



# Unified CVP Migration

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If there is a change in platform of a later release of Unified CVP, migration from the existing release to the later release is required. For example, moving from Unified CVP 10.5(1) to Unified CVP 11.6(1) is considered a migration because it involves a change in operating system, platform, or architecture of the later release.

Migration can also involve moving to a new hardware or a software and moving from one database to another database. Migration of database requires converting the data into a common format that can be used as output from the old database and saved into the new database.



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**Note** If you have enabled secure communication, see the *Unified CVP Security* chapter in *Configuration Guide for Cisco Unified Customer Voice Portal* for instructions on uploading certificate for the secure communication.

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## Premigration Tasks

### Before you begin

- Back up the Unified CVP installation files and data onto a different computer for redundancy.



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**Important** You cannot roll back to an earlier version of Unified CVP after you initiate migration. Back up the installation files and data before you begin the migration process.

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- Uninstall Cisco Security Agent.
- (Optional) Deploy additional servers if you choose to deploy Reporting Server.
- (Optional) Standalone distributed diagnostics and service network (SDDSN) is no longer required. If you have SDDSN servers, decommission these servers or use them for another purpose.
- Deploy Operations Console. For deployment of Operations Console, see *Configuration Guide for Cisco Unified Customer Voice Portal* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/tsd-products-support-series-home.html>.
- (Optional) Gatekeepers are not required in SIP implementations. Decommission gatekeepers or in some cases convert them to use as ingress or VXML gateways (or both) if you choose to use SIP for the implementation.
- (Optional) SIP Proxy servers and DNS servers for SIP message routing are optional components for SIP implementation. Add these components to the network if you intend to use them.



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**Note** SIP Proxy servers and DNS servers cannot co-reside with other Unified CVP product components.

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- Ensure that the version of Cisco IOS supports the required hardware.



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**Note** If you are using an older gateway or gatekeeper hardware, the version of Cisco IOS that is required in this release may no longer support the required hardware. Hence, you need to purchase new hardware.

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- Migrate the operating system. For more information, see the Compatibility Matrix available at <https://cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html>.

## Migrate Operations Console

To migrate Operations Console, back up and restore the CVP Operations Console configuration. To know whether a change in platform is required, see the *Upgrade Path* section.

### Related Topics

[Upgrade Path](#)

## Back Up Operations Console Configuration

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- Step 1** Log in to Operations Console.
  - Step 2** On the Operations Console page, click **System > Export System Configuration > Export**.
  - Step 3** Manually copy the sip.properties file.  
CVP Operations Console cannot export the sip.properties file.

For more information on Unified CVP Console Configuration, see *Administration Guide for Cisco Unified Customer Voice Portal* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/tsd-products-support-series-home.html>.

**Step 4** Save the `CVP-OpsConsole-Backup.zip` file.

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#### What to do next

- Save the exported configuration and custom files on network storage media or a portable storage media.
- Ensure that you are able to access the shared storage media from the Windows Server Machine.

## Restore Operations Console Configuration

#### Before you begin

- For latest 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>.
  - Export the Operations Console configuration from the older version to migrate it to the new version.
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**Step 1** Stop Cisco CVP WebServicesManager service.

- a) Click **Start > All Programs > Administrative Tools > Services**.
- b) In the list of services names, select Cisco CVP WebServicesManager and click **Stop**.

**Step 2** Import the saved Operations Console configuration.

- a) On the Operations Console page, click **System > Import System Configuration**.
- b) Click **Browse** and select the filename from the location where you saved the Operations Console configuration files of the previous version.
- c) Click **Import**.
- d) Copy the custom files, license files, and sip.properties files from the location where you saved the Operations Console configuration to their corresponding Unified CVP directories to complete the restore operation.

**Note** If you have not restored the backup containing the user-related information from the earlier version of Unified CVP, then skip to Step 5.

**Step 3** In the Operations Console page, click **Device management > Reporting Server > Database Administration**.

**Step 4** Delete the Reporting Users that are created in the earlier version of Unified CVP.

**Note** Creating the new users that are the same as the existing users does not work.

**Step 5** Set the same password for the existing user that you imported from the earlier versions of CVP Operations Console.

- a) Click **Server Manager > Configuration > Local Users and Groups > Users**.
- b) Right-click the existing username and click **Set Password**.
- c) On the **Set Password** screen, click **Proceed**.
- d) Type the old password and confirm the new password.
- e) Click **OK**.

**Step 6** Restart Cisco Unified CVP Operations Console and Cisco CVP WebServicesManager.

- a) Click **Start > All Programs > Administrative Tools > Services**.
- b) Select Cisco CVP Operations Console Server.
- c) Click **Restart**.

The CVP Operations Console Server service starts in the Services window.

- d) Select Cisco CVP WebServicesManager.
- e) Click **Restart**.

The Cisco CVP WebServicesManager starts in the Services window.

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All the existing CVP Operations Console data including the CVP Operations Console login credentials get overwritten by the new data that is imported from the saved CVP Operations Console configuration.

## Secure Communication with Operations Console

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To secure communication between Operations Console and CVP components, on the Operations Console page, click **Enable Secured Communication with the Operations Console**.

For configuring the security certificate exchange between Operations Console and CVP components, see the *Configuration Guide for Cisco Unified Customer Voice Portal* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/tsd-products-support-series-home.html>.

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## Migrate Unified CVP Call Server

### Before you begin

- Back up existing Unified CVP installation onto a different computer for redundancy.
  - If you are migrating your operating system, assign the IP address and hostname of the previous Unified CVP to the later release.
  - Install the latest Unified CVP server component.
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**Step 1** Log in to Operations Console and select **Device Management > Unified CVP Call Server**.

**Step 2** Select the Unified CVP Call server with the chosen IP address and the hostname.

**Step 3** Click **Edit**.

**Step 4** Click **Save and Deploy** to deploy the configuration to Unified CVP Call Server.

**Step 5** Click **System > SIP Server Groups**.

On the SIP Server Groups screen, verify that the data is populated from the previous OAMP configuration importing step.

- Step 6** Click **Save and Deploy** and confirm that the operation has completed successfully.
- Step 7** Select **System > Dialed Number Pattern**.
- In the **Dialed Number Pattern** screen, verify that the data is populated from the previous OAMP configuration importing step.
- Step 8** Click **Deploy**.
- Step 9** Select **Device Management > Media Server**.
- Step 10** From the **Default Media Server** drop-down list, choose the appropriate media server.
- Step 11** Click **Set**.
- Step 12** Click **Deploy**.
- Step 13** From the Media Server that is installed on the computer, select **Internet Information Services > Sites**.
- To add a new group to the list, click **Add** and select **Everyone**.
  - To give full control to group **Everyone**, check the **Full Control** check box.
- Step 14** From the FTP site, click **Restart** to restart the FTP server.
- Note** If you want to configure Unified CVP Call Server as Media Server and use the agent greeting recording, then you must enable FTP on the Media Server. If Microsoft FTP Service is not enabled in Windows Services Control Panel, then set it to Automatic and start the service.

## Migrate Unified CVP VXML Server

### Before you begin

- Ensure that the Unified CVP VXML Server and Unified Call Studio are of the same version so that Unified Call Studio can work with the Unified CVP VXML Server.
- Ensure that you have licenses for all Unified CVP components.



**Note** If you do not apply licenses to the migrated components, the software runs in evaluation mode.

- Back up any custom audio files from `%CATALINA_HOME%/webapps/CVP/audio`.
- Back up third-party libraries, such as `.class` or `.jar` files, at:

```
%CVP_HOME%\VXMLServer\common\classes
%CVP_HOME%\VXMLServer\common\lib
%CVP_HOME%\VXMLServer\applications\APP_NAME\java\application\classes
%CVP_HOME%\VXMLServer\applications\APP_NAME\java\application\lib
%CVP_HOME%\VXMLServer\applications\APP_NAME\java\util
```

where APP\_NAME is the name of deployed voice application.

- Install Unified CVP Server. See [Install Unified CVP Server](#).

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- Step 1** Log in to Operations Console and select **Device Management > Unified CVP VXML Server**.
- Step 2** Select the Unified CVP VXML Server with the chosen IP address and the hostname.
- Step 3** Click **Edit** and select the Unified CVP VXML Server configuration for editing.
- Step 4** Click **Save and Deploy** to deploy the configuration to the new Unified CVP VXML Server.
- Step 5** (Optional) If you need a secure connection between the Operations Console and Unified CVP VXML Server, configure SSL certificates.
- Step 6** Upload the license file to the new Unified CVP VXML Server using Operations Console.
- Step 7** Restore the audio files to the `%CATALINA_HOME%\webapps\CVP\audio` folder.
- Step 8** Restart Cisco CVP VXML Server and VXMLServer service.
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### What to do next

To configure the Unified CVP VXML Server using Operations Console, see *Configuration Guide for Cisco Unified Customer Voice Portal*.

## Migrate Unified Call Studio

### Before you begin

- Back up all audio files.




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**Note** Audio files are deployed to `%CATALINA_HOME%\webapps\CVP\audio` are deleted. `%CATALINA_HOME%` implies the Tomcat installation directory.

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- Launch the Call Studio application.
- Ensure that you have licenses for all Unified CVP components.




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**Note** If you do not apply licenses to migrated components, then the software runs in the evaluation mode.

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- In the **Navigator** view, right-click the project, and click **Export**.




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**Note** Export Unified Call Studio projects to offline media, if they are not stored in version-control systems. You can export multiple projects simultaneously by unchecking them from the list that Export wizard displays.

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- Step 1** Select the **Existing Cisco Unified CVP Project into Workspace** option to import the projects.

The import process upgrades the projects to the format of the new release, if necessary.

**Note** If you check out applications from a source repository rather than importing from the file system, you can still import the applications to Call Studio project to start the conversion process. In addition, for the first check-in after importing, all files in each project are considered modified and you need to update them in the repository.

- Step 2** Recompile any custom components that were compiled in the earlier versions of Java.
- Review the list of Java changes that may affect backward compatibility and make any required updates. You can locate the compatibility page at <http://www.oracle.com/technetwork/java/javase/downloads/index.html>.
- Step 3** Deploy all projects, including the newly recompiled components from the previous step, to the appropriate Cisco Unified CVP VXML Servers.
- Use Operations Console for bulk transfer of the project to multiple Unified CVP VXML Servers in one step.

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## Migrate Unified CVP Reporting Server

### Before you begin

Retain the call data during migration by unloading the existing databases of Unified CVP.

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- Step 1** Unload data from Reporting Server Database.
- Step 2** Uninstall Reporting Server.
- Step 3** Upgrade Microsoft Windows Server.
- Step 4** Install Reporting Server.
- Step 5** Load data to Reporting Server Database.
- Step 6** Configure Unified CVP Reporting Server in Operations Console.

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### Related Topics

- [Unload Data from Reporting Server Database](#), on page 8
- [Load Data to Reporting Server Database](#), on page 8
- [Configure Reporting Server in Operations Console](#), on page 9

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## Prepare Unified CVP Reporting Server

- Step 1** Install Unified CVP Reporting Server on Windows Server.
- Note** Ensure that the Unified CVP Reporting database is active.
- Start the Informix IDS - CVP service in Windows Service Manager.
- Step 2** From the command prompt, run **dbaccess**, and then select a database.
- Step 3** Select the following databases and press **Return**.

- callback
- ciscoadmin
- cvp\_data

## Unload Data from Reporting Server Database

**Step 1** Log in as `cvp_dbadmin` user to Unified CVP.

**Step 2** Stop **Cisco CVP Call Server** service from Windows Service Manager.

**Note** Ensure that enough disk space is available to unload data. To check the disk space (in MB), run the query:

```
select sum(tabsize(tabname)) from systables where tabid>99
```

-OR- go to **OAMP > Unified CVP Reporting Server > Database Administration > Database details**.

**Step 3** Access the Unified CVP installation file.

**Step 4** From the command prompt, change the directory to the migration folder.

**Note** You can also copy the migration folder to the local disk and run the unload script directly.

**Step 5** Locate the `migrate_unload.bat` file.

**Step 6** By default, the data is exported to `c:\migration`. Ensure that this path exists. If you want to change the default path, then update the path in `unl.sql`:

```
create procedure unld(path char(128) default "c:\migration\") RETURNING char(128)
```

**Step 7** Run the following command to unload the Reporting Server database:

```
migrate_unload.bat
```

After running the script, a set of `.unl` files is created under the path provided. The `.unl` files are exported to `c:\migration`. This folder must have full access permission for `cvp_dbadmin` user.

**Step 8** Copy the exported migration folder to the Unified CVP database Reporting Server.

**Note** Reduce the retention period for data and execute a purge to reduce the data to migrate.

**Step 9** Start **Cisco CVP Call Server** service from Windows Service Manager.

## Load Data to Reporting Server Database

**Step 1** Open the Unified CVP installation file.

**Step 2** Stop **Cisco CVP Call Server** service from Windows Service Manager.

**Step 3** Go to **CVP > Migration**.



- Step 4** Copy the migration folder to the local disk and run the load script directly. From the command prompt, change the directory to the migration folder.
- Step 5** On the local disk, locate the .unl files that you want to load into the Unified CVP database and copy them into the migration folder.
- Step 6** Run the following command as an administrator to load the Unified CVP database: `migrate_load.bat`
- Note** If the .unl files are located in `c:\migration`, you must run the script load as `migrate_load.bat`.
- This script loads all the three Unified CVP Reporting databases with the previous call data to the Unified CVP Reporting database.
- Note** The load runs at a rate of about 1.5GB/hour.
- Step 7** Start **Cisco CVP Call Server** service from Windows Service Manager.
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## Configure Reporting Server in Operations Console

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- Step 1** Import the Operations Console configuration and redeploy the Unified CVP Reporting Server to retain the same IP address as that of Unified CVP.
- Step 2** If the IP address of the server is changed, then delete the previous instance of the server and add the new Unified CVP Reporting Server to Operations Console, and then deploy the server.
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## Upgrade VM Network Adapter from E1000 to VMXNet 3

Before you upgrade the operating system of the virtual machine from Windows Server 2008 R2 SP1, upgrade the VM network adapters to VMXNet3. Unified CVP 11.6(1) requires VMXNet3 network adapters. If you upgrade the operating system to Windows Server 2012 R2 Standard Edition without upgrading to VMXNet3, the static IP configuration on the ethernet adapter resets to automatic after the Windows upgrade.

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- Step 1** Record the network settings, including the IP addresses, subnet masks, default gateway, DNS, persistent static routes, and MAC address of the network adapter.
- Important** You need these values to re-create the configurations on the new virtual machine network adapter. For more information, see [Save MAC Address of Virtual Machine Network Adapter, on page 10](#).
- Step 2** Stop the Unified CVP Server. The CVP Server cannot be active during reconfiguration of the network adapter.
- Step 3** Add the VMXNet 3 network adapter:
- Select **Edit Settings** from the VM context menu.
  - Click **Add** on the **Hardware** tab.
  - Select **Ethernet Adapter** in the **Device Type** page and click **Next**.
  - Select **VMXNet 3** from the **Adapter Type** drop-down list and click **Next**.
  - Select the network port group from the **Network label** drop-down list and click **Finish**.

- Step 4** Apply the network settings that you recorded in Step 1 from the E1000 network adapter to the VMXNet 3 network adapter.
- Step 5** Enable the VMXNet 3 network adapter.
- Step 6** Remove the E1000 network adapter:
- Select **Edit Settings** from the VM context menu.
  - Select the **E1000 network adapter** on the **Hardware** tab.
  - Click **Remove** and then click **Finish**.
- Step 7** Remove the E1000 network adapter from VMs for CallServer/VXMLServer, Operations Console and Reporting Servers:
- Select **Edit Settings** from the VM context menu.
  - Select the **E1000 network adapter** on the **Hardware** tab.
  - Click **Remove** and then click **Finish**.
- Step 8** Use **tracert** to test the network connectivity.
- Step 9** Re-enable the Unified CVP services.

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### Related Topics

[Save MAC Address of Virtual Machine Network Adapter](#), on page 10

## Save MAC Address of Virtual Machine Network Adapter

Complete the following procedure to preserve the MAC address of the virtual machine network adapter.

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- Step 1** Right-click the Unified CVP virtual machine and click **Edit Settings**.
- Step 2** On the **Hardware** tab, select the Network adapter used by the virtual machine to connect to the network.
- Step 3** Record the value that is in the MAC address field.
- Step 4** Save the MAC address.
- Step 5** From the **Hardware Settings** tab, click **Add Hardware**.
- Step 6** From the **Adapter Type** drop-down list, change the adapter type to **VMXNET3**.
- Step 7** Under the **MAC Address** field, select **Manual**.
- Step 8** In the **MAC Address** field, enter the MAC address you recorded.
- Step 9** Click **OK**.
- Step 10** Restart the virtual machine.
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## Upgrade Windows Server

Microsoft supports an in-place upgrade of operating system.

Complete the following procedure to upgrade your operating system on all virtual machines for server-based applications.

### Before you begin

- As a precautionary measure, follow the steps listed under the [Preupgrade Tasks](#) section to preserve the existing version of CVP.
- Upgrading to Windows Server may delete static network configuration (for private and public interfaces) for all Windows virtual machines. Record your static network configurations, including TCP/IP IPv4 information before upgrading. Reconfigure these settings after the upgrade completes.
- Ensure that latest version of VMware Tools software is installed.
- Ensure that ESXi version of the host is ESXi 6.0 update 2 or ESXi 6.5 or later.
- For operating system requirement, 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>.
- Change the guest operating system to **Microsoft Windows Server 2016**. To do so, right-click the virtual machine, and select **Edit settings > Options > General Options**. Select the guest operating system as **Microsoft Windows Server 2016**.
- During Windows Server 2016 upgrade, you might be prompted to uninstall anti virus owing to a change in behavior of Windows Server. Re-install the anti-virus after the upgrade.
- 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.

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- Step 1** Mount Windows Server ISO image to the virtual machine. Open the file explorer and double-click on the **DVD Drive** to run the Windows Server setup.
- Step 2** Select **Download & install updates** to let the installation go on smoothly. Click **Next**.
- Step 3** Select **Windows Server Desktop Experience**. Click **Next**.
- Step 4** Read the notes and license terms and then click **Accept**.
- Step 5** To retain existing Unified CVP configurations, files, services, and all associated settings intact after the in-place upgrade to Windows Server 2016, select **Keep personal files and apps**. Then click **Next**.
- Note** If you select **Nothing**, everything (including Unified CVP) in the existing Windows Server 2012 VM will be erased, and the system will be set up as a new Windows Server 2016 VM.
- Step 6** In case a window is displayed with the title **What needs your attention**, click **Confirm** to proceed because existing Unified CVP on Windows Server 2012 has been successfully validated to be working on Windows Server 2016 when such an upgrade process is followed.
- Note** Once the upgrade begins, the system will restart multiple times without prompting until the upgrade is completed.

- Step 7** Use your existing credentials to log in to the system and ensure that Unified CVP-related services are up and running after the completion of Windows Server 2012 platform upgrade to Windows Server 2016.

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**Related Topics**

- [Configure Virtual CPU Settings](#)
- [Unload Data from Reporting Server Database](#), on page 8
- [Load Data to Reporting Server Database](#), on page 8
- [Configure Reporting Server in Operations Console](#), on page 9

## Unified CVP Redeployment

You can redeploy an existing Unified CVP component from Operations Console.

### Redeploy Operations Console

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See [Migrate Operations Console](#), on page 2.

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**Related Topics**

- [Migrate Operations Console](#), on page 2

### Redeploy Unified CVP Server

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See [Migrate Unified CVP Call Server](#), on page 4 and [Migrate Unified CVP VXML Server](#), on page 5.

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**Related Topics**

- [Migrate Unified CVP Call Server](#), on page 4
- [Migrate Unified CVP VXML Server](#), on page 5

### Redeploy Unified CVP Reporting Server

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- Step 1** Reinstall the Unified CVP Reporting Server.
  - Step 2** Save and deploy the Unified CVP Reporting Server in Operations Console.
  - Step 3** Update the Unified CVP Reporting Server license.
  - Step 4** Restart the Unified CVP Reporting Server.
  - Step 5** Redeploy courtesy callback system-level configuration, if applicable.
  - Step 6** Redeploy SNMP configuration, if applicable.
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## Redeploy Unified Call Studio

See the Migrate Unified Call Studio section.

### Related Topics

[Migrate Unified Call Studio](#), on page 6

