



System Requirements



Note Before proceeding with ICM application installation, ensure that you follow the antivirus guidelines specified in the Section, Antivirus Guidelines of the Security Guide for Cisco Unified ICM/Contact Center Enterprise at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html>.

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Set up Active Directory

Ensure that you have a completed plan for your domain structure and Active Directory implementation before you set up your network.



Warning The Unified CCE servers should be in the same domain, and multiple domains are not supported.

For more information, see the *Staging Guide for Cisco Unified ICM/Contact Center Enterprise* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-guides-list.html>.

Transport Layer Security Version 1.2 Required

Contact center enterprise solutions require the use of TLS 1.2 only connections in this release. Our services accept incoming TLS connections only over TLS 1.2. All outgoing TLS connection use only TLS 1.2.

All clients that connect to either our web interfaces or databases must support TLS 1.2.



Note The older versions of the TLS/SSL are disabled by installer.

For more information see, *Contact Center Enterprise Compatibility Matrix* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html>.

Installation Tools

During installation, use one or all of the following tools, as required:

- ICM-CCE-Installer—The main Unified CCE Installer copies all files into relevant folders, creates the base registries, and installs needed third-party software such as JRE and Apache Tomcat. It uses the Microsoft .NET Framework which is an integral software of Windows Server.



Note Optionally, you can update the JRE installed by the Unified CCE Installer with a later version of the JRE. See [Java Upgrades](#).

If the ICM-CCE installer installs JRE on the Windows platform, the system retains only the Cisco approved CA certificates in the java certificate store, and removes all the unapproved certificates.

Do not run the installer remotely. Download the installer to a local machine for installation.

- Cisco Unified Intelligent Contact Management Database Administration (ICMDBA) Tool—Used to create new databases, modify or delete existing databases, and perform limited SQL Server configuration tasks.
- Domain Manager—Used to provision Active Directory.
- Web Setup—Used to set up the Call Routers, Loggers, Network Gateways, Network Interface Controllers, and Administration & Data Servers.
- Peripheral Gateway (PG) Setup—Used to set up MR PIMs and CG.

VMware Hosting and Hardware Support

See the *Virtualization for Cisco Packaged CCE* at https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/uc_system/virtualization/pcce_virt_index.html for the supported specification based hardware, Cisco UCS C-Series servers for Packaged CCE fresh installs and upgrades, and supported VMware vSphere ESXi versions.

Software Compatibility

See the Contact Center Enterprise Compatibility Matrix at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-device-support-tables-list.html>

- Endpoints for agents and callers

- Cisco gateway hardware and software
- Third-party software

Software Licenses

The following table lists the Cisco components that comprise a Packaged CCE solution:

Components	License requirements
Cisco Packaged Contact Center Enterprise	One server license for each of the voice applications. One agent license for each concurrent user with different feature tiers.
Cisco Unified Communications Manager	One license for each Cisco Unified Communications Manager node, plus device licenses for connected devices.
Cisco Unified Customer Voice Portal (CVP)	You must register CVP instance with Cisco Smart Licensing Server which includes CVP Call Server and VXML Server in order to use the appropriate licenses. For more information, see <i>Administration Guide for Cisco Unified Customer Voice Portal</i> at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/tsd-products-support-series-home.html .
Cisco Finesse	Cisco Finesse: User licenses included with selected tiers of Cisco Unified Contact Center Enterprise user licenses. One license for each server pair. One license for each Media Kit.
Cisco Customer Collaboration Platform	User license included with Packaged CCE Agent License. One server license for each Customer Collaboration Platform server.



Note Packaged Contact Center Enterprise is enabled with Smart Licensing. For information on Smart Licensing, see the Packaged Contact Center Enterprise Administration and Configuration Guide at <https://www.cisco.com/c/en/us/support/customer-collaboration/packaged-contact-center-enterprise/products-maintenance-guides-list.html>.

Before you begin an installation or upgrade of any part of your contact center, confirm the following:

- That you have all the required software products.
- That all the software versions are compatible with each other.
- That all software versions are also compatible with all hardware and VMware.

Java Requirements

A new 12.5(1a) base installer is available for customers, which has OpenJDK JRE as the supporting Java run time for all the CCE applications. Its predecessor the 12.5(1) installer employs Oracle JRE. Any installation

done using the 12.5(1) installer can continue to use Oracle JRE, and can receive Java security updates and fixes from the Oracle website.

However, if there is a need to apply an ES on 12.5(1) that mandates the installation of ES55 (mandatory OpenJDK ES), then the Java updates would have to be downloaded and installed from the OpenLogic website.

CCE VMs installed using the 12.5(1a) installer would need the OpenJDK patches applied. You can verify the base installer version to be 12.5(1a) from **Control Panel > Programs > Programs and Features > Cisco Unified ICM/CCE 12.5.1a**.

Certificate Management Requirements

During installation of 12.5(2), Unified CCE installs the Java version 8 update 332. If your system has a Java version that is lower than version 8 update 332, perform the following steps:

Procedure

Step 1

Before you install 12.5(2):

- a) Run the command at the command prompt: `cd %CCE_JAVA_HOME%\bin.`

Important Use %JAVA_HOME% if you are employing Oracle JRE.

- b) Export the certificates of all the components imported into the truststore.
- c) The command to export the certificates is `keytool -export -keystore <JRE path>\lib\security\cacerts -alias <alias of the component> -file <filepath>.cer`
- d) Enter the truststore password when prompted.

Step 2

After 12.5(2) installation is complete, perform the following steps:

- a) Run the command at the command prompt: `cd %CCE_JAVA_HOME%\bin.`
 - b) Import the certificates for all the components that you previously exported from the truststore before you installed 12.5(2). The command to import certificates is `keytool -import -keystore <JRE path>\lib\security\cacerts -file <filepath>.cer -alias <alias>.`
 - c) Enter the truststore password when prompted.
 - d) Enter 'yes' when prompted to trust the certificate.
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