



Pre-Installation

This chapter provides the tasks that you must perform prior to installing the Unified CVP software.



Important You must stop any third-party services and applications running on the server prior to running the Unified CVP Installer. Some third party services and applications can lock files required by the installer, resulting in an install error.

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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">• Unified CVP Call Server• Unified CVP VXML Server• Media Server• SNMP Monitoring service
Operations Console	The Operations Console (OAMP and NOAMP) is a web-based interface that enables you 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>Note 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>
Unified Call Studio	This component provides design and syntax for developing call flow for VXML-based execution. Unified Call Studio also supports debugger for application. This helps validate Unified Call Studio application.

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>Note Refer to the <i>Cisco Collaboration Virtualization</i> page at https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/cisco-collaboration-virtualization.html.</p>
Unified Operations Console	
Unified Reporting Server	
Unified Call Studio	<p>4GB+ RAM</p> <p>Microsoft Windows 10</p>
Virtualized Platform	<p>Cisco Unified Computing System (UCS) B-Series and C-Series</p> <p>Note Access the open virtualization archive (OVA) template at: https://software.cisco.com/download/type.html?mdfid=270563413&flowid=5229.</p>

For information about hardware requirements and 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>.

Unified CVP Server

Category	Requirements
Operating System	<p>See the Compatibility Matrix at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html.</p> <p>Note To apply the latest Operating System Service Upgrade Release, go to Microsoft upgrade website.</p>
Additional Items	<p>A minimum of 10MB should be available for Unified CVP system media files. Cisco provides .wav files for numbers, days, months, currency types in American English and Latin American Spanish.</p> <p>Note Any additional media files will require additional space.</p> <p>By default, the Call Server and the VXML Server are on the same physical machine. For more information, see <i>Solution Design Guide for Cisco Unified Contact Center Enterprise</i>, available at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html.</p> <p>On Windows platforms, Call Servers require Simple Network Management Protocol and WMI Windows Installer Provider to be installed.</p>
Restriction	<p>Although supported third-party virus scan software can be enabled on the Call Server, full fixed disk virus scans must take place either offline while calls have been diverted to a different system 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>See the Compatibility Matrix at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html.</p> <p>Note To apply the latest Operating System Service Upgrade Release, go to the Microsoft upgrade web site.</p>

[Optional] Unified CVP Reporting Server

Category	Requirements
Operating System	See the Compatibility Matrix at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html . Note To apply the latest Operating System Service Upgrade Release, go to Microsoft upgrade website.
Restriction	Although supported third-party virus scan software can be enabled on the Reporting Server, full fixed disk virus scans must take place either offline while calls have been diverted to a different system 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

Category	Requirements
Supported Hardware	4GB+ RAM required

Configure Secure Passwords

To configure a secure password for Reporting Server users (cvp_dbadmin, cvp_dbuser) and the Operations Console Administrator user, your password must comply with the following rules:

- The password must contain characters only from the ASCII character set:
 - Uppercase and lowercase letters of the English alphabets
 - Numeric characters [0-9]
 - Special characters from this set: !#\$%&()*+./<?@[]^_`{}~
- The password length must be 12 characters or more.
- The password must meet the following password complexity:
 - The password must use three of four of the following four types of characters:
 - At least one uppercase letter [A-Z]
 - At least one lowercase letter [a-z]
 - At least one numeric character [0-9]
 - At least one special character from this set: !#\$%&()*+./<?@[]^_`{}~

- The characters in the password must not be repeated more than three times consecutively.
- The password must not be "cisco", "ocsic", or any variant obtained by changing the capitalization of letters therein.

Additional Components

You can use the following components that are not part of the Unified CVP software but may be used with Unified CVP for a complete contact center 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)
- Cisco Virtualized Voice Browser

Unified CVP Installation Modes

Table 3. Unified CVP Installation Modes

Installation Mode	Description
Production	In production mode, you can install only one Unified CVP component on a virtual machine server at a time. If you need to install additional components, you must install these components on a different virtual machine server.
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 setup.exe labonly.</p> <p>Note In lab only mode, the Call Server, OAMP 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

Install Microsoft Windows Server

Complete the following procedure to install Microsoft Windows Server 2016 on all virtual machines for server-based applications.

Before you begin

- Ensure that VMware Tools software is installed. You cannot install VMXNET3 driver without VMware Tools.
- Ensure that ESXi version of the host is ESXi 6.5 with VMFS 5, ESXi 6.5 U2 and later updates with VMFS 6, or ESXi 6.7 with VMFS 6.
- Ensure that the length of the host name for CVP server is not more than 15 characters.
- Ensure that you have deployed the OVA template for the respective CVP components.

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- Step 1** Mount Microsoft Windows Server 2016 ISO image to the virtual machine.
- Step 2** Power on the virtual machine.
- Step 3** Enter the Language, Time and Currency Format, and Keyboard settings. Click **Next**.
- Step 4** Click **Install Now**.
- Step 5** Select the appropriate version of the windows server with Desktop Experience option that meets your organization's needs, and then click **Next**. Make sure that you have chosen an appropriate edition of Windows server with Desktop Experience.
- Step 6** Accept the license terms and click **Next**.
- Step 7** Select the **Custom: Install Windows only (advanced)** option for clean installation.
- Step 8** Select the hard drive that you want to install the windows server on, and then click on the **New** button to do the partitions.
- Step 9** Specify the amount of the drive based on **MB** and then click on the **Apply** button. A warning appears to give the permission to system to create a drive for system files.
- Click **Cancel**. It is recommended not to change the size of the drive.
- The installation begins. After the installation is complete, the system restarts without prompting.
- Step 10** Enter and confirm the password for the administrator account, and then click **Finish**.
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Microsoft Windows Server 2016 is installed. In addition, Internet Explorer 11 is installed automatically. For more information, see *VMware Deployment Checklist*.

Fresh Installation

Fresh Install

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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.
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Verification of the Downloaded ISO

Perform the following procedure to validate the downloaded ISO signed by Cisco, to ensure that it is authorized.

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- Step 1** Install **OpenSSL** on Microsoft Windows.
 - Step 2** Add the OpenSSL installation path to **System variables** in the **Environment Variables** of the system.
 - Step 3** Add the downloaded ISO Image , ISO Image signature file and the Public key.der file in the same folder for the specific product component.
 - Step 4** Launch **Command Prompt** on the system.
 - Step 5** Run the following CLI (Command Line Interface) command to verify the files:

```
openssl dgst -sha512 -keyform der -verify <PUBLIC key.der> -signature <ISO Image.iso.signature <ISO Image
```

The system displays `Verified OK` on successful verification and `Verification failed` on verification failure.

Note If the verification fails do not proceed with the installation, contact Cisco Support for a valid ISO .

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.

