



Cisco Unified CME Commands: F

- [fac](#), page 2
- [fac refer](#), page 9
- [fail-connect-time](#), page 10
- [fastdial](#), page 12
- [feature-button](#), page 14
- [feature-button \(voice_register_pool\)](#), page 16
- [features blocked](#), page 18
- [feed](#), page 20
- [file text \(voice register global\)](#), page 23
- [filename](#), page 24
- [final](#), page 26
- [final \(voice hunt-group\)](#), page 28
- [forward local-calls](#), page 30
- [forward local-calls \(voice hunt-group\)](#), page 32
- [forwarding local \(voice register global\)](#), page 34
- [from-ring](#), page 35
- [fwd-final](#), page 37
- [fxo hook-flash](#), page 39

fac

To enable all standard feature access codes (FACs) or to create and enable individual custom FACs, use the **fac** command in telephony-service configuration mode. To disable FACs, use the **no** form of this command.

```
fac { standard | custom { alias alias-tag | feature } }
```

fac refer

```
no fac { {standard | custom {alias alias-tag | feature } }
```

Syntax Description

standard	All predefined standard FACs are enabled.
custom	User-defined FAC for selecting a particular feature or function from the predefined set of features is enabled.
alias	Alternative FAC for dialing an existing FAC or existing FAC plus extra digits without removing the existing FAC is enabled.
<i>alias-tag</i>	Unique number that identifies this alias during configuration tasks. Range: 0 to 9.
<i>custom-fac</i>	User-defined code to dial using the keypad on an IP or analog phone. Code can be up to 256 characters and can contain numbers 0 to 9 and * and #. Note ## is not supported for FACs on SIP phones.
to	Maps custom FAC being configured to specified target.
<i>existing-fac</i>	Already configured custom FAC that is automatically dialed when the phone user dials the custom FAC being configured.

extra-digits

(Optional) Additional digits that are automatically dialed when the phone user dials the custom FAC being configured. Valid entries are:

- **target extension** —Telephone or extension number in Cisco Unified CME to which the incoming calls are forwarded. Used with the Call Forward feature.
- **group number** —Pickup group number, for a group other than the local group number. Used with the Pickup Group feature.
- **pickup extension** —Telephone or extension number in Cisco Unified CME to be picked up when ringing. To be used with the Pickup Direct feature.
- **park-slot number** —Number on which calls are to be temporarily parked. Use with the Call Park feature. Target park slot must be already configured in Cisco Unified CME.
- **pilot number** —Telephone or extension number configured as a the pilot number for an ephone hunt group to be joined. Hunt group to be joined must allow dynamic membership.

<i>feature</i>	
----------------	--

Predefined alphabetic string that identifies a particular feature or function. Valid entries are:

- **callfwd all** —Directs system to forward all incoming calls for this telephone or extension number.
- **callfwd cancel** —Directs system to cancel the call-forward-all selection.
- **cew** —Disables the Call Waiting feature.
- **dnd** —Enables Do Not Disturb (DND) feature on SCCP phones. Not supported for SIP phones.
- **dpark-retrieval** —Enables Directed Call Park Retrieval feature. Applies to both SIP and SCCP phones.
- **ephone-hunt cancel** —Leaves an ephone hunt group that is configured to allow dynamic membership.
- **ephone-hunt hlog** —Activates or deactivates hunt group logout functionality, changing the status of the an ephone-dn for a hunt group agent from ready to not-ready or from not-ready to ready.
- **ephone-hunt hlog-phone** —Activates or deactivates phone-level hunt group logout functionality, changing the status of all the extensions on a hunt group member phone from ready to not-ready or from not-ready to ready.
- **ephone-hunt join** —Joins an ephone hunt group that is configured to allow dynamic membership. If multiple hunt groups have been created that allow dynamic membership, the hunt group to be joined is identified by its pilot number.
- **park** —Enables Call Park feature.
- **pickup direct** —Picks up a ringing call at any extension. Applies to both SIP and SCCP phones.
- **pickup group** —Picks up a ringing call in a different pickup group than yours. Applies to both SIP and SCCP phones.
- **pickup local** —Picks up a ringing call in your pickup group. Applies to both SIP and SCCP phones.
- **redial** —Redials the last number called.

- **trnsfvm** —Activates the Transfer to Voice-Mail feature.
- **voicemail** —Dials the voice-mail number.

Command Default

FACs are disabled on IP phones.

Command Modes

Telephony-service configuration (config-telephony)

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.
12.4(15)XZ	Cisco Unified CME 4.3	Standard FAC and trnsfvm keyword for a custom FAC were added for transfer to voice mail.
12.4(20)T	Cisco Unified CME 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.
12.4(22)YB	Cisco Unified CME 7.1	The dpark-retrieval keyword was added and support for SIP phones was added for the park direct , park group , and park local keywords.
12.4(24)T	Cisco Unified CME 7.1	This command was integrated into Cisco IOS Release 12.4(24)T.
15.0(1)XA	Cisco Unified CME 8.0	This command was modified. The ccw keyword was added for a custom FAC.
15.1(1)T	Cisco Unified CME 8.0	This command was integrated into Cisco IOS Release 15.1(1)T.

Usage Guidelines

Use this command to enable all predefined standard FACs or to create one or more custom FACs.

FACs enable phone users to use the keypad on an analog or IP phone registered in Cisco Unified CME to select or activate/deactivate a particular feature or function from a predefined set of features. For example, a phone user might press ****1**, then press 2345 to forward all incoming calls to extension 2345.

Standard FACs and custom FACs are mutually exclusive. You can enable all standard FACs or create and enable one or more custom FACs.

Most FACs are valid only immediately after a phone user goes off-hook. The only exception is the call-park FAC. The call-park FAC actually invokes a call transfer to a park slot. To use the call-park FAC, a phone

user must have an active call and must press the Transfer soft key (IP phone) or hookflash (analog phone) before dialing the call-park FAC. Dialing the FAC for the Call Park feature does not use the Park soft key function.

Use the **fac standard** command to enable all predefined standard FACs for all SCCP phones registered in Cisco Unified CME.

Use the **fac custom** command to create an individual custom FAC for selecting a particular feature or function from the predefined feature set.

Use the **fac custom** command with the **alias** keyword to create an alternative (custom) FAC for dialing an existing FAC, or existing FAC plus extra digits without removing the existing FAC. For example, an alias can be created to allow the phone user to press ****1** to forward all incoming calls to a particular extension *without* requiring the phone user to dial the target extension number.

To disable *all* custom FACs, use the **fac standard** command, which enables all standard FACs. To disable all standard FACs or to disable an individual custom FAC, use the **no** form of the **fac** command.

Use the **show telephony-service fac** command to display a list of FACs that are configured on the Cisco Unified CME router.

Examples

The following example shows how to enable standard FACs for all phones:

```
Router(config)# telephony-service
Router(config-telephony)# fac standard
fac standard is set!
```

The following example shows the output from the **show telephony-service fac** command when standard FACs are enabled:

```
Router# show telephony-service fac

telephony-service fac standard
callfwd all **1
callfwd cancel **2
pickup local **3
pickup group **4
pickup direct **5
park **6
dnd **7
redial **8
voicemail **9
ephone-hunt join *3
ephone-hunt cancel #3
ephone-hunt hlog *4
ephone-hunt hlog-phone *5
trnsfvm *6
dpark-retrieval **10
cancel call waiting *1
```

The following example shows how the standard FAC for the Call Forward All feature is changed to a custom FAC (#45). Then an alias is created to map a second custom FAC to #45 plus an extension (1111). The second custom FAC (#44) allows the phone user to press #44 to forward all calls all calls to extension 1111, without requiring the phone user to dial the extra digits that are the extension number.

```
Router(config)# telephony-service
Router(config-telephony)# fac custom callfwd all #45
fac callfwd all code has been configured to #45
Router(config-telephony)# fac custom alias 0 #44 to #451111
fac alias0 code has been configured to #44!
alias0 map code has been configured to #451111!
```

The following example shows how to create three aliases for the Group Pickup feature. The FAC for group pickup is ****4**. The three new custom FACs are **#1**, **#2**, and **#4** to pickup groups 121, 122, and 124, respectively. This allows a phone user to press **#1** to pick up calls in group 121, **#2** to pick up calls in group 122, and **#4** to pick up calls in group 124.

```
Router(config)# telephony-service
Router(config-telephony)# fac custom pickup group **4
fac pickup group code has been configured to **4
Router(config-telephony)# fac custom alias 1 #1 to **4121
fac alias1 code has been configured to #1!
alias1 map code has been configured to **4121!
Router(config-telephony)# fac custom alias 2 #2 to **4122
fac alias2 code has been configured to #2!
alias2 map code has been configured to **4122!
Router(config-telephony)# fac custom alias 4 #4 to **4124
fac alias4 code has been configured to #4!
alias4 map code has been configured to **4124!
```

The following example shows the output from the **show telephony-service fac** command when custom FACs are configured:

```
Router# show telephony-service fac

telephony-service fac custom
 callfwd all #45
 alias 0 #44 to #451111
 alias 1 #1 to **4121
 alias 2 #2 to **4122
 alias 4 #4 to **4124
```

Related Commands

Command	Description
show telephony-service fac	Displays list of FACs that are configured on Cisco Unified CME.

fac refer

To send the SIP REFER to a SIP phone, use the **fac refer** command in voice register global configuration mode. To allow Cisco Unified CME to handle the SIP REFER internally, use the **no** form of this command.

fac refer

no fac refer

Syntax Description

<i>lpcor-group</i>	Name of the LPCOR resource group.
--------------------	-----------------------------------

Command Default

Fac refer is enabled.

Command Modes

Voice register global configuration (config-register-global)

Command History

Cisco IOS Release	Cisco Product	Modification
15.1(3)T	Cisco Unified CME 8.5	This command was introduced.

Usage Guidelines

Use this command to control the SIP REFER to be sent to a SIP phone. The fac refer command is enabled in Cisco Unified CME by default to allow Cisco Unified CME to pass the REFER to the SIP phone, thereby enabling the phone to make a new call towards Cisco Unified CME. Cisco Unified CME accepts the new invite message as a new call and requires the call transferree to enter a forced authorization code (FAC) again.

Use the no fac refer command to allow Cisco Unified CME to handle the SIP REFER internally instead of passing the call towards the SIP phone.

Examples

The following example shows no fac refer configured in voice register global:

```
Router#show run
!
voice register global
no fac refer
```

Related Commands

Command	Description
show voice register global	Displays all global configuration parameters associated with SIP phones.

fail-connect-time

To specify the maximum time to wait for establishing VPN tunnel including establishing of SSL/DTLS and login or connect requests or responses, use the **fail-connect-time** command in vpn-profile configuration mode. To disable the fail-connect-time configuration, use the no form of this command.

fail-connect-time seconds

Syntax Description

<i>seconds</i>	Failure-to-connect time, in seconds. Range: 0 to 600 seconds. Default: 30 seconds.
----------------	--

Command Default

Default fail-connect-time is 30 seconds.

Command Modes

Vpn-profile configuration (conf-vpn-profile)

Command History

Cisco IOS Release	Cisco Product	Modification
15.1(3)T	Cisco Unified CME 8.5	This command was introduced.

Usage Guidelines

Use this command to specify the fail-to-connect time for a vpn-profile. The fail-to-connect time specifies the maximum time to wait for establishing VPN tunnel including establishing of SSL/DTLS and login/connect request/response. The fail-to-connect time ranges from 0 seconds to 600 seconds. The default fail-to-connect time is 30 seconds.

Examples

The following example shows fail-connect-time set to 50 seconds for vpn-profile 4:

```
Router# show run
!
!
voice service voip
 ip address trusted list
  ipv4 20.20.20.1
 vpn-group 1
  vpn-gateway 1 https://9.10.60.254/SSLVPNphone
  vpn-trustpoint 1 trustpoint cme_cert root
  vpn-hash-algorithm sha-1
 vpn-profile 1
  keepalive 50
  host-id-check disable
 vpn-profile 2
  mtu 1300
  password-persistent enable
  host-id-check enable
 vpn-profile 4
  fail-connect-time 50
```

```
    sip  
!
```

Related Commands

Command	Description
vpn-profile	Defines a VPN-profile.

fastdial

To create an entry for a personal speed-dial number, use the **fastdial command** in ephone or ephone-template configuration mode. To delete a personal speed-dial number, use the **no** form of this command.

fastdial *dial-tag* *number* **name** *name-string*

no fastdial *dial-tag*

Syntax Description

<i>dial-tag</i>	Unique sequence number that ranges from 1 to 100 and is used to identify a particular personal speed-dial number during configuration tasks.
<i>number</i>	Telephone number or extension to be dialed.
name <i>name-string</i>	Label to appear in the Personal Speed Dial menu, containing a string of up to 24 alphanumeric characters. Personal speed dial is handled through an XML request, so characters that have special meaning to HTTP, such as ampersand (&), percent sign (%), semicolon (;), angle brackets (<>), and vertical bars (), are not allowed.

Command Default

No personal speed-dial numbers are present.

Command Modes

Voice register pool configuration (config-register-pool) Ephone configuration (config-ephone) Ephone-template configuration (config-ephone-template)

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.
12.4(4)XC	Cisco Unified CME 4.0	This command was made available in ephone-template configuration mode.
12.4(9)T	Cisco Unified CME 4.0	This command in ephone-template configuration mode was integrated into Cisco IOS Release 12.4(9)T.
15.4(3)M	Cisco Unified CME 10.5	This command was modified to increase the range from 24 to 100.

Usage Guidelines

This command is supported only on certain Cisco Unified IP phones, such as the 7940, 7960, 7960G, 7970G, and 7971G-GE. To determine whether personal speed-dial menu is supported on your IP phone, see the [Cisco Unified CME user documentation](#) for your IP phone model.

Phone users access personal speed-dial numbers through the Directories > Local Services > Personal Speed Dial menu. Personal speed-dial numbers appear on this menu in the order in which they are entered during configuration.

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.

Examples

The following example creates a directory of five personal speed-dial numbers for an IP phone:

```
Router(config)# ephone 1
Router(config-ephone)# fastdial 1 5001 name Front Register
Router(config-ephone)# fastdial 2 5002 name Security
Router(config-ephone)# fastdial 3 5003 name Rear Register
Router(config-ephone)# fastdial 4 5004 name Office
Router(config-ephone)# fastdial 5 912135550122 Accounting
```

Related Commands

Command	Description
ephone-template (ephone)	Applies a template to the ephone being configured.
show telephony-service ephone-template	Displays the contents of ephone templates.

feature-button

To enable feature button configuration on a line key, use the `feature-button` command in `ephone`, `ephone-template`, `voice user profile`, or `voice logout profile` configuration mode. To disable the feature button configuration on a line key, use the `no` form of this command.

feature-button *index index* <feature identifier> [**label** <label>]

no feature-button *index index* <feature identifier> [**label** <label>]

Syntax Description

<i>index</i>	Index number of a specific feature type. One from the total 24 feature IDs.
<i>feature identifier</i>	One of the following feature or stimulus IDs: Redial, Hold, Trnsfer, Cfwdall, Privacy, MeetMe, Confrn, Park, Pickup, Gpickup, Mobility, Dnd, ConfList, RmLstC, CallBack, NewCall, EndCall, HLog, NiteSrv, Acct, Flash, Login, TrnsfVM, LiveRcd.
label	Defines non-default text label for PLK button.

Command Default

No **feature-button** is configured.

Command Modes

Ephone configuration (`config-ephone`) Ephone-template configuration (`config-ephone-template`) Voice user-profile configuration (`config-user-profile`) Voice logout-profile configuration (`config-logout-profile`)

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.
15.1(3)T	Cisco Unified CME 8.5	This command was modified to configure feature button on a phone's line key. Feature button index number and feature ID keywords were added.
15.2(4)M	Cisco Unified CME 9.1	This command was modified to add label <label> for the PLK button.

Usage Guidelines

Use this command to configure a DnD feature button as a short cut for the DnD softkey. This command with the **privacy** keyword takes precedence over the **privacy-button** command. If a **feature-button** is configured

for DnD, the **privacy-button** command will be ignored and the privacy button must be configured through the **feature-button** command to take effect.

In Cisco Unified CME 8.5 and later versions, the **feature-button** command allows you to program a phone's line key to function as a feature button. You can configure one of the following 24 feature IDs: Redial, Hold, Transfer, Cfdall, Privacy, MeetMe, Confrn, Park, Pickup, Gpickup, Mobility, Dnd, Conflist, RmLstC, CallBack, NewCall, EndCall, HLog, NiteSrv, Acct, Flash, Login, TrnsfVM, LiveRcd

Examples

The following example shows how to configure feature buttons:

```
Router(config)# ephone 1
Router(config-ephone) feature-button 1 privacy
Router(config-ephone) feature-button 2 dnd
Router(config-ephone) feature-button 3 Hlog label Agent Hlogout
```

The following example shows feature buttons configured in ephone template 9 and ephone template 10:

```
Router# show telephony-service ephone-template
ephone-template 9
conference drop-mode never
conference add-mode all
conference admin: No
max-calls-per-button 8
busy-trigger-per-button 0
privacy default
feature-button 1 Endcall
feature-button 3 Mobility
Always send media packets to this router: No
Preferred codec: g711ulaw
keepalive 30 auxiliary 30
User Locale: US
Network Locale: US
lpcor type:
lpcor (incoming):          (outgoing):
ephone-template 10
conference drop-mode never
conference add-mode all
conference admin: No
max-calls-per-button 8
busy-trigger-per-button 0
privacy default
feature-button 1 Park
feature-button 2 MeetMe
feature-button 3 CallBack
button-layout 1 line
button-layout 2-4 speed-dial
button-layout 5-6 blf-speed-dial
MLPP Service Domain Network none (0)
!
```

Related Commands

Command	Description
privacy-button	Enables the privacy feature button on an IP phone.
show telephony-service ephone	Displays the information about ephone configuration in a Cisco CallManager Express (Cisco CME) system.
show telephony-service ephone-dn-template	Displays the information about ephone-template's configurations.

feature-button (voice_register_pool)

To configure feature button configuration on a line key, use the feature-button command in voice register pool or voice register template configuration mode. To disable the feature button configuration on a line key, use the no form of this command.

feature-button [*index number feature identifier feature id*]

no feature button [*index number feature identifier feature id*]

Syntax Description

<i>index</i>	Index number of a specific feature type. One from the total 24 feature IDs.
feature identifier	One of the following feature or stimulus IDs: Redial, Hold, Trnsfer, Cfdall, Privacy, MeetMe, Confrn, Park, Pickup, Gpickup, Mobility, NewCall, EndCall, Dnd, ConfList, NewCall, HLog, Trnsfer.

Command Default

Feature-button configuration on a line key is disabled.

Command Modes

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

Command History

Cisco IOS Release	Cisco Product	Modification
15.1(3)T	Cisco Unified CME 8.5	This command was introduced.

Usage Guidelines

Use this command to program a phone's line key to function as a feature button. You can configure one of the following 24 features IDs: Redial, Hold, Trnsfer, Cfdall, Privacy, MeetMe, Confrn, Park, Pickup, Gpickup, Mobility, NewCall, EndCall, Dnd, ConfList, NewCall, HLog, Trnsfer. The feature ID list for the command is incrementally updated across Unified CME releases.

Examples

The following example shows feature button configured in voice register pool 50:

```
voice register pool 50
id mac 001E.7AC4.DC73
feature-button 1 NewCall
type 7965
number 1 dn 65
template 1
dtmf-relay rtp-nte
speed-dial 1 2001 label "SD1-2001"
speed-dial 3 2003 label "SD3-2003"
```

```
blf-speed-dial 1 3001 label "BLF11-3001"  
!
```

Related Commands

Command	Description
show voice register pool	Displays all configuration information associated with a particular voice register pool.

features blocked

To prevent one or more features from being used on a Cisco Unified CME phone, use the **features blocked** command in ephone-template configuration mode. To allow all features to be used, use the **no** form of this command.

features blocked [CFwdAll] [Confrn] [GpickUp] [Park] [PickUp] [Trnsfer]

no features blocked

Syntax Description

CFwdAll	Call forward all calls.
Confrn	Conference.
GpickUp	Group call pickup.
Park	Call park.
PickUp	Directed or local call pickup. This includes pickup last-parked call and pickup from another extension or park slot.
Trnsfer	Call transfer.

Command Default

Features are not blocked.

Command Modes

Ephone-template 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 this command to specify one or more features to be blocked in an ephone template, then apply the template in ephone configuration mode to one or more ephones to prevent the use of the specified features by those ephones. This feature can be used on IP phones and analog phones. After applying the template, any soft keys associated with the blocked features will still be visible but will not have any effect.

Use the **show telephony-service ephone-template** command to display the contents of ephone templates.

Examples

In the following example, call park and call transfer are blocked on ephone 3.

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

The following example blocks the use of the conference feature on ephone 3, which is an analog phone, by using a template.

```
ephone-template 1
  features blocked Confrn
ephone-dn 78
  number 2579
ephone 3
  ephone-template 1
  mac-address C910.8E47.1282
  type an1
  button 1:78
```

Related Commands

Command	Description
ephone-template (ephone)	Applies a template to the ephone being configured.
show telephony-service ephone-template	Displays the contents of ephone templates.

feed

To enable an audio stream for multicast from a external live audio feed connected directly to the router by a foreign exchange office (FXO) or an E&M analog voice port, use the **feed** command in ephone-dn configuration mode. To disable the multicast audio stream, use the **no** form of this command.

feed *ip ip-address* **port** *port-number* [**route** *ip-address*] [**out-call** *outcall-number*]

no feed ip

Syntax Description

ip <i>ip-address</i>	Indicates that a particular audio stream is to be used as a multicast source and specifies the destination IP address for multicast.
port <i>port-number</i>	Specifies the media port for multicast. Range is from 2000 to 65535. Port 2000 is recommended because this port is already used for normal Real-Time Transport Protocol (RTP) media transmissions between IP phones and the Cisco CallManager Express (Cisco CME) router.
route <i>ip-address</i>	(Optional) Indicates the specific router interface on which to transmit the IP multicast packets. The default is that the audio stream is automatically output on the interface that corresponds to the address that was configured with the ip source-address command.
out-call <i>outcall-number</i>	(Optional) Sets up a call to the outcall number in order to connect to a live audio feed. If this keyword is not used, the live feed is assumed to derive from an incoming call to the ephone-dn that is being configured.

Command Default

No multicast audio stream is enabled on an extension.

Command Modes

Ephone-dn configuration

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.

Usage Guidelines

When this command is used, a connection for a live feed audio stream is established as an automatically connected voice call. If the **out-call** keyword is used, the Cisco CME system calls out to the specified number for the audio stream. If the **out-call** keyword is not used, it is assumed that the call is incoming to the ephone-dn. This includes VoIP calls if voice activity detection (VAD) is disabled. The typical operation is for the Cisco CME ephone-dn to establish a call to a local router E&M voice port.

Connection via E&M is the recommended mechanism because it requires minimal external components. The E&M port must be placed in 4-wire operation, using E&M immediate signaling and with the auto-cut-through option enabled. You directly connect a line-level audio feed (standard audio jack) to pins 3 and 6 of an E&M RJ-45 connector. The E&M WAN interface card (WIC) has a built-in audio transformer that provides appropriate electrical isolation for the external audio source. (The audio connection on the E&M port does not require loop current.) The **signal immediate** and **auto-cut-through** commands disable E&M signaling on this voice port. A G.711 audio packet stream is generated by the digital signal processor (DSP) on the E&M port.

If you are using an FXO voice port for live-feed audio stream instead of an E&M port, connect the source to the FXO voice port. This connection requires an external adapter to supply normal telephone company (telco) battery voltage with the correct polarity to the tip-and-ring leads of the FXO port. The adapter must also provide transformer-based isolation between the external audio source and the tip-and-ring leads of the FXO port.

If the **out-call** keyword is used, an outbound call to the live-feed source is attempted (or reattempted) every 30 seconds until the call is connected to the ephone-dn (extension) for which the **feed** command was configured. Note that this ephone-dn is not associated with a physical phone.

The related **moh** (ephone-dn) and **multicast moh** commands provide the ability to multicast an audio stream that is also being used as the source for Cisco CME system music on hold (MOH).

**Note**

IP phones do not support multicast at 224.x.x.x addresses.

Examples

The following example sets up a call to extension 7777 for a live audio stream and sends it via multicast:

```
Router(config)# ephone-dn 55
Router(config-ephone-dn)# feed ip 239.1.1.1 port 2000 route 10.10.23.3 out-call 7777
```

Related Commands

Command	Description
auto-cut-through	Enables call completion when an M-lead response is not provided.
ip source-address	Identifies the IP address and port through which IP phones communicate with a Cisco CME router.
moh (ephone-dn)	Enables music on hold from a live feed and multicast of the MOH audio stream.
moh (telephony-service)	Enables music on hold from an audio file.

Command	Description
multicast moh	Enables multicast of a music-on-hold audio stream.
signal	Specifies the type of signaling for a voice port.

file text (voice register global)

To generate ASCII text files of the configuration profiles for SIP phones, use the **file text** command in voice register global configuration mode. To return to the default, use the **no** form of this command.

file text

no file text

Syntax Description This command has no arguments or keywords.

Command Default System directly generates only binary files for configuration profiles.

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	This command was introduced.

Usage Guidelines Use this command to generate an ASCII text file of the configuration profile for Cisco Unified IP Phone 7905s and 7905Gs, Cisco Unified IP Phone 7912s and 7912Gs, Cisco ATA-186s, or Cisco ATA-188s.

Examples The following example shows how to generate an ASCII text file version of the configuration profiles for Cisco Unified IP Phone 7905s and 7905Gs, Cisco Unified IP Phone 7912s and 7912Gs, Cisco ATA-186s, or Cisco ATA-188s:

```
Router(config)# voice register global
Router(config-register-global)# mode cme
Router(config-register-global)# file text
Router(config-register-global)# create profile
```

Related Commands

Command	Description
create profile (voice register global)	Generates the configuration profiles required for SIP phone.
show voice register profile	Displays the contents of configuration files that are in ASCII text format.

filename

To specify a custom XML file that contains the dial patterns to use for a SIP dial plan, use the **filename** command in voice register dialplan configuration mode. To remove the file, use the **no** form of this command.

filename *filename*

no filename

Syntax Description

<i>filename</i>	Name of the XML file in flash memory.
-----------------	---------------------------------------

Command Default

A custom file is not used for the dial plan.

Command Modes

Voice register dialplan configuration (config-register-dialplan)

Command History

Cisco IOS Release	Cisco Product	Modification
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 selects a custom XML file containing dial patterns for the SIP dial plan. The file specified with this command must be loaded into flash memory. You must use the **type** command to specify the type of phone for which the dial plan is being defined before you can use this command. After you define a dial plan, assign it to a SIP phone by using the **dialplan** command.

The **pattern** command and **filename** command are mutually exclusive. You can use either the **pattern** command to define dial patterns manually, or the **filename** command to select a custom dial pattern file that is loaded in system flash.

If the custom XML file contains any errors, the dial plan might not work properly on the phone.

To remove a dial plan that is created using a custom XML file, use the **reset** command after removing the dial plan from the phone and creating a new configuration profile. Removing a dial plan that uses a dial pattern XML file does not take effect if you restart the phone with the **restart** command.



Note

This command is not supported for Cisco Unified IP Phone 7905 or 7912.

Examples

The following example shows that a custom file named sample.xml is specified for dial plan 2.

```
Router(config)# voice register dialplan 2  
Router(config-register-dialplan)# type 7940-7960-others  
Router(config-register-dialplan)# filename sample.xml
```

Related Commands

Command	Description
dialplan	Assigns a dial plan to a SIP phone.
pattern	Defines a dial pattern for a SIP dial plan.
show voice register dialplan	Displays all configuration information for a specific SIP dial plan.
type (voice register dialplan)	Defines a phone type for a SIP dial plan.

final

To define the last extension (ephone-dn) in an ephone hunt group, use the **final** command in ephone-hunt configuration mode. To remove this number from the hunt group, use the **no final** form of this command.

final *number*

no final

Syntax Description

<i>number</i>	Extension or phone number. Can be an ephone-dn primary or secondary number, voice-mail number, pilot number of another hunt group, or FXS caller-ID number.
---------------	---

Command Default

No final number is defined.

Command Modes

Ephone-hunt configuration (config-ephone-hunt)

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.

Usage Guidelines

This command defines the last extension in a hunt group and the destination of incoming calls to a hunt-group pilot number that are unanswered after being routed through the directory numbers in the hunt group list.

To avoid an infinite loop, use the **max-redirect** command.

Examples

The following example defines ephone-dn 6000 as the last number of hunt group number 1:

```
Router(config)# ephone-hunt 1 sequential
Router(config-ephone-hunt)# final 6000
```

Related Commands

Command	Description
fwd-final	Specifies the final destination of an unanswered call that has been transferred into a hunt group.

Command	Description
hops	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.
list	Defines the ephone-dns that participate in an ephone hunt group.
max-redirect	Changes the number of allowable redirects in a Cisco Unified CME system.
no-reg (ephone-hunt)	Specifies that the pilot number of an ephone hunt group should not register with the H.323 gatekeeper.
pilot	Defines the ephone-dn that is dialed to reach an ephone hunt group.
preference (ephone-hunt)	Sets preference order for the ephone-dn associated with an ephone-hunt-group pilot number.
timeout (ephone-hunt)	Sets the number of seconds after which a call that is not answered is redirected to the next number in the ephone-hunt-group list.

final (voice hunt-group)

To define the last extension in a voice hunt group, use the **final** command in voice hunt-group configuration mode. To remove this number from the hunt group, use the **no** form of this command.

final *number*

no final

Syntax Description

<i>number</i>	Telephone or extension number. Can be an E.164 number, voice-mail number, pilot number of another hunt group, or FXS caller-ID number.
---------------	--

Command Default

No final number is defined in the voice hunt group.

Command Modes

Voice hunt-group configuration (config-voice-hunt-group)

Command History

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

Usage Guidelines

This command defines the last extension in a hunt group and the destination of incoming calls to a hunt-group pilot number that are unanswered after being routed through the directory numbers in the hunt group list.

To avoid an infinite loop, if a final number in one hunt group is configured as a pilot number of another hunt group, the pilot number of the first hunt group cannot be configured as a final number in any hunt group.

Examples

The following example shows how to define extension 6000 as the last number of hunt group 1:

```
Router(config)# voice hunt-group 1 sequential
Router(config-voice-hunt-group)# final 6000
```

Related Commands

Command	Description
hops (voice hunt-group)	Defines the number of times that a call is redirected to the next number in a peer hunt-group list before proceeding to the final number.
list (voice hunt-group)	Defines the numbers that participate in a voice hunt group.

Command	Description
max-redirect (voice register global)	Changes the current number of allowable redirects in a Cisco CME system.
timeout (voice hunt-group)	Sets the number of seconds after which a call that is not answered is redirected to the next number in the hunt-group list.

forward local-calls

To allow internal (local) calls to be forwarded, use the **forward local-calls** command in ephone-dn or ephone-hunt configuration mode. To prevent internal calls from being forwarded, use the **no** form of this command.

forward local-calls

no forward local-calls

Syntax Description This command has no arguments or keywords.

Command Default Internal calls are forwarded as specified in the ephone-dn or ephone-hunt configuration of the called party.

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

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

Command History	12.4(9)T	Cisco Unified CME 4.0	This command was integrated into Cisco IOS Release 12.4(9)T.
------------------------	----------	-----------------------	--

Usage Guidelines Internal, or local, calls are defined as those calls that originate from other ephone-dns in the same Cisco Unified CME system.

When the **no forward local-calls** command is used in ephone-dn configuration mode, internal calls to that ephone-dn are not forwarded if the ephone-dn is busy or does not answer. If the ephone-dn is busy, the caller hears a busy signal. If the ephone-dn does not answer, the caller hears a ringback signal. The call is not forwarded even if call forwarding is enabled for the ephone-dn.

When the **no forward local-calls** command is used in ephone-hunt configuration mode, internal calls to a hunt-group pilot number are sent only to the first member of the group. If the first group member is busy, the caller hears a busy signal. If the first group member does not answer, the caller hears a ringback signal. The call is not forwarded to subsequent hunt group members.

Examples In the following example, extension 2222 dials the pilot number 3000 and is forwarded to extension 3011. If 3011 is busy, the caller hears a busy tone. If 3011 does not answer, the caller hears ringback. The call is not forwarded, even after the timeout expires.

```
ephone-hunt 17 sequential
```

```
pilot 3000
list 3011, 3021, 3031
timeout 10
final 7600
no forward local-calls
```

In the following example, extension 2222 calls extension 3675 and hears ringback or a busy signal. If an external caller reaches extension 3675 and there is no answer, the call is forwarded to extension 4000.

```
ephone-dn 25
number 3675
no forward local-calls
call-forward noan 4000 timeout 30
```

forward local-calls (voice hunt-group)

To allow local calls to be forwarded, use the **forward local-calls** command in voice hunt-group configuration mode. To prevent local calls from being forwarded, use the **no** form of this command.

forward local-calls to-final

no forward local-calls to-final

Syntax Description

to-final	Prevents local calls from being forwarded to the final destination number.
-----------------	--

Command Default

Local calls are forwarded as specified in the voice hunt-group configuration of the called party.

Command Modes

Voice hunt-group configuration (config-voice-hunt-group)

Command History

Release	Modification
15.3(2)T	This command was introduced.

Usage Guidelines

Local or internal calls are calls originating from a Cisco Unified SIP or Cisco Unified SCCP IP phone in the same Cisco Unified CME system.

Before Cisco Unified CME 9.5, the **no forward local-calls** command was configured in ephone-hunt group to prevent a local call from being forwarded to the next agent.

In Cisco Unified CME 9.5, local calls are prevented from being forwarded to the final destination using the **no forward local-calls to-final** command in parallel or sequential voice hunt-group configuration mode.

When the **no forward local-calls to-final** command is configured in sequential voice hunt-group configuration mode, local calls to the hunt-group pilot number are sent sequentially only to the list of members of the group using the rotary-hunt technique. In case all the group members of the voice hunt group are busy, the caller hears a busy tone. If any of the group members are available but do not answer, the caller hears a ringback tone and is eventually disconnected after the specified timeout. The call is not forwarded to the final destination number.

When the **no forward local-calls to-final** command is configured in parallel voice hunt-group configuration mode, local calls to the hunt-group pilot number are sent parallelly to the list of members of the group using the blast technique. In case all the group members of the voice hunt group are busy, the caller hears a busy tone. If any of the group members are available but do not answer, the caller hears a ringback tone and is eventually disconnected after the specified timeout. The call is not forwarded to the final destination number.

Examples

The following example shows how to prevent the forwarding of local calls to the final destination in parallel voice hunt group 1:

```
Router# configure terminal
Router(config)# voice hunt-group 1 parallel
Router(config-voice-hunt-group)# no forward local-calls to-final
```

Related Commands

Command	Description
voice hunt-group	Enters voice hunt-group configuration mode to create a hunt group for phones in a Cisco Unified CME system.

forwarding local (voice register global)

To use the forwarding-party number and name (the local number and name) in calls forwarded using local hairpin call routing on a SIP phone, use the **forwarding local** command in voice register global configuration mode. To return to the default, use the **no** form of this command.

forwarding local

no forwarding local

Syntax Description This command has no arguments or keywords.

Command Default Calling-party name and number used.

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	This command was introduced.

Usage Guidelines This command replaces a calling-party number and name with the local forwarding-party number and name in hairpinned forwarded calls.

Examples The following example shows how to enable local forwarding:

```
Router(config)# voice register global
Router(config-register-global)# forwarding local
```

Related Commands

Command	Description
call-forward b2bua all (voice register dn and voice register pool)	Enables call forwarding for a SIP B2BUA so that all incoming calls are forwarded to another extension.

from-ring

To specify that on-hook time stamps for ephone hunt group agents should be updated when calls ring as well as when calls are answered in a longest-idle ephone hunt group, use the **from-ring** command in ephone-hunt configuration mode. To return to the default, use the **no** form of this command.

from-ring

no from-ring

Syntax Description This command has no keywords or arguments.

Command Default On-hook time stamps are updated only when calls are answered by agents.

Command Modes Ephone-hunt configuration

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 This command is used only with longest-idle ephone hunt groups. In a longest-idle hunt group, the algorithm for choosing the the next agent to receive a call is based on a comparison of on-hook time stamps. The agent with the smallest on-hook time stamp value is chosen when the next call comes to the hunt group.

This command can be used to specify that on-hook time stamps should be updated when calls ring agents as well as when calls are answered by agents.

The **show ephone-hunt** command displays on-hook time stamps.

Examples The following example defines longest-idle ephone hunt group 1 with a pilot number 7501, a final number 8000, and five numbers in the list. Because the **from-ring** command is used, on-hook time stamps will be recorded when calls ring agents as well as when calls are answered. After a call is redirected three times (makes six hops), it is redirected to the final number, 8000.

```
ephone-hunt 1 longest-idle
  pilot 7501
  list 7001, 7002, 7023, 7028, 7045
  final 8000
  from-ring
  hops 3
  timeout 20
telephony-service
  max-redirect 8
```

Related Commands

Command	Description
show ephone-hunt	Displays configuration information, current status, and statistics for ephone hunt groups.

fwd-final

To specify the final destination of a call that has been transferred into a hunt group and is unanswered, use the **fwd-final** command in ephone-hunt configuration mode. To return to the default, use the **no** form of this command.

fwd-final {**orig-phone**| **final**}

no fwd-final {**orig-phone**| **final**}

Syntax Description

orig-phone	Phone that originally answered a call before transferring it to the pilot number of a hunt group.
final	Last extension in the hunt group as specified in the hunt group configuration.

Command Default

Calls are sent to the final number that is specified in the hunt group configuration.

Command Modes

Ephone-hunt configuration (config-ephone)

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

This command is used for routing only unanswered transferred calls. Transferred calls are incoming calls to an ephone hunt group that were previously answered by a Cisco Unified CME extension and transferred into the hunt group.

The **orig-phone** keyword specifies that an unanswered transferred call is routed back to the extension that originally answered the call and transferred it to the hunt group.

The **final** keyword specifies that an unanswered transferred call is routed to the last extension in the hunt group as defined by using the **final** command.

Examples

The following example sets up a peer hunt group with three ephone-dns to answer calls. An unanswered transferred call will be routed to the ephone-dn that transferred it to the ephone hunt group pilot number. A

DID call that dials the pilot number directly will be routed to extension 7600 if it is unanswered by the hunt group.

```
ephone-hunt 17 peer
pilot 3000
list 3011, 3021, 3031
hops 3
final 7600
fwd-final orig-phone
```

Related Commands

Command	Description
final	Defines the last extension (ephone-dn) in an ephone hunt group.

fxo hook-flash

To enable display of a flash soft key on a Cisco IP Phones 7940 and 7940G or Cisco IP Phones 7960 and 7960G in a Cisco CallManager Express (Cisco CME) system, use the **fxo hook-flash** command in telephony-service configuration mode. To disable display of the flash soft key, use the **no** form of this command.

fxo hook-flash

no fxo hook-flash

Syntax Description This command has no arguments or keywords.

Command Default The flash soft key is disabled.

Command Modes Telephony-service configuration (config-telephony)

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.

Usage Guidelines Certain public switched telephony network (PSTN) services, such as three-way calling and call waiting, require hookflash intervention from the phone user. A soft key labeled flash provides this functionality for the Cisco IP Phones 7940 and 7940G and the Cisco IP Phones 7960 and 7960G users on foreign exchange office (FXO) lines attached to the Cisco CME system. The flash soft key is enabled using the **fxo hook-flash** command.

Once a flash soft key has been enabled on an IP phone, it is available to provide hookflash functionality during all calls except local IP-phone-to-IP-phone calls. Note that hookflash-controlled services can be activated only if they are supported by the PSTN connection that is involved in the call. The availability of the flash soft key does not guarantee that hookflash-based services are actually accessible to the phone user.

The flash soft key display is automatically disabled for local IP-phone-to-IP-phone calls.

This command must be followed by a quick reboot of the phones using the **restart all** command.

Examples The following example enables the flash soft key on the Cisco IP Phones 7940 and 7940G and the Cisco IP Phones 7960 and 7960G:

```
Router(config)# telephony-service
Router(config-telephony)# fxo hook-flash
```

Related Commands

Command	Description
restart (ephone)	Performs a fast reboot of a single phone associated with a Cisco CME router.
restart (telephony-service)	Performs a fast reboot of one or all phones associated with a Cisco CME router.