



## Configuring the Cisco CTL Client

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### Cisco CTL Client Overview

Device, file, and signaling authentication rely on the creation of the Certificate Trust List (CTL) file, which is created when you install and configure the Cisco Certificate Trust List (CTL) client on a single Windows workstation or server that has a USB port.



**Note**

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Supported Windows versions for CTL client include Windows 2000 and Windows XP.

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**Tip**

Do not use Terminal Services to install the Cisco CTL client. Cisco installs Terminal Services, so Cisco Technical Assistance Center (TAC) can perform remote troubleshooting and configuration tasks.

The CTL file contains entries for the following servers or security tokens:

- Site Administrator Security Token (SAST)
- Cisco Unified CallManager and Cisco TFTP running on the same server
- Certificate Authority Proxy Function (CAPF)

The CTL file contains a server certificate, public key, serial number, signature, issuer name, subject name, server function, DNS name, and IP address for each of the servers. After you create the CTL file, you must restart the Cisco CallManager and Cisco TFTP services in Cisco Unified CallManager Serviceability on all servers in the cluster that run these services. The next time that the phone initializes, it downloads the CTL file from the TFTP server. If the CTL file contains a TFTP server entry that has a self-signed certificate, the phone requests a signed configuration file in .sgn format. If none of the TFTP servers contains a certificate, the phone requests an unsigned file.

**Note**

Cisco Unified CallManager node hostnames must be resolvable on the remote PC where the CTL client is installed or the CTL client will not function correctly.

Cisco Unified CallManager Administration uses an etoken to authenticate the TLS connection between the CTL client and provider.

## Cisco CTL Client Configuration Checklist

Table 3-1 provides a list of configuration tasks that you perform to install and configure the Cisco CTL client for the first time.

**Table 3-1** Cisco CTL Client Configuration Checklist

Configuration Steps		Related Procedures and Topics
<b>Step 1</b>	<p>On each Cisco Unified CallManager in the cluster, activate the Cisco CTL Provider service in Cisco Unified CallManager Serviceability.</p> <p><b>Tip</b> If you activated this service prior to a Cisco Unified CallManager upgrade, you do not need to activate the service again. The service automatically activates after the upgrade.</p>	<a href="#">Activating the Cisco CTL Provider Service, page 3-3</a>
<b>Step 2</b>	<p>On the first node, activate the Cisco Certificate Authority Proxy service in Cisco Unified CallManager Serviceability.</p> <p><b>Timesaver</b> Performing this task before you install and configure the Cisco CTL client ensures that you do not have to update the CTL file to use CAPF.</p>	<a href="#">Activating the Certificate Authority Proxy Function Service, page 6-5</a>

Table 3-1 Cisco CTL Client Configuration Checklist (continued)

Configuration Steps		Related Procedures and Topics
<b>Step 3</b>	If you do not want to use the default settings, configure ports for the TLS connection.  <b>Tip</b> If you configured these settings prior to a Cisco Unified CallManager upgrade, the settings migrate automatically.	<a href="#">Configuring Ports for the TLS Connection, page 3-4</a>
<b>Step 4</b>	Obtain at least two security tokens and the passwords, hostnames/IP addresses, and port numbers for the servers that you will configure for the Cisco CTL client.	<a href="#">Configuring the Cisco CTL Client, page 3-7</a>
<b>Step 5</b>	Install the Cisco CTL client.	<ul style="list-style-type: none"> <li>• <a href="#">System Requirements, page 1-4</a></li> <li>• <a href="#">Installation, page 1-11</a></li> <li>• <a href="#">Installing the Cisco CTL Client, page 3-5</a></li> </ul>
<b>Step 6</b>	Configure the Cisco CTL client.	<a href="#">Configuring the Cisco CTL Client, page 3-7</a>

## Activating the Cisco CTL Provider Service

After you configure the Cisco CTL client, this service changes the cluster security mode from nonsecure to secure mode and transports the server certificates to the CTL file; the service then transports the CTL file to all Cisco Unified CallManager and Cisco TFTP servers.

If you activate the service and then upgrade Cisco Unified CallManager, Cisco Unified CallManager automatically reactivates the service after the upgrade.



### Tip

You must activate the Cisco CTL Provider service on all servers in the cluster.

To activate the service, perform the following procedure:

### Procedure

- Step 1** In Cisco Unified CallManager Serviceability, choose **Tools > Service Activation**.
- Step 2** In the Servers drop-down list box, choose a server where you have activated the Cisco Unified CallManager or Cisco TFTP services.
- Step 3** Click the **Cisco CTL Provider** service radio button.
- Step 4** Click **Save**.
- Step 5** Perform this procedure on all servers in the cluster.



### Note

You can enter a CTL port before you activate the Cisco CTL Provider service. If you want to change the default port number, see the “[Configuring Ports for the TLS Connection](#)” section on [page 3-4](#).

- Step 6** Verify that the service runs on all servers in the cluster. In Cisco Unified CallManager Serviceability, choose **Tools > Control Center - Feature Services** to verify the state of the service.

#### Additional Information

See the [“Related Topics”](#) section on page 3-16.

## Activating the Cisco CAPF Service

For information on activating this service, see the [“Activating the Certificate Authority Proxy Function Service”](#) section on page 6-5.



#### Timesaver

Performing this task before you install and configure the Cisco CTL client ensures that you do not have to update the CTL file to use CAPF.

## Configuring Ports for the TLS Connection

You may have to configure a different port number if the port is currently being used or if you use a firewall and you cannot use the port within the firewall.

The Cisco CTL Provider default port for the TLS connection equals 2444. The Cisco CTL Provider port monitors requests from the Cisco CTL client. This port processes Cisco CTL client requests, such as retrieving the CTL file, setting the clusterwide security mode, saving the CTL file to TFTP servers, and retrieving a list of Cisco Unified CallManager and TFTP servers in the cluster.

The Ethernet Phone Port monitors registration requests from the SCCP phone. In nonsecure mode, the phone connects through port 2000. In secure mode, the Cisco Unified CallManager port for TLS connection equals the value for the Cisco Unified CallManager port number added to (+) 443; therefore, the default TLS connection for Cisco Unified CallManager equals 2443. Update this setting only if the port number is in use, or if you use a firewall and you cannot use the port within the firewall.

The SIP Secure Port allows Cisco Unified CallManager to listen for SIP messages from SIP phones. The default value equals 5061. If you change this port, you must restart the Cisco CallManager service in Cisco Unified CallManager Serviceability and reset the SIP phones.




#### Tip

After you update the port(s), you must restart the Cisco CTL Provider service in Cisco Unified CallManager Administration.

The CTL ports must be opened to the data VLAN from where the CTL client runs. The ports used by the CTL client are also used by phones that are running TLS for signaling back to Cisco Unified CallManager. These ports need to be opened to all VLANs where phones are configured for authenticated or encrypted status.

To change the default setting, perform the following procedure:

### Procedure

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- Step 1** Perform the following tasks, depending on the port that you want to change:
- To change the Port Number parameter for the Cisco CTL Provider service, perform [Step 2](#) through [Step 6](#).
  - To change the Ethernet Phone Port or SIP Phone Secure Port settings, perform [Step 7](#) through [Step 11](#).
- Step 2** To change the Cisco CTL Provider port, choose **System > Service Parameters** in Cisco Unified CallManager Administration.
- Step 3** In the Server drop-down list box, choose a server where the Cisco CTL Provider service runs.
- Step 4** In the Service drop-down list box, choose **Cisco CTL Provider** service.
-  **Tip** For information on the service parameter, click the question mark or the link name.
- 
- Step 5** To change the value for the Port Number parameter, enter the new port number in the Parameter Value field.
- Step 6** Click **Save**.
- Step 7** To change the Ethernet Phone Port or SIP Phone Secure Port settings, choose **System > Cisco Unified CallManager** in Cisco Unified CallManager Administration.
- Step 8** Find a server where the Cisco CallManager service runs, as described in the *Cisco Unified CallManager Administration Guide*; after the results display, click the **Name** link for the server.
- Step 9** After the Cisco Unified CallManager Configuration window displays, enter the new port numbers in the Ethernet Phone Port or SIP Phone Secure Port fields.
- Step 10** Reset the phones and restart the Cisco CallManager service in Cisco Unified CallManager Serviceability.
- Step 11** Click **Save**.
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### Additional Information

See the [“Related Topics”](#) section on page 3-16.

## Installing the Cisco CTL Client

You must use the client and update the CTL file when the following events occur:

- The first time you set the security mode of the cluster
- The first time you create the CTL file
- After the Cisco Unified CallManager installation
- After you restore a Cisco Unified CallManager server or Cisco Unified CallManager data

- After you change the IP address or hostname of the Cisco Unified CallManager server
- After you add or remove a security token, TFTP server, or Cisco Unified CallManager server

**Tip**

If the Smart Card service is not set to started and automatic on the server or workstation where you plan to install the client, the installation fails.

To install the Cisco CTL client, perform the following procedure:

**Procedure**

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- Step 1** From the Windows workstation or server where you plan to install the client, browse to Cisco Unified CallManager Administration, as described in the *Cisco Unified CallManager Administration Guide*.
- Step 2** In Cisco Unified CallManager Administration, choose **Application > Plugins**.  
The Find and List Plugins window displays.
- Step 3** From the Plugin Type equals drop-down list box, choose **Installation** and click **Find**.
- Step 4** Locate the Cisco CTL Client.
- Step 5** To download the file, click **Download** on the right side of the window, directly opposite the Cisco CTL Client plug-in name.
- Step 6** Click **Save**, and save the file to a location that you will remember.
- Step 7** To begin the installation, double-click **Cisco CTL Client** (icon or executable depending on where you saved the file).
- 
- Note** You can also click **Open** from the Download Complete box.
- 
- Step 8** The version of the Cisco CTL client displays; click **Continue**.
- Step 9** The installation wizard displays. Click **Next**.
- Step 10** Accept the license agreement and click **Next**.
- Step 11** Choose a folder where you want to install the client. If you want to do so, click **Browse** to change the default location; after you choose the location, click **Next**.
- Step 12** To begin the installation, click **Next**.
- Step 13** After the installation completes, click **Finish**.
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**Additional Information**

See the [“Related Topics”](#) section on page 3-16.

# Upgrading the Cisco CTL Client and Migrating the Cisco CTL File

If you want to make changes to the CTL file after the Cisco Unified CallManager 5.0(2) upgrade, you must delete the Cisco CTL client that you installed prior to the upgrade, install the latest Cisco CTL client, as described in the [“Installing the Cisco CTL Client”](#) section on page 3-5, and regenerate the CTL file.

If you did not remove or add any servers before the Cisco Unified CallManager upgrade, you do not need to reconfigure the Cisco CTL client after the upgrade. The Cisco Unified CallManager upgrade automatically migrates the data in the CTL file.

## Configuring the Cisco CTL Client



Tip

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Configure the Cisco CTL client during a scheduled maintenance window because you must restart the Cisco Unified CallManager and Cisco TFTP services in Cisco Unified CallManager Serviceability on all servers in the cluster that run these services.

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The Cisco CTL client performs the following tasks:

- Sets the Cisco Unified CallManager cluster security mode.



Tip

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You cannot set the Cisco Unified CallManager clusterwide parameter to secure mode through the Enterprise Parameters window of Cisco Unified CallManager Administration. You must configure the CTL client to set the clusterwide mode. For more information, see the [“Cisco CTL Client Configuration Settings”](#) section on page 3-11.

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- Creates the Certificate Trust List (CTL), which is a file that contains certificate entries for security tokens, Cisco Unified CallManager, and CAPF servers.

The CTL file indicates the servers that support TLS for the phone connection. The client automatically detects the Cisco Unified CallManager and the Cisco CAPF server and adds certificate entries for these servers.

The security tokens that you insert during the configuration sign the CTL file.

### Before You Begin

Before you configure the Cisco CTL client, verify that you activated the Cisco CTL Provider service and the Cisco Certificate Authority Proxy Function service in Cisco Unified CallManager Serviceability. Obtain at least two security tokens; the Cisco certificate authority issues these security tokens. The security tokens must come from Cisco. You will insert the tokens one at a time into the USB port on the server/workstation. If you do not have a USB port on the server, you may use a USB PCI card.

Obtain the following passwords, hostnames/IP addresses, and port numbers:

- Administrative username and password for Cisco Unified CallManager
- Security token administrative password

See [Table 3-2](#) for a description of the preceding information.

**Tip**

Before you install the Cisco CTL client, verify that you have network connectivity to each server in the cluster. To ensure that you have network connectivity to all servers in the cluster, issue a ping command, as described in the *Cisco Unified Communications Operating System Administration Guide*.

If you installed multiple Cisco CTL clients, Cisco Unified CallManager only accepts CTL configuration information on one client at a time, but you can perform configuration tasks on up to five Cisco CTL clients simultaneously. While you perform configuration tasks on one client, Cisco Unified CallManager automatically stores the information that you entered on the other clients.

After you complete the Cisco CTL Client configuration, the CTL Client performs the following tasks:

- Writes the CTL file to all Cisco Unified CallManager servers in the cluster.
- Writes CAPF capf.cer to all Cisco Unified CallManager subsequent nodes (not first node) in the cluster.
- Writes CAPF certificate file in PEM format to all Cisco Unified CallManager subsequent nodes (not first node) in the cluster.
- Signs the CTL file with the private key of the security token that exists in the USB port at the time you create the CTL file.

To configure the client, perform the following procedure:

**Procedure**

- 
- Step 1** Obtain at least two security tokens that you purchased.
- Step 2** Perform one of the following tasks:
- Double-click the **Cisco CTL Client** icon that exists on the desktop of the workstation/server where you installed it.
  - Choose **Start > Programs > Cisco CTL Client**.
- Step 3** Enter the configuration settings for the Cisco Unified CallManager server, as described in [Table 3-2](#); click **Next**.
- Step 4** Click **Set CallManager Cluster to Secure Mode**, as described in [Table 3-2](#); click **Next**.
- Step 5** Perform the following tasks, depending on what you want to accomplish:
- To add a security token, see [Step 6](#) through [Step 12](#).
  - To complete the Cisco CTL client configuration, see [Step 17](#) through [Step 21](#).

**Caution**

You need a minimum of two security tokens the first time that you configure the client. Do not insert the tokens until the application prompts you to do so. If you have two USB ports on the workstation or server, do not insert two security tokens at the same time.

- Step 6** When the application prompts you to do so, insert one security token in an available USB port on the workstation or server where you are currently configuring the Cisco CTL client; click **OK**.
- Step 7** The security token information displays for the token that you inserted; click **Add**.
- Step 8** The detected certificate entries display in the pane.
- Step 9** To add other security token(s) to the certificate trust list, click **Add Tokens**.

- Step 10** If you have not already done so, remove the token that you inserted into the server or workstation. When the application prompts you to do so, insert the next token and click **OK**.
- Step 11** The security token information for the second token displays; click **Add**.
- Step 12** For all security tokens, repeat [Step 9](#) through [Step 11](#).
- Step 13** The certificate entries display in the pane.
- Step 14** Enter the configuration settings, as described in [Table 3-2](#).
- Step 15** Click **Next**.
- Step 16** Enter the configuration settings, as described in [Table 3-2](#); click **Next**.
- Step 17** When you have added all security tokens and servers, click **Finish**.
- Step 18** Enter the username password for the security token, as described in [Table 3-2](#); click **OK**.
- Step 19** After the client creates the CTL file, a window displays the server, file location, and status of the CTL file on each server. Click **Finish**.
- Step 20** Reset all devices in the cluster. See the “[Resetting the Devices, Restarting Services, or Rebooting the Server/Cluster](#)” section on page 1-10.
- Step 21** In Cisco Unified CallManager Serviceability, restart the Cisco Unified CallManager and Cisco TFTP services that run on each server in the cluster.
- Step 22** After you create the CTL file, you may remove the security token from the USB port. Store all security tokens in a safe place that you will remember.
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#### Additional Information

See the “[Related Topics](#)” section on page 3-16.

## Updating the CTL File

You must update the CTL file if the following scenarios occur:

- If you add a new Cisco Unified CallManager server to the cluster
- If you change the name or IP address of the Cisco Unified CallManager server in the cluster
- If you enabled the Cisco Certificate Authority Function service in Cisco Unified CallManager Serviceability
- If you need to add or delete additional security tokens
- If you restore the Cisco Unified CallManager server or Cisco Unified CallManager data



#### Tip

Cisco strongly recommends that you update the file when minimal call-processing interruptions will occur.

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To update the information that exists in CTL file, perform the following procedure:

#### Procedure

- 
- Step 1** Obtain one security token that you inserted to configure the latest CTL file.
- Step 2** Double-click the **Cisco CTL Client** icon that exists on the desktop of the workstation/server where you installed it.
- Step 3** Enter the configuration settings for the Cisco Unified CallManager server, as described in [Table 3-2](#); click **Next**.



**Tip** You make updates in this window for the Cisco Unified CallManager server.

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- Step 4** To update the CTL file, click **Update CTL File**, as described in [Table 3-2](#); click **Next**.



**Caution** For all CTL file updates, you must insert one security token that already exists in the CTL file into the USB port. The client validates the signature of the CTL file through this token. You cannot add new tokens until the CTL client validates the signature. If you have two USB ports on the workstation or server, do not insert both security tokens at the same time.

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- Step 5** If you have not already inserted one security token in an available USB port on the workstation or server where you are currently updating the CTL file, insert one of the security tokens; click **OK**.

- Step 6** The security token information displays for the token that you inserted; click **Next**.

The detected certificate entries display in the pane.



**Tip** You cannot update the Cisco Unified CallManager or Cisco TFTP entries from this pane. To update the Cisco Unified CallManager entry, click **Cancel** and perform [Step 2](#) through [Step 6](#) again.

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- Step 7** To update existing Cisco CTL entries or to add or delete security tokens, consider the following information:

- To add new security tokens, see [“Configuring the Cisco CTL Client” section on page 3-7](#).
  - To delete a security token, see the [“Deleting a CTL File Entry” section on page 3-10](#).
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#### Additional Information

See the [“Related Topics” section on page 3-16](#).

## Deleting a CTL File Entry

At any time, you can delete some CTL entries that display in the CTL Entries window of the Cisco CTL client. After you open the client and follow the prompts to display the CTL Entries window, click **Delete Selected** to delete the entry.

You cannot delete servers that run Cisco Unified CallManager, Cisco TFTP, or Cisco CAPF from the CTL file.

Two security token entries must exist in the CTL file at all times. You cannot delete all security tokens from the file.

#### Additional Information

See the “[Related Topics](#)” section on page 3-16.

## Updating the Clusterwide Security Mode

You must use the Cisco CTL client to configure the clusterwide security mode. You cannot change the clusterwide security mode from the Enterprise Parameters window in Cisco Unified CallManager Administration.

To change the clusterwide security mode after the initial configuration of the Cisco CTL client, you must update the CTL file, as described in the “[Updating the CTL File](#)” section on page 3-9 and [Table 3-2](#). If you change the clusterwide security mode from secure to nonsecure mode, the CTL file still exists on the servers in the cluster, but the CTL file does not contain any certificates. Because no certificates exist in the CTL file, the phone requests an unsigned configuration file and registers as nonsecure with Cisco Unified CallManager.

## Cisco CTL Client Configuration Settings

The cluster can exist in one of two modes, as described in [Table 3-2](#). Only secure mode supports authentication. When you configure the Cisco CTL client for authentication, you must choose Set CallManager Cluster to Secure Mode.

Use [Table 3-2](#) to configure the Cisco CTL client for the first time, to update the CTL file, or to change the mode from mixed to nonsecure.

**Table 3-2** Configuration Settings for CTL Client

Setting	Description
<b>CallManager Server</b>	
Hostname or IP Address	Enter the hostname or IP address for the first node.
Port	Enter the port number, which equals the CTL port for the Cisco CTL Provider service that runs on the specified Cisco Unified CallManager server. The default port number equals 2444.
Username and Password	Enter the same username and password that has administrative privileges on the first node.
<b>Radio Button</b>	
Set CallManager Cluster to Secure Mode	Secure mode allows authenticated or encrypted Cisco Unified IP Phones and nonauthenticated Cisco Unified IP Phones to register with Cisco Unified CallManager. In this mode, Cisco Unified CallManager ensures that authenticated or encrypted devices use a secure port.  <b>Note</b> Cisco Unified CallManager disables auto-registration if you configure the cluster for secure mode.

Table 3-2 Configuration Settings for CTL Client (continued)

Setting	Description
Set CallManager Cluster to Nonsecure Mode	<p>All devices register as unauthenticated with Cisco Unified CallManager, and Cisco Unified CallManager supports image authentication only.</p> <p>When you choose this mode, the CTL client removes the certificates for all entries that are listed in the CTL file, but the CTL file still exists in the directory that you specified. The phone requests unsigned configuration files and registers as nonsecure with Cisco Unified CallManager.</p> <p><b>Tip</b> To revert the phone to the default nonsecure mode, you must delete the CTL file from the phone and all Cisco Unified CallManager servers.</p> <p>You can use auto-registration in this mode.</p>
Update CTL File	After you have created the CTL file, you must choose this option to make any changes to the CTL file. Choosing this option ensures that the Cluster Security mode does not change.
<b>Security Token</b>	
User Password	The first time that you configure the Cisco CTL client, enter <b>Cisco123</b> , the case-sensitive default password, to retrieve the private key of the certificate and ensure that the CTL file gets signed.

## Verifying the Security Mode for the Cisco Unified CallManager Cluster

To verify the security mode for the Cisco Unified CallManager cluster, perform the following procedure:

### Procedure

- Step 1** From Cisco Unified CallManager Administration, choose **System > Enterprise Parameters**.
- Step 2** Locate the **Cluster Security Mode** field. If the value in the field displays as 1, you correctly configured the Cisco Unified CallManager cluster for secure mode. (Click the field name for more information.)



**Tip** You cannot configure this value in Cisco Unified CallManager Administration. This value displays after you configure the Cisco CTL client.

### Additional Information

See the “[Related Topics](#)” section on page 3-16.

## Setting the Smart Card Service to Started and Automatic

If the Cisco CTL client installation detects that the Smart Card service is disabled, you must set the Smart Card service to automatic and started on the server or workstation where you are installing the Cisco CTL plug-in.

**Tip**

You cannot add the security tokens to the CTL file if the service is not set to started and automatic.

After you upgrade the operating system, apply service releases, upgrade Cisco Unified CallManager, and so on, verify that the Smart Card service is started and automatic.

To set the service to started and automatic, perform the following procedure:

**Procedure**

- Step 1** On the server or workstation where you installed the Cisco CTL client, choose **Start > Programs > Administrative Tools > Services** or **Start > Control Panel > Administrative Tools > Services**.
- Step 2** From the Services window, right-click the **Smart Card** service and choose **Properties**.
- Step 3** In the Properties window, verify that the General tab displays.
- Step 4** From the Startup type drop-down list box, choose **Automatic**.
- Step 5** Click **Apply**.
- Step 6** In the Service Status area, click **Start**.
- Step 7** Click **OK**.
- Step 8** Reboot the server or workstation and verify that the service is running.

**Additional Information**

See the [“Related Topics” section on page 3-16](#).

## Changing the Security Token Password (Etoken)

This administrative password retrieves the private key of the certificate and ensures that the CTL file gets signed. Each security token comes with a default password. You can change the security token password at any time. If the Cisco CTL client prompts you to change the password, you must change the password before you can proceed with the configuration.

To review pertinent information on setting passwords, click the **Show Tips** button. If you cannot set the password for any reason, review the tips that display.

To change the security token password, perform the following procedure:

**Procedure**

- Step 1** Verify that you have installed the Cisco CTL client on a Windows server or workstation.

- Step 2** If you have not already done so, insert the security token into the USB port on the Windows server or workstation where you installed the Cisco CTL client.
- Step 3** Choose **Start > Programs > etoken > Etoken Properties**; right-click **etoken** and choose **Change etoken password**.
- Step 4** In the Current Password field, enter the password that you originally created for the token.
- Step 5** Enter a new password.
- Step 6** Enter the new password again to confirm it.
- Step 7** Click **OK**.
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**Additional Information**

See “[Troubleshooting CTL Security Tokens](#)” section on page 16-4.

See the “[Related Topics](#)” section on page 3-16.

## Deleting the CTL File on the Cisco Unified IP Phone

**Caution**

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Cisco recommends that you perform this task in a secure lab environment, especially if you do not plan to delete the CTL file from the Cisco Unified CallManager servers in the cluster.

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Delete the CTL file on the Cisco Unified IP Phone if the following cases occur:

- You lose all security tokens that signed the CTL file.
- The security tokens that signed the CTL file appear compromised.
- You move a phone out of a secure cluster; for example, to a storage area, to a nonsecure cluster, or to another secure cluster in a different domain.
- You move a phone from an area with an unknown security policy to a secure cluster.
- You change the alternate TFTP server address to a server that does not exist in the CTL file.

To delete the CTL file on the Cisco Unified IP Phone, perform the tasks in [Table 3-3](#).

**Table 3-3** *Deleting the CTL File on the Cisco Unified IP Phone*

Cisco Unified IP Phone Model	Tasks
Cisco Unified IP Phones 7960 and 7940	Under the Security Configuration menu on the phone, press <b>CTL file</b> , <b>unlock</b> or <b>**#</b> , and <b>erase</b> .
Cisco Unified IP Phone 7970	Perform one of the following methods: <ul style="list-style-type: none"> <li>• Unlock the Security Configuration menu, as described in <i>Cisco Unified IP Phone Administration Guide for Cisco Unified CallManager</i>. Under the CTL option, press the <b>Erase</b> softkey.</li> <li>• Under the Settings menu, press the <b>Erase</b> softkey.</li> </ul> <p><b>Note</b> Pressing the Erase softkey under the Settings menu deletes other information besides the CTL file. For additional information, refer to the <i>Cisco Unified IP Phone Administration Guide for Cisco Unified CallManager</i>.</p>

#### Additional Information

See the “[Related Topics](#)” section on page 3-16.

## Determining the Cisco CTL Client Version

To determine which version of the Cisco CTL client you are using, perform the following procedure:

#### Procedure

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- Step 1** Perform one of the following tasks:
- Double-click the **Cisco CTL Client** icon that exists on the desktop.
  - Choose **Start > Programs > Cisco CTL Client**.
- Step 2** In the Cisco CTL client window, click the icon in the upper, left corner of the window.
- Step 3** Choose **About Cisco CTL Client**. The version of the client displays.
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#### Additional Information

See the “[Related Topics](#)” section on page 3-16.

## Verifying or Uninstalling the Cisco CTL Client

Uninstalling the Cisco CTL client does not delete the CTL file. Likewise, the clusterwide security mode and the CTL file do not change when you uninstall the client. If you choose to do so, you can uninstall the CTL client, install the client on a different Windows workstation or server, and continue to use the same CTL file.

To verify that the Cisco CTL client installed, perform the following procedure:

#### Procedure

- 
- Step 1** Choose **Start > Control Panel > Add Remove Programs**.
- Step 2** Double-click **Add Remove Programs**.
- Step 3** To verify that the client installed, locate **Cisco CTL Client**.
- Step 4** To delete the client, click **Remove**.
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#### Additional Information

See the “[Related Topics](#)” section on page 3-16.

## Where to Find More Information

#### Related Topics

- [System Requirements](#), page 1-4
- [Cisco CTL Client Overview](#), page 3-1
- [Cisco CTL Client Configuration Checklist](#), page 3-2
- [Activating the Cisco CTL Provider Service](#), page 3-3
- [Activating the Cisco CAPF Service](#), page 3-4
- [Configuring Ports for the TLS Connection](#), page 3-4
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