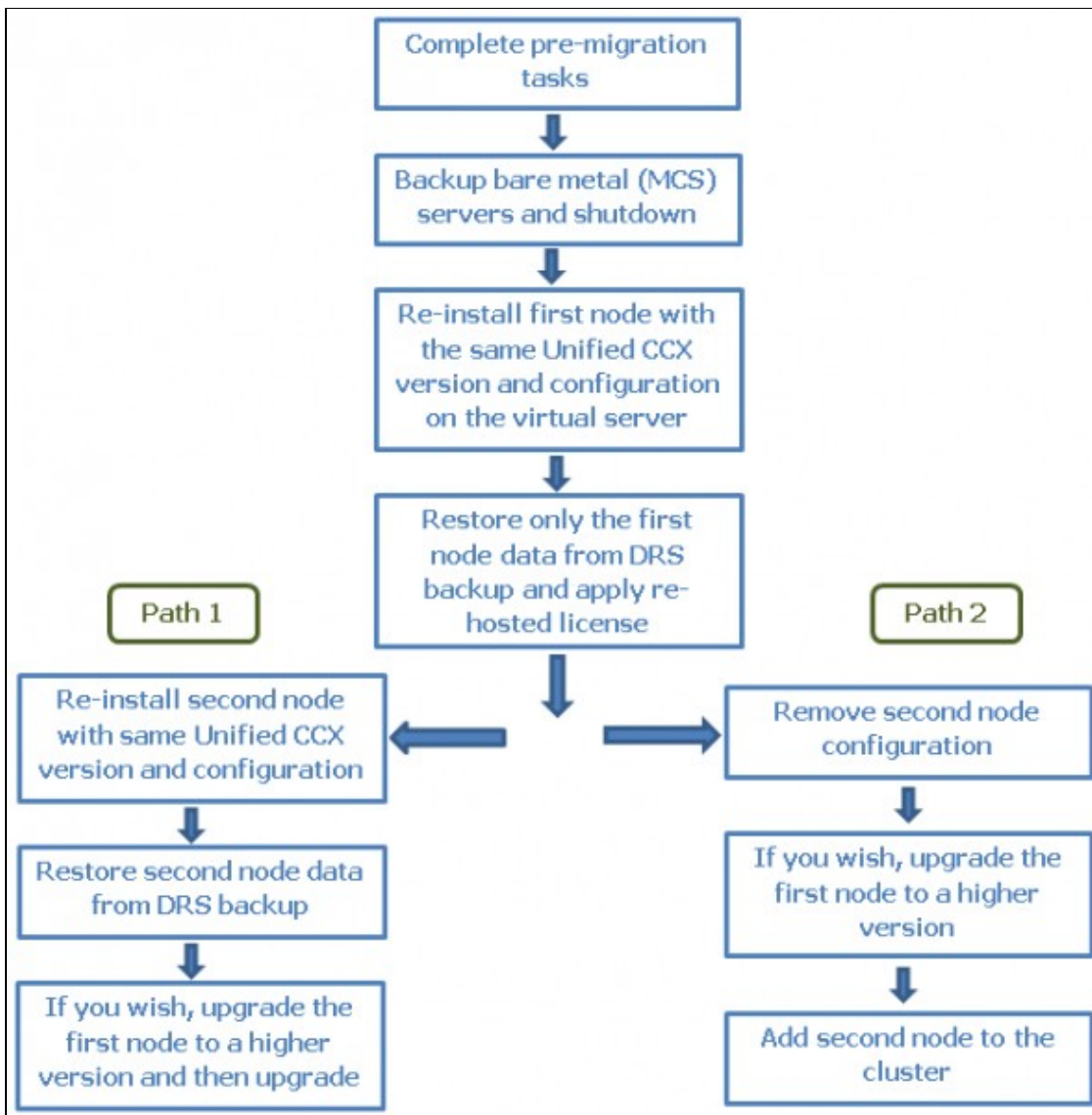
Migrating and upgrading Unified CCX from physical to virtual server

To migrate and upgrade Unified CCX from a physical server to a virtual server, you can follow either of the following paths.

Note - Only virtual servers are supported from Unified CCX release 10.0.

For more information on supported upgrade paths, see Software and Hardware Compatibility Guide for Cisco Unified CCX and Cisco Unified IP IVR, available here:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html



Pre-migration checklist

Complete the following steps before you start migration:

1. Run **utils create report platform** command and obtain the platformConfig.xml for the existing nodes.
2. Go to http://www.cisco.com/web/cuc_afg/index.html to access the Answer File Generator.
3. Enter the information for appropriate fields referring the platformConfig.xml. Password is encrypted, enter the decrypted password.
4. Click **Generate Answer Files** to get platformConfig.xml and license MAC.
5. Make a note of the license MAC that is displayed.
6. Get the rehosted license.

- a. Go to <https://tools.cisco.com/SWIFT/LicensingUI/Home?>.
- b. Click **Transfer > License for Rehost-initiate**.
- c. Select the licenses to transfer and click **Next**.

Note - If the licenses are not displayed in the table. Specify the device details. For more information, see the video "How to Rehost and RMA Licenses", available

here: <https://tools.cisco.com/SWIFT/LicensingUI/Home>.

- d. Enter the new MAC address and click **Next**.
- e. Enter the email details to receive the re-hosted license and click **Submit**.

7. **(Path 2)** Before you remove the second node, archive the recordings. See "Exporting Recordings From CAD" section of *Cisco CAD Installation Guide*, available

here: http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html?

Note - Unified CCX stores 2.6 GB of recordings on the first node and 2.6 GB on the second node. If you choose Path 2 then the recordings on the second node are lost.

Migrating Unified CCX

Complete the following steps to migrate Unified CCX from a physical server to virtual server:

Task	Reference
Backup Unified CCX on bare metal server and store the backup TAR file at a safe SFTP network location. Shutdown the server.	See "Backup and Restore" section of <i>Cisco Unified Contact Center Express Operations Guide</i> , available here: http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_maintenance_guides_list.html
Install ESXi on any one of the Unified CCX Supported Hardware for Virtualization.	See ESXi Support for Contact Center Applications for ESXi version support information.
Deploy virtual machines from the templates.	See Readme with the Unified CCX virtual machine template .
Install the same version	See "Unified CCX Installation" section of <i>Cisco Unified Contact Center Express Installation and Upgrade Guide</i> , available here:

of Unified CCX on the virtual machine with the same network and platform settings of the baremetal server.

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html

Restore the first node from DRS backup. See "Backup and Restore" section of *Cisco Unified Contact Center Express Operations Guide*, available here:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_maintenance_guides_list.html

(Path 1)

Re-install

second node and To re-install, second node, see "Unified CCX Installation" section of *Cisco Unified Contact Center Express Installation and Upgrade Guide*, available here:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html

(Path 1)

Restore second node.

To restore second node, See "Backup and Restore" section of *Cisco Unified Contact Center Express Operations Guide*, available here:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_maintenance_guides_list.html

To remove second node,

(Path 2)

Remove

second node.

1. Login to Unified CCX Administration page.
2. Click **System > Server**.
3. Click **Delete** for the second node.

Upgrading Unified CCX

To upgrade Unified CCX, see "Unified CCX Upgrade" section of *Cisco Unified Contact Center Express Installation and Upgrade Guide*, available here:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html

Note: During Refresh Upgrade (RU) from Unified CCX 8.x.x to 9.0.x, the following occurs:

- Service is interrupted, because the server restarts multiple times.
- Refresh upgrade installs on the inactive partition.

Modifying Virtual Machine Settings after Upgrade (L2 and RU) to Version 10.0(1) and later

Note: You can make all of the following modifications after you shutdown the Unified CCX server.

Modifying RAM

If you perform an L2 (Linux to Linux) or RU (Refresh Upgrade) upgrade to 10.0(1) and later version from a previous version, and after performing the switch-version, the following error message might appear when you log in to the Unified CCX Administration: "Error: VM configuration does not match the OVA profile. Please refer to the "Unified CCX Virtualization DocWiki for the supported configurations."

To resolve the error, follow these steps:

1. Shut down the Unified CCX server.
2. Increase the vRAM size as per the above table for 10.0(x) and later versions.
Note: Do not perform any changes to the existing vDisk.
3. Power on the Unified CCX server.

Modifying vNIC

If you are upgrading to Unified CCX 10.5(1) and later from a previous version, change the vNIC to VMXNET3 using the following switch-version steps:

1. Shut down the Unified CCX server.
2. To modify the vNIC settings, use one of the following methods:
 - ◆ Modify vNIC when MAC Address Is Automatic
 - ◆ Modify vNIC when MAC Address Is Manual
 - ◆ Use PowerCLI to Modify vNIC

Note: First, confirm whether the existing network adapter is configured with a manual (static) or automatic (dynamic) MAC address.

Modifying vNIC when MAC Address Is Automatic

1. Navigate to the Summary tab for the VM, choose "Edit Settings."
2. Choose "Network adapter 1" and check whether the radio button in the MAC Address section is selected for "Automatic" or "Manual" (do not make any changes).
3. Choose substep a or b below and accordingly follow the steps. If you have the proper VMware license you can also use the PowerCLI method substep c instead of substep a or b. The PowerCLI method is applicable for both Automatic and Manual MAC address configurations.

a. If the existing network adapter is configured with an ****Automatic**** (dynamic) MAC address, the administrator needs to modify the virtual machine configuration file.

For tips on how to edit the vmx file, see "Tips for editing a .vmx file" (<http://kb.vmware.com/kb/1714>).

* Before you edit the .vmx file be sure to do the following:

- The file has a file extension of ".vmx" and can be found in:
/vmfs/volumes/datastore/virtual_machine_directory/virtual_machine_name.vmx
- Always power off the virtual machine.
- Determine location of virtual machine datastore and host (or cluster).
- Make sure you are logged on as a user with the correct permission level to edit the file.

Below is an example list of steps to accomplish this process. Depending on the specific version of

Virtualization_for_Cisco_Uniformed_Contact_Center_Express

ESXi in your environment and other variables some of these steps may vary slightly.

- i. Navigate to the Summary tab for the VM in question, right-click the Storage volume on which the VM is located, and choose "Browse this datastore."
 - ii. In the "Datastore Browser" window, locate and select the relevant folder for the VM in question.
 - iii. Right-click on the <virtual_machine_name>.vmx file and choose "Download...", selecting a folder on your local machine for the file.
 - iv. Make a backup copy of the .vmx file on your local machine by running the following commands from a Windows Command Prompt in the same folder as the downloaded .vmx file. If your edits break the virtual machine, you can roll back to the original version of the file. copy "<virtual_machine_name>.vmx" "<virtual_machine_name>.vmxBACKUP".
 - v. Add the necessary configuration to the end of the .vmx file by running the following commands from a Windows Command Prompt in the same folder as the downloaded .vmx file copy
"<virtual_machine_name>.vmx" temp_file.vmx findstr /V /R "^ethernet0.virtualDev.*"
temp_file.vmx > "<virtual_machine_name>.vmx" echo ethernet0.virtualDev = "vmxnet3" >>
"<virtual_machine_name>.vmx".
 - vi. Upload the edited <virtual_machine_name>.vmx file to the Datastore by selecting the relevant folder for the VM in question in the "Datastore Browser" window, clicking the button for "Upload files to this datastore", and choosing "Upload File...".
 - vii. Locate the edited <virtual_machine_name>.vmx file from your local machine and select it, acknowledging that existing files of the same name will be overwritten Note: Keep the "Datastore Browser" window open, as you will need it again in Step x.
 - viii. Now that .vmx file is updated, note on which ESXi host the VM in question is located.
 - ix. From the main vSphere client window, right-click the VM in question in the list of VMs and choose "Remove from Inventory."
 - x. Navigate back to the "Datastore Browser" (from the window left open earlier. Otherwise, open the Datastore Browser from another VM's Summary page "Storage" list or the ESXi host's Summary page "Storage" list).
 - xi. Locate and select the relevant folder for the VM in question.
 - xii. Right-click on the <virtual_machine_name>.vmx file and choose "Add to Inventory."
 - xiii. Step through the "Add to Inventory" wizard, selecting the same host on which you previously noted the VM was located. These steps will ensure that the VM will utilize the updated .vmx file using the network adapter type as "vmxnet3."
 - xiv. On the newly-readded VM you can verify the change by selecting "Edit Settings..", choosing "Network adapter 1" and verifying that the "Adapter Type" section shows "Current adapter: VMXNET 3."
or
- b. If the existing network adapter is configured with a ****Manual**** (static) MAC address, the administrator can simply remove the existing network adapter and add a new network adapter using the same MAC address:
1. Verify VM is powered off.
 2. Save MAC address of the existing Network adapter.
 3. Delete existing Network adapter.
 4. Add new Network Adapter using the "VMXNET 3" Adapter type. Use the previously saved MAC address in the manual configuration box.
- or
- c. Alternatively, the VMware vSphere PowerCLI can be used to edit the .vmx file with the proper network adapter configuration. The VMware vSphere PowerCLI (set cmdlet) is supported in the following environment:
- Cisco UC Virtualization Foundation (appears as "Foundation Edition" in vSphere Client).
 - VMware vSphere Standard Edition, Enterprise Edition, or Enterprise Plus Edition.

Virtualization_for_Cisco_Unified_Contact_Center_Express

- Evaluation mode license.

The VMware vSphere PowerCLI (set cmdlet) is NOT supported in the following environment:

- Cisco UC Virtualization Hypervisor (appears as "Hypervisor Edition" in vSphere Client).
- VMware vSphere Hypervisor Edition.

1. Install VMware vSphere PowerCLI (<http://www.vmware.com/support/developer/PowerCLI/>).
 2. Always power off the virtual machine.
 3. From the Windows "Start" menu select Start -> All Programs -> VMware -> VMware vSphere PowerCLI -> VMware vSphere PowerCLI.
 4. Running the following commands, replacing <virtual_machine_host> with the ESXi host machine hostname and <virtual_machine_name> with the actual virtual machine name. Enter credentials when prompted. Connect-VIServer <virtual_machine_host> get-vm "<virtual_machine_name>" | get-networkadapter | set-networkadapter -type "vmxnet3." Once the virtual machine is modified, reload it Get-View -ViewType VirtualMachine -Filter @"Name" = "<virtual_machine_name>" | %{\$_.reload()}.
4. Power on the Unified CCX server.

Modifying Guest OS and Update VMWare Tools

Use the following steps to change the Guest OS version and upgrade VMWare tools to upgrade to Unified CCX 9.x, 10.x, and later from a previous version:

1. Shut down the Unified CCX server.
2. Modify the Guest OS settings on the Virtual Machine to Red Hat Enterprise Linux version based on the above tables. For example, UCCX 10.5.1 supports RHEL 6 (64-bit).
3. Power on the Unified CCX server.
4. Upgrade VMWare Tools using the instructions found in http://doewiki.cisco.com/wiki/VMware_Tools#Method_2:_CLI_command.

Modifying Virtual Machine Settings after Upgrade (L2 and RU) to Version 11.0(1) and later

Note: You can make all of the following modifications after you shutdown the Unified CCX server.

Modifying Video card settings

Use the following steps to change the Video card settings:

1. Shut down the Unified CCX server.
2. Increase the Total video memory size to 8 MB.
3. Power on the Unified CCX server.

Use the following steps to change the Video card settings:

1. Shut down the Unified CCX server.
2. Increase the **Total video memory** size to 8 MB.
3. Power on the Unified CCX server.

New Identity Support for Unified CCX or IPIVR 9.0(2)

Use this feature to quickly deploy new instances of Unified CCX.

In the current version, using this procedure you can deploy Publisher Node/First Node of a Unified CCX cluster only. Install the Subscriber Node/Second Node using the standard installation procedure.

Perform the following procedure to create the new identity:

1. Use the correct OVA to create a new VM for the Unified CCX virtual machine.
2. Use the standard installation process to install the Unified CCX product.
3. After the installation, do not perform any configuration. Convert the VM into a template.
4. Use that template to create a new virtual machine instance.
5. Power on the VM.
6. Use the Answer File Generator tool (http://www.cisco.com/web/cuc_afg/index.html) to create a platformConfig.xml file.
7. Insert the XML file into a virtual floppy instance (for directions, see http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1739).
8. Mount the .flp file in the floppy drive of the new VM.
9. Log in to the CLI of the VM (using the console or SSH) and run the command **?utils import config?**. The system reboots and restarts with the new identity.

Back to: Unified Communications in a Virtualized Environment