



## Common Ground Upgrade

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## Preupgrade Overview

The preupgrade process ensures that your systems have the necessary software to support your contact center. These tasks prepare the way for a successful upgrade of your Cisco contact center components to the new release.

### Upgrade Tools

During the preupgrade process, use the following tools as required:

- **User Migration Tool**—A standalone Windows command-line application that is used for all upgrades that involve a change of domain. The tool exports all existing user accounts (config/setup and supervisors) from the source domain to a **.bin** file. The file is used in the target domain during the upgrade.

You can download the User Migration Tool from [Cisco.com](https://www.cisco.com) by clicking **ICM User Migration Tool Software**.

- **Regutil Tool**—Used in Technology Refresh upgrades, exports the Cisco Systems, Inc. registry from the source machine during the preupgrade process. The output of the tool is required on the destination machine when running the Unified CCE Installer during the upgrade process.

You can download the Regutil Tool from [Cisco.com](https://www.cisco.com) by clicking **Contact Center Enterprise Tools**.

- **Domain Manager**—Used to provision Active Directory.

The Domain Manager Tool is delivered with the main installer.

- **Upgrade.exe**—Used to upgrade the schema of the logger, AW DB, HDS DB, and BA databases to a version compatible with the current Unified CCE Software version. It is typically used when the installer fails to automatically upgrade the schema of the AW database. The other databases are typically upgraded using EDMT and not the installer.

Perform the following steps to use the tool:

```
<ICM install directory>:\icm\bin>upgrade.exe -s <Server Name> -d
<Database name> -dt <Database Type> -i <Instance Name>
```

Where

<Database Type> - can be either " **logger**" or " **hds**" or " **aw**" or " **ba**", depending on the database that requires the schema to be upgraded.

- Enhanced Database Migration Tool (EDMT)—A wizard application that is used for all upgrades to migrate the HDS, Logger, and BA databases during the upgrade process.

You can download the EDMT from [Cisco.com](https://www.cisco.com) by clicking **Cisco Enhanced Data Migration Tool Software Releases**.

The prerequisites for running EDMT are:

- EDMT also requires Microsoft® ODBC Driver 11 for SQL Server® and Visual C++ Redistributable for Visual Studio 2015 (or higher). The latest version of these packages can be downloaded from the Microsoft website. However, a copy of the same is also available in the **Prerequisites** folder of EDMT.

The EDMT displays status messages during the migration process, including warnings and errors. Warnings are displayed for informational purposes only and do not stop the migration. Errors stop the migration process and leave the database in a corrupt state. If an error occurs, restore the database from your backup, fix the error, and run the tool again.



#### Note

- If you are configuring SQL services to run as Virtual account (NT SERVICE) or Network Service account (NT AUTHORITY\NETWORK SERVICE), you must run EDMT as an administrator.
- The installer, not the EDMT, upgrades the AW database for the Administration & Data Server.
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## Common Ground Preupgrade Task Flow

Perform the following Common Ground preupgrade tasks in any order.



**Note** The Common Ground upgrade assumes the host server runs on Windows Server.

Task	See
Review target Release Notes	<i>Release Notes for Cisco Unified Contact Center Enterprise Solutions</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-release-notes-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-release-notes-list.html</a>
ESXi Supportability	<a href="#">ESXi Supportability</a>

Task	See
Virtual Machine Snapshot for Unified CCE Component Virtual Machines	<a href="#">Virtual Machine Snapshot for Unified CCE Component Virtual Machines, on page 4</a>
Download the Enhanced Database Migration Tool	<a href="#">Upgrade Overview</a>
Notify all stakeholders, including: <ul style="list-style-type: none"> <li>• Cisco Technical Assistance Center (TAC)</li> <li>• Local Cisco Representatives</li> <li>• Customer Operations and Emergency Management Center</li> <li>• Third-party vendors as applicable</li> </ul>	

## Common Ground Preupgrade Tasks

### Disable Configuration Changes

#### Procedure

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- Step 1** To disable configuration changes during the upgrade, set the following registry key to 1 on the Side A Call Router: **HKEY\_LOCAL\_MACHINE\SOFTWARE\Cisco Systems, Inc.\ICM<instance name>\Router A\Router\CurrentVersion\Configuration\Global\DBMaintenance.**

**Note** Live data services connect to the new Central controller machines only after you upgrade both sides of Central controller, and enable the configuration changes.

**Step 2** Confirm that configuration changes are disabled by attempting to save a configuration change. When you try to save the change, a message is displayed confirming the change failure.

## Virtual Machine Snapshot for Unified CCE Component Virtual Machines

Uninstallation of Unified CCE 12.5(1)12.0(1) installed on server machines using the ICM-CCE-Installer ISO is not supported.

Uninstallation of Unified CCE 12.0(1) installed on server machines using the ICM-CCE-Installer ISO is not supported.

To revert to the previous versions that existed before you did a Common Ground in-place upgrade of installations to Unified CCE 12.0(1), perform one of the following tasks:

1. Take a Virtual Machine Snapshot in the powered off state before the upgrade.
2. Clone the Virtual Machine before the upgrade.

Delete these snapshots or clones after the upgrades are successfully completed. Such deletions will prevent performance issues.

Uninstallation and re-installation of other packages like Administration Client and Internet Script Editor (ISE) will continue to be supported.

## VM Hardware Version Upgrade

Perform the following procedure to upgrade the hardware version of the virtual machine (VM).



**Note** The hardware compatibility of the VM must be set to **ESXi 6.0 and later**.

### Before you begin

- Power off the VM.
- Upgrade to the ESXi version compatible with this release. For more information, see [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/uc\\_system/virtualization/virtualization-unified-contact-center-enterprise.html](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-unified-contact-center-enterprise.html).

### Procedure

- Step 1** Launch the vSphere Web Client using the browser.
- Step 2** Log in to the vCenter Server.
- Step 3** Right-click on the VM, and select the menu option **Compatibility > Upgrade VM Compatibility**.

**Note** The `Upgrade VM Compatibility` option appears only if the hardware version on the VM is not the latest version supported.

**Step 4** In the **Compatible with** field, select **ESXi 6.0 and later**.  
This sets the hardware version of the VM to 11.

**Step 5** Click **Ok**.

**Step 6** Power on the VM.

**Note** If the system prompts, upgrade the VMware tools. For more information, see [Install VMware Tools](#).

## Increase the Provisioned Disk Size for Unified Intelligence Center VMs (Standalone and Coresident)

### Procedure

**Step 1** Power off the virtual machine.

**Step 2** Click **Edit Settings**.

**Step 3** Click the **Hardware** tab, and select the hard disk to modify.

**Step 4** In the **Disk Provisioning** pane, increase the provisioned size from 146 GB to 200 GB.

**Step 5** Click **OK** to save your changes and close the dialog box.

**Step 6** Start the virtual machine.

## Common Ground Upgrade Task Flow

For the Unified CCE core components, there is a general flow for redundant systems to ensure that Cisco Contact Center operation continues during the entire upgrade process. Sides A and B are brought down, upgraded, tested, and brought back up in a sequence that ensures continuous operation of the Cisco Contact Center.



**Note** For coresident configurations, upgrade Finesse and ECE along with the CUIC/LiveData /IdS server upgrade.

For Common Ground upgrades, perform the following upgrade tasks:

Task	See
Identity Service/SSO	

Task	See
Identity Service (IdS)/Single Sign-On(SSO)	SSO is an optional feature and exchanges authentication and authorization details between an identity provider (IdP) and an identity service (IdS).  For more information, see <a href="#">Unified CCE Contact Center Upgrade Flowcharts</a> <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-installation-guides-list.html</a>
Upgrade Enterprise Chat and Email (ECE)	For ECE installation or upgrade instructions, see the <i>Enterprise Chat and Email Installation and Configuration Guide for Unified Contact Center Enterprise</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/cisco-enterprise-chat-email/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/cisco-enterprise-chat-email/products-installation-guides-list.html</a>
Upgrade Finesse	<b>Note</b> Before you upgrade to Finesse 12.0, apply the ES11 patch on Cisco Unified Intelligence Center 11.6 for the reporting gadgets to continue to work on the new Finesse desktop.  For more information, see <i>Cisco Finesse Installation and Upgrade Guide</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-installation-guides-list.html</a> .  <b>Note</b> ES69 provides the ability to connect a maximum of two versions of Finesse to the same peripheral gateway during the upgrade or migration process to facilitate the migration of agents and supervisors to the new Finesse version. However, this mode of operation is not supported for production use beyond the upgrade or migration phase.
<b>Queuing and self-service components</b>	
Upgrade Cisco Unified Customer Voice Portal. <sup>1</sup>	<b>Note</b> Before you upgrade to Unified CVP 12.0, the ES84 patch has to be applied to Cisco VVB 11.6 in order to maintain compatibility between Unified CVP 12.0 and Cisco VVB 11.6.  <i>Installation and Upgrade Guide for Cisco Unified Customer Voice Portal</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/products-installation-guides-list.html</a>
<b>Infrastructure and media resource components</b>	
Cisco Virtualized Voice Browser	<i>Installation and Upgrade Guide for Cisco Virtualized Voice Browser</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/virtualized-voice-browser/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/virtualized-voice-browser/products-installation-guides-list.html</a>
Upgrade voice and data gateways.	<a href="#">Upgrade Voice and Data Gateways</a>
<b>Reporting server</b>	
Upgrade Cisco Unified Intelligence Center server.	<i>Installation and Upgrade Guide for Cisco Unified Intelligence Center</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-installation-guides-list.html</a>
<b>Unified CCE Central Controller and Administration &amp; Data Server components</b>	
Bring down Side A Logger, and upgrade the VM to the new platform of Windows Server and SQL Server.	<a href="#">Upgrade Windows Server, on page 9</a> <a href="#">Upgrade SQL Server , on page 11</a>

<b>Task</b>	<b>See</b>
Migrate Side A Logger database, and upgrade the Logger.	<a href="#">Migrate Unified CCE Logger Database and Upgrade Logger, on page 11</a>
Bring down Side A Call Router, and upgrade the VM to new platform of Windows Server.	<a href="#">Upgrade Windows Server, on page 9</a>
Upgrade Side A Call Router.	<a href="#">Upgrade Unified CCE Call Router, on page 13</a>
Upgrade the VM for the Administration & Data Server connected to Side A to the new platform of Windows Server and SQL Server.	<a href="#">Upgrade Windows Server, on page 9</a> <a href="#">Upgrade SQL Server , on page 11</a>
Upgrade the Administration & Data Server connected to Side A.	<a href="#">Migrate HDS Database and Upgrade Unified CCE Administration &amp; Data Server, on page 13</a>
Bring Side A Logger and Call Router into service, bring down Side B Logger and Call Router.	<a href="#">Bring Upgraded Side A into Service</a>
Upgrade the VM for the Side B Logger to the new platform of Windows Server and SQL Server.	<a href="#">Upgrade Windows Server, on page 9</a> <a href="#">Upgrade SQL Server , on page 11</a>
Migrate Side B Logger database and upgrade the Logger.	<a href="#">Migrate Unified CCE Logger Database and Upgrade Logger, on page 11</a>
Upgrade the VM for the Side B Call Router to new platform of Windows Server.	<a href="#">Upgrade Windows Server, on page 9</a>
Upgrade Side B Call Router.	<a href="#">Upgrade Unified CCE Call Router, on page 13</a>
Bring Side B Call Router into service and verify operation. Bring Side B Logger into service and verify operation.	<a href="#">Verify Operation of Upgraded Side B Call Router and Logger</a>

Task	See
Upgrade the VM for the Administration & Data Server connected to Side B to the new platform of Windows Server and SQL Server.	<a href="#">Upgrade Windows Server, on page 9</a> <a href="#">Upgrade SQL Server , on page 11</a>
Upgrade the Administration & Data Server connected to Side B.	<a href="#">Migrate HDS Database and Upgrade Unified CCE Administration &amp; Data Server, on page 13</a>
Upgrade Cisco Unified Intelligence Center reporting templates.	<i>Installation and Upgrade Guide for Cisco Unified Intelligence Center</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-installation-guides-list.html</a>
Upgrade Unified Contact Center Management Portal(Unified CCMP).	<i>Installation and Configuration Guide for Cisco Unified Contact Center Management Portal</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-management-portal/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-management-portal/products-installation-guides-list.html</a>
Upgrade Administration Client.	<a href="#">Upgrade Unified CCE Administration Client</a>
Database Performance Enhancement.	<a href="#">Database Performance Enhancement</a>
<b>Unified CCE Peripheral Gateways and associated components</b>	
Upgrade VM for the PG to the new platform of Windows Server.	<a href="#">Upgrade Windows Server, on page 9</a>
Upgrade PGs.	<a href="#">Upgrade Peripheral Gateways, on page 14</a>
Upgrade Outbound Option Dialer.	<a href="#">Upgrade Outbound Option Dialer, on page 15</a>
Upgrade CTI OS server.	<i>Cisco Agent Desktop Installation Guide</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/computer-telephony-integration-option/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/computer-telephony-integration-option/products-installation-guides-list.html</a>
<b>Desktop client components</b>	
CTI OS Client desktop applications.	<i>Cisco Agent Desktop Installation Guide</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/agent-desktop/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/agent-desktop/products-installation-guides-list.html</a>  <b>Note</b> The CTI Toolkit Desktop is only supported for System PG and other TDM PG deployments like Avaya PG.
<b>Call processing components</b>	
Upgrade Cisco Unified Communications Manager.	<i>Upgrade and Migration Guide for Cisco Unified Communications Manager and IM and Presence Service</i> at <a href="http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-installation-guides-list.html">http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-installation-guides-list.html</a>



Task	See
Upgrade (uninstall and reinstall) the JTAPI client on the Cisco Unified Communications Manager PG.	<a href="#">Upgrade Cisco JTAPI Client on PG</a>
<b>Media recording components</b>	
Upgrade MediaSense. <sup>2</sup>	<i>Installation and Administration Guide for Cisco MediaSense</i> at <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/mediasense/products-installation-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/mediasense/products-installation-guides-list.html</a>

<sup>1</sup> If you are using IP IVR for self-service and queuing, see [Getting Started with Cisco Unified IP IVR](#).

<sup>2</sup> UCCE 12.0 supports only Cisco MediaSense 11.5.



**Note** The CTI Toolkit Desktop was deprecated in Unified CCE Release 11.0(1).

## Common Ground Upgrade Tasks

The following section provides instructions about upgrading the virtual environment and the Unified CCE components. For instructions about upgrading non-Unified CCE components in a Unified CCE solution, for example Finesse and CUIC, see the links to component-specific documents in the [Common Ground Upgrade Task Flow, on page 5](#).

### Upgrade Windows Server



**Note** To upgrade to Windows Server 2016, select Windows Server 2016 (Desktop Experience) option and then select **Keep personal files and apps** option. For more information, see the corresponding Microsoft documentation.

For information about supported editions, see the 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>.

#### Before you begin

- Using Unified CCE Service Control, stop all Unified CCE services on the Unified CCE servers that you are upgrading, and set the startup type as **Manual**.

If you are upgrading the Logger, ensure that you have disabled configuration changes by performing the following steps:

- On the A side of the CallRouter in the system that you are upgrading, set the HKEY\_LOCAL\_MACHINE\Software\Cisco Systems,

Inc.\ICM\

2. On the B side of the CallRouter in the system that you are upgrading, set the HKEY\_LOCAL\_MACHINE\Software\Cisco Systems, Inc.\ICM\- 3. Verify that configuration changes are prevented. When you attempt to save a configuration change, you should see the following message: Failed to update the database. Exclusive access to the CallRouter denied because configuration changes are currently disabled in the router registry.

- You must upgrade the hardware version of the VM to the version supported in this release. For more information, see [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/uc\\_system/virtualization/virtualization-unified-contact-center-enterprise.html](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-unified-contact-center-enterprise.html).
- Ensure that the virtual machine has enough space before the upgrade. Operating System upgrade to Windows Server 2016 requires minimum of 32-GB primary hard disk space. If the virtual machine is a Logger/Distributor machine, the upgrade to SQL Server 2017 Standard or Enterprise edition requires an extra 6 GB.

If the disk space of the CCE or CVP virtual machines is expanded to support this upgrade, you must install ICM 12.0(1) ES26 patch on the system. You can download the CCE 12.0 Mandatory Update for Fresh Install/Tech Refresh from [https://software.cisco.com/download/home/268439622/type/280840583/release/12.0\(1\)](https://software.cisco.com/download/home/268439622/type/280840583/release/12.0(1)). Failing to do so displays alerts in the Inventory page of Unified CCE Administration and may result in the Inventory page being inaccessible.

- Change the guest operating system to Microsoft Windows Server 2016 (64 bit). To do so, right-click the virtual machine, select **Edit settings > Options > General Options** and select the guest operating system as **Microsoft Windows Server 2016 (64 bit)** and ensure the VM is powered off during this procedure.




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**Note** To be able to select the Microsoft Windows Server 2016 (64 bit) guest operating system, you must set the VM hardware compatibility to ESXi 6.0 and later. For more information, see [VM Hardware Version Upgrade, on page 4](#).

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- Server for NIS Tools is not supported when you upgrade the system to Microsoft Windows Server 2016. Therefore, remove the **Server for NIS Tools** feature from Server Manager before upgrading the system. To do that:
  1. Go to Server Manager and open **Remove Roles and Features Wizard**.
  2. On the **Remove Features** page, expand **Remote Server Administration Tools > Role Administration Tools > AD DS and AD LDS Tools > AD DS Tools**.
  3. Uncheck **Server for NIS Tools [DEPRECATED]** and continue with the wizard.

### What to do next

After upgrading your Windows Server, do the following:

- If your Windows Server supports the Multilingual language pack, it will be uninstalled. You must install the language pack manually. For more information on installing language pack, see Microsoft documentation at <https://devicepartner.microsoft.com/en-IN/#fbid=BSYXlh5sO3X>.

## Upgrade SQL Server

Microsoft supports in-place upgrade of operating system and SQL Server. After you upgrade the operating system, upgrade SQL Server.



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**Note** 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>

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### Before you begin

- Upgrading SQL Server requires a minimum of 6-GB hard disk space. Ensure that the virtual machine has the required space before you begin the upgrade.
- If the virtual machine has SQL Server Enterprise, then it can be upgraded only to the Enterprise version. However, if the virtual machine has SQL Standard Edition, then it can be upgraded to either SQL Server Standard or Enterprise Edition.

### Procedure

- 
- Step 1** Run the SQL Server installer. Consult Microsoft documentation as needed.
- Step 2** Step through the wizard. As appropriate, accept the default or choose the correct instance for your deployment. Select **Rebuild** on the **Full-Text Search Upgrade Options** page.
- 



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- Note**
- Microsoft SQL Server 2017 does not contain SQL Server Management Studio in the default toolkit. Re-run the SQL Server setup to install Management Studio by going to **SQL Selection Center > Installation > Install SQL Server Management Tools**. If your computer has no internet connection, download and install SQL server 2017 Management Studio manually.
  - SQL Server Client Tools from the previous version remain on the server along with the same tools of SQL Server 2017. These tools include SQL Server Management Studio, SQL Server Profiler, the Database Engine Tuning Advisor, sqlcmd, and osql.
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## Migrate Unified CCE Logger Database and Upgrade Logger

To upgrade the Logger, you do the following tasks:

1. Migrate the Logger database.
2. If you use Outbound Option High Availability, migrate the Outbound Option database.

3. Install the new software.

### Procedure

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- Step 1** Using Unified CCE Service Control, stop all Unified CCE services on the server and change to Manual Start.
- Step 2** Download the EDMT tool from [Cisco.com](https://www.cisco.com), and ensure pre-requisites for the same have been installed on the Logger system, prior to launching EDMT. These include the ODBC Driver 11 for SQL Server, and Visual C++ Redistributable for Visual Studio 2015.  
For more information about EDMT, see [Preupgrade Overview, on page 1](#).
- Step 3** Launch the EDMT and click **Next**.
- Step 4** Select **Common Ground**, and click **Next**.
- Step 5** On the warning message, click **Yes** if you have taken a backup of your database, and no services are currently running.
- Note** If you have not taken the backup of your database, click **No** to exit the installer.
- Step 6** In the Database Connection section, highlight the database that you want to upgrade, and then click **Next**.
- Step 7** Click **Start Migration**. A warning message is displayed asking for confirmation of the data migration.
- Step 8** Click **Yes** to confirm.
- Step 9** Click **OK** to acknowledge the message. After completion of the data migration, a warning message is displayed asking you to select a valid deployment type.
- Note** This message notification is applicable only when EDMT finds the `DeploymentType` as **0(Zero)** in the **Congestion\_Control** table during data migration.
- Step 10** Exit the EDMT.
- Note** Set the TempDB AutoGrowth of Data files to 100 MB manually.
- Step 11** (Optional) If Outbound Option High Availability is deployed, repeat steps 1 through 12 to migrate the BA database.
- Step 12** To upgrade the Logger, launch the ICM-CCE-Installer, and click **Next**.
- Step 13** (Optional) To apply the Unified ICM Minor/Maintenance Release, click **Browse** and navigate to the Minor/Maintenance Release software. Click **Next**.
- Step 14** (Optional) Select **SQL Server Security Hardening** and click **Next**.
- Step 15** Click **OK** on any informational messages that display.
- Step 16** Click **Install**.
- Step 17** Reboot the server when the upgrade completes.
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## Upgrade Unified CCE Call Router

### Procedure

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- Step 1** Launch the ICM-CCE-Installer and click **Next**.
  - Step 2** (Optional) To apply the Unified ICM Minor/Maintenance Release, click **Browse** and navigate to the Minor/Maintenance Release software. Click **Next**.
  - Step 3** Click **OK** on any informational messages that display.
  - Step 4** Click **Install**.
  - Step 5** Reboot the server when the upgrade completes.
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## Migrate HDS Database and Upgrade Unified CCE Administration & Data Server

The deployment of the Administration & Database Server determines which tools to use for an upgrade:

- For an AW-only deployment, the EDMT is not required; the ICM-CCE-Installer completes the upgrade.
- For any deployment that involves an HDS database, use the EDMT to migrate the HDS database before running the installer.

### Procedure

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- Step 1** Using Unified CCE Service Control, stop all Unified CCE services on the Server and change to Manual Start.
  - Step 2** For HDS-related deployments. Download the EDMT tool from [Cisco.com](http://Cisco.com), and ensure pre-requisites for the same have been installed on the Administration & Database Server system, before launching EDMT. These include the ODBC Driver 11 for SQL Server, and Visual C++ Redistributable for Visual Studio 2015.  
For more information about EDMT, see [Preupgrade Overview, on page 1](#).
  - Step 3** Launch the EDMT and click **Next**. Select **Common Ground** and click **Next**. Review or change the information that is displayed as required and click **Start Migration**. Click **Yes** on the warning message that displays. Exit the EDMT.
    - Note** This message notification is applicable only when EDMT finds the `DeploymentTypeas 0 (Zero)` in the **Congestion\_Control** table during data migration.
    - Note** Set the TempDB AutoGrowth of Data files to 100 MB manually.
  - Step 4** Launch the ICM-CCE-Installer and click **Next**.
  - Step 5** (Optional) To apply the Unified ICM Minor/Maintenance Release, click **Browse** and navigate to the Minor/Maintenance Release software. Click **Next**.
  - Step 6** (Optional) Select **SQL Server Security Hardening** and click **Next**.
  - Step 7** Click **OK** on any informational messages that display.
  - Step 8** Click **Install**.

- Step 9** Reboot the server when the upgrade completes.
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## Upgrade Unified CCE Administration Client

### Procedure

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- Step 1** Launch the 12.5 AdminClientInstaller and click **Next**.
- Step 2** (Optional) To apply any Minor/Maintenance Releases, click **Browse**, and navigate to the Minor/Maintenance Release software. Click **Next**.
- Step 3** Click **OK** on any informational messages that display.
- Step 4** Click **Install**.
- Step 5** Reboot the server when the upgrade completes.

For more information about configuring permissions in your local machine, see [Configure Permissions in the Local Machine](#).

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## Enable Configuration Changes

### Procedure

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- Step 1** To enable configuration changes during the upgrade, set the following registry key to 0 on the Side A Call Router: **HKEY\_LOCAL\_MACHINE\SOFTWARE\Cisco Systems, Inc.\ICM\<instance name>\Router A\Router\CurrentVersion\Configuration\Global\DBMaintenance**.
- Step 2** To confirm that configuration changes are enabled, save a configuration change.  
Save your changes.
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## Upgrade Peripheral Gateways

You can upgrade different Peripheral Gateways (PGs) within a contact center within different maintenance windows. However, upgrade all PGs that reside on the same virtual machine and their redundant PGs (Side A and then the corresponding Side B; or vice-versa) during the same maintenance window.

The following dependencies occur when upgrading the Unified Communications Manager PG:

- If your contact center uses Outbound Option, upgrade any Outbound Option Dialers that are associated with Unified Communications Manager PGs at the same time.
- When you upgrade the Unified Communications Manager application, upgrade the JTAPI client that is associated with the Unified Communications Manager PG at the same time.

When the CTI server that is associated with the PG gets upgraded, the CTI server connection mode is set to the Mixed mode by default. The Mixed mode enables both Secured and Non-Secured mode of connection. For the Secured mode of connection, a new port is selected based on the port selection logic. For more information on Port Utilization, see the *Port Utilization Guide for Cisco Unified Contact Center Solutions*. If the port that is selected by default conflicts with the existing ports, then you need to either release the default port or change the Secured mode port to an available port after the upgrade.

### Procedure

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- Step 1** Launch the ICM-CCE-Installer and click **Next**.
  - Step 2** (Optional) To apply the Unified ICM Minor/Maintenance Release, click **Browse** and navigate to the Minor/Maintenance Release software. Click **Next**.
  - Step 3** Click **OK** on any informational messages that display.
  - Step 4** Click **Install**.
  - Step 5** Reboot the server when the upgrade completes.
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## Upgrade Outbound Option Dialer

During the upgrade, information about which contacts were called and which you need call is lost for in-process outbound campaigns. Plan the timing of the upgrade accordingly.

### Procedure

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- Step 1** Launch the ICM-CCE-Installer and click **Next**.
  - Step 2** (Optional) To apply the Unified ICM Minor/Maintenance Release, click **Browse** and navigate to the Minor/Maintenance Release software. Click **Next**.
  - Step 3** Click **OK** on any informational messages that display.
  - Step 4** Click **Install**.
  - Step 5** Reboot the server when the upgrade completes.
  - Step 6** Use Unified CCE Service Control to set all Unified CCE services to Automatic Start.
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