



## Cisco Unified CME Commands: E

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# elin

To create a PSTN number that replaces a 911 caller's extension, use the **elin** command in voice emergency response location configuration mode. To remove the number, use the **no** form of this command.

**elin** {1|2} *number*

**no elin** [1|2]

## Syntax Description

{1 2}	Number index.
<i>number</i>	PSTN number that replaces a 911 caller's extension.

## Command Default

No replacement number is created.

## Command Modes

Voice emergency response location configuration (cfg-emrgncy-esp-location)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)T	Cisco Unified CME 4.1 Cisco Unified SRST 4.1 Cisco Unified SIP SRST 4.1	This command was introduced. For Cisco Unified CME, this command is supported in SRST fallback mode only.
12.4(15)XY	Cisco Unified CME 4.2(1) Cisco Unified SRST 4.2(1) Cisco Unified SIP SRST 4.2(1)	This command was added for Cisco Unified CME.
12.4(20)T	Cisco Unified CME 7.0 Cisco Unified SRST 7.0 Cisco Unified SIP SRST 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

## Usage Guidelines

Use this command to specify an ELIN, a PSTN number that will replace the caller's extension.

The PSAP will see this number and use it to query the ALI database to locate the caller. The PSAP also uses this command for callbacks.

You can configure a second ELIN using the **elin 2** command. If two ELINs are configured, the system selects an ELIN using a round-robin algorithm. If an ELIN is not defined for the ERL, the PSAP sees the original calling number.

**Examples**

In the following example, all IP phones with the IP address of 10.X.X.X or 192.168.X.X are automatically associated with this ERL. If one of the phones dials 911, its extension is replaced with 408 555-0100 before it goes to the PSAP. The PSAP will see that the caller's number is 408 555-0100.

```
voice emergency response location 1
elin 1 4085550100
subnet 10.0.0.0 255.0.0.0
subnet 2 192.168.0.0 255.255.0.0
```

**Related Commands**

Command	Description
<b>subnet</b>	Defines which IP phones are part of this ERL.

## elin (voice emergency response settings)

To create a default ELIN that is used if no ERL has a subnet mask that matches the current 911 caller's IP phone address, use the **elin** command in voice emergency response settings configuration mode. To remove the number, use the **no** form of this command.

**elin** *number*

**no elin**

### Syntax Description

<i>number</i>	An E.164 number to be used as the default ELIN.
---------------	---

### Command Default

No default ELIN number is created.

### Command Modes

Voice emergency response settings configuration (cfg-emrgncy-resp-settings)

### Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)XY	Cisco Unified CME 4.2(1) Cisco Unified SRST 4.2(1) Cisco Unified SIP SRST 4.2(1)	This command was introduced.
12.4(20)T	Cisco Unified CME 7.0 Cisco Unified SRST 7.0 Cisco Unified SIP SRST 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

### Usage Guidelines

Use this command to specify an E.164 number to be the default ELIN if the 911 caller's IP phone address does not match the subnet of any location in any ERL zone. The default ELIN can be an existing ELIN already defined in an ERL or it can be unique.

### Examples

In this example, the ELIN (4085550101) defined in the voice emergency response settings configuration is used if the 911 caller's IP phone address does not match any of the voice emergency response locations. After the 911 call is placed to the PSAP, the PSAP has 120 minutes to call back 408 555-0101 to reach the 911 caller. If the call history has expired (after 120 minutes), any callback is routed to extension 7500.

```
voice emergency response settings
callback 7500
elin 4085550101
expiry 120
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>callback</b>	Default phone number to contact if a 911 callback cannot find the last 911 caller from the ERL.
<b>expiry</b>	Number of minutes a 911 call is associated to an ELIN in case of a callback from the 911 operator.
<b>logging</b>	Syslog informational message printed to the console each time an emergency call is made.
<b>voice emergency response settings</b>	Creates a tag for identifying settings for E911 behavior.

## em external

To remove the login page under the Extension Mobility option from the Services menu on IP phones in Cisco Unified CME, use the **em external** command in telephony-service configuration mode. To return to default, use the **no** form of this command.

**em external**

**no em external**

**Syntax Description** This command has no keywords or arguments.

**Command Default** Login page for Extension Mobility is accessible under the Extension Mobility option in the Services menu.

**Command Modes** Telephony-service configuration (config-telephony)

Command History	Cisco IOS Release	Cisco Product	Modification
	15.0(1)XA	Cisco Unified CME 8.0	This command was introduced.
	15.1(1)T	Cisco Unified CME 8.0	This command was integrated into Cisco IOS Release 15.1(1)T.

**Usage Guidelines** This command removes the Extension Mobility login page from the Services menu on all IP phones registered in a Cisco Unified CME system on which Extension Mobility is enabled.

**Examples** The following partial output shows the configuration for this command:

```
router# show running-configuration
.
.
.
telephony-service
  em external
  em logout 1:0
  max-ephones 10
  max-dn 100
  ip source-address 10.0.0.1 port 2000
  url authentication http://10.0.0.1/CCMCIP/authenticate.asp
  cnf-file location flash:
  cnf-file perphone
  max-conferences 8 gain -6
  transfer-system full-consult
  create cnf-files version-stamp Jan 01 2002 00:00:00
!
```

**Related Commands**

Command	Description
ip http server	Enables the HTTP server on the Cisco Unified CME router that hosts the service URL for the Extension Mobility Login and Logout page.

# em keep-history

To disable Automatic Clear Call History for Extension Mobility phones in Cisco Unified CME, use the **em keep-history** command in telephony-service configuration mode. To return to the default, use the **no** form of this command.

**em keep-history**

**no em keep-history**

**Syntax Description** This command has no arguments or keywords.

**Command Default** Call history record is automatically cleared when a user logs out from an Extension Mobility phone.

**Command Modes** Telephony-service configuration (config-telephony)

Command History	Release	Cisco Product	Modification
	12.4(15)XZ	Cisco Unified CME 4.3	This command was introduced.
	12.4(20)T	Cisco Unified CME 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

**Usage Guidelines** This command disables Automatic Clear Call History for Extension Mobility phones in Cisco Unified CME. In Cisco Unified CME 4.3 and later versions, the EM manager in Cisco Unified CME sends commands to a phone to clear call history anytime a user is logs out from Extension Mobility. Use this command in telephony-service configuration mode to disable this feature at a system-level.

**Examples** The following example shows how to configure Extension Mobility in Cisco Unified CME to keep, not clear, call histories after users log out from Extension Mobility phones:

```
Router(config)# telephony-service
Router(config-telephony)# em keep-history
Router(config-telephony)#
```

## em logout

To configure up to three time-of-day based timers for automatically logging out all Extension Mobility users, use the **em logout** command in telephony-service configuration mode. To disable the timer, use the **no** form of this command.

**em logout** *time1* [ *time2* ] [ *time3* ]

**no command** *time1* [ *time2* ] [ *time3* ]

### Syntax Description

<i>time</i>	Time of day after which all users that are logged into Extension Mobility are logged out from Extension Mobility. Range: 00:00 to 24:00 on a 24-hour clock.
-------------	---

### Command Default

No time-of-day timer is created for automatically logging out Extension Mobility users.

### Command Modes

Telephony-service configuration (config-telephony)

### Command History

Release	Cisco Product	Modification
12.4(15)XZ	Cisco Unified CME 4.3	This command was introduced.
12.4(20)T	Cisco Unified CME 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

### Usage Guidelines

This command creates up to three time-of-day timers for automatically logging out all Extension Mobility users. If an Extension Mobility user is using the phone when automatic logout occurs, the user is logged out after the active call is completed.

The call history record is automatically cleared when a user logs out from an Extension Mobility phone. To disable Automatic Clear Call History on all Extension Mobility phones, use the **em keep-history** command in telephony-service configuration mode.

### Examples

The following example shows how to configure two time-of-day timers to automatically log out all logged-on Extension Mobility users at 5:30 PM and again at midnight each day:

```
Router(config)# telephony-service
Router(config-telephony)# em logout 17:30 24:00
Router(config-telephony)#
```

**Related Commands**

Command	Description
<b>em keep-history</b>	Disables Automatic Clear Call History for Extension Mobility in Cisco Unified CME.

# emadmin login

To permit an external application to log into a Cisco Unified IP phone that is enabled for Extension Mobility in Cisco Unified CME, use the **emadmin login** command in privileged EXEC mode.

**emadmin login** *name ephone-tag*

## Syntax Description

<i>name</i>	Credential for Extension Mobility. This credential must be already configured by using the <b>user</b> command in voice-user-profile configuration mode.
ephone-tag	Unique identifier for IP phone that is enabled for Extension Mobility. This tag must already be configured by using the <b>ephone</b> command.

## Command Default

External application cannot log into an Extension Mobility phone.

## Command Modes

Privileged EXEC (#)

## Command History

Cisco IOS Release	Cisco Product	Modification
15.0(1)XA	Cisco Unified CME 8.0	This command was introduced.
15.1(1)T	Cisco Unified CME 8.0	This command was integrated into Cisco IOS Release 15.1(1)T.

## Usage Guidelines

This command enables an external application, such as a CSTA client application, to log into an Extension Mobility phone.

Before using this command, configure a credential in Extension Mobility by using the **user** command in voice-user-profile configuration mode.

The IP phone to be accessed must be enabled for Extension Mobility.

The application remains logged into the phone until it is manually or automatically logged out from the Extension Mobility phone

This command does not have a **no** form.

## Examples

The following example shows how to configure this command to log an application into an Extension Mobility phone (2) using the "user204" credential:

```
Router# login user204
```

2  
Router#

**Related Commands**

<b>Command</b>	<b>Description</b>
emadmin logout	Logs out an external application from Extension Mobility.
em logout	Creates up to three time-of-day timers for automatically logging out all Extension Mobility users.
<b>logout-profile</b>	Enables an IP phone for Extension Mobility.
max-idle-time	Creates an idle-duration timer for automatically logging out an Extension Mobility user.
<b>user</b>	Creates an authentication credential to be used by Extension Mobility.

# emadmin logout

To manually log out an external application from Extension Mobility, use the **emadmin logout** command in privileged EXEC mode. To return to default, use the **no** form of this command.

**emadmin logout** *name*

**no emadmin logout** *name*

## Syntax Description

<i>name</i>	Already-configured credential in Extension Mobility user profile.
-------------	---

## Command Default

Application remains logged into the Extension Mobility phone until logged out.

## Command Modes

Privileged EXEC (#)

## Command History

Cisco IOS Release	Cisco Product	Modification
15.0(1)XA	Cisco Unified CME 8.0	This command was introduced.
15.1(1)T	Cisco Unified CME 8.0	This command was integrated into Cisco IOS Release 15.1(1)T.

## Usage Guidelines

This command enables an external application, such as a CSTA client application, to log out of an Extension Mobility phone.

## Examples

The following example shows how to configure this command to log out an application that logged into an Extension Mobility phone using the “user204” credential:

```
Router# logout user204
```

```
Router#
```

## Related Commands

Command	Description
<b>user</b>	Creates an authentication credential to be used by Extension Mobility.

# emergency response callback

To define a dial peer that is used for 911 callbacks from the PSAP, use the emergency response callback command in voice dial-peer configuration mode. To remove the definition of the dial peer as an incoming link from the PSAP, use the **no** form of this command.

**emergency response callback**

**no emergency response callback**

**Syntax Description** This command has no arguments or keywords.

**Command Default** The dial peer is not defined as an incoming link from the PSAP.

**Command Modes** Dial-peer configuration (config-dial-peer)

Command History	Cisco IOS Release	Cisco Product	Modification
	12.4(15)T	Cisco Unified CME 4.1 Cisco Unified SRST 4.1 Cisco Unified SIP SRST 4.1	This command was introduced. For Cisco Unified CME, this command is supported in SRST fallback mode only.
	12.4(15)XY	Cisco Unified CME 4.2(1) Cisco Unified SRST 4.2(1) Cisco Unified SIP SRST 4.2(1)	This command was added for Cisco Unified CME.
	12.4(20)T	Cisco Unified CME 7.0 Cisco Unified SRST 7.0 Cisco Unified SIP SRST 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

**Usage Guidelines** Use this command to define which dial peer is used for 911 callbacks from the PSAP. You can define multiple dial peers with this command.

**Examples** The following example shows a dial peer defined as an incoming link from the PSAP. If 408 555-0100 is configured as the ELIN for an ERL, this dial peer recognizes that an incoming call from 408 555-0100 is a 911 callback.

```
dial-peer voice 100 pots
  incoming called-number 4085550100
  port 1/1:D
  direct-inward-dial
  emergency response callback
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>emergency response location</b>	Associates an ERL to either a SIP phone, ephone, or dial peer.
<b>emergency response zone</b>	Defines a dial peer that is used by the system to route emergency calls to the PSAP.
<b>voice emergency response location</b>	Creates a tag for identifying an ERL for the enhanced 911 service.

## emergency response location

To associate an emergency response location (ERL) for Enhanced 911 Services with a dial peer, ephone, ephone-template, voice register pool, or voice register template, use the **emergency response location** command in dial peer, ephone, ephone-template, voice register pool, or voice register template configuration mode. To remove the association, use the **no** form of this command.

**emergency response location** *tag*

**no emergency response location** *tag*

### Syntax Description

<i>tag</i>	Unique number that identifies an existing ERL tag defined by the <b>voice emergency response location</b> command.
------------	--

### Command Default

No ERL tag is associated with a dial peer, ephone, ephone-template, voice register pool, or voice register template.

### Command Modes

Dial-peer configuration (config-dial-peer) Ephone configuration (config-ephone) Ephone-template configuration (config-ephone-template) Voice register pool configuration (config-register-pool) Voice register template configuration (config-register-template)

### Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)T	Cisco Unified CME 4.1 Cisco Unified SRST 4.1 Cisco Unified SIP SRST 4.1	This command was introduced. For Cisco Unified CME, this command is supported in SRST fallback mode only.
12.4(15)XY	Cisco Unified CME 4.2(1) Cisco Unified SRST 4.2(1) Cisco Unified SIP SRST 4.2(1)	This command was added to Cisco Unified CME in the ephone-template and voice register template configuration modes.
12.4(20)T	Cisco Unified CME 7.0 Cisco Unified SRST 7.0 Cisco Unified SIP SRST 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

### Usage Guidelines

Use this command to assign an ERL to phones individually. Depending on the type of phones (endpoints) that you have, you can assign an ERL to a phone's:

- Dial-peer configuration
- Ephone
- Ephone-template

- Voice register pool
- Voice register template

**Note**

The ephone-template and voice register template modes are not for Cisco Unified SRST or Cisco Unified SIP SRST. Voice register pool mode is not available for Cisco Unified SRST.

These methods of associating a phone with an ERL are alternatives to assigning a group of phones that are on the same subnet as an ERL.

The tag used by this command is an integer from 1 to 2147483647 and refers to an existing ERL tag that is defined by the **voice emergency response location** command. If the tag does not refer to a valid ERL configuration, the phone is not associated to an ERL. For Cisco Unified IP phones, the IP address is used to find the inclusive ERL subnet. For phones on a VoIP trunk or FXS/FXO trunk, the PSAP gets a reorder tone.

**Examples**

The following example shows how to assign an ERL to a phone's dial peer:

```
dial-peer voice 12 pots
  emergency response location 18
```

The following example shows how to assign an ERL to a phone's ephone:

```
ephone 41
  emergency response location 22
```

The following example shows how to assign an ERL to one or more SCCP phones:

```
ephone-template 6
  emergency response location 8
```

The following example shows how to assign an ERL to a phone's voice register pool:

```
voice register pool 4
  emergency response location 21
```

The following example shows how to assign an ERL to one or more SIP phones:

```
voice register template 4
  emergency response location 8
```

**Related Commands**

Command	Description
<b>emergency response callback</b>	Defines a dial peer that is used for 911 callbacks from the PSAP.
<b>emergency response zone</b>	Defines a dial peer that is used by the system to route emergency calls to the PSAP.
<b>voice emergency response location</b>	Creates a tag for identifying an ERL for the enhanced 911 service.

## emergency response zone

To define a dial peer that is used by the system to route emergency calls to a PSAP, use the emergency response zone command in voice dial-peer configuration mode. To remove the definition of the dial peer as an outgoing link to the PSAP, use the **no** form of this command.

**emergency response zone** *zone-tag*

**no emergency response zone**

### Syntax Description

<i>zone-tag</i>	Identifier (1-100) for the emergency response zone.
-----------------	---

### Command Default

The dial peer is not defined as an outgoing link to the PSAP. Therefore, E911 services are not enabled.

### Command Modes

Dial-peer configuration (config-dial-peer)

### Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)T	Cisco Unified CME 4.1 Cisco Unified SRST 4.1 Cisco Unified SIP SRST 4.1	This command was introduced. For Cisco Unified CME, this command is supported in SRST fallback mode only.
12.4(15)XY	Cisco Unified CME 4.2(1) Cisco Unified SRST 4.2(1) Cisco Unified SIP SRST 4.2(1)	The <i>zone-tag</i> argument was added and this command was added for Cisco Unified CME.
12.4(20)T	Cisco Unified CME 7.0 Cisco Unified SRST 7.0 Cisco Unified SIP SRST 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

### Usage Guidelines

Use this command to specify that any calls using this dial peer are processed by the E911 software. To enable any E911 processing, the emergency response zone command must be enabled under a dial peer.

If no zone tag is specified, the system looks for a matching ELIN to the E911 caller's phone by searching each *emergency response location* that was configured using the **emergency response location** command.

If a zone tag is specified, the system looks for a matching ELIN using sequential steps according to the contents of the configured zone. For example, if the E911 caller's phone has an explicit ERL assigned, the system first looks for that ERL in the zone. If not found, it then searches each location within the zone according to assigned priority numbers, and so on. If all steps fail to find a matching ELIN, the default ELIN is assigned to the E911 caller's phone. If no default ELIN is configured, the E911 caller's automatic number identification (ANI) number is communicated to the Public Safety Answering Point (PSAP).

This command can be defined in multiple dial peers. The zone tag option allows only ERLs defined in that zone to be routed on this dial peer. Also, this command allows callers dialing the same emergency number to be routed to different voice interfaces based on the zone that includes their ERL.

### Examples

The following example shows a dial peer defined as an outgoing link to the PSAP. Emergency response zone 10 is created and only calls from this zone are routed through 1/0/0.

```
dial-peer voice 911 pots
destination-pattern 911
prefix 911
emergency response zone 10
port 1/0/0
```

### Related Commands

Command	Description
<b>emergency response callback</b>	Defines a dial peer that is used for 911 callbacks from the PSAP.
<b>emergency response location</b>	Associates an ERL to either a SIP phone, ephone, or dial peer.
<b>voice emergency response location</b>	Creates a tag for identifying an ERL for E911 services.
<b>voice emergency response zone</b>	Creates an emergency response zone within which ERLs can be grouped.

# ephone

To enter Ethernet phone (ephone) configuration mode for an IP phone for the purposes of creating and configuring an ephone, use the **ephone** command in global configuration mode. To disable the ephone and remove the IP phone configuration, use the **no** form of this command.

**ephone** *phone-tag*

**no ephone** *phone-tag*

## Syntax Description

<i>phone-tag</i>	Unique sequence number that identifies an ephone during configuration tasks. The maximum number is platform-dependent; refer to Cisco IOS command-line interface (CLI) help.
------------------	--

## Command Default

No Cisco IP phone is configured.

## Command Modes

Global configuration (config)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.1(5)YD	Cisco ITS 1.0	This command was introduced.
12.2(8)T	Cisco ITS 2.0	This command was integrated into Cisco IOS Release 12.2(8)T.

## Usage Guidelines

Use the **ephone** command to enter ephone configuration mode. Use ephone configuration mode to create and configure Cisco Unified IP phones in Cisco Unified CME.

Before this command can be used for the first time, you must set the maximum number of ephones using the **max-ephones** command in telephony-service configuration mode. The maximum number of ephones varies by router platform and software version.

## Examples

The following example enters ephone configuration mode for a phone with the identifier 4 and assigns ephone-dn 1 to button 1:

```
Router(config)# ephone 4
Router(config-ephone)# button 1:1
```

**Related Commands**

Command	Description
<b>button</b>	Assigns a button number to the Cisco IP phone directory number.
<b>ephone-dn</b>	Enters ephone-dn configuration mode.
<b>mac-address</b>	Configures the MAC address of a Cisco IP phone.
<b>max-ephones</b>	Configures the maximum number of Cisco IP phones that can be supported by a router.
<b>restart (ephone)</b>	Performs a fast reboot of a single phone associated with a Cisco CME router.
<b>restart all (telephony-service)</b>	Performs a fast reboot of all phones associated with a Cisco CME router.

# ephone-dn

To enter ephone-dn configuration mode to configure a directory number for an IP phone line, intercom line, paging line, voice-mail port, or message-waiting indicator (MWI), use the **ephone-dn command** in global configuration mode. To delete an ephone-dn, use the **no** form of this command.

**ephone-dn** *dn-tag* [**dual-line**| **octo-line**]

**no ephone-dn** *dn-tag*

## Syntax Description

<i>dn-tag</i>	Unique number that identifies an ephone-dn during configuration tasks. Range is 1 to the number set by the <b>max-dn</b> command.
<b>dual-line</b>	(Optional) Enables two calls per directory number.
<b>octo-line</b>	(Optional) Enables eight calls per directory number.

## Command Default

No ephone-dn is configured.

## Command Modes

Global configuration (config)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.1(5)YD	Cisco ITS 1.0	This command was introduced.
12.2(8)T	Cisco ITS 2.0	This command was integrated into Cisco IOS Release 12.2(8)T.
12.2(15)ZJ	Cisco CME 3.0	The <b>dual-line</b> keyword was added.
12.3(4)T	Cisco CME 3.4	The <b>dual-line</b> keyword was integrated into Cisco IOS Release 12.3(4)T.
12.4(15)XZ	Cisco Unified CME 4.3	The <b>octo-line</b> keyword was added.
12.4(20)T	Cisco Unified CME 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

## Usage Guidelines

Use this command to enter ephone-dn configuration mode to create directory numbers. In ephone-dn configuration mode, you assign an extension number using the **number** command, a name to appear in the local directory using the **name** command, and other parameters using various commands.

Before using the **ephone-dn** command, you must set the maximum number of ephone-dns to support in your system by using the **max-dn** command. The maximum number of ephone-dns that you can create depends on the software version, router platform, and amount of memory that you have installed.

A dual-line ephone-dn has one virtual voice port and two channels to handle two independent calls. This capacity allows call waiting, call transfer, and conference functions within a single directory number. Dual-line mode is supported on all phone types, but is not appropriate for voice-mail numbers, intercoms, or ephone-dns used for message-waiting indicators, paging, loopback, or hunt groups. Overlays of single-line hunt groups onto dual-line buttons are supported.

An octo-line directory number supports up to eight active calls, both incoming and outgoing, on a single phone button. Unlike a dual-line directory number, which is shared exclusively among phones, an octo-line directory number can split its channels among the phones sharing the directory number. All phones sharing the octo-line directory number are allowed to initiate or receive calls on the idle channels of the directory number.

Ephone-dns are created in single-line mode if the **dual-line** or **octo-line** keyword is not used. To change an ephone-dn from one mode to another, for example from dual-line mode to single-line mode, you must delete the ephone-dn and then re-create it.

## Examples

The following example shows how to create directory number 1 with extension 5576:

```
Router(config)# ephone-dn 1
Router(config-ephone-dn)# number 5576
```

The following example shows an ephone-dn with the number 1001 in dual-line mode. The **no huntstop** command allows calls to continue to hunt to other ephone-dns if this one is busy or does not answer. The **huntstop channel** command disables call hunting to the second channel of this ephone-dn if the first channel is busy or does not answer.

```
Router(config)# ephone-dn 10 dual-line
Router(config-ephone-dn)# number 1001
Router(config-ephone-dn)# no huntstop
Router(config-ephone-dn)# huntstop channel
```

The following example shows an ephone-dn with the number 2001 in octo-line mode. The **huntstop channel** command enables call hunting to up to six channels of this ephone-dn. The remaining two channels are available for outgoing calls or features such as call transfer, call waiting, and conferencing.

```
Router(config)# ephone-dn 20 octo-line
Router(config-ephone-dn)# number 2001
Router(config-ephone-dn)# huntstop channel 6
```

## Related Commands

Command	Description
<b>huntstop (ephone-dn and ephone-dn-template)</b>	Disables call hunting for directory numbers or channels.
<b>max-dn</b>	Sets the maximum number of ephone-dns that can be configured.
<b>name</b>	Associates a name with an extension (ephone-dn).

Command	Description
<b>number</b>	Associates a telephone or extension number with a directory number (ephone-dn).

# ephone-dn-template

To enter ephone-dn-template configuration mode and create an ephone-dn template containing a standard set of ephone-dn features, use the **ephone-dn-template** command in global configuration mode. To delete an ephone-dn template, use the **no** form of this command.

**ephone-dn-template** *template-tag*

**no ephone-dn-template** *template-tag*

## Syntax Description

<i>template-tag</i>	Identifier for this ephone-dn template. Range is from 1 to 15.
---------------------	--

## Command Default

No ephone-dn template is created.

## Command Modes

Global configuration (config)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.4(4)XC	Cisco Unified CME 4.0	This command was introduced.
12.4(9)T	Cisco Unified CME 4.0	This command was integrated into Cisco IOS Release 12.4(9)T.

## Usage Guidelines

Use this command to create an ephone-dn template. An ephone-dn template contains a set of ephone-dn attributes that you can easily apply to one or more ephone-dns.

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.

Type `? in ephone-dn-template configuration mode to see the commands that are available in this mode. The following example shows CLI help for ephone-dn-template configuration mode:`

```
Router(config-ephone-dn-template)# ?
Ephone Dn template configuration commands:
  call-forward      Define E.164 telephone number for call forwarding
  call-waiting      Config call-waiting option
  caller-id         Configure port caller id parameters
  corlist           Class of Restriction on dial-peer for this dn
  default           Set a command to its defaults
  description       dn desc, for DN Qualified Display Name
  exit             Exit from ephone-dn-template configuration mode
  hold-alert        Set Call On-Hold timeout alert parameters
  huntstop         Stop hunting on Dial-Peers
  mwi              set message waiting indicator options (mwi)
```

```

no                               Negate a command or set its defaults
pickup-group                     set the call pickup group number for the DN
translate                        Translation rule
translation-profile              Translation profile

```

After creating an ephone-dn template, apply the template to one or more ephone-dns using the **ephone-dn-template** command in ephone-dn configuration mode. Even though you can define up to 15 different ephone templates, you cannot apply more than one template to a particular ephone-dn.

If you try to apply a second ephone-dn template to an ephone-dn that already has a template applied to it, the second template will overwrite the first ephone-dn template configuration after you use the **restart** command to reboot the phone.

To view your ephone-dn-template configurations, use the **show telephony-service ephone-dn-template** command. To see which ephone-dns have templates applied to them, use the **show running-config** command.

### Examples

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

```

### Related Commands

Command	Description
<b>ephone-dn-template (ephone-dn)</b>	Applies an ephone-dn template to an ephone-dn.
<b>restart (ephone)</b>	Performs a fast reboot of a single phone associated with a Cisco Unified CME router.
<b>restart (telephony-service)</b>	Performs a fast reboot of one or all phones associated with a Cisco Unified CME router.
<b>show telephony-service ephone-dn-template</b>	Displays ephone-dn-template configurations.

## ephone-dn-template (ephone-dn)

To apply an ephone-dn template to an ephone-dn, use the **ephone-dn-template** command in ephone-dn configuration mode. To remove the ephone-dn template, use the **no** form of this command.

**ephone-dn-template** *template-tag*

**no ephone-dn-template** *template-tag*

### Syntax Description

<i>template-tag</i>	The template tag for a template created with the <b>ephone-dn-template</b> command in global configuration mode. Range is from 1 to 15.
---------------------	---

### Command Default

No ephone-dn template is applied to the ephone-dn.

### Command Modes

Ephone-dn configuration (config-ephone-template)

### Command History

Cisco IOS Release	Cisco Product	Modification
12.4(4)XC	Cisco Unified CME 4.0	This command was introduced.
12.4(9)T	Cisco Unified CME 4.0	This command was integrated into Cisco IOS Release 12.4(9)T.

### Usage Guidelines

Use the **ephone-dn-template** command in ephone-dn configuration mode to apply an ephone-dn template to an ephone. You cannot apply more than one ephone-dn template to an ephone-dn.

If you try to apply a second ephone-dn template to an ephone-dn that already has an ephone-dn template applied to it, the second template will overwrite the first ephone-dn template configuration.

To view your ephone-dn-template configurations, use the **show telephony-service ephone-dn-template** command.

### Examples

The following example shows how to create 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, and apply the template 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
```

**Related Commands**

Command	Description
<b>ephone-dn</b>	Enters ephone-dn configuration mode.
<b>ephone-dn-template</b>	Creates an ephone-dn template and enters ephone-dn-template configuration mode.
<b>show telephony-service ephone-dn-template</b>	Displays ephone-dn template configurations.

# ephone-hunt

To enter ephone-hunt configuration mode for the purposes of creating and configuring a hunt group for use in a Cisco Unified CME system, use the **ephone-hunt** command in global configuration mode. To delete a hunt group, use the **no** form of this command.

**ephone-hunt** *hunt-tag* {**longest-idle**| **peer**| **sequential**}

**no ephone-hunt** *hunt-tag*

## Syntax Description

<i>hunt-tag</i>	Unique sequence number that identifies the ephone hunt group during configuration tasks. Range is from 1 to 100.
<b>longest-idle</b>	Hunt group in which calls go to the ephone-dn that has been idle the longest.
<b>peer</b>	Hunt group in which the first extension to ring is the number to the right (in the list) of the extension that was the last one to ring when the hunt group was last called. Ringing proceeds in a circular manner, left to right, for the number of hops specified when the ephone hunt group is defined.
<b>sequential</b>	Hunt group in which extensions ring in the order in which they are listed, left to right, when the hunt group is defined.

## Command Default

No hunt group is defined.

## Command Modes

Global configuration (config)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.2(15)ZJ	Cisco CME 3.0	This command was introduced.
12.3(4)T	Cisco CME 3.0	This command was integrated into Cisco IOS Release 12.3(4)T.
12.3(11)T	Cisco CME 3.2	The <b>longest-idle</b> keyword was added.
12.4(4)XC	Cisco Unified CME 4.0	The maximum number of hunt groups was increased from 10 to 100.

Cisco IOS Release	Cisco Product	Modification
12.4(9)T	Cisco Unified CME 4.0	This command with the maximum number of hunt groups increased to 100 was integrated into Cisco IOS Release 12.4(9)T.

### Usage Guidelines

Use the **ephone-hunt** command to enter ephone-hunt configuration mode. Use ephone-hunt configuration mode to create ephone hunt groups in a Cisco Unified CME system.

A hunt group is a list of phone numbers that are assigned to take turns receiving incoming calls for one number, a pilot number that is defined with the **pilot** command. The list of numbers in the hunt group is defined using the **list** command. If a number in the list is busy or does not answer, the call is redirected to the next number in the list. The last number tried is the final number, which is defined using the **final** command.

The order in which the numbers are chosen can be longest-idle, peer, or sequential.

- If the order is longest-idle, each hop is directed to the ephone-dn that has been idle the longest. Idle time is determined from the last time that a phone registered, reregistered, or went on-hook.
- If the order is peer, the first number to which calls are directed is the number to the right of the number in the list that was the last number to ring on the previous occasion that the hunt group was called. If that number is busy or does not answer, the call is directed to the next number in the list and, in the process, circles back to the beginning of the list. In peer hunt groups, the **hops** command specifies how many times a call can hop from number to number before going to the final number, after which the call is no longer forwarded.
- If the order is sequential, the first number to which calls are directed is always the first number in the list. If that number is busy or does not answer, the call is redirected to the next available number in the list, from left to right.



#### Note

If the number of times that a call is redirected to a new number exceeds five, the **max-redirect** command must be used to increase the allowable number of redirects in the Cisco Unified CME system.

To configure a new hunt group, you must specify the **longest-idle**, **peer**, or **sequential** keyword. To change an existing ephone hunt group configuration, the keyword is not required. To change the type of hunt group from peer to sequential or sequential to peer, you must remove the existing hunt group first using the **no** form of the command and then recreate it.

### Examples

The following example defines longest-idle ephone hunt group 1 with a pilot number 7501, a final number 8000, and 11 numbers in the list. After a call is redirected six times (makes six hops), it is redirected to the final number 8000.

```
ephone-hunt 1 longest-idle
  pilot 7501
  members logout
  list 7001, 7002, 7023, 7028, 7045, 7062, 7067, 7072, 7079, 7085, 7099
  final 8000
  preference 1
  hops 6
  timeout 20
  no-reg
```

The following example defines peer hunt group number 2. Callers dial the pilot number 5610 to reach the hunt group. The first extension to ring the first time that this hunt group is called is 5601. If 5601 does not answer, the hunt proceeds from left to right, beginning with the extension directly to the right of 5601, for four hops. If none of those extensions answers before the hops limit is reached, the call is forwarded to extension 6000, which is the number for the voice-mail service.

If extension 5601 answers the first call, then the second time someone calls the hunt group, the first extension to ring is 5602. If this call hops until extension 5617 answers it, then the third time someone calls the hunt group, the first extension to ring is 5633. If extension 5633 does not answer, the call is redirected to extension 5601, and so forth.

```
Router(config)# ephone-hunt 2 peer
Router(config-ephone-hunt)# pilot 5610
Router(config-ephone-hunt)# members logout
Router(config-ephone-hunt)# list 5601, 5602, 5617, 5633

Router(config-ephone-hunt)# final 6000
Router(config-ephone-hunt)# hops 4
Router(config-ephone-hunt)# preference 1

Router(config-ephone-hunt)# timeout 30

Router(config-ephone-hunt)# exit
```

The following example defines sequential hunt group number 1. When callers dial extension 5601, the first phone to ring is 5001, then 5002, 5017, and 5028. If none of those extensions answers, the call is forwarded to extension 6000, which is the number for the voice-mail service.

```
Router(config)# ephone-hunt 1 sequential
Router(config-ephone-hunt)# pilot 5601
Router(config-ephone-hunt)# members logout
Router(config-ephone-hunt)# list 5001, 5002, 5017, 5028

Router(config-ephone-hunt)# final 6000
Router(config-ephone-hunt)# preference 1

Router(config-ephone-hunt)# timeout 30

Router(config-ephone-hunt)# exit
```

## Related Commands

Command	Description
<b>final</b>	Defines the last ephone-dn in an ephone hunt group.
<b>hops</b>	Defines the number of times that a call is redirected to the next ephone-dn in a peer ephone-hunt-group list before proceeding to the final ephone-dn.
<b>list</b>	Defines the ephone-dns that participate in an ephone hunt group.
<b>max-redirect</b>	Changes the current number of allowable redirects in a Cisco Unified CME system.

Command	Description
members logout	Sets all static members initial state to logout. The <b>members logout</b> command is rejected if configured after the <b>list</b> command.
<b>no-reg (ephone-hunt)</b>	Specifies that the pilot number of this ephone hunt group should not register with the H.323 gatekeeper.
<b>pilot</b>	Defines the ephone-dn that is dialed to reach an ephone hunt group.
<b>preference (ephone-hunt)</b>	Sets preference order for the ephone-dn associated with an ephone-hunt-group pilot number.
<b>timeout (ephone-hunt)</b>	Sets the number of seconds after which a call that is not answered is redirected to the next number in the hunt-group list.

# ephone-hunt login

To authorize an ephone-dn to dynamically join and leave an ephone hunt group, use the **ephone-hunt login** command in ephone-dn configuration mode. To disable this capability, use the **no** form of this command.

**ephone-hunt login**

**no ephone-hunt login**

**Syntax Description** This command has no arguments or keywords.

**Command Default** An ephone-dn is not allowed to dynamically join and leave ephone hunt groups.

**Command Modes** Ephone-dn configuration (config-ephone-dn)

Command History	Cisco IOS Release	Cisco Product	Modification
	12.4(4)XC	Cisco Unified CME 4.0	This command was introduced.
	12.4(9T)	Cisco Unified CME 4.0	This command was integrated into Cisco IOS Release 12.4(9)T.

**Usage Guidelines** Use the **show ephone-hunt** command to display current hunt group members, including those who joined the group dynamically.

**Examples** The following example creates five ephone-dns and a hunt group that includes the first two ephone-dns and two wildcard slots. The last three ephone-dns are enabled for group hunt dynamic membership. Each of them can join and leave the hunt group whenever one of the slots is available.

```
ephone-dn 22
 number 4566
ephone-dn 23
 number 4567
ephone-dn 24
 number 4568
 ephone-hunt login
ephone-dn 25
 number 4569
 ephone-hunt login
ephone-dn 26
 number 4570
 ephone-hunt login
ephone-hunt 1 peer
 list 4566,4567,*,*
 final 7777
```

**Related Commands**

Command	Description
<b>show ephone-hunt</b>	Displays ephone-hunt group configuration, current status, and statistics.

# ephone-hunt statistics write-all

Effective with Cisco Unified CME 9.0, the **ephone-hunt statistics write-all** command is replaced by the **hunt group statistics write-all** command in privileged EXEC mode. For more information, see the **hunt group statistics write-all** command.

To write ephone-hunt statistics information to a file, use the **ephone-hunt statistics write-all** command in privileged EXEC mode.

**ephone-hunt statistics write-all** *location*

## Syntax Description

<i>location</i>	The URL or filename to which the statistics should be written.
-----------------	--

## Command Modes

Privileged EXEC (#)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.4(4)XC	Cisco Unified CME 4.0	This command was introduced.
12.4(9)T	Cisco Unified CME 4.0	This command was integrated into Cisco IOS Release 12.4(9)T.
15.2(2)T	Cisco Unified CME 9.0	This command was replaced. See the <b>hunt group statistics write-all</b> command.

## Usage Guidelines

Use this command to write out, in hourly increments, all the ephone hunt group statistics for the past seven days. This command is intended be used when normal hunt group statistics collection is interrupted, perhaps due to TFTP server failure. The commands that are normally used to provide hunt-group statistics are **hunt-group report delay hours**, **hunt-group report every hours**, **hunt-group report url**, and **statistics collect**. These commands allow you to specify shorter, more precise reporting periods and file-naming conventions.



### Note

Each year on the day that daylight saving time adjusts the time back by one hour at 2 a.m., the original 1 a.m. to 2 a.m. statistics for that day are lost because they are overwritten by the new 1 a.m. to 2 a.m. statistics.

**Examples**

The following example writes the ephone hunt group statistics to a file in flash called "huntstats." See the **hunt-group report url** command for explanations of the output fields.

```
Router# ephone-hunt statistics write-all flash:huntstats

Writing out all ephone hunt statistics to tftp now.
11:13:58 UTC Fri Apr 29 2005,
,
01, Fri 11:00 - 12:00, HuntGp, 01, 01, 00000, 00000, 00000, 0000, 0000, 000000, 000000,
0000, 00000, 000000, 000000,
01, Fri 12:00 - 13:00, HuntGp, 00, 00, 00000, 00000, 00000, 0000, 0000, 000000, 000000,
0000, 00000, 000000, 000000,
01, Fri 13:00 - 14:00, HuntGp, 00, 00, 00000, 00000, 00000, 0000, 0000, 000000, 000000,
0000, 00000, 000000, 000000,
01, Fri 14:00 - 15:00, HuntGp, 00, 00, 00000, 00000, 00000, 0000, 0000, 000000, 000000,
0000, 00000, 000000, 000000,
01, Fri 15:00 - 16:00, HuntGp, 00, 00, 00000, 00000, 00000, 0000, 0000, 000000, 000000,
0000, 00000, 000000, 000000,
.
.
.
```

**Related Commands**

Command	Description
<b>hunt-group report delay hours</b>	Delays hunt-group statistics collection for a specified number of hours.
<b>hunt-group report every hours</b>	Sets the hourly interval at which Cisco Unified CME B-ACD call statistics are automatically transferred to a file.
<b>hunt-group report url</b>	Sets filename parameters and the URL path where Cisco Unified CME B-ACD call statistics are to be sent using TFTP.
<b>show ephone-hunt</b>	Displays ephone hunt group information.
<b>show ephone-hunt statistics</b>	Displays ephone hunt group statistics.
<b>statistics collection</b>	Enables the collection of call statistics for an ephone hunt group.

# ephone-template

To create an ephone template to configure a set of phone features and to enter ephone-template configuration mode, use the **ephone-template** command in global configuration mode. To delete an ephone template, use the **no** form of this command.

**ephone-template** *template-tag*

**no ephone-template** *template-tag*

## Syntax Description

<i>template-tag</i>	Identifier for this ephone template. Range is from 1 to 20.
---------------------	---

## Command Default

No ephone template is created.

## Command Modes

Global configuration (config)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.3(11)T	Cisco CME 3.2	This command was introduced.
12.4(4)XC	Cisco Unified CME 4.0	The maximum number of templates that can be created was increased from 5 to 20.
12.4(9)T	Cisco Unified CME 4.0	The modification to increase the maximum number of templates that can be created from 5 to 20 was integrated into Cisco IOS Release 12.4(9)T.

## Usage Guidelines

Use this command to create an ephone template containing a set of ephone commands. The template can then be easily applied to one or more ephones.

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 that you set in ephone configuration mode has priority.

Type **?** in ephone-template configuration mode to see the commands that are available in this mode and that can be included in an ephone-template. The following example shows CLI help for ephone-template configuration mode at the time that this document was written:

```
Router(config-ephone-template)#?
Ephone template configuration commands:
  after-hour      ephone exempt from after-hour blocking
  codec           Set preferred codec for calls with other phones on this
  router
  default         Set a command to its defaults
  exit           Exit from ephone-template configuration mode
```

fastdial	Define ip-phone fastdial number
features	define features blocked
keep-conference	Do not disconnect conference when conference initiator hangs-up. Connect remaining parties together directly using call transfer.
keepalive	Define keepalive timeout period to unregister IP phone
keyphone	Identify an IP phone as keyphone
mtp	Always send media packets to this router
network-locale	Select the network locale for this template.
night-service	Define night-service bell
no	Negate a command or set its defaults
paging-dn	set audio paging dn group for phone
service	Service configuration in ephone template
softkeys	define softkeys per state
speed-dial	Define ip-phone speed-dial number
transfer	transfer related configuration
transfer-park	customized transfer to park configuration
transfer-pattern	customized transfer-pattern configuration
type	Define ip-phone type
user-locale	Select the user locale for this template.

After creating an ephone template, apply the template to one or more ephones using the **ephone-template** command in ephone configuration mode. Even though you can define up to 20 different ephone templates, you cannot apply more than one template to a particular ephone.

After applying a template to an ephone or removing a template from an ephone, use the following commands:

- **restart**—Performs a fast reboot of the phone.
- **create cnf-files**—Rebuilds configuration files.

If you try to apply a second ephone template to an ephone that already has an ephone template applied to it, the second template will overwrite the first ephone template configuration after you use the **restart** command to reboot the phone.

To view your ephone-template configurations, use the **show telephony-service ephone-template** command. To see which ephones have templates applied to them, use the **show running-config** command.

## Examples

The following example creates two ephone templates. The **softkeys** commands in ephone-template configuration mode define what soft keys are displayed and their order. Template 1 is applied to ephone 32, which has the extension 2555, and template 2 is applied to ephone 38, which has the extension 2666.

```
ephone-template 1
 softkeys idle Dnd Redial Newcall Pickup Login
 softkeys seized Redial Cfwdall Gpickup Pickup
 softkeys alerting Callback Endcall
 softkeys connected Confrn Hold Endcall
ephone-template 2
 softkeys idle Redial Pickup
 softkeys seized Redial Pickup
 softkeys connected Hold Endcall
ephone-dn 25
 number 2555
ephone-dn 26
 number 2666
ephone 32
 button 1:25
 ephone-template 1
ephone 38
 button 1:26
 ephone-template 2
```

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

```
ephone-template 15
  features blocked Park Transfer
ephone-dn 2
  number 2333
ephone 3
  button 1:2
  ephone-template 15
```

#### Related Commands

Command	Description
<b>create cnf-files</b>	Builds phone configuration files.
<b>ephone-template (ephone)</b>	Applies an ephone template to an ephone.
<b>restart (ephone)</b>	Performs a fast reboot of a single phone associated with a Cisco Unified CME router.
<b>restart (telephony-service)</b>	Performs a fast reboot of one or all phones associated with a Cisco Unified CME router.
<b>show telephony-service ephone-template</b>	Displays ephone-template configurations.

## ephone-template (ephone)

To apply an ephone template to a particular SCCP phone in Cisco Unified CME, use the **ephone-template** command in ephone configuration mode. To remove the ephone template, use the **no** form of this command.

**ephone-template** *template-tag*

**no ephone-template** *template-tag*

### Syntax Description

<i>template-tag</i>	Unique identifier for a template created by using the <b>ephone-template</b> command in global configuration mode. Range is 1 to 20.
---------------------	--

### Command Default

No ephone template is applied to a phone.

### Command Modes

Ephone configuration (config-ephone)

### Command History

Cisco IOS Release	Cisco Product	Modification
12.3(11)T	Cisco CME 3.2	This command was introduced.
12.4(4)XC	Cisco Unified 4.0	The maximum number of ephone templates that can be created was increased from 5 to 20.
12.4(9)T	Cisco Unified 4.0	This command with an increased range for the <i>template-tag</i> argument was integrated into Cisco IOS Release 12.4(9)T.
12.4(15)XZ	Cisco Unified CME 4.3	This command was modified to specify that before an ephone template can be applied to a particular phone, the Mac address for that phone must be present in its configuration file.
12.4(20)T	Cisco Unified CME 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

### Usage Guidelines

This command in ephone configuration mode applies an ephone template to a particular phone.

In Cisco Unified CME 4.3 and later versions, an ephone template cannot be applied to a particular phone unless its configuration file includes its MAC address. If you attempt to apply a template to a phone for which the MAC address is not configured, a message appears. To configure the MAC address for a Cisco Unified IP phone, use the **mac-address** command in ephone configuration mode.

After applying an ephone template, use the **restart** command to perform a fast reboot of the phone.

You cannot apply more than one ephone template at a time to any phone. If you attempt to apply a second ephone template to phone to which an ephone template is already applied, the second template will overwrite the first ephone template configuration after you reboot the phone.

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 over the value set in ephone-template configuration mode.

To view your ephone-template configurations, use the **show telephony-service ephone-template** command.

## Examples

The following example defines ephone templates 1 and 2 and applies ephone template 1 to ephones 1 through 3 and ephone template 2 to ephone 4.

```
ephone-template 1
 softkeys idle Dnd Redial Newcall Pickup Login
 softkeys seized Redial Cfwdall Gpickup Pickup
 softkeys alerting Callback Endcall
 softkeys connected Confrn Hold Endcall
 softkeys hold Newcall Resume
ephone-template 2
 softkeys idle Redial Pickup
 softkeys seized Redial Pickup
 softkeys alerting Endcall
 softkeys connected Hold Endcall
 softkeys hold Resume
```

```
ephone 1
 ephone-template 1
ephone 2
 ephone-template 1
ephone 3
 ephone-template 1
ephone 4
 ephone-template 2
ephone 5
 ephone-template 2
```

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

```
ephone-template 15
 features blocked Park Trnsfer
ephone-dn 2
 number 2333
ephone 3
 button 1:2
 ephone-template 15
```

## Related Commands

Command	Description
<b>ephone-template</b>	Creates an ephone-template and enters ephone-template configuration mode.
mac-address	Associates the MAC address of a Cisco Unified IP phone with an ephone configuration in Cisco Unified CME.
<b>restart (ephone)</b>	Performs a fast reboot of a single phone in Cisco Unified CME.

Command	Description
<b>restart (telephony-service)</b>	Performs a fast reboot of one or all phones in Cisco Unified CME.
<b>show telephony-service ephone-template</b>	Displays ephone-template configurations.

# ephone-type

To add a Cisco Unified IP phone type by defining an ephone-type template, use the **ephone-type** command in global configuration mode. To remove an ephone type, use the **no** form of this command.

**ephone-type** *phone-type* [addon]

**no ephone-type** *phone-type*

## Syntax Description

<i>phone-type</i>	Unique label that identifies the type of phone. Value is any alphanumeric string up to 32 characters.
<b>addon</b>	(Optional) Phone type is an add-on module, such as the Cisco Unified IP Phone 7915 Expansion Module.

## Command Default

Ephone type is not defined.

## Command Modes

Global configuration (config)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)XZ	Cisco Unified CME 4.3 Cisco Unifield SRST 4.3	This command was introduced.
12.4(20)T	Cisco Unified CME 7.0 Cisco Unifield SRST 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

## Usage Guidelines

This command adds a user-defined template for a phone type to a Cisco Unified CME system. This configuration template defines a set of attributes that describe the features of the new phone type. Use this command to add phone types that are not already defined in the system.

If you use a phone-type argument that matches a system-defined phone type, a message displays notifying you that the ephone-type is built-in and cannot be changed. For a list of system-defined phone types, see the **type** command.

Use the **create cnf-files** command for the new phone type to take effect.

## Examples

The following example shows the Nokia E61 added with an ephone-type template, which is then assigned to ephone 2:

```
ephone-type E61
  device-id 376
  device-name E61 Mobile Phone
```

```

num-buttons 1
max-presentation 1
no utf8
no phoneload
!
!
telephony-service
load E61 SCCP61.8-2-2SR2S
max-ephones 100
max-dn 240
ip source-address 15.7.0.1 port 2000
cnf-file location flash:
cnf-file perphone
voicemail 8900
max-conferences 8 gain -6
transfer-system full-consult
create cnf-files version-stamp 7960 Sep 25 2007 21:25:47
!
!
ephone 2
mac-address 001C.821C.ED23
type E61
button 1:2

```

**Related Commands**

Command	Description
<b>create cnf-files</b>	Builds the eXtensible Markup Language (XML) configuration files that are required for IP phones.
<b>device-id</b>	Specifies the device ID for a phone type in an ephone-type template.
<b>device-name</b>	Assigns a name to a phone type in an ephone-type template.
<b>load</b>	Associates a type of Cisco Unified IP phone with a phone firmware file.
<b>type</b>	Assigns a phone type to an SCCP phone.

# exclude

To exclude the availability of local services on a phone's user interface such as, Extension Mobility (EM), My Phone Apps, and Local Directory from the phone's configuration, use the exclude command in ephone or ephone-template mode.

**exclude** [*em*] *myphoneapp* | *directory* | *call-history*]

## Syntax Description

<i>em</i>	Extension mobility (EM) service.
<i>myphoneapp</i>	My Phone Apps service.
<i>directory</i>	Local directory service
<i>call-history</i>	Call history in the missed, received, or placed calls directory

## Command Default

Local services are enabled.

## Command Modes

Ephone configuration (config-ephone) Ephone-template configuration (config-ephone-template)

## Command History

Cisco IOS Release	Cisco Product	Modification
15.1(3)T	Cisco Unified CME 8.5	This command was introduced.
15.1(4)M	Cisco Unified CME 8.6	This command was modified. Call-history option was added.

## Usage Guidelines

Use this command to exclude the availability of local services such as, EM, my phone apps, and local directory services from the phone configuration.

## Examples

The following example shows directory and my phone apps excluded from ephone-template 8:

```
Router# conf t
Router(config)#ephone-template 8
Router(config-ephone-template)#exclude ?
  directory    local directory service
  em           extension mobility service
  myphoneapp  my phone apps service
  <cr>
Router(config-ephone-template)#exclude directory
Router(config-ephone-template)#exclude myphoneapp!
```

The following example shows call-history as excluded from ephone 10:

```
!
telephony-service
max-ephones 40
max-dn 100
max-conferences 8 gain -6
transfer-system full-consult
!
!
ephone-template 5
exclude call-history
!
!
ephone 10
exclude call-history
device-security-mode none
!
```

### Related Commands

Command	Description
ephone-template (ephone)	Applies template to an ephone.
show telephony-service ephone-template	Displays ephone-template configurations.

## exclude (voice register)

To exclude from the Cisco Unified SIP IP phone's user interface the availability of local services such as Extension Mobility (EM), My Phone Apps, and Local Directory, use the **exclude** command in voice register pool or voice register template configuration mode.

**exclude** [**em**] **myphoneapps** [**directory**]

### Syntax Description

<b>em</b>	Extension Mobility service is excluded.
<b>myphoneapps</b>	My Phone Apps service is excluded.
<b>directory</b>	Local Directory service is excluded.

### Command Default

Local services are enabled.

### Command Modes

Voice register pool configuration (config-register-pool)  
Voice register template configuration (config-register-temp)

### Command History

Release	Modification
15.2(2)T	This command was introduced.

### Examples

The following example shows the Local Directory and My Phone Apps services excluded from voice register pool 33:

```
Router(config)# voice register pool 33
Router(config-register-pool)# exclude directory
Router(config-register-pool)# exclude myphoneapps
```

### Related Commands

Command	Description
<b>voice register pool</b>	Enters voice register pool configuration mode and creates a pool configuration for Cisco Unified SIP IP phones in Cisco Unified CME.
<b>voice register template</b>	Enters voice register template configuration mode and defines a template of common parameters for Cisco Unified SIP IP phones.

# expiry

To set the time after which emergency callback history expires, use the **expiry** command in voice emergency response settings configuration mode. To remove the number, use the **no** form of this command.

**expiry** *time*

**no expiry**

## Syntax Description

<i>time</i>	Identifier (2-2880) in minutes for the maximum time the 911 caller history is available for callback.
-------------	---

## Command Default

The default expiry time is 180 minutes.

## Command Modes

Voice emergency response settings configuration (cfg-emrgncy-resp-settings)

## Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)XY	Cisco Unified CME 4.2(1) Cisco Unified SRST 4.2(1) Cisco Unified SIP SRST 4.2(1)	This command was introduced.
12.4(20)T	Cisco Unified CME 7.0 Cisco Unified SRST 7.0 Cisco Unified SIP SRST 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

## Usage Guidelines

Use this command to specify the amount of time (in minutes) to keep emergency caller history for each ELIN. The time can be an integer in the range of 2 to 2880 minutes. The default value is 180 minutes.

## Examples

In this example, the ELIN (4085550101) defined in the voice emergency response settings configuration is used if the 911 caller's IP phone address does not match any of the voice emergency response locations. After the 911 call is placed to the PSAP, the PSAP has 120 minutes to call back 408 555-0101 to reach the 911 caller. If the call history has expired (after 120 minutes), any callback is routed to extension 7500.

```
voice emergency response settings
callback 7500
elin 4085550101
expiry 120
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>callback</b>	Default phone number to contact if a 911 callback cannot find the last 911 caller from the ERL.
<b>elin</b>	E.164 number used as the default ELIN if no matching ERL to the 911 caller's IP phone address is found.
<b>logging</b>	Syslog informational message printed to the console every time an emergency call is made.
<b>voice emergency response settings</b>	Creates a tag for identifying settings for E911 behavior.

## extension-assigner tag-type

To enable provision tags for identifying ephone configurations when using the extension assigner application, use the **extension-assigner tag-type** command in telephony-service configuration mode. To return to the default setting of using the ephone tag, use the **no** form of this command.

**extension-assigner tag-type** {**ephone-tag**|**provision-tag**}

**no extension-assigner tag-type**

### Syntax Description

<b>ephone-tag</b>	Ephone tags must be used to identify ephone configurations.
<b>provision-tag</b>	Provision tags must be used to identify ephone configurations.

### Command Default

Ephone tags are used to identify ephone configurations for the extension assigner application.

### Command Modes

Telephony-service configuration (config-telephony)

### Command History

Cisco IOS Release	Cisco Product	Modification
12.4(4)XC4	Cisco Unified CME 4.0(3)	This command was introduced.
12.4(11)XJ	Cisco Unified CME 4.1	This command was introduced.
12.4(15)T	Cisco Unified CME 4.1	This command was integrated into Cisco IOS Release 12.4(15)T.

### Usage Guidelines

This command enables you to use provision tags for identifying ephone configurations to be assigned by the extension application application.

A provision tag is an unique number other than an ephone tag, such as a jack number or an extension number, for identifying the ephone configuration to be assigned to a particular IP phone by the extension assigner application.

Use this command to specify which type of tag, ephone tag or provision tag, is to be used to identify ephone configurations for the extension assigner application. The default configuration is ephone tag.

If you use this command with the **provision-tag** keyword, use the **provision-tag** command to create provision tags.

**Examples**

The following example shows that this command is configured to enable provision tags to be used for identifying the ephone configurations to be assigned by the extension assigner application. Note that provision tag 1001 is configured for ephone 1. During phone installation, the installation technician can press 1001 on the telephone keypad to assign the ephone 1 configuration, with extension number 1001 on button 1, to the IP phone being installed.

```
Telephony-service
 extension-assigner tag-type provision-tag
 auto assign 101-102
 auto-reg-ephone
 Ephone-dn 101
  number 1001
 Ephone-dn 102
  number 1002
 Ephone 1
  provision-tag 1001
  mac-address 02EA.EAEA.0001
  button 1:101
 Ephone 2
  provision-tag 1002
  mac-address 02EA.EAEA.0002
  button 1:102
```

**Related Commands**

Command	Description
<b>provision-tag</b>	Creates a provision tag for identifying an ephone configuration.

## extension-range

To define a range of extension numbers for a specific MOH group in Cisco Unified CME or Cisco Unified SRST, use the **extension-range** command in voice-moh-group configuration mode. To define a range of extension numbers for a specific directory number in Cisco Unified CME, use the **extension-range** command in ephone-dn configuration mode. To disable the extension-range command, use the **no** form of this command.

**extension-range** *starting-extension to ending-extension*

**no extension-range** *starting-extension to ending-extension*

### Syntax Description

<i>starting-extension</i>	Hexadecimal digits (0-9 or A-F) that define the starting extension number in an extension range. Maximum length: 32 digits.
<i>ending-extension</i>	Hexadecimal digits (0-9 or A-F) that define the last extension number in an extension range. Value of the ending extension must be larger than value of the starting extension. Maximum length: 32 digits.

### Command Default

No extension-range is configured.

### Command Modes

Voice MOH group configuration (config-voice-moh-group) Ephone-dn configuration (config-ephone-dn)

### Command History

Cisco IOS Release	Cisco Product	Modification
15.0(1)XA	Cisco Unified CME 8.0 Cisco Unified SRST 8.0	This command was introduced.
15.1(1)T	Cisco Unified CME 8.0 Cisco Unified SRST 8.0	This command was integrated into Cisco IOS Release 15.1(1)T.

### Usage Guidelines

This command configured in voice moh-group configuration mode identifies MOH clients calling extension numbers specified under the extension range configured for a MOH group in Cisco Unified CME or Cisco Unified SRST. This command in ephone-dn configuration mode identifies MOH clients calling extension numbers specified under the extension range configured for a directory number in Cisco Unified CME

You can define multiple extension-ranges in the same MOH group or directory number.

The extension can be expressed in hexadecimal digits ranging from 0-9 or A-F and should not exceed the limit of 32 digits.

The starting-extension and ending-extension numbers must contain the same number of digits.

The ending extension number must be of a greater value than the starting extension number.

Extension-range for a MOH group must not overlap with any other extension-range configured in any other MOH group.

**Note**

If an extension range is defined in a MOH group and it is also defined under ephone-dn, the extension range defined under ephone-dn takes precedence.

**Examples**

The following example shows two extension ranges configured under voice moh-group 1:

```
Router(config)# voice moh-group 1
Router(config-voice-moh-group)# moh flash:/minuet.wav
Router(config-voice-moh-group)# description Marketing
Router(cconfig-voice-moh-group)# extension range 1000 to 1999
Router(config-voice-moh-group)# extension range 3000 to 3999
```

**Related Commands**

Command	Description
<b>moh</b>	Enables music on hold from an audio file.
<b>voice-moh-group</b>	Enters voice moh-group configuration mode.

## external-ring (voice register global)

To specify the type of ring sound used on Cisco Session Initiation Protocol (SIP) or Cisco SCCP IP phones for external calls, use the **external-ring** command in voice register global configuration mode. To return to the default ring sound, use the **no** form of this command.

```
external-ring {bellcore-dr1| bellcore-dr2| bellcore-dr3| bellcore-dr4| bellcore-dr5}
no external-ring
```

### Syntax Description

<b>bellcore-dr1 bellcore-dr2 bellcore-dr3 bellcore-dr4 bellcore-dr5</b>	Standard distinctive ringing patterns as defined in the standard GR-506-CORE, <i>LSSGR: Signaling for Analog Interfaces</i> .
---	---

### Command Default

The default ring sound is an internal ring pattern.

### Command Modes

Voice register global configuration (config-register-global)

### Command History

Cisco IOS Release	Cisco Product	Modification
12.4(4)T	Cisco CME 3.4 Cisco SIP SRST 3.4	This command was introduced.

### Usage Guidelines

When set, this command defines varying ring tones so that you can discriminate between internal and external calls from Cisco SIP or Cisco SCCP IP phones.

### Examples

The following example shows how to specify that Bellcore DR1 be used for external ringing on Cisco SIP IP phones:

```
Router(config)# voice register global
Router(config-register-global)# external-ring bellcore-dr1
```

external-ring (voice register global)