



# Creating Templates

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This chapter describes templates support available in Cisco Unified Communications Manager Express (Cisco Unified CME).

## Finding Feature Information in This Module

Your Cisco Unified CME version may not support all of the features documented in this module. For a list of the versions in which each feature is supported, see the “[Feature Information for Creating Templates](#)” section on page 937.

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## Information About Templates

To enable templates you should understand the following concepts:

- [Phone Templates, page 928](#)
- [Ephone-dn Templates, page 928](#)

## Phone Templates

An ephone or voice-register template is a set of features that can be applied to one or more individual phones using a single command.

Ephone templates were introduced in Cisco CME 3.2 to manipulate soft-key display and order on IP phones. In Cisco Unified CME 4.0, ephone templates were significantly enhanced to include a number of additional phone features. Templates allow you to uniformly and easily implement the features you select for a set of phones. A maximum of 20 ephone templates can be created in a Cisco Unified CME system, although an ephone can have only one template applied to it at a time.

If you use an ephone template to apply a command to a phone and you also use the same command in ephone configuration mode for the same phone, the value set in ephone configuration mode has priority.

Voice-register templates were introduced in Cisco CME 3.4 to enable sets of features to be applied to individual SIP IP phones that are connected directly in Cisco Unified CME. Typically, features to be enabled by using a voice-register template are not configurable in other configuration modes. A maximum 10 voice-register templates can be defined in Cisco Unified CME, although a phone can have only one template applied to it at a time.

Type ? in ephone-template or voice-register-template configuration mode to display a list of features that can be implemented by using templates.

## Ephone-dn Templates

Ephone-dn templates allow you to apply a standard set of features to ephone-dns. A maximum of 15 ephone-dn templates can be created in a Cisco Unified CME system, although an ephone-dn can have only one template applied to it at a time.

If you use an ephone-dn template to apply a command to an ephone-dn and you also use the same command in ephone-dn configuration mode for the same ephone-dn, the value that you set in ephone-dn configuration mode has priority.



**Note** The features that can be implemented using ephone-dn templates are available in the CLI help by entering a question mark:

```
Router(config)# ephone-dn-template 1
Router(config-ephone-dn-template)# ?
```

## How to Configure Templates

This section contains the following tasks:

- [SCCP: Enabling Ephone Templates, page 929](#)
- [SCCP: Enabling Ephone-dn Templates, page 930](#)
- [SCCP: Verifying Templates, page 931](#)
- [SIP: Creating and Applying Templates to SIP Phones, page 932](#)

# SCCP: Enabling Ephone Templates

To create an ephone template and apply it to a phone, perform the following steps:

## SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ephone-template *template-tag***
4. *command*
5. **exit**
6. **ephone *phone-tag***
7. **ephone-template *template-tag***
8. **restart**
9. **end**

## DETAILED STEPS

	<b>Command or Action</b>	<b>Purpose</b>
Step 1	<b>enable</b>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
	<b>Example:</b> Router> enable	
Step 2	<b>configure terminal</b>	Enters global configuration mode.
	<b>Example:</b> Router# configure terminal	
Step 3	<b>ephone-template <i>template-tag</i></b>	Enters ephone-template configuration mode to create an ephone template. <ul style="list-style-type: none"> <li>• <i>template-tag</i>—Unique identifier for the ephone template that is being created. Range is 1 to 20.</li> </ul>
Step 4	<b>command</b>	Applies the specified command to the ephone template that is being created. See the CLI help for a list of commands that can be used in this step. Repeat this step for each command that you want to add to the ephone template.
Step 5	<b>exit</b>	Exits ephone-template configuration mode.
	<b>Example:</b> Router(config-ephone-template)# exit	
Step 6	<b>ephone <i>phone-tag</i></b>	Enters ephone configuration mode. <ul style="list-style-type: none"> <li>• <i>phone-tag</i>—Unique sequence number that identifies this ephone during configuration tasks.</li> </ul>
	<b>Example:</b> Router(config)# ephone 36	

## How to Configure Templates

	Command or Action	Purpose
Step 7	<code>ephone-template template-tag</code>	Applies an ephone template to the ephone that is being configured.
	<b>Example:</b> Router(config-ephone)# ephone-template 15	
Step 8	<code>restart</code>	Performs a fast reboot of this ephone. Does not contact the DHCP or TFTP server for updated information.
	<b>Example:</b> Router(config-ephone)# restart	<b>Note</b> Restart all phones using the <code>restart all</code> command in telephony-service configuration mode.
Step 9	<code>end</code>	Returns to privileged EXEC mode.
	<b>Example:</b> Router(config-ephone)# end	

## SCCP: Enabling Ephone-dn Templates

To create an ephone-dn template and apply it to an ephone-dn, perform the following steps:

### SUMMARY STEPS

1. `enable`
2. `configure terminal`
3. `ephone-dn-template template-tag`
4. `command`
5. `exit`
6. `ephone-dn dn-tag`
7. `ephone-dn-template template-tag`
8. `end`

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>enable</code>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
	<b>Example:</b> Router> enable	
Step 2	<code>configure terminal</code>	Enters global configuration mode.
	<b>Example:</b> Router# configure terminal	
Step 3	<code>ephone-dn-template template-tag</code>	Enters ephone-dn-template configuration mode to create an ephone-dn template. <ul style="list-style-type: none"> <li>• <code>template-tag</code>—Unique identifier for the ephone-dn template that is being created. Range is 1 to 20.</li> </ul>
	<b>Example:</b> Router(config)# ephone-dn-template 3	

	<b>Command or Action</b>	<b>Purpose</b>
Step 4	<code>command</code>	Applies the specified command to the ephone-dn template that is being created. See the CLI help for a list of commands that can be used in this step. Repeat this step to add more commands to the template.
Step 5	<code>exit</code>	Exits ephone-dn-template configuration mode.
Step 6	<code>ephone-dn dn-tag</code>	Enters ephone-dn configuration mode. <ul style="list-style-type: none"> <li>• <i>dn-tag</i>—Unique sequence number that identifies this ephone-dn during configuration tasks.</li> </ul>
Step 7	<code>ephone-dn-template template-tag</code>	Applies an ephone-dn template to the ephone-dn that is being configured.
Step 8	<code>end</code>	Returns to privileged EXEC mode.
	<b>Example:</b> <code>Router(config)# ephone-dn 23</code>	
	<b>Example:</b> <code>Router(config)# ephone-dn-template 3</code>	
	<b>Example:</b> <code>Router(config)# end</code>	

## SCCP: Verifying Templates

To view the configuration of a template, and verify to which phone or directory number a template is applied, perform the following steps.

### SUMMARY STEPS

1. **show telephony-service ephone**
2. **show telephony-service ephone-template**
3. **show telephony-service ephone-dn**
4. **show telephony-service ephone-dn-template**

### DETAILED STEPS

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#### Step 1 **show telephony-service ephone**

Use this command to display information about SCCP phones in Cisco Unified CME, including which template-tags are enabled in the configuration for a phone.

```
Router# show telephony-service ephone 1
ephone-dn-template 1
description Call Center Line 1
call-forward busy 500
call-forward noan 500 timeout 10
pickup-group 33!
!
```

**Step 2 show telephony-service ephone-template**

Use is command to display information about an ephone template in Cisco Unified CME, including a list of features enabled in the configuration.

**Step 3 show telephony-service ephone-dn**

Use is command to display information about directory numbers, including which template-tags are enabled in the configuration for a directory number.

```
Router# show telephony-service ephone-dn 4
!
ephone-dn 4 dual-line
number 136
description Desk4
ephone-dn template 1
ephone-hunt login
```

**Step 4 show telephony-service ephone-dn-template**

Use is command to display information about an ephone-dn template in Cisco Unified CME, including a list of features enabled in the configuration.

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## SIP: Creating and Applying Templates to SIP Phones

To create templates of common features and softkeys that can be applied to individual Cisco SIP IP phones, follow the steps in this section.

### Prerequisites

- Cisco CME 3.4 or a later version.
- The **mode** cme command must be enabled in Cisco Unified CME.

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **voice register template *template-tag***
4. *command*
5. **exit**
6. **voice register pool *pool-tag***
7. **template *template-tag***
8. **end**

## DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>enable</code>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
	<b>Example:</b> Router> enable	
Step 2	<code>configure terminal</code>	Enters global configuration mode.
	<b>Example:</b> Router# configure terminal	
Step 3	<code>voice register template template-tag</code>	Enters voice register template configuration mode to define a template of common parameters for SIP phones in Cisco Unified CME. <ul style="list-style-type: none"> <li>• Range is 1 to 5.</li> </ul>
	<b>Example:</b> Router(config)# voice register template 1	
Step 4	<code>command</code>	Applies the specified command to this template and enables the corresponding feature on any supported SIP phone that uses a template in which this command is configured. <ul style="list-style-type: none"> <li>• Type ? to display list of commands that can be used in a voice register template.</li> <li>• Repeat this step for each feature to be added to this voice register template.</li> </ul>
	<b>Example:</b> Router(config-register-template)# anonymous block	
Step 5	<code>exit</code>	Exits configuration mode to the next highest mode in the configuration mode hierarchy.
	<b>Example:</b> Router(config-register-template)# exit	
Step 6	<code>voice register pool pool-tag</code>	Enters voice register pool configuration mode to set phone-specific parameters for SIP phones. <ul style="list-style-type: none"> <li>• <i>pool-tag</i>—Unique sequence number of the Cisco SIP phone to be configured. Range is 1 to 100 or the upper limit as defined by <b>max-pool</b> command.</li> </ul>
	<b>Example:</b> Router(config)# voice register pool 3	
Step 7	<code>template template-tag</code>	Applies a template created with the <b>voice register template</b> command. <ul style="list-style-type: none"> <li>• <i>template-tag</i>—Unique sequence number of the template to be applied to the SIP phone specified by the <b>voice register pool</b> command. Range is 1 to 5.</li> </ul>
	<b>Example:</b> Router(config-register-pool)# voice register pool 1	
Step 8	<code>end</code>	Exits configuration mode and enters privileged EXEC mode.
	<b>Example:</b> Router(config-register-pool)# end	

## Examples

The following example shows templates 1 and 2 and how to do the following:

- Apply template 1 to SIP phones 1 to 3
- Apply template 2 to SIP phone 4
- Remove a previously created template 5 from SIP phone 5.

```
Router(config)# voice register template 1
Router(config-register-temp)# anonymous block
Router(config-register-temp)# caller-id block
Router(config-register-temp)# voicemail 5001 timeout 15

Router(config)# voice register template 2
Router(config-register-temp)# anonymous block
Router(config-register-temp)# caller-id block
Router(config-register-temp)# no conference
Router(config-register-temp)# no transfer-attended
Router(config-register-temp)# voicemail 5005 timeout 15

Router(config)# voice register pool 1
Router(config-register-pool)# template 1

Router(config)# voice register pool 2
Router(config-register-pool)# template 1

Router(config)# voice register pool 3
Router(config-register-pool)# template 1

Router(config)# voice register pool 4
Router(config-register-pool)# template 2

Router(config)# voice register pool 5
Router(config-register-pool)# no template 5
```

## Configuration Examples for Creating Templates

This section contains the following examples:

- [Using Ephone Template to Block The Use of Park and Transfer Soft Keys, page 934](#)
- [Using Ephone-dn Template to Set Call Forwarding, page 935](#)

## Using Ephone Template to Block The Use of Park and Transfer Soft Keys

The following example creates an ephone template to block the use of Park and Transfer soft keys. It is applied to ephone 36 and extension 2333.

```
ephone-template 15
features blocked Park Trnsfer

ephone-dn 2
number 2333

ephone 36
button 1:2
ephone-template 15
```

## Using Ephone-dn Template to Set Call Forwarding

The following example creates ephone-dn template 3, which sets call forwarding on busy and no answer to forward calls to extension 4000 and sets the pickup group to 4. Ephone-dn template 3 is then applied to ephone-dn 23 and ephone-dn 33, which appear on ephones 13 and 14, respectively.

```
ephone-dn-template 3
  call-forwarding busy 4000
  call-forwarding noan 4000 timeout 30
  pickup group 4

ephone-dn 23
  number 2323
  ephone-dn-template 3

ephone-dn 33
  number 3333
  ephone-dn-template 3

ephone 13
  button 1:23

ephone 14
  button 1:33
```

## Where to Go Next

### Soft-Key Display

The display of soft keys during different call states is managed using ephone templates. For more information, see “[Customizing Soft Keys](#)” on page 875.

## Additional References

The following sections provide references related to Cisco Unified CME features.

## Related Documents

Related Topic	Document Title
Cisco Unified CME configuration	<ul style="list-style-type: none"> <li>• <a href="#">Cisco Unified CME Command Reference</a></li> <li>• <a href="#">Cisco Unified CME Documentation Roadmap</a></li> </ul>
Cisco IOS commands	<ul style="list-style-type: none"> <li>• <a href="#">Cisco IOS Voice Command Reference</a></li> <li>• <a href="#">Cisco IOS Software Releases 12.4T Command References</a></li> </ul>
Cisco IOS configuration	<ul style="list-style-type: none"> <li>• <a href="#">Cisco IOS Voice Configuration Library</a></li> <li>• <a href="#">Cisco IOS Software Releases 12.4T Configuration Guides</a></li> </ul>
Phone documentation for Cisco Unified CME	<ul style="list-style-type: none"> <li>• <a href="#">Quick Reference Cards</a></li> <li>• <a href="#">User Guides</a></li> </ul>

## Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register on Cisco.com.	<a href="http://www.cisco.com/techsupport">http://www.cisco.com/techsupport</a>

# Feature Information for Creating Templates

[Table 61](#) lists the features in this module and enhancements to the features by version.

To determine the correct Cisco IOS release to support a specific Cisco Unified CME version, see the *Cisco Unified CME and Cisco IOS Software Version Compatibility Matrix* at [http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products\\_documentation\\_roadmap09186a080189132.html](http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_documentation_roadmap09186a080189132.html).

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.



**Note**

[Table 61](#) lists the Cisco Unified CME version that introduced support for a given feature. Unless noted otherwise, subsequent versions of Cisco Unified CME software also support that feature.

**Table 61 Feature Information for Templates**

Feature Name	Cisco Unified CME Version	Feature Information
Ephone Templates	4.0	<ul style="list-style-type: none"> <li>The number of ephone templates that can be created was increased from 5 to 20.</li> <li>More commands can be included in ephone templates.</li> </ul>
	3.2	Ephone templates were introduced to manage soft keys. The only commands that can be used in ephone templates are the <b>softkeys</b> commands.
Ephone-dn Templates	4.0	Ephone-dn templates were introduced.
Phone Templates for SIP Phones	4.1	The maximum number of templates that can be configured was increased from 5 to 10.
	3.4	Voice-register templates were introduced for SIP IP phones directly connected to a Cisco Unified CME router.

