



# Device Profiles and Templates

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## Device Profiles and Templates Overview

This chapter explains how to configure device profiles and templates. For information about configuring specific features, see the *Feature Configuration Guide for Cisco Unified Communications Manager* at <http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-maintenance-guides-list.html>.

## Device Profiles

A device profile defines the services, features, and directory numbers that associate with a particular device. You can configure a device profile and then you can assign the user device profile to a user, so that when the user logs in to a device, those features and services are available on that device.

## SIP Profiles for End Points

A SIP profile comprises the set of SIP attributes that are associated with SIP endpoints. SIP profiles include information such as name, description, timing, retry, call pickup URI, and so on. The profiles contain some standard entries that cannot be deleted or changed.

## Device Profiles and Templates

Cisco Unified Communications Manager also supports a default device profile. Cisco Unified Communications Manager uses the default device profile whenever a user logs on to a phone model for which no user device profile exists.

## Peer-to-Peer Image Distribution

The peer firmware sharing feature provides these advantages in high-speed campus LAN settings:

- Limits congestion on TFTP transfers to centralized TFTP servers.
- Eliminates the need to manually control firmware upgrades.

- Reduces phone downtime during upgrades when large numbers of devices are reset simultaneously.

In most conditions, the peer firmware sharing feature optimizes firmware upgrades in branch deployment scenarios over bandwidth-limited WAN links.

When the feature is enabled, it allows the phone to discover similar phones on the subnet that are requesting the files that make up the firmware image and to automatically assemble transfer hierarchies on a per-file basis. The individual files that make up the firmware image get retrieved from the TFTP server by only the root phone in the hierarchy and are then rapidly transferred down the transfer hierarchy to the other phones on the subnet using TCP connections.

## Configure Device Profiles and Templates Task Flow

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<a href="#">Configure a Softkey Template on the Default Device Profile, on page 3</a>	Add the default device profile to a softkey template.
<b>Step 2</b>	<a href="#">Associate a Softkey Template with a Common Device Configuration, on page 4</a>	<p>Optional. To make the softkey template available to phones, you must associate the template to a Common Device Configuration or directly to a phone. Follow this step if your system uses a common device configuration to apply configuration options to phones (this is the most commonly used method for making a softkey template available to phones).</p> <p><b>Note</b> For information on how to associate a common device configuration on multiple phones by using the Bulk Administration Tool, see the <i>Cisco Unified Communications Manager Bulk Administration Guide</i> at <a href="http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-maintenance-guides-list.html">http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-maintenance-guides-list.html</a>.</p>
<b>Step 3</b>	<a href="#">Associate a Softkey Template with a Phone, on page 6</a>	Optional. Use this procedure either as an alternative to associating the softkey template with the common device configuration, or in conjunction with the common device configuration. Use this procedure in conjunction with the common device configuration if you need assign a softkey template that overrides the assignment in the common device configuration or any other default softkey assignment.
<b>Step 4</b>	<a href="#">Configure Feature Control Policy Task Flow, on page 6</a>	Optional. Use this procedure as an alternative to configuring softkey templates. Configure

	Command or Action	Purpose
		feature control policies to enable or disable a particular feature and thereby control the appearance of softkeys that display on the phone. You can create a feature control policy for a group of users that wants to use a common set of features. For example, call park and call pickup features are typically used by the employees from the sales group and not all the employees in a company. You can create a feature control policy that enables only these two features and assign that policy to the sales group. After you create a feature control policy, you can associate that policy with an individual phone, a group of phones, or with all phones in the system.
<b>Step 5</b>	<a href="#">Configure a Phone Button Template, on page 9</a> <ul style="list-style-type: none"> <li>• <a href="#">Associate a Button Template with a Phone, on page 10</a></li> </ul>	Use this procedure to include default templates for each Cisco IP Phone model. When you add phones, you can assign one of these templates to the phone or create a template of your own.
<b>Step 6</b>	<a href="#">Configure Device Profile, on page 10</a>	Configure the device profile for any phone model that supports SIP or SCCP.
<b>Step 7</b>	<a href="#">Configure SIP Profiles for Endpoints, on page 11</a>	To configure a new SIP profile for the phone.
<b>Step 8</b>	<a href="#">Configure Default Device Profiles, on page 11</a>	Configure the default device profile for any phone model that supports SIP or SCCP.

## Configure a Softkey Template on the Default Device Profile

Cisco Unified Communications Manager includes standard softkey templates for call processing and applications. When creating custom softkey templates, copy the standard templates and make modifications as required.

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Device Settings > Softkey Template**.
- Step 2** Perform the following steps to create a new softkey template; otherwise, proceed to the next step.
- Click **Add New**.
  - Select a default template and click **Copy**.
  - Enter a new name for the template in the **Softkey Template Name** field.
  - Click **Save**.
- Step 3** Perform the following steps to add softkeys to an existing template.
- Click **Find** and enter the search criteria.

b) Select the required existing template.

**Step 4** Check the **Default Softkey Template** check box to designate this softkey template as the default softkey template.

**Note** If you designate a softkey template as the default softkey template, you cannot delete it unless you first remove the default designation.

**Step 5** Choose **Configure Softkey Layout** from the **Related Links** drop-down list in the upper right corner and click **Go**.

**Step 6** From the **Select a Call State to Configure** drop-down list, choose the call state for which you want the softkey to display.

**Step 7** From the **Unselected Softkeys** list, choose the softkey to add and click the right arrow to move the softkey to the **Selected Softkeys** list. Use the up and down arrows to change the position of the new softkey.

**Step 8** Repeat the previous step to display the softkey in additional call states.

**Step 9** Click **Save**.

**Step 10** Perform one of the following tasks:

- Click **Apply Config** if you modified a template that is already associated with devices to restart the devices.
- If you created a new softkey template, associate the template with the devices and then restart them. For more information, see *Add a Softkey Template to a Common Device Configuration* and *Associate a Softkey Template with a Phone* sections.

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### What to do next

You can apply a customized softkey template to a device by selecting the template from the Softkey Template drop-down in one of the following configuration windows:

- Phone Configuration
- Universal Device Template
- BAT Template
- Common Device Configuration
- Device Profile
- Default Device Profile
- UDP Profile

## Associate a Softkey Template with a Common Device Configuration

**Optional.** There are two ways to associate a softkey template with a phone:

- Add the softkey template to the **Phone Configuration**.
- Add the softkey template to the **Common Device Configuration**.

The procedures in this section describe how to associate the softkey template with a **Common Device Configuration**. Follow these procedures if your system uses a **Common Device Configuration** to apply configuration options to phones. This is the most commonly used method for making a softkey template available to phones.

To use the alternative method, see the section *Associate a Softkey Template with a Phone*.

### Procedure

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- Step 1** [Add a Softkey Template to a Common Device Configuration](#), on page 5
- Step 2** [Associate a Common Device Configuration with a Phone](#), on page 5
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## Add a Softkey Template to a Common Device Configuration

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Device Settings > Common Device Configuration**.
- Step 2** Perform the following steps to create a new Common Device Configuration and associate the softkey template with it; otherwise, proceed to the next step.
- Click **Add New**.
  - Enter a name for the Common Device Configuration in the **Name** field.
  - Click **Save**.
- Step 3** Perform the following steps to add the softkey template to an existing Common Device Configuration.
- Click **Find** and enter the search criteria.
  - Click an existing Common Device Configuration.
- Step 4** In the **Softkey Template** drop-down list, choose the softkey template that contains the softkey that you want to make available.
- Step 5** Click **Save**.
- Step 6** Perform one of the following tasks:
- If you modified a Common Device Configuration that is already associated with devices, click **Apply Config** to restart the devices.
  - If you created a new Common Device Configuration, associate the configuration with devices and then restart them.
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## Associate a Common Device Configuration with a Phone

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Phone**.
- Step 2** Click **Find** and select the phone device to add the softkey template.

- Step 3** From the **Common Device Configuration** drop-down list, choose the common device configuration that contains the new softkey template.
- Step 4** Click **Save**.
- Step 5** Click **Reset** to update the phone settings.

## Associate a Softkey Template with a Phone

**Optional.** Use this procedure as an alternative to associating the softkey template with the Common Device Configuration. This procedure also works in conjunction with the Common Device Configuration. You can use it when you need to assign a softkey template that overrides the assignment in the Common Device Configuration or any other default softkey assignment.

### Procedure

- Step 1** From Cisco Unified CM Administration, choose **Device > Phone**.
- Step 2** Click **Find** to select the phone to add the softkey template.
- Step 3** From the **Softkey Template** drop-down list, choose the template that contains the new softkey.
- Step 4** Click **Save**.
- Step 5** Press **Reset** to update the phone settings.

## Configure Feature Control Policy Task Flow

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<a href="#">Generate a Phone Feature List, on page 7</a>	Login to Cisco Unified Reporting and run a phone feature list report to determine which phones support Feature Control Policy.
<b>Step 2</b>	<a href="#">Create a Feature Control Policy, on page 7</a>	Create a Feature Control Policy for Cisco IP Phones.
<b>Step 3</b>	Perform one of the following tasks: <ul style="list-style-type: none"> <li>• <a href="#">Apply Feature Control Policy to a Phone, on page 8</a></li> <li>• <a href="#">Apply Feature Control Policy to a Common Phone Profile, on page 8</a></li> <li>• <a href="#">Apply Feature Control Policy to All Phones, on page 9</a></li> </ul>	After you create a Feature Control Policy, you must associate that policy to an individual phone, a group of phones, or to all phones in the system. The Feature Control Policy for an individual phone overrides the clusterwide feature control policy.

	Command or Action	Purpose
		<p><b>Note</b> For information on how to apply Feature Control Policy on multiple phones by using the Bulk Administration Tool, see the <i>Cisco Unified Communications Manager Bulk Administration Guide</i>.</p>

## Generate a Phone Feature List

Generate a phone feature list report to determine which devices support the feature that you want to configure.

### Procedure

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- Step 1** From Cisco Unified Reporting, choose **System Reports**.
  - Step 2** From the list of reports, click **Unified CM Phone Feature List**.
  - Step 3** Perform one of the following steps:
    - Choose **Generate New Report** (the bar chart icon) to generate a new report.
    - Choose **Unified CM Phone Feature List** if a report exists.
  - Step 4** From the **Product** drop-down list, choose **All**.
  - Step 5** Click the name of the feature that you want to configure.
  - Step 6** Click **Submit**, to generate the report.
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## Create a Feature Control Policy

Follow these steps to create a feature control policy. Use this policy to enable or disable a particular feature and hence control the appearance of softkeys that display on the phone.

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Device Settings > Feature Control Policy**.
  - Step 2** Perform one of the following tasks:
    - To modify the settings for an existing policy, enter search criteria, click **Find** and choose the policy from the resulting list.
    - To add a new policy, click **Add New**.

The **Feature Control Policy Configuration** window is displayed.
  - Step 3** In the **Name** field, enter a name for the feature control policy.
  - Step 4** In the **Description** field, enter a brief description for the feature control policy.

- Step 5** In the **Feature Control Section**, for each feature listed, choose whether you want to override the system default and enable or disable the setting:
- If the feature is enabled by default and you want to disable the setting, check the check box under **Override Default** and uncheck the check box under **Enable Setting**.
  - If the feature is disabled by default and you want to enable the setting, check the check box under **Override Default** and check the check box under **Enable Setting**.
- Step 6** Click **Save**.
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## Apply Feature Control Policy to a Phone

### Before you begin

- Ensure that the phone model supports Feature Control Policy. For more information, see [Generate a Phone Feature List, on page 7](#).
- [Create a Feature Control Policy, on page 7](#)

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Phone**.
- Step 2** Enter the search criteria and click **Find**.  
A list of phones that are configured on the **Cisco Unified Communications Manager** is displayed.
- Step 3** Choose a phone to which you want to apply a Feature Control Policy.
- Step 4** From the **Feature Control Policy** drop-down list, choose the required Feature Control Policy.
- Step 5** Click **Save**.
- Step 6** Click **Apply Config**.
- Step 7** Click **OK**.
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## Apply Feature Control Policy to a Common Phone Profile

Common Phone Profiles allow you to configure Feature Control Policy settings and then apply those settings to all the phones in your network that use that profile.

### Before you begin

[Create a Feature Control Policy, on page 7](#)

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Device Settings > Common Phone Profile**.
- Step 2** Enter the search criteria and click **Find**.

- Step 3** Choose a common phone profile to which you want to apply a Feature Control Policy.
  - Step 4** From the **Feature Control Policy** drop-down list, choose the required Feature Control Policy.
  - Step 5** Click **Save**.
  - Step 6** Click **Apply Config**.
  - Step 7** Click **OK**.
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## Apply Feature Control Policy to All Phones

### Before you begin

[Create a Feature Control Policy, on page 7](#)

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **System > Enterprise Parameters**.
  - Step 2** From the **Feature Control Policy** drop-down list, choose the required Feature Control Policy.
  - Step 3** Click **Save**.
  - Step 4** Click **Apply Config**.
  - Step 5** Click **OK**.
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## Configure a Phone Button Template

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Device Settings > Phone Button Template**.
- Step 2** Click **Find** to display list of supported phone templates.
- Step 3** Perform the following steps if you want to create a new phone button template; otherwise, proceed to the next step.
  - a) Select a default template for the model of phone and click **Copy**.
  - b) In the **Phone Button Template Information** field, enter a new name for the template.
  - c) Click **Save**.
- Step 4** Perform the following steps if you want to add phone buttons to an existing template.
  - a) Click **Find** and enter the search criteria.
  - b) Choose an existing template.
- Step 5** From the **Line** drop-down list, choose feature that you want to add to the template.
- Step 6** Click **Save**.
- Step 7** Perform one of the following tasks:
  - Click **Apply Config** if you modified a template that is already associated with devices to restart the devices.

- If you created a new softkey template, associate the template with the devices and then restart them.

## Associate a Button Template with a Phone

### Before you begin

[Configure a Phone Button Template, on page 9](#)

### Procedure

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- Step 1** From Cisco Unified CM Administration, choose **Device > Phone**.
- Step 2** Click **Find** to display the list of configured phones.
- Step 3** Choose the phone to which you want to add the phone button template.
- Step 4** In the **Phone Button Template** drop-down list, choose the phone button template that contains the new feature button.
- Step 5** Click **Save**.  
A dialog box is displayed with a message to press **Reset** to update the phone settings.
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## Configure Device Profile

A device profile comprises the set of attributes that associate with a particular device. You can associate the device profile that you create to an end user in order to use the Cisco Extension Mobility feature.

### Procedure

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- Step 1** From the **Cisco Unified CM Administration** window, choose **Device > Device Settings > Device Profile**.
- Step 2** In the **Device Profile Configuration** window, from the **Device Profile Type** drop-down list, choose the appropriate Cisco Unified IP Phone.
- Step 3** Click **Next**.
- Step 4** From the **Device Protocol** drop-down list, choose the appropriate protocol.
- Step 5** Click **Next**.
- Step 6** From the **Phone Button Template** drop-down list, choose a template.
- Step 7** (Optional) From the **Softkey Template** drop-down list, select a softkey template.
- Step 8** Configure the fields in the **Device Profile Configuration** window. See the online help for more information about the fields and their configuration options.
- Step 9** Click **Save**.

**Note** For details on using Device Profiles to setup Cisco Extension Mobility, see the *Feature Configuration Guide for Cisco Unified Communications Manager, Release 12.5(1)SUI*.

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## Configure SIP Profiles for Endpoints

Cisco Unified Communications Manager uses SIP profiles to define SIP attributes that are associated with SIP trunks and Cisco Unified IP Phones.

### Procedure

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- Step 1** In the **Cisco Unified CM Administration** window, choose **Device > Device Settings > SIP Profiles**.
  - Step 2** To add a new SIP Profile, click the **Add New** button.
  - Step 3** Configure the fields in the **SIP Profile Configuration** window. See the online help for more information about the fields and their configuration options.
  - Step 4** Click **Apply Config**.
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## Configure Default Device Profiles

The phone takes on the default device profile whenever a user logs into a phone for which that user does not have a user device profile.

A default device profile includes device type (phone), user locale, phone button template, softkey template, and multilevel precedence and preemption (MLPP) information.

### Procedure

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- Step 1** From the **Cisco Unified CM Administration** window, choose **Device > Device Settings > Default Device Profile**.
  - Step 2** In the **Default Device Profile Configuration** window, from the **Device Profile Type** drop-down list, choose the appropriate Cisco Unified IP Phone.
  - Step 3** Click **Next**.
  - Step 4** From the **Device Protocol** drop-down list, choose the appropriate protocol.
  - Step 5** Click **Next**.
  - Step 6** Configure the fields in the **Default Device Profile Configuration** window. See the online help for more information about the fields and their configuration options.
  - Step 7** Click **Save**.
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## Configure Peer-to-Peer Image Distribution Feature for Phones

### Procedure

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- Step 1** In Cisco Unified Communications Manager Administration, choose **Device > Phone**.

- Step 2** In the **Find and List Phones** window, to select a phone, specify the appropriate filters in the **Find Phone where** field, click **Find** to retrieve a list of phones, and then select the phone from the list.
- Step 3** In the **Phone Configuration** window, from the **Peer Firmware Sharing** drop-down list in the Product Specific Configuration Layout pane, choose one the following options.
- **Enabled** (default)—Indicates that the phone supports Peer-to-Peer Image Distribution (PPID).
  - **Disabled**—Indicates that the phone does not support Peer-to-Peer Image Distribution (PPID).
- Step 4** Click **Apply Config**.
-