



Upgrade Overview

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Multistage Upgrades and Maintenance Windows

A Unified CCE solution upgrade likely involves a multistage process; components are grouped in several stages for upgrading. At each stage in the upgrade, the upgraded components must interoperate with components that have not yet been upgraded to ensure the overall operation of the contact center. Therefore, it is important to verify this interoperability during the planning stages of the upgrade.

Before upgrading a production system, perform the upgrade on a lab system that mirrors your production system to identify potential problems safely.

The following table details the required sequence for upgrading Unified CCE solution components, and the minimum component groupings that must occur together within one stage. Follow each stage to completion within one maintenance window. Each maintenance window must accommodate any testing required to ensure system integrity and contact center operation.

You can combine more than one complete stage into a single maintenance window, but you cannot break any one stage into multiple maintenance windows.

Upgrade the components that apply to your Unified CCE contact center as follows:

Stage	Component Group	Components	Notes
0	Identity Service (IdS)/Single Sign-On(SSO)	<ul style="list-style-type: none"> • IdS Server 	<p>SSO is an optional feature and exchanges authentication and authorization details between an identity provider (IdP) and an identity service (IdS).</p> <p>If you upgrade to 11.6(1) from 11.5(x) with SSO enabled then upgrade the standalone Cisco IdS server before upgrading other components like Cisco Unified Intelligence Center (CUIC), and Finesse.</p> <p>For co-resident configurations, CUIC must be at the same version as Finesse. Upgrade both, CUIC and Finesse in the same maintenance window.</p> <p>Install the Identity Service. See the Installation Task Flow for Cisco Identity Service section in the <i>Cisco Unified Contact Center Enterprise Features Guide</i> at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-feature-guides-list.html</p>
1	Agent and supervisor desktops	<ul style="list-style-type: none"> • Cisco Finesse 	
2	Queuing and self-service*	<ul style="list-style-type: none"> • Cisco Unified Customer Voice Portal (CVP) (Operations Console, Reporting Server, Call Server/VXMLServer, Unified Call Studio) 	
3	Gateways	<ul style="list-style-type: none"> • IOS Gateways (If used for ingress access only. If used for Outbound Option Dialer, see Stage 6.) • CVP VXML Gateways 	
4	Reporting server	<ul style="list-style-type: none"> • CUIC server 	<p>Cisco Unified Intelligence Center 11.6(1) supports TLS 1.2 only. For Cisco Unified Intelligence Center 11.6(1) to be compatible with releases earlier than Unified CCE Release 11.6(1), run the CLI command set client tls min-version. This command allows you to set the minimum TLS version in the client for outbound SSL connections to TLS 1.0 or 1.1. Restart the system for the changes to take effect.</p> <p>For information about the CLI command to display the current TLS minimum version for client, see Transport Layer Security CLI Commands.</p>

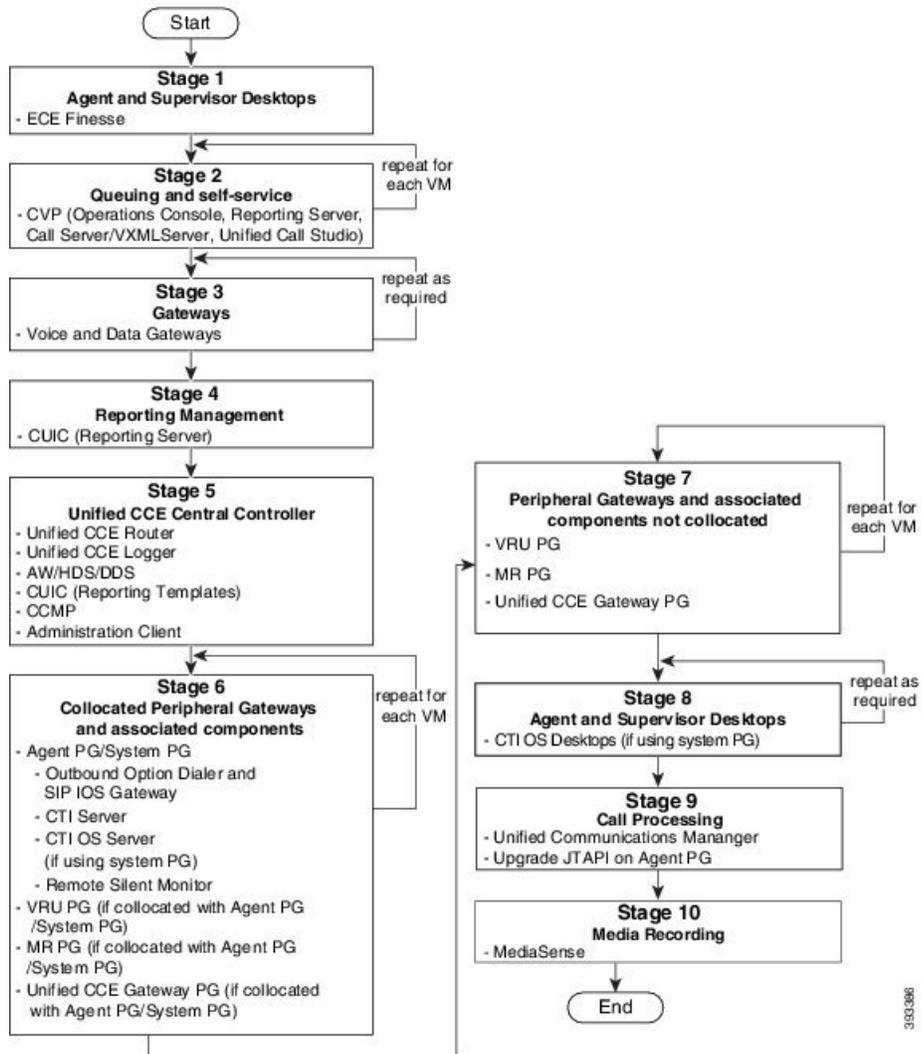
Stage	Component Group	Components	Notes
5	Central Controller	<ul style="list-style-type: none"> • Unified CCE Router • Unified CCE Logger • Admin & Data server (AW/HDS/DDS) • Standalone Live Data (if Deployed) • CUIC Reporting Templates • CCMP • Administration Client 	
6	Peripherals	<ul style="list-style-type: none"> • Agent (Unified Communications Manager) PG or System PG, plus <ul style="list-style-type: none"> • CTI Server • CTI OS Server • Outbound Option Dialer and SIP IOS Gateway • VRU PG (if collocated with Agent PG on VM) • MR PG (if collocated with Agent PG on VM), plus • Unified CCE Gateway PG (if collocated with Agent PG on VM) 	<p>Everything that resides on one virtual machine must be upgraded together.</p> <p>You can have many PGs located on different virtual machines. You can upgrade each PG virtual machine in its own maintenance window.</p>

Stage	Component Group	Components	Notes
7	Peripherals	<ul style="list-style-type: none"> • MR PG (if not collocated with Agent PG on VM), plus • VRU PG (if not collocated with Agent PG on VM) • Unified CCE Gateway PG (if not collocated with Agent PG on VM) • CRM connector 	You can have many PGs located on different virtual machines. You can upgrade each PG virtual machine in its own maintenance window.
8 (Recursive, see Notes)	Agent desktop client software	<ul style="list-style-type: none"> • CTI OS (Agent/Supervisor Desktops) 	You can have many desktops located in many different sites. You can upgrade CTI OS desktops in multiple maintenance windows; the later upgrade stages are not dependent on the completion of this stage.
9	Call Processing	<ul style="list-style-type: none"> • Cisco Unified Communications Manager (Unified Communications Manager) • JTAPI on Agent (Unified Communications Manager) PG 	<p>Note If you upgrade to CUCM 12.5 on the M4 servers, ensure that you deploy CUCM off-box. CUCM 12.5 on-box deployment are only supported for M5 servers.</p> <p>For more information, refer to the <i>Virtualization for Unified Contact Center Enterprise</i>, at http://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/%20uc_system/virtualization/%20virtualization-unified-contact-center-enterprise.html.</p>
Any (See Notes)	Media Recording	<ul style="list-style-type: none"> • MediaSense 	MediaSense is a standalone application that you can upgrade at any time after IOS Gateway upgrades ¹ .
*If you are using Unified IP IVR for self-service and queuing, see Getting Started with Cisco Unified IP IVR .			

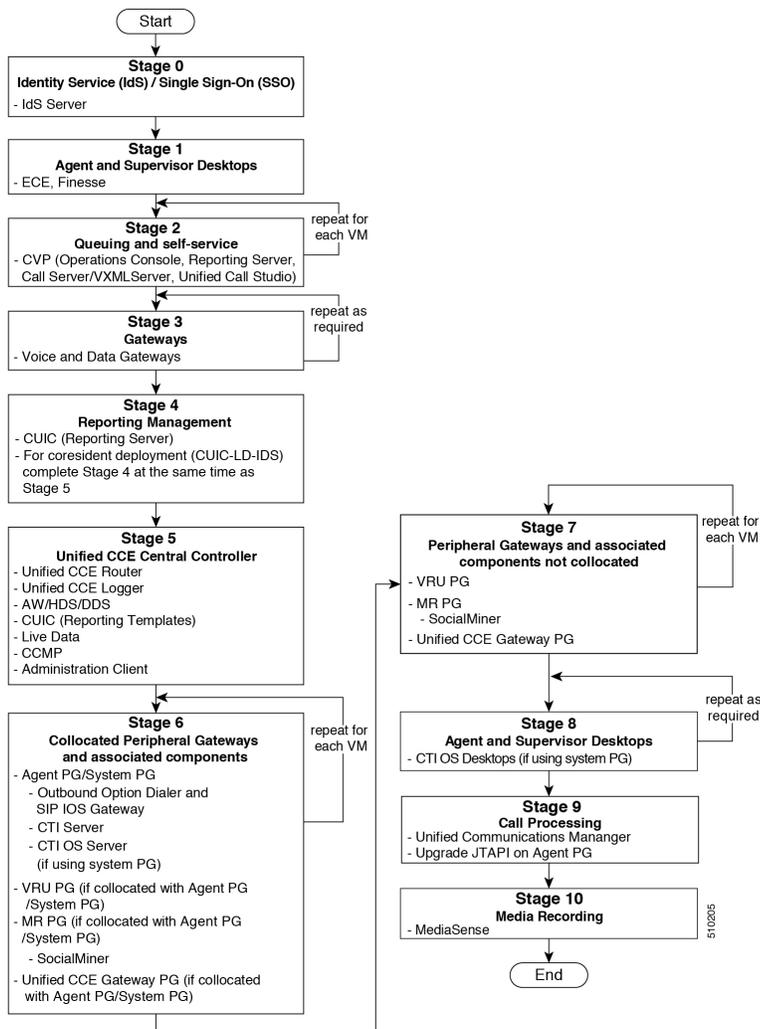
¹ UCCE 11.6(1) supports only Cisco MediaSense 11.5.

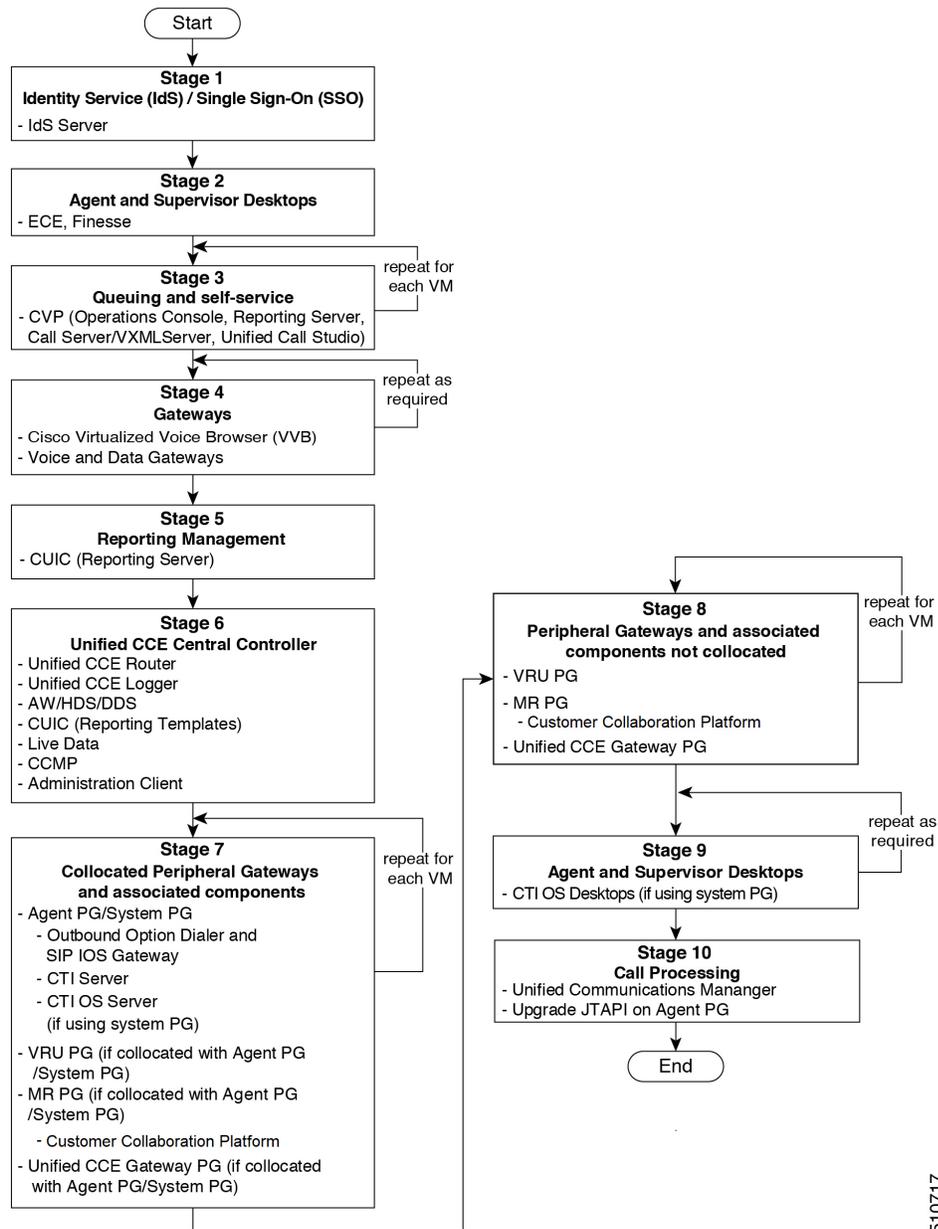
Unified CCE Contact Center Upgrade Flowcharts

The following diagram illustrates the solution-level upgrade flow for a Cisco Unified Contact Center Enterprise solution upgrade.



Unified CCE Contact Center Upgrade Flowcharts





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Note

- When you upgrade Unified CVP to Release 12.0, the following considerations apply:
 - If you are upgrading Cisco VVB to Release 12.0, upgrade Unified CVP and Cisco VVB to Release 12.0 in the same maintenance window.
 - If you are upgrading to Unified CVP, Release 12.0 with VVB, Release 11.6(1), you must install VVB, Release 11.6(1) ES84 before you upgrade Unified CVP to Release 12.0.
 - Cisco VVB, Release 11.5(1) is incompatible with Unified CVP, Release 12.0.

Silent Upgrade

There are situations when silent upgrade can be used in running an installation wizard. You can run a silent installation while performing a fresh install or an upgrade.

For more information, see [Silent Installation](#).

Related Topics

[Silent Installation](#)

Unified CCE Release 11.6(1) Upgrade Overview

Before you upgrade to Unified CCE Release 11.6(1), ensure that Unified CCE Release 11.x is installed on your machine. If you use Unified CCE Release 10.0(x) or Release 10.5(x), first upgrade to Unified CCE Release 11.0(1) using 11.0 ICM-CCE-CCHInstaller.

The supported upgrade paths to 11.6(1) are as follows:

- Release 10.0(x) to Release 11.0(1), followed by 11.6(1)
- Release 10.5(x) to Release 11.0(1), followed by 11.6(1)
- Release 11.0(1) to 11.6(1)
- Release 11.0(2) to 11.6(1)
- Release 11.5(1) to 11.6(1)



Note Any other Maintenance Release on 11.x needs to be removed before upgrading to 11.6(1). It may also be possible to upgrade directly to a Maintenance Release on top of 11.6(1) from other MR not mentioned in the above list.

For more information on available MR, see <https://software.cisco.com/download/release.html?mdfid=268439622&flowid=46046&softwareid=280840583>

See the *Cisco Unified Contact Center Enterprise Installation and Upgrade Guide* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-guides-list.html> for instructions on upgrading to Unified CCE Release 11.0.

For more information on the uninstallation process, see the section [Uninstall Methods](#)



Note As part of the upgrade of CCE servers, self-signed certificates employed by CCE web applications like CCE web administration tool and Websetup, may get regenerated. You must add the new certificates to the trust list on the appropriate end devices.



Note As CCE 11.6 enforces the use of TLS 1.2 in the entire solution, an upgrade to SQL Server 2014 SP2 is a prerequisite before upgrading to 11.6(1).

Related Topics

[Transport Layer Security Version 1.2 Required](#)

Upgrade to Unified CCE Release 11.6(1)

Before you begin

- An upgrade to Release 11.6(1) requires Windows Update KB2919355 (Hotfix). If you applied a Windows update since March 2014, this update should be installed. To determine if this Windows Hotfix is installed, from your Control Panel go to **Programs > Programs and Features**. Click **View installed updates**.

Make sure that Windows Update is not running in parallel when you install the Release 11.6(1) patch.

- If you are upgrading from 11.0(1), 11.0(2) or 11.5(1), you must run the mandatory **CustomRegionFixTool** before upgrading to Release 11.6 to avoid any region data corruption.

CustomRegionFixTool.exe: Before upgrading Unified CCE, run the CustomRegionFixTool.exe tool on machines that have <instance name>_sideA, <instance name>_sideB, and <instance name>_awdb databases.

You can download CustomRegionFixTool.exe from [Cisco.com](#).

- Before upgrading Unified CCE, update the OS and SQL Server on your VMs to meet the requirements listed on the Unified CCE Solution Compatibility Matrix. Your upgrade can fail if the OS and SQL Server versions do not meet these requirements.
- Database partitioning, if enabled, prevents Unified CCE Release 11.6(1) upgrade because database partitioning was obsoleted in Unified CCE Release 9.0(1). Remove partitioning before you run the Unified CCE Release 11.6(1) installer.

To remove partitioning from logger/AW/HDS database, follow the steps mentioned in the tech-zone article: <https://techzone.cisco.com/t5/Administration-and-Data-Servers/Removing-Database-partitioning-UCCE-8-5-4/ta-p/743317>.

- The minimum disk space required to perform the upgrade is 2175 MB.
- During the upgrade process, the installer takes a backup of the existing configuration database. This backup is available in drive\temp\



Note The values for Major, CCMajor, AWMinor that are used in the backup folder name, are derived from the 11.0 or 11.5 schema version of the system being upgraded (These are stored in the Version table of the CCE database and would translate into 181,3,3 for upgrades from 11.0(x) systems and 188,0,0 for 11.5(x) upgrades).

For example: C:\Temp\Inst_sideA_181_3_3 from 11.0(1) upgrade and C:\Temp\Inst_sideA_188_0_0 from 11.0(1) upgrade



Note This backup may fail if the space required to backup configuration data as calculated by the installer is not available on the system. This is independent of the minimum space requirement listed above.

- Before upgrading or uninstalling 11.6(1) Installer, close all the open **Windows Event Viewer** instances. If you do not follow the same, the installer may fail to proceed. You might see an error that says the following DLLs are locked.
 - icrcat.dll
 - icrmsgs.dll
 - snmpeventcats.dll
 - snmpeventmsgs.dll

In such a scenario, close the **Event Viewer** and retry the installation or uninstallation.

Procedure

- Step 1** Log in to your system as a user with administrative privileges.
- Step 2** After either downloading the installer or placing the media in the drive, start the Cisco ICM Minor Release ICM 11.6(1) Installer.
- Step 3** Follow the on-screen instructions to install Unified CCE Release 11.6(1).
 - Note** A pop-up window displays a notification that some services were automatically changed to Manual as part of the upgrade. Make sure that both A and B sides of your system operate properly after the Unified CCE Release 11.6(1) upgrade. Then, set the ICM services that were changed during the upgrade back to their original setting (Automatic).

If you are not sure which services were changed from Automatic to Manual during the upgrade, examine the setup logs located in `C:\Temp\Minor Release ICM11.6(1)`.
- Step 4** If you use the Diagnostic Portal to monitor Live Data standalone servers, rerun the following command:


```
set live-data machine-services awdb-user awdb-pwd
```

Related Topics

[Configure Live Data Machine Services](#)

Ensure Campaigns are not Lost on Upgrade

Database schema updates in release 11.5 and 11.6 modify the campaign data during upgrade, which can potentially cause all the campaign configuration data to be lost. Verify the default time zone set for the configured campaigns to make sure you do not lose the campaign configuration data as identified by these issues. Refer to [CSCvg84326](#) and [CSCvu45133](#) for more details.