System Requirements

Note By default, Windows Defender is enabled on Windows Server 2016. Windows Server 2016 upgrade will prompt to uninstall the antivirus due to compatibility issue with Windows Defender. To proceed with the upgrade, uninstall the antivirus. For more information on Windows Defender antivirus compatibility, see https://docs.microsoft.com/en-us/windows/security/threat-protection/windows-defender-antivirus/windows-defender-antivirus-compatibility.

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.

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.

  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.

  Note The SQL Server installation disables the Windows Computer Browser service. The ICMDBA requires this service. If you need to run ICMDBA on this server, enable the Computer Browser service.

- 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)	One CVP software license with CVP Call server ports for each server that runs Call Server and VXML Server software ports for each server that runs CVP VXML server. One CVP reporting license for each Reporting Server. Redundant port licenses required for each redundant port. One license for each developer machine running Call Studio.
Cisco Unified Intelligence Center	One license for each server.
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 SocialMiner	User license included with Packaged CCE Agent License. One server license for each SocialMiner server.

Third-Party Products

Note For detailed information about the software editions and versions supported for this release, 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.

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.