



## Pre-Installation

This chapter describes the components and various installation modes of Cisco Unified Customer Voice Portal (CVP). You can select additional components along with the Unified CVP installation default components. Choose an installation option based on your business requirement.

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## Unified CVP Components

*Table 1: Unified CVP Components*

Unified CVP Component	Description
Unified CVP Server	This server consists of: <ul style="list-style-type: none"><li>• Unified CVP Call Server</li><li>• Unified CVP VXML Server</li><li>• Media Server</li><li>• SNMP Monitoring service</li></ul>
Operations Console	The Operations Console, also known as Operation Administration Maintenance and Provisioning (OAMP), is a web-based interface that you use to configure and manage individual components of Unified CVP.
Remote Operations	This component allows remote administration of Unified CVP solution components. It includes Operations and Resource Module (ORM).

Unified CVP Component	Description
Unified CVP Reporting Server	<p>This server provides a historical repository, which can be used for reporting, for a call center. It receives reporting data from one or more Unified CVP Call Servers and Unified CVP VXML Servers, and stores that data in a database.</p> <p><b>Note</b> The IBM Informix database is installed as a part of the Reporting Server. The license of IBM Informix comes bundled as a part of Reporting Server.</p>

## Requirements

This section describes the platform and software requirements for Cisco Unified Customer Voice Portal (CVP).

**Table 2: Unified CVP Platform and Software Requirements**

Unified CVP Component/Task	Platform Requirement
Unified CVP Server	<p><b>Note</b> See the <i>Unified CVP Virtualization Wiki</i>.</p>
Unified Operations Console	
Unified Reporting Server	
Virtualized Platform	<p>Cisco Unified Computing System (UCS) B-Series and C-Series</p> <p><b>Note</b> Access the open virtualization archive (OVA) template at: <a href="http://software.cisco.com/download/type.html?mdfid=270563413&amp;flowid=5229">http://software.cisco.com/download/type.html?mdfid=270563413&amp;flowid=5229</a>.</p>

For information about hardware requirements and compatibility, see the *Unified CCE Solution Compatibility Matrix* available at [http://docwiki.cisco.com/wiki/Compatibility\\_Matrix\\_for\\_Unified\\_CCE](http://docwiki.cisco.com/wiki/Compatibility_Matrix_for_Unified_CCE).

## Unified CVP Server

Category	Requirements
Operating System	<p>Microsoft Windows Server 2008 R2 Standard Edition and Enterprise</p> <p><b>Note</b> To apply the latest Operating System Service Upgrade Release, go to Microsoft upgrade website.</p>

Category	Requirements
Additional Items	<p>A minimum of 10 MB should be available for Unified CVP system media files. Cisco provides .wav files for numbers, days, months, currency types, and so on in American English and Latin American Spanish</p> <p><b>Note</b> Any additional media files will require additional space.</p> <p>Media Server can co-reside with the Call Server, VXML Server, or a combination of both on the same physical machine. For more information, see <i>Design Guide for Cisco Unified Customer Voice Portal</i>.</p> <p>On Windows platforms, Call Servers require that Simple Network Management Protocol and WMI Windows Installer Provider be installed.</p>
Restriction	<p>Although supported third-party virus scan software can be enabled on the Call Server, full fixed disk virus scans should take place either offline while calls have been diverted to a different system (preferred), or during a period of low call volume. Do not run a full fixed disk scan while the Call Server is under load.</p>

## Unified CVP Operations Console

Category	Requirements
Operating System	<p>Microsoft Windows Server 2008 R2 Standard and Enterprise</p> <p><b>Note</b> To apply the latest Operating System Service Upgrade Release, go to the Microsoft upgrade web site.</p>

## Unified CVP Reporting Server (Optional)

Category	Requirements
Operating System	<p>Microsoft Windows Server 2008 R2 Standard and Enterprise</p>

Category	Requirements
Restriction	Although supported third-party virus scan software can be enabled on the Reporting Server, full fixed disk virus scans should take place either offline while calls have been diverted to a different system (preferred), or during a period of low call volume. Do not run a full fixed disk scan while the Reporting Server is under load.

## [Optional] Unified Call Studio

## Additional Components

You can use the following components that are not part of the Unified CVP software but may be used with the CVP components for a complete solution:

- Automatic Speech Recognition (ASR) Server/ Text-to-speech (TTS) Server
- Cisco Unified Contact Center Enterprise
- Cisco Unified Communications Manager
- Cisco Unified SIP Proxy
- Ingress Gateway
- Egress Gateway
- Voice XML Gateway
- Cisco Unified Border Element (CUBE)
- Cisco Unified Intelligence Center (CUIC)
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## Unified CVP Installation Modes

*Table 3: Unified CVP Installation Modes*

Installation Mode	Description
Production	In the Production mode, you can install only one component on a server at a time. If you choose to install additional CVP components, you must install them on a different server.

Installation Mode	Description
Lab only	<p>Use this mode to install Unified CVP for learning and testing.</p> <p>To use lab only mode, launch the installer from the command line, browse to the setup.exe folder, and enter <b>setup.exe labonly</b>.</p> <p><b>Note</b> In lab only mode, the Call Server and Reporting Server can be installed together but you cannot selectively uninstall one of them. For example, if you want to remove the Reporting Server you must reinstall Unified CVP.</p>

## Pre-Installation Tasks

### Fresh Installation

#### Fresh Install

##### Procedure

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- Step 1** Obtain the Unified CVP ISO image to install Unified CVP.
  - Step 2** Obtain the supported virtualization hardware and software that are required for the virtualization of Unified CVP.
  - Step 3** Identify the components for the required deployment model. For information about hardware requirements compatibility, see the *Unified CCE Solution Compatibility Matrix* available at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html>.
  - Step 4** Ensure that the servers are listed as supported hardware and sized appropriately.
  - Step 5** Verify that the any new server hardware, such as hard drive, is working properly.
  - Step 6** Stop any third-party services and applications that are running on the server before you run the Unified CVP Installer. Some third-party services and applications can lock files that are required by the installer resulting in an installation error.
  - Step 7** Obtain licenses for the required CVP components.
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### Upgrade Existing Unified CVP VM

#### Upgrade Virtual Machine Hardware Version

To upgrade virtual machine hardware version, refer to the [Unified CVP Virtualization Wiki](#).

#### Upgrade VM Network Adapter from E1000 to VMXNet 3

Before you upgrade the operating system of the virtual machine from Windows Server 2008 R2 SP1, upgrade the VM network adapters to VMXNet3. Unified CVP 11.5(1) requires VMXNet3 network adapters. If you

upgrade the operating system to Windows Server 2012 R2 Standard Edition without upgrading to VMXNet3, the static IP configuration on the ethernet adapter resets to automatic after the Windows upgrade.

Before you upgrade the operating system of the virtual machine from Windows Server 2008 R2 SP1, upgrade the VM network adapters to VMXNet3. Unified CVP 11.6(1) requires VMXNet3 network adapters. If you upgrade the operating system to Windows Server 2012 R2 Standard Edition without upgrading to VMXNet3, the static IP configuration on the ethernet adapter resets to automatic after the Windows upgrade.

### Procedure

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- Step 1** Record the network settings, including the IP addresses, subnet masks, default gateway, DNS, persistent static routes, and MAC address of the network adapter.
- Important** You need these values to re-create the configurations on the new virtual machine network adapter. For more information, see [Save MAC Address of Virtual Machine Network Adapter, on page 6](#).
- Step 2** Stop the Unified CVP Server. The CVP Server cannot be active during reconfiguration of the network adapter.
- Step 3** Add the VMXNet 3 network adapter:
- Select **Edit Settings** from the VM context menu.
  - Click **Add** on the **Hardware** tab.
  - Select **Ethernet Adapter** in the **Device Type** page and click **Next**.
  - Select **VMXNet 3** from the **Adapter Type** drop-down list and click **Next**.
  - Select the network port group from the **Network label** drop-down list and click **Finish**.
- Step 4** Apply the network settings that you recorded in Step 1 from the E1000 network adapter to the VMXNet 3 network adapter.
- Step 5** Enable the VMXNet 3 network adapter.
- Step 6** Remove the E1000 network adapter:
- Select **Edit Settings** from the VM context menu.
  - Select the **E1000 network adapter** on the **Hardware** tab.
  - Click **Remove** and then click **Finish**.
- Step 7** Remove the E1000 network adapter from VMs for CallServer/VXMLServer, Operations Console and Reporting Servers:
- Select **Edit Settings** from the VM context menu.
  - Select the **E1000 network adapter** on the **Hardware** tab.
  - Click **Remove** and then click **Finish**.
- Step 8** Use **tracert** to test the network connectivity.
- Step 9** Re-enable the Unified CVP services.
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## Save MAC Address of Virtual Machine Network Adapter

Complete the following procedure to preserve the MAC address of the virtual machine network adapter.

## Procedure

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- Step 1** Right-click the Unified CVP virtual machine and click **Edit Settings**.
  - Step 2** On the **Hardware** tab, select the Network adapter used by the virtual machine to connect to the network.
  - Step 3** Record the value that is in the MAC address field.
  - Step 4** Save the MAC address.
  - Step 5** From the **Hardware Settings** tab, click **Add Hardware**.
  - Step 6** From the **Adapter Type** drop-down list, change the adapter type to **VMXNET3**.
  - Step 7** Under the **MAC Address** field, select **Manual**.
  - Step 8** In the **MAC Address** field, enter the MAC address you recorded.
  - Step 9** Click **OK**.
  - Step 10** Restart the virtual machine.
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## Enable Resource Reservation on Upgraded Virtual Machine

After the virtual machine hardware version is upgraded based on the information provided in the *Virtualization for Cisco Unified Customer Voice Portal*, perform the following steps to enable resource reservation on the respective Unified CVP virtual machines.

For more information on supported virtual machine hardware versions, see available at [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/uc\\_system/virtualization/virtualization-cisco-unified-customer-voice-portal.html](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-customer-voice-portal.html).

## Procedure

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- Step 1** Login to vSphere Client and select the Unified CVP virtual machine.
  - Step 2** Right-click the virtual machine and select the option **Edit Settings** from the popup menu. The **Virtual Machine Properties** window pops up.
  - Step 3** Select the **Resources** tab. The Virtual Hardware Resource Setting that can be customized is shown in the left dialog box. The Resource Allocation for respective virtual hardware is shown in the right.
  - Step 4** Enable resource reservation for Unified CVP virtual machines.  
**Note** To enable the Virtual Hardware Resource reservation for Unified CVP virtual machines, the setting for CPU and memory must be modified. For information about virtual hardware resource setting for CPU and memory, see *Virtualization for Cisco Unified Customer Voice Portal* available at [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/uc\\_system/virtualization/virtualization-cisco-unified-customer-voice-portal.html](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-customer-voice-portal.html).
  - Step 5** After the virtual hardware resource setting for CPU and memory for CVP virtual machines are set, click **OK** to close the VM Properties dialog box. The CVP virtual machine is reconfigured and the **Resource Reservation** is enabled.
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# Multiple Ethernet Interfaces

The machine that you are using for the Unified CVP Call Server must have only one Ethernet interface enabled. When installing Unified CVP on a machine with two or more Ethernet interfaces, the additional interface(s) must be disabled, even if they are not configured. Refer to Windows documentation for information on enabling/disabling an Ethernet interface.