



CTI OS Server Installation

This chapter lists some guidelines to consider when you install the CTI OS Server and provides procedures for these tasks.



Caution

You cannot run the installer remotely. Mount the installer ISO file only to a local machine. Various errors can occur during installation over the network. Keep in mind that for installation of major releases, there is no way to roll the installation back to the previous release if the installation or upgrade fails part way through.

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CTI OS Server Installation Guidelines

Following are some guidelines to consider when you install CTI OS Server:

- CTI OS is typically installed in a redundant configuration. Two CTI OS Servers installed on separate systems work in parallel to provide redundancy. Installing only one CTI OS Server prevents failover recovery by client systems.
- CTI OS must be colocated on the same box as the PG/CG.
- Ensure that your CTI OS system meets the specified requirements. See the [Compatibility Matrix for Unified CCE Unified CCE Solution Compatibility Matrix](#) for more information.

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Upgrade from Previous Version

If you are upgrading from a CTI OS Server Release 10.x, you do not need to uninstall CTI OS Server before you install CTI OS Server Release 11.6(1).

**Note**

The listen ports for CTI OS Server and silent monitor are registered as firewall exceptions upon installation of CTI OS Server 11.6(1).

Procedure

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- Step 1** When you start Setup.exe, the Instance dialog box appears. Click **Upgrade All**.
 - Step 2** If you have a version of CTI OS Server already installed and you are attempting to install the latest version, the **Patch Installation Warning window** appears.
 - Step 3** Click **Yes**.
Several status dialog boxes appear informing you of the installation process. All the files that belong to the previous version are deleted and the files for the latest version are installed.
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Install CTI OS Server

To install a new CTI OS Server, perform the following steps:

**Note**

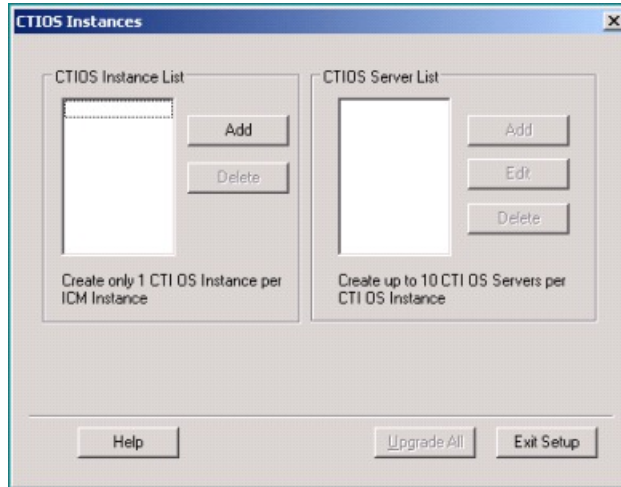
The CTI OS Server installation procedure includes windows for mobile agents and silent monitor server.

Procedure

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- Step 1** From the Server directory on the CD, run **setup.exe**.
Note When you run programs from a Windows Server 2012 R2 system with User Account Control enabled, Windows needs your permission to continue. Click **Allow** in the **User Account Control** window to run the program.
 - Step 2** Click **Yes** on the **Software License Agreement** window.
The **CTI OS Instances** window appears.

The **CTI OS Instances** window allows you to create CTI OS instances and add CTI OS Servers to a configured instance of CTI OS.

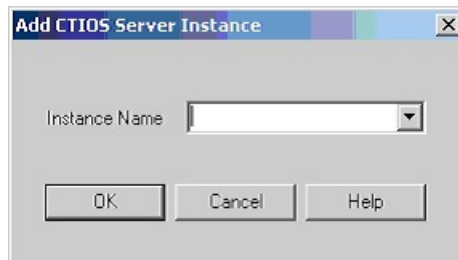
Figure 1: CTI OS Instances



Note The Add buttons are disabled if you cannot create another CTI OS instance.

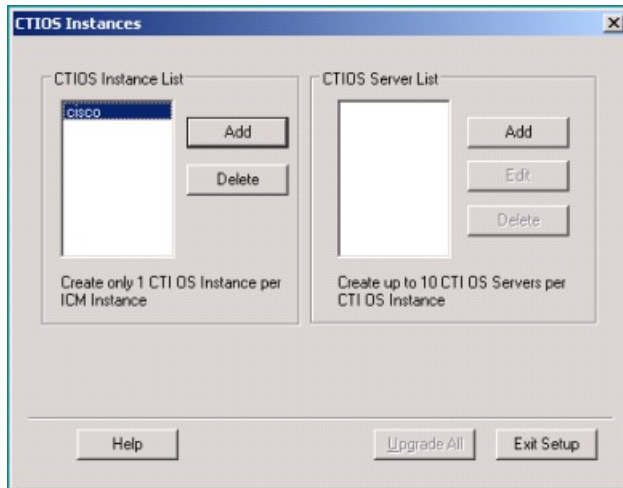
Step 3 Under the CTI OS Instance List, click **Add**. The following window appears.

Figure 2: CTI OS Instance List



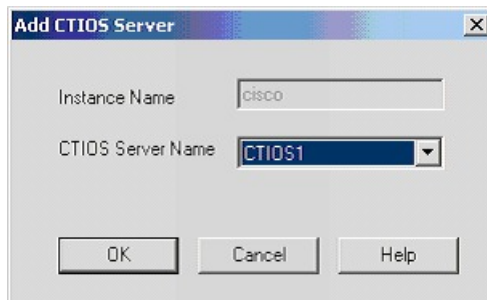
Step 4 Enter an instance name. For example, if you enter an instance called cisco, the following window appears:

Figure 3: CTI OS Instances



Step 5 Click **Add** in the CTI OS Server List. The **Add CTIOS Server** window appears.

Figure 4: Add CTIOS Server



The CTIOS Server Name field is populated with CTIOS followed by the next available index for a CTI OS Server. If a CTI OS Server has been deleted, the CTIOS Server Name is populated with the index that was deleted.

- Step 6** If you are installing CTI OS Server for the first time, an **Enter Desktop Drive** window appears. Accept the default installation drive or choose another drive from the drop-down list.

Figure 5: Desktop Drive Selection



- Step 7** Click **OK**.

The **CTI Server Information** window appears.

Figure 6: CTI OS Server Information

The screenshot shows a window titled "CTI Server Information" with a close button in the top right corner. On the left side, there is a teal graphic with a white paper-like shape. The main area contains the following fields:

- Instance Name:
- CTIOS Server Name:
- System A:
 - Name or IP Address:
 - Port:
- System B:
 - Name or IP Address:
 - Port:

At the bottom of the window, there are four buttons: "Help", "< Back", "Next >", and "Cancel".

Step 8 Enter the **Name** or **IP Address** and the **Port Number** for your CTI systems.
If the peripheral is configured for a previous CTI OS Server, the Name or IP Address field prepopulates with the name of that CTI OS Server.

Step 9 Click **Next**.

The **Peripheral Identifier** window appears.

Figure 7: Peripheral Identifier

The screenshot shows the 'Peripheral Identifier' window with the following fields and values:

- Instance Name: inst
- CTIOS Server Name: CTIOS1
- Logical Name: UCCE1
- Peripheral ID: 5000
- Peripheral Type: UCCE System
- Login By:
 - Agent ID
 - Login Name
- Enable Mobile Agent:
- Mobile agent mode: Agent chooses

Buttons at the bottom: Help, < Back, Next >, Cancel.

The Peripheral Type field is prepopulated with the peripheral type if it is already configured for a previous CTI OS Server.

Note When you configure multiple CTI OS Servers to use a single CTI Server, every CTI OS Server configured after the first CTI OS Server has the same configuration as of the first CTI OS Server.

Step 10 If the peripheral has not been configured for a previous CTI OS Server, specify the following information:

- A **Logical Name** for your peripheral. The name can be any valid logical name that uniquely identifies your peripheral.

Note The Login By and Enable Mobile Agent group boxes are enabled only for UCCE peripheral types (UCCE System and UCCEHosted Edition).

In the Login By box, you can choose between signing in by Agent ID or by Login Name. The Login By setting determines how the CTI Toolkit Agent and Supervisor Desktops allow Login and Chat request (either Agent ID or Login Name). This setting does not affect other CTI applications. CTI OS Server itself can service Login requests both ways (by Agent ID and Login Name) for UCCE.

- In the **Peripheral ID** field, enter the identifier of the switch that your phone is connected to.
- From the **Peripheral Type** drop-down list, choose the switch that your phone is connected to.
- Check the **Enable Mobile Agent** check box to activate this option.
- The Mobile agent mode drop-down lists the following options. Choose one:
 - **Agent chooses**—Agent chooses the mode.
 - **Call by call**—The agent's remote phone is dialed for each individual call.
 - **Nailed connection**—The agent is called once upon signing in and remains connected.

Note You can specify information for only one peripheral during CTI OS Server setup. To configure more peripherals, follow the procedure in the section [Configure Additional Peripherals](#).

Step 11 Click **Next**.
The **Connection Information** window appears.

Figure 8: Connection Information

Connection Information

Enter the port number and heartbeat information for the CTIOS Server Instance

Instance Name: cisco

CTIOS Server Name: CTIOS1

Listen Port: 42028

Heartbeat Retry: 5

Heartbeat Interval: 60000

Buttons: Help, < Back, Next >, Cancel

Enter the port number and the heartbeat information for your CTI OS Server instance.

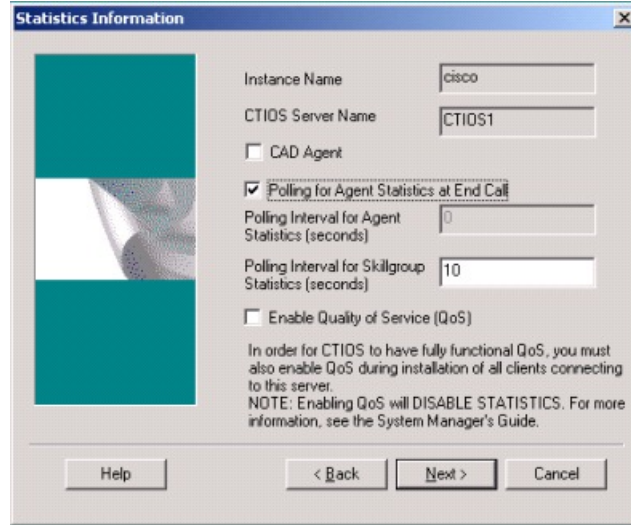
Note For all peripheral types, accept the default Listen Port value of 42028. For subsequent instances, increment the port number by 1 (42029, 42030, and so on).

Important Ensure that you configure the CTI OS client that connects to the CTI OS Server with the same port that you selected while installing the CTI OS client.

Step 12 Click **Next**.

The **Statistics Information** window appears.

Figure 9: Statistics Information



- Note**
- Enabling CAD Agent disables the agent statistics polling interval from the CTI OS Server. CAD agents receive only Skillgroup statistics from CTI OS Server.
 - After performing an **Upgrade All**, rerun setup to access this window and reconfigure the server for appropriate statistical information.

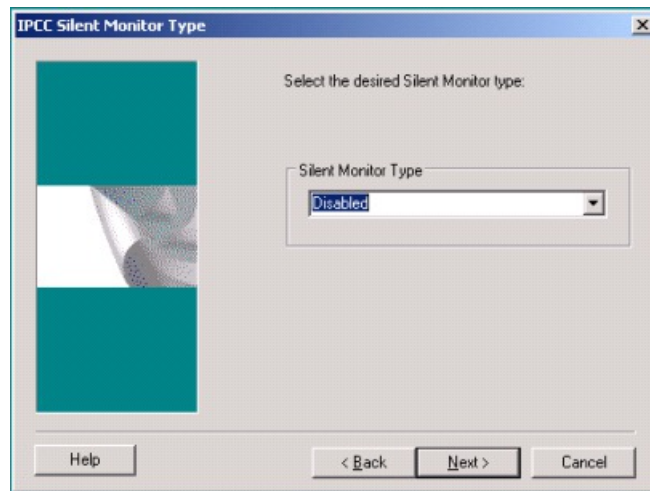
Step 13 Enter the default polling interval for Skillgroup statistics (in seconds).

Note Because Quality of Service (QoS) enablement and statistics enablement are mutually exclusive, enabling QoS zeros and disables all the information relating to statistics.

Step 14 Click Next.

The **UCCE Silent Monitor Type** window appears.

Figure 10: UCCE Silent Monitor Type



Step 15 Choose the type of silent monitor.

- If you choose **Unified CM Based** or **Disabled**, clicking **Next** takes you to the **Peer CTI OS Server** window. Proceed to Step 17.

Note If you want to use Unified CM based type silent monitor, see [Unified Communications Manager-Based Silent Monitor Configuration](#).

- If you choose **Disabled**, the CTI OS based silent monitor is configured, but disabled. This sets the registry settings to the following values:

Key	Setting
HKLM\SOFTWARE\Cisco Systems, Inc.\Ctios\CTIOS_<instance>\CTIOS1\EnterpriseDesktopSettings\All Desktops\IPCCSilentMonitor\Name\Settings\CCMBasedSilentMonitor	0
HKLM\SOFTWARE\Cisco Systems, Inc.\Ctios\CTIOS_<instance>\CTIOS1\EnterpriseDesktopSettings\All Desktops\Login\ConnectionProfiles\Name\UCCE\IPCCSilentMonitorEnabled	0

- If you choose **CTI OS Based** silent monitor, clicking **Next** takes you to the **Silent Monitor Information** window.

Figure 11: Silent Monitor Information

Step 16 On the **Silent Monitor Information** window enter the following information:

- The port number used by the client to connect to the silent monitor service.
- The set of silent monitor servers that the desktop connects to. The desktop randomly connects to one of the silent monitor servers specified here. If the client is configured to use secure connections, the client attempts to connect to the silent monitor server using a secure connection. If the silent monitor server is configured to use secure connections, then a secure connection is established with the silent monitor server. Otherwise, an unsecure connection is used.

A client uses the same certificates it uses to communicate with CTI OS Server to establish a secure connection to the silent monitor server.

Step 17 Click **Next**.

The **Peer CTIOS Server** window appears.

Figure 12: Peer CTI OS Server

Peer CTIOS Server

Duplex CTIOS Install

Enter the name (or tcp/ip address) and port number of the other CTIOS server in the duplex configuration. (If there are more than 1 configured, those listed after the 1st will be deleted.):

Instance Name:

CTIOS Server Name:

Peer CTIOS Server:

Port:

Buttons: Help, < Back, Finish, Cancel

Step 18 You can configure a CTI OS Peer Server using this window. You can also configure Chat and CTI OS silent monitoring. Enter the appropriate information as shown in the following figure:

Figure 13: Peer CTI OS Server Information

Peer CTIOS Server

Duplex CTIOS Install

Enter the name (or tcp/ip address) and port number of the other CTIOS server in the duplex configuration. (If there are more than 1 configured, those listed after the 1st will be deleted.):

Instance Name:

CTIOS Server Name:

Peer CTIOS Server:

Port:

Buttons: Help, < Back, Finish, Cancel

After you click **Finish** and the files are created, the service is registered and entries to the registry are made.

Note You can configure the chat window to beep every time a new message arrives. To do that, set the following registry key to a nonzero value.

HKEY_LOCAL_MACHINE\Cisco Systems, Inc.\CTI Desktop\CtiOs\BeepOnMsgReceived

If the registry key does not exist or if its value is set to zero, the chat window does not beep.

Step 19 The security installation is launched with following window:

Figure 14: CTI OS Server Security

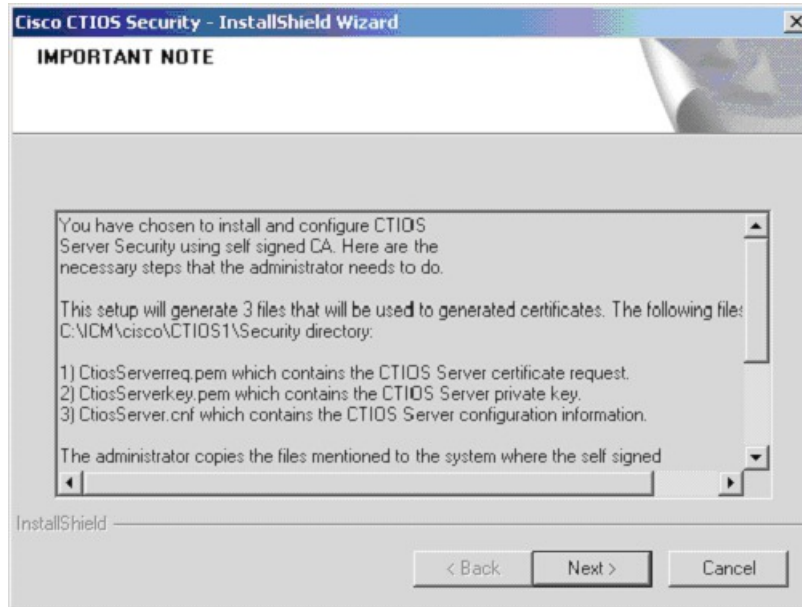


If you wish to disable security, click **OK**; otherwise, select the **Enable Security** check box, enter the appropriate information, and click **OK**.

Note To simplify deployments, either enable or disable security for all CTI OS components (clients, CTI OS Server, and silent monitor server).

Step 20 The following window appears if you have enabled security:

Figure 15: CTI OS Security InstallShield Wizard



After the CTI OS Server security installation is complete, click **Finish**.



Note

- CTI OS Multi-Instance setup does not allow two or more CTI OS Servers to connect to the same CTI Server.
- The setup does not allow two or more CTI OS Servers to use the same listen port.
- Rerun the CTI OS Server setup after you complete the installation.

CTI OS Release 11.6(1) Upgrade Overview

Before you upgrade to CTI OS Release 11.6(1), ensure that CTI OS Release 11.0(1) is installed on your machine. If you use CTI OS Release 10.0(x) or Release 10.5(x), first upgrade to CTI OS Release 11.0(1).

See the *CTI OS System Manager Guide for Cisco Unified ICM/Contact Center Enterprise* at http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cust_contact/contact_center/icm_enterprise/icm_enterprise_11_5_1/Installation/Guide/ucce_b_cti-os-system-manager-guide.html for instructions on upgrading to CTI OS Release 11.0(1).

For more information on the uninstallation process, see the section [Uninstalling CTI OS Server](#), on page 15.

Upgrade to CTI OS Release 11.6(1)

Before You Begin

- Before upgrading to 11.6(1), make sure that Windows Update is not running in parallel when you install the Release 11.6(1) patch.

Procedure

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- 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 CTI OS Minor Release CTI OS 11.6(1) Installer.
-

Uninstall CTI OS Release 11.6(1)

Procedure

-
- Step 1** Log in to your system as a user with administrative privileges.
- Step 2** Choose **Control Panel > Programs and Features > CTI OS Minor Release 11.6(1) > Uninstall**. The **InstallShield Wizard** launches.
- Step 3** Specify if you want to proceed with the uninstallation.

Option	Action
Yes	Go to step 4.
No	The uninstallation process cancels

- Step 4** At the prompt, restart the machine.
-

The CTI OS Release 11.6(1) application is uninstalled from your machine.

Uninstalling CTI OS Server

To uninstall the CTI OS Server, rerun the Setup program for the previous release and delete the Unified ICM Customer Instance that you specified during CTI OS Server Setup.

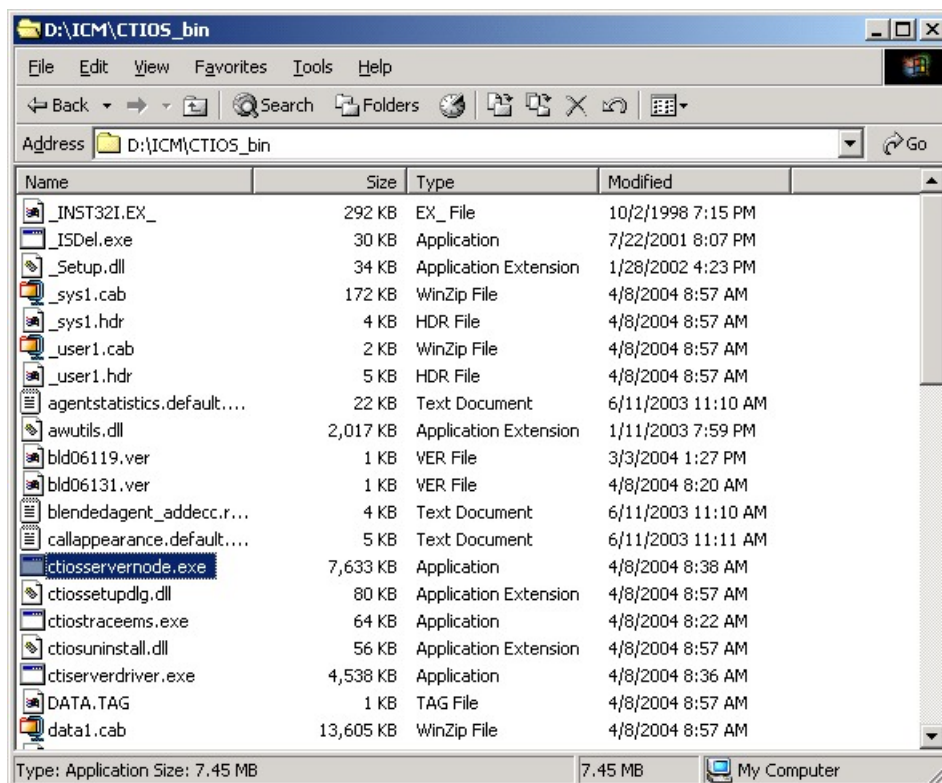
Determine Version Number of Installed Files

You can determine the version number of an installed CTI OS Server file by performing the following steps.

Procedure

- Step 1** Open a window for the ICM\CTIOS_bin subdirectory.
- Step 2** Highlight the file `ctiosservernode.exe`.

Figure 16: CTIOS_bin Folder



- Step 3** Right-click the highlighted file.
- Step 4** Select **Properties** from the drop-down menu.
The Properties dialog box appears.
- Step 5** Select the **Details** tab.

This tab contains version information (release number and build number) for the file.

Figure 17: CTI OS ServerNode Properties

