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.

Unified CVP Components

Table 1: Unified CVP Components

Unified CVP Component	Description
Unified CVP Server	This server consists of: • Unified CVP Call Server • Unified CVP VXML Server • Media Server • SNMP Monitoring service
Operations Console	The Operations Console (OAMP, also known as Operation Administration Maintenance and Provisioning, 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	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. **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.
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	**Note** Refer to the *Cisco Collaboration Virtualization* page at https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/cisco-collaboration-virtualization.html.
Unified Operations Console	
Unified Reporting Server	
Unified Call Studio	4GB+ RAM Microsoft Windows 7, Microsoft Windows 8.1, Microsoft Windows 10
Virtualized Platform	Cisco Unified Computing System (UCS) B-Series and C-Series **Note** Access the open virtualization archive (OVA) template at: https://software.cisco.com/download/type.html?mdfid=270563413&flowid=5229.

Note If you are using Unified CVP 12.0 with Cisco VVB 11.5/11.6, then calls may fail as Cisco VVB 11.5/11.6 is not compatible with Tomcat 9.0.8 used in Unified CVP 12.0. To ensure uninterrupted services:

- For Cisco VVB 11.6, install VVB 11.6 ES-84 or upgrade to Cisco VVB 12.0.

- For Cisco VVB 11.5, upgrade to Cisco VVB 12.0.

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	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.
Additional Items	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.
	Note Any additional media files will require additional space.
	By default, the Call Server and the VXML Server are on the same physical machine. For more information, see *Solution Design Guide for Cisco Unified Contact Center Enterprise*, available at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html.
	On Windows platforms, Call Servers require Simple Network Management Protocol and WMI Windows Installer Provider to be installed.
Restriction	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.

Unified CVP Operations Console

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 the Microsoft upgrade web site.

[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 (informix, 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	Use this mode to install Unified CVP for learning and testing. To use lab only mode, launch the installer from the command line, browse to the setup.exe folder, and enter **setup.exe labonly**. **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.

Pre-Installation Tasks

Install Microsoft Windows Server

Complete the following procedure to install Microsoft Windows Server 2012 R2 Standard Edition 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 5.5 update 2, ESXi 6.0 update 2 or ESXi 6.5 with VMFS5.

- 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.

Procedure

Step 1 Mount Microsoft Windows Server 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 Enter the product key for Windows Server 2012 R2 Standard and click **Next**.

Step 6 Select **Windows Server 2012 R2 Standard (Server with a GUI)** and click **Next**.

Step 7 Accept the license terms and click **Next**.

Step 8 Select **Custom: Install Windows only (advanced)**, select the drive on which to install Microsoft Windows Server, and then click **Next**.

The installation begins. After the installation is complete, the system restarts without prompting.

Step 9 Enter and confirm the password for the administrator account, and then click **Finish**.

Step 10 Enable Remote Desktop connections as follows:
   a) Navigate to **Start** > **Control Panel** > **System and Security**.
   b) Click **Allow remote access**.
   c) Select the **Allow remote connections to this computer** radio button, and click **OK**.

Step 11 Using the Windows **System and Security** > **System** tool, change the name of the computer from the name randomly generated during Microsoft Windows Server installation. The name cannot contain underscores or hyphens.

Step 12 Open the **Network and Sharing Center** and select **Local Area Connections**.

Step 13 In the **Network Settings** dialog box, configure the network settings and the Domain Name System (DNS) data:

a) Select **Properties**. Uncheck **Internet Protocol Version 6 (TCP/IPv6)**.

b) Select **Properties** again.

c) Select **Use the following IP Address**.

d) Enter the IP address, subnet mask, and default gateway and click **OK**.

Step 14 In the **Network Settings** dialog box, configure the network settings and the Domain Name System (DNS) data.

Step 15 Run Microsoft Windows Update.
After the update is complete, click **Do not enable automatic updates**.

Microsoft Windows Server 2012 R2 Standard Edition is installed. In addition, Internet Explorer 11 is installed automatically. For more information, see *VMware Deployment Checklist*.

Fresh Installation

Fresh Install

Procedure

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.

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.