CTI OS Server Installation

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

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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.

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 Contact Center Enterprise Compatibility Matrix for more information.

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Upgrade from Previous Version

Note

If you are upgrading from a CTI OS Server Release 12.0, you need not uninstall CTI OS Server before you install CTI OS Server Release 12.5(1).

While installing CTI OS Server 12.5(1), the listen ports for CTI OS Server and silent monitor are registered as firewall exceptions.

Silent upgrade is not supported for CTI OS Security Server and Client.

Procedure

Step 1   Run the **Setup.exe**.

A warning message appears indicating that the Cisco Contact Center SNMP Management Service is stopped before the CTI OS Server begins to install.

Click **Yes** to continue.

Step 2   In the Software License Agreement dialog box, click **Yes**.

Step 3   In the CTI OS Server Installer dialog box, leave the **Location** field blank and click **Next**.

Step 4   The CTI OS Instances dialog box is displayed. Click **Upgrade All**.

Step 5   In case you have a version of CTI OS Server already installed, and you are attempting to install the latest version, the dialog box to confirm the upgrade is displayed. Click **Yes**.

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

Step 1   From the Server directory on the CD, run **setup.exe**.

A warning message appears indicating that the Cisco Contact Center SNMP Management Service is stopped before the CTI OS Server begins to install.

Note   When you run programs from a Windows Server system with User Account Control enabled, Windows needs your permission to continue. Click **Yes** in the **User Account Control** window to run the program.

Step 2	Click **Yes** to continue.
Step 3	In the Software License Agreement window, click **Yes**.
Step 4	In the CTI OS Server Installer window, leave the **Location** field blank and click **Next**.

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.

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

Step 5	Under the CTI OS Instance List, click **Add**. The Add CTIOS Server Instance window is displayed.
Step 6	Enter an instance name and click **OK**. For example, if you enter an instance called `cisco`, the following window appears:
Step 7	Click **Add** in the CTI OS Server List.

The **Add CTIOS Server** window appears.

The CTIOS Server Name field is populated with the instance name you provided, 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 8	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 **Drive** drop-down list.
Step 9	Click **OK**.

The **CTI Server Information** window appears.

The Instance Name and CTIOS Server Name is already populated.

Step 10	For secured connection with the CTI server, check the **Enable Secure Connection** check box.

Note	For secured connection, you must provide the secure port number of the CTI Server.

If the Enable Secure Connection check box is not checked, the connection established between the CTIOS Server and the CTI Server is non-secured. In this case, you must provide the non-secure port number of the CTI Server.

Before you enable secured connection between the components, ensure to complete the security certificate management process.

For more information, see 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.

Step 11	Enter the **Name** or **IP Address** and the **Port Number** for your CTI Server.

If the peripheral is configured for a previous CTI OS Server, the **Name or IP Address** field pre-populates with the name of that CTI OS Server.

Step 12	Click **Next**.

The **Peripheral Identifier** window appears.

The Peripheral Type field is pre-populated 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 13 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.

- Select the **Login By** 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 14 Click **Next**.

The **Connection Information** window appears.

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, use any available port.

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 15 Click **Next**.

The **Statistics Information** window appears.

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 16 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 disables all the information relating to statistics.

Step 17 Click **Next**.

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

Step 18 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.

Step 19 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 unsecured 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 20 Click **Next**.

The **Peer CTIOS Server** window appears.

Step 21 You can configure a CTI OS Peer Server using this window. You can also configure Chat and CTI OS silent monitoring. Enter the Peer CTI OS Server and Port details.

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 22 The CTI OS Server Security window appears.

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 23 The CTI OS Security InstallShield Wizard appears if you have enabled security:

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.

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**.

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.