



Cisco Unified CME Commands: A

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This chapter contains commands to configure and maintain Cisco Unified Communications Manager Express (formally known as Cisco Unified CallManager Express). The commands are presented in alphabetical order. Some commands required for configuring Cisco Unified Communications Manager Express (Cisco Unified CME) may be found in other Cisco IOS references. Use the reference master index or search online to find these commands.

accept

To allow a logical partitioning class of restriction (LPCOR) policy to accept calls associated with another resource-group, use the **accept** command in LPCOR policy configuration mode. To reject calls associated with a resource group, use the **no** form of this command.

accept *lpcor-group*

no accept *lpcor-group*

Syntax Description

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

Calls from other resource groups are rejected; calls from this resource group are accepted.

Command Modes

LPCOR policy configuration (cfg-lpcor-policy)

Command History

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

Usage Guidelines

Use this command to create a LPCOR policy by specifying the other resource groups from which this resource group can accept calls. If a resource group is not explicitly set to accept with this command, calls associated with that resource-group policy are rejected. You can create one LPCOR policy for each resource group.

If you create a LPCOR policy using the **voice lpcor policy** command and do not explicitly accept any other resource groups by using the **accept** command, that policy blocks all incoming calls associated with any LPCOR resource group other than its own.

Examples

The following example shows the LPCOR policy for the resource group named `sccp_phone_local`. It accepts calls from the resource groups `analog_phone_local` and `sip_phone_local` but rejects calls from the group named `analog_phone_remote` because it is not included in the policy.

```
voice lpcor policy sccp_phone_local
  accept analog_phone_local
  accept sip_phone_local
```

The following example shows that `sccp_phone_local` blocks calls that are associated with any other LPCOR policy because its policy does not accept other resource groups.

```
voice lpcor policy sccp_phone_local
```

The following example shows that the policy `local_phone` is configured to not accept any calls associated with itself. SIP phone 1 and SCCP phone 2 both belong to the `local_phone` resource group and its policy prevents them from accepting calls from each other.

```
voice register pool 1
  lpcor type local
  lpcor incoming local_phone
  lpcor outgoing local_phone
  id mac 0021.A02D.B360
  type 7960
  number 1 dn 1
!
voice lpcor custom
  group 1 local_phone
  group 2 remote_phone
  group 3 analog_phone
!
voice lpcor policy local_phone
  no accept local_phone
  accept analog_phone
!
ephone 2
  lpcor type local
  lpcor incoming local_phone
  lpcor outgoing local_phone
  mac-address 0021.A02D.B580
  type 7960
  button 1:10
```

Related Commands

Command	Description
show voice lpcor policy	Displays the LPCOR policy for the specified resource group.
voice lpcor custom	Defines the LPCOR resource groups on the Cisco Unified CME router.
voice lpcor policy	Creates a LPCOR policy for a resource group.

access-digit

To define the access digit that phone users dial to request a precedence call, use the **access-digit** command in voice MLPP configuration mode. To reset to the default, use the **no** form of this command.

access-digit *digit*

no access-digit

Syntax Description	<i>digit</i>	Single-digit number users dial. Range: 0 to 9. Default: 0.
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Command Default	Access digit is 0.
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Command Modes	Voice MLPP configuration (config-voice-mlpp)
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Command History	Cisco IOS Release	Modification
	12.4(22)YB	This command was introduced.
12.4(24)T	This command was integrated into Cisco IOS Release 12.4(24)T.	

Usage Guidelines	This command defines the MLPP access digit that a user must dial when making a precedence call. Phone users request a precedence call by dialing the prefix NP, where N is the preconfigured MLPP access digit and P is the requested precedence level, followed by the phone number.
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Note

Your domain type must support the access digit that you select. For example, the valid range for the DSN is 2 to 9.

Examples	The following example shows the MLPP access digit set to 6:
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```
Router(config)# voice mlpp
Router(config-voice-mlpp)# access-digit 6
```

Related Commands	Command	Description
	mlpp preemption	Enables preemption capability on an SCCP phone or analog FXS port.
	preemption trunkgroup	Enables preemption capability on a trunk group.
	preemption user	Enables preemption capability for all supported phones.

addon

To define whether a phone type supports add-on modules, use the **addon** command in ephone-type configuration mode. To reset to the default value, use the **no** form of this command.

addon

no addon

Syntax Description This command has no arguments or keywords.

Command Default Disabled (phone type does not support add-on modules).

Command Modes Ephone-type configuration (config-ephone-type)

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

Usage Guidelines This command specifies that add-on modules, such as the Cisco Unified IP Phone 7915 Expansion Module, are supported by the type of phone being added with the phone-type template.

Examples The following example shows that expansion modules are supported for the phone being added with an ephone-type template:

```
Router(config)# ephone-type 7965
Router(config-ephone-type)# addon
```

Related Commands	Command	Description
	device-id	Specifies the device ID for a phone type in an ephone-type template.
	device-name	Assigns a name to a phone type in an ephone-type template.

address (voice emergency response location)

To define the civic address for an ERL that is used for the ALI database upload, use the **address** command in voice emergency response location mode. To remove this definition, use the **no** form of the command. This command is optional.

address *string*

no address

Syntax Description	<i>string</i>	String (1-247 characters) used to identify an ERL's civic address.
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Command Default	The civic address is not defined.
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Command Modes	Voice emergency response location configuration (cfg-emrgncy-esp-location)
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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 create a comma separated text entry of the ERL's civic address. The address information must be entered to conform with the NENA-2 Data Record specifications or the recommendations by the service provider.
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Examples	In this example, a civic address is displayed for ERL 60.
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```
voice emergency response location 60
subnet 1 209.165.200.224 255.255.0.0
elin 1 4085550100
name Cookies and More Incorporated,
address I,408,5550100,,11902,,,Main Street,Emerald City,CA,Idina Menzel,1,,,,,
```

Related Commands	Command	Description
	elin	Specifies a PSTN number that will replace the caller's extension.

■ address (voice emergency response location)

Command	Description
name	Specifies a string (up to 30 characters) used internally to identify or describe the emergency response location.
subnet	Defines which IP phones are part of this ERL.

after-hour exempt

To specify that an individual IP phone in Cisco Unified CME does not have any of its outgoing calls blocked even though after-hour call blocking has been enabled, use the **after-hour exempt** command in ephone or ephone-template configuration mode. To remove the exemption, use the **no** form of this command.

after-hour exempt

no after-hour exempt

Syntax Description This command has no arguments or keywords.

Command Default The SCCP phone is not exempt from call blocking.

Command Modes
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 the ephone-template configuration mode was integrated into Cisco IOS 12.4(9)T.

Usage Guidelines Use this command to exempt an individual SCCP phone from call blocking and enable the phone user to place outgoing calls regardless of whether the outgoing called number matches the defined pattern of digits during the call blocking periods.

By default, all IP phones in a Cisco Unified CME system are subject to call blocking if the Call Blocking feature is configured.

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 shows how to configure this phone so that outgoing calls are not blocked:

```
Router(config)# ephone 23
Router(config-ephone)# mac 00e0.8646.9242
Router(config-ephone)# button 1:33
Router(config-ephone)# after-hour exempt
```

Related Commands	Command	Description
	after-hours block pattern	Defines a pattern of digits for blocking outgoing calls from IP phones.
	after-hours date	Defines a recurring period based on date during which outgoing calls that match defined block patterns are blocked on IP phones.
	after-hours day	Defines a recurring period based on day of the week during which outgoing calls that match defined block patterns are blocked on IP phones.

after-hour login http

To unblock an individual IP phone in Cisco Unified CME that is configured for after-hour call blocking, use the **after-hour login http** command in ephone, telephony-service or ephone-template configuration mode. To disable after-hour login http feature, use the **no** form of the command.

after-hour login http

no after-hour login http

Syntax Description

This command has no arguments or keywords.

Command Default

The after-hour login http feature is not enabled.

Command Modes

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

Usage Guidelines

Use this command to log in to a phone to unblock the after hour block and enable the phone user to place outgoing calls regardless of whether the outgoing called number matches the defined pattern of digits during the call blocking periods.

When you configure after-hours login http command, you will experience slightly different login behavior compare to the current one. This difference is because the after hours login mechanism is enhanced due to some UI limitation in the current model. By default, after-hours login http is not applied, which mean user will be using the existing after hours login mechanism.

By default, all IP phones in a Cisco Unified CME system are subject to call blocking if the Call Blocking feature is configured.

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 shows how to configure this phone with pin login so that outgoing calls are not blocked:

```
Router(config)# ephone 6
Router(config-ephone)# mac 00e0.8646.242
Router(config-ephone)# button 1:33
Router(config-ephone)# Pin 123
Router(config-ephone)# after-hour login http
```

Related Commands	Command	Description
	after-hours block pattern	Defines a pattern of digits for blocking outgoing calls from IP phones.
	after-hours date	Defines a recurring period based on date during which outgoing calls that match defined block patterns are blocked on IP phones.
	after-hours day	Defines a recurring period based on day of the week during which outgoing calls that match defined block patterns are blocked on IP phones.

after-hours block pattern

To define a pattern of outgoing digits for Call Blocking from IP phones, use the **after-hours block pattern** command in telephony-service or ephone-template configuration mode. To delete a call-blocking pattern, use the **no** form of this command.

after-hours block pattern *pattern-tag pattern* [7-24]

no after-hours block pattern *pattern-tag*

Syntax Description

<i>pattern-tag</i>	Identifier for a call-blocking pattern. Up to 32 call-blocking patterns can be defined in separate commands.
<i>pattern</i>	Outgoing call digits to be matched for blocking.
7-24	(Optional) If the 7-24 keyword is specified, the pattern is always blocked, 7 days a week, 24 hours a day. If the 7-24 keyword is not specified, the pattern is blocked during the days and dates that are defined with the after-hours day and after-hours date commands.

Command Default

No pattern is defined.

Command Modes

Ephone-template (config-ephone-template)
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.
12.4(4)T	Cisco CME 3.4	Support for this command was extended to all SCCP, H.323, SIP, and POTS calls that go through the Cisco Unified CME router, including all incoming calls to the router, except calls from an exempt phone.
12.4(15)XY	Cisco Unified CME 4.2(1)	This command was added to ephone-template configuration mode.
12.4(15)XZ	Cisco Unified CME 4.3	This command was added to ephone-template configuration mode.
12.4(20)T	Cisco Unified CME 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

Usage Guidelines

Call Blocking on IP phones is defined in the following way. First, one or more patterns of outgoing digits (0-9) are defined using the **after-hours block pattern** command. Next, one or more time periods during which calls that match those patterns are to be blocked are defined using the **after-hours date** or **after-hours day** command or both. By default, all IP phones in a Cisco Unified CME system are restricted during the specified time if at least one pattern and at least one time period are defined.

Before Cisco CME 3.4, Call Blocking is supported on IP phones and on analog phones connected to SCCP-controlled analog telephone adaptors (Cisco ATA) or SCCP-controlled foreign exchange station (FXS) ports. In Cisco CME 3.4 and later, the call-blocking configuration applies to all SCCP, H.323, SIP and POTS calls that go through the Cisco Unified CME router. All incoming calls to the router, except calls from an exempt phone, are also checked against the after-hours configuration.

Individual phones can be exempted from call blocking using the **after-hour exempt** or the **after-hours override-code** command.

Blocked calls return a fast-busy tone to the user for approximately 10 seconds before the call is terminated and the line is returned to on-hook status.

Examples

The following example defines pattern 1, which blocks international calls after hours for a Cisco Unified CME system that requires dialing 9 for external calls:

```
Router(config)# telephony-service
Router(config-telephony)# after-hours block pattern 1 9011
```

Related Commands

Command	Description
after-hour exempt	Specifies that an IP phone does not have any of its outgoing calls blocked although call blocking is defined.
after-hours date	Defines a recurring period based on date during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours day	Defines a recurring period based on day of the week during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours override-code	Specifies that call blocking on an IP phone can be overridden by entering a defined code.
after-hours pstn-prefix	Specifies that trunk lines on an IP phone are blocked similarly to that configured for nonPSTN lines.
ephone-template (ephone)	Applies template to a SCCP phone.

after-hours date

To define a recurring period based on date during which outgoing calls that match defined block patterns are blocked on IP phones, use the **after-hours date** command in ephone-template or telephony-service configuration mode. To delete a defined time period, use the **no** form of this command.

after-hours date *month date start-time stop-time*

no after-hours date *month date*

Syntax Description

<i>month</i>	Abbreviated month. The following abbreviations for month are valid: jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec.
<i>date</i>	Date of the month. Range is from 1 to 31.
<i>start-time</i> <i>stop-time</i>	Beginning and ending times for call blocking, in an HH:MM format using a 24-hour clock. The stop time that is entered will be the next available time that follows the start time. The value 24:00 is not valid. If 00:00 is entered as a stop time, it is changed to 23:59. If 00:00 is entered for both start time and stop time, calls are blocked for the entire 24-hour period on the specified date.

Command Default

No time period based on date is defined for call blocking.

Command Modes

Ephone-template configuration (config-ephone-temp)

Telephony-service configuration (config-ephone)

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(15)XY	Cisco Unified CME 4.2(1)	This command was added to ephone-template configuration mode.
12.4(15)XZ	Cisco Unified CME 4.3	This command was added to ephone-template configuration mode.
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 define call blocking that recurs annually on the date specified in the command. Call blocking on IP phones is defined as follows:

- First, one or more patterns of outgoing digits (0-9) are defined using the **after-hours block pattern** command.
- Next, one or more time periods during which calls that match those patterns are to be blocked are defined using the **after-hours date** or **after-hours day** command or both.

By default, all IP phones in a Cisco Unified CME system are restricted during the specified time if at least one pattern and at least one time period are defined. Individual IP phones can be exempted from call blocking using the **after-hour exempt** or **after-hours override-code** commands.

Examples

The following example defines January 1 as an entire day on which calls that match the pattern specified in the **after-hours block pattern** command are blocked:

```
Router(config)# telephony-service
Router(config-telephony)# after-hours date jan 1 00:00 00:00
```

Related Commands

Command	Description
after-hour exempt	Specifies that an IP phone does not have any of its outgoing calls blocked although call blocking is defined.
after-hours block pattern	Defines a pattern of digits (0-9) for blocking outgoing calls from IP phones.
after-hours day	Defines a recurring period based on day of the week during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours override-code	Specifies that call blocking on an IP phone can be overridden by entering a defined set of digits (0-9).
after-hours pstn-prefix	Specifies that trunk lines on an IP phone are blocked similarly to that configured for nonPSTN lines.
ephone-template (ephone)	Applies template to SCCP phone.

after-hours day

To define a recurring period based on day of the week during which outgoing calls that match defined block patterns are blocked on IP phones, use the **after-hours day** command in ephone-template or telephony-service configuration mode. To delete a defined time period, use the **no** form of this command.

after-hours day *day start-time stop-time*

no after-hours day *day*

Syntax Description

<i>day</i>	Abbreviated day of the week. The following abbreviations for day of the week are valid: sun, mon, tue, wed, thu, fri, sat .
<i>start-time</i> <i>stop-time</i>	Beginning and ending times for call blocking, in an HH:MM format using a 24-hour clock. The stop time that is entered will be the next available time that follows the start time. The value 24:00 is not valid. If 00:00 is entered as a stop time, it is changed to 23:59. If 00:00 is entered for both start time and stop time, calls are blocked for the entire 24-hour period on the specified day.

Command Default

No time period based on day of the week is defined for call blocking.

Command Modes

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

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(15)XY	Cisco Unified CME 4.2(1)	This command was added to ephone-template configuration mode.
12.4(15)XZ	Cisco Unified CME 4.3	This command was added to ephone-template configuration mode.
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 define call blocking during the hours between the start time and stop time on the day of the week that is specified in this command. This time period recurs weekly unless it is removed using the **no** form of this command.

Call blocking on IP phones is defined as follows:

- First, one or more patterns of outgoing digits (0-9) are defined using the **after-hours block pattern** command.

- Next, one or more time periods during which calls that match those patterns are to be blocked are defined using the **after-hours date** or **after-hours day** command or both.

By default, all IP phones in a Cisco Unified CME system are restricted during the specified time if at least one pattern and at least one time period are defined. Individual phones can be exempted from call blocking using the **after-hour exempt** or **after-hours override-code** commands.

Examples

The following example defines the period from Monday night at 7 p.m. to Tuesday morning at 7 a.m. as an after-hours call-blocking period:

```
Router(config)# telephony-service
Router(config-telephony)# after-hours day mon 19:00 07:00
```

Related Commands

Command	Description
after-hour exempt	Specifies that an IP phone does not have any of its outgoing calls blocked although call blocking is defined.
after-hours block pattern	Defines a pattern of digits (0-9) for blocking outgoing calls from IP phones.
after-hours date	Defines a recurring period based on date during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours override-code	Specifies that call blocking on an IP phone can be overridden by entering a defined set of digits (0-9).
after-hours pstn-prefix	Specifies that trunk lines on an IP phone are blocked similarly to that configured for nonPSTN lines.
ephone-template (ephone)	Applies template to SCCP phone.

after-hours override-code

To specify that a defined blocking pattern can be overridden, use the **after-hours override-code** command in ephone-template or telephony-service configuration mode. To remove the exemption, use the **no** form of this command.

after-hours override-code *pattern*

no after-hours override-code *pattern*

Syntax Description

<i>pattern</i>	Specifies the pattern of digits (0-9) that must be dialed by the phone user to override the call blocking rules. The override code is provided to the phone user by the system administrator.
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Command Default

No override is defined.

Command Modes

Ephone-template configuration (config-ephone-template)
Telephony-service configuration (config-telephony)

Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)XY	Cisco Unified CME 4.2(1)	This command was introduced.
12.4(15)XZ	Cisco Unified CME 4.3	This command was added to ephone-template configuration mode.
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 allow a phone user to override call blocking rules and enable the phone user to place outgoing calls regardless of whether the outgoing called number matches the defined pattern of digits during the call blocking periods.

By default, all IP phones in a Cisco Unified CME system are subject to call blocking if the **Call Blocking** feature is configured. By entering the override code as defined by the system administrator, the phone user can override all call blocking rules.

The **after-hours override-code** command, configured by either ephone-template or telephony-service, overrides any global telephony-service call block configuration. If the **after-hour exempt** command is configured, it has priority over the **after-hours override-code** command.

Examples

The following example defines a blocking pattern using telephony-service configuration which can be overridden using the override code of **1234**:

```
Router(config)# telephony-service
Router(config-telephony)# after-hours block pattern 1 91900
Router(config-telephony)# after-hours day mon 19:00 07:00
```

```
Router(config-telephony)# after-hours date Jan 25 00:00 07:00
Router(config-telephony)# after-hours override-code 1234
```

Related Commands

Command	Description
after-hour exempt	Specifies that an IP phone does not have any of its outgoing calls blocked although call blocking is defined.
after-hours block pattern	Defines a pattern of digits (0-9) for blocking outgoing calls from IP phones.
after-hours date	Defines a recurring period based on date during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours day	Defines a recurring period based on day of the week during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours pstn-prefix	Specifies that trunk lines on an IP phone are blocked similarly to that configured for non PSTN lines.
ephone-template (ephone)	Applies a template to an ephone.

after-hours pstn-prefix

To specify that all configured blocking patterns apply to trunk or PSTN lines, use the **after-hours pstn-prefix** command in telephony-service configuration mode. To delete call blocking configuration for PSTN lines, use the **no** form of this command.

after-hours pstn-prefix *tag pattern*

no after-hours pstn-prefix *tag pattern*

Syntax Description

<i>tag</i>	Identifier for a PSTN call-blocking pattern. Up to 4 call-blocking patterns can be defined in separate commands.
<i>pattern</i>	Outgoing call digits (0-9) to be matched for PSTN blocking.

Command Default

No pattern is defined.

Command Modes

Telephony-service configuration

Command History

Cisco IOS Release	Cisco Product	Modification
12.4(15)XY	Cisco Unified CME 4.2(1)	This command was introduced.
12.4(15)XZ	Cisco Unified CME 4.3	This command was added to ephone-template configuration mode.
12.4(20)T	Cisco Unified CME 7.0	This command was integrated into Cisco IOS Release 12.4(20)T.

Usage Guidelines

Use the **after-hours pstn-prefix** command to indicate that the after-hours call blocking patterns are configured to include one or more PSTN access digits that are normally dialed by phone users using regular ephone-dn lines. For example, the patterns are configured with a leading digit 9 to correspond to the conventional “dial 9 for outside line.” The **after-hours pstn-prefix** command instructs the system to skip over the PSTN prefix digits (in the blocking patterns) for calls that are dialed directly to the PSTN on ephone-dns that are configured using the trunk feature. These lines do not require the user to dial a PSTN access code (for example, 9) because they are configured to directly connect to the PSTN FXO ports. For example, a user of a regular ephone-dn would dial 9-1-900-xxx-xxxx, whereas a user on a trunk ephone-dn would omit the leading 9 and dial only 1-900-xxx-xxxx. The blocking pattern would be configured as **91900** to restrict calls on regular ephone-dn lines, and this pattern would be interpreted as 1900 on ephone-dns configured using the trunk feature. If you do not specify the **after-hours pstn-prefix** command, then no blocking is performed on calls dialed on trunk ephone-dn lines.

Call blocking on IP phones is defined as follows:

- First, one or more patterns of outgoing digits (0-9) are defined using the **after-hours block pattern** command.
- Next, one or more time periods during which calls that match those patterns are to be blocked are defined using the **after-hours date**, the **after-hours day**, or both commands.

By default, all IP phones in a Cisco Unified CME system are restricted during the specified time if at least one pattern and at least one time period are defined.

Blocked calls return a fast-busy tone to the user for approximately 10 seconds before the call is terminated and the line is returned to on-hook status.

Examples

The following example defines a blocking pattern using telephony-service configuration which is applied to a PSTN line:

```
Router(config)# telephony-service
Router(config-telephony)# after-hours block pattern 1 91900
Router(config-telephony)# after-hours pstn-prefix 1 9
Router(config-telephony)# after-hours day mon 19:00 07:00
Router(config-telephony)# after-hours date Jan 25 00:00 07:00
```

Related Commands

Command	Description
after-hour exempt	Specifies that an IP phone does not have any of its outgoing calls blocked although call blocking is defined.
after-hours block pattern	Defines a pattern of digits (0-9) for blocking outgoing calls from IP phones.
after-hours date	Defines a recurring period based on date during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours day	Defines a recurring period based on day of the week during which outgoing calls that match defined block patterns are blocked on IP phones.
after-hours override-code	Specifies that call blocking on an IP phone can be overridden by entering a defined series of digits (0-9).

allow watch

To allow a directory number on a phone registered to Cisco Unified CME to be watched in a presence service, use the **allow watch** command in ephone-dn, ephone-dn-template, or voice register dn configuration mode. To reset to the default condition, use the **no** form of this command.

allow watch

no allow watch

Syntax Description This command has no arguments or keywords.

Command Default Watching of the phone line is disabled.

Command Modes Ephone-dn configuration (config-ephone)
Ephone-dn-template configuration (config-ephone-dn-template)
Voice register dn configuration (config-register-dn)

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 controls whether a phone line associated with a directory number can be watched as part of a presence service. The directory number is enabled as a presentity that can be watched by internal and external watchers. Presence service must be enabled on Cisco Unified CME. Another phone, acting as a watcher, can monitor the status of this phone line when the **blf-speed-dial** or **presence call-list** command is enabled for that phone.

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

Examples The following example shows that the extension associated with voice register dn 2 can be watched by the phone associated with voice register pool 1:

```
Router(config)# voice register dn 2
Router(config-register-dn)# number 2102
Router(config-register-dn)# allow watch

Router(config)# voice register pool 1
Router(config-register-pool)# id mac 0015.6247.EF90
Router(config-register-pool)# type 7971
Router(config-register-pool)# number 1 dn 2
Router(config-register-pool)# blf-speed-dial 1 2102 label 2102
```

Related Commands

Command	Description
blf-speed-dial	Enables Busy Lamp Field (BLF) monitoring for a speed-dial number on a phone registered to Cisco Unified CME.
presence	Enables presence service and enters presence configuration mode.
presence call-list	Enables BLF monitoring for call lists and directories on phones registered to Cisco Unified CME.
presence enable	Allows the router to accept incoming presence requests.
show presence global	Displays configuration information about the presence service.
show presence subscription	Displays information about active presence subscriptions.

anonymous block

To enable anonymous call blocking in a SIP phone template, use the **anonymous block** command in voice register template configuration mode. To return to the default, use the **no** form of this command.

anonymous block

no anonymous block

Syntax Description This command has no arguments or keywords.

Command Default Disabled

Command Modes Voice register template configuration (config-register-temp)

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

Usage Guidelines This command blocks incoming calls in which the caller is not identified. To apply a template to a SIP phone, use the **template** command in voice register pool configuration mode.

Examples The following example shows how to set anonymous call blocking in template 1:

```
Router(config)# voice register template 1
Router(config-register-temp)# anonymous block
```

Related Commands	Command	Description
	caller-id block (voice register template)	Enables caller-ID blocking for outbound calls from a SIP phone.
	template (voice register pool)	Applies a template to a SIP phone.

application (telephony-service)

To select a session-level application for all extensions (ephone-dns) in a Cisco Unified CME, use the **application** command in telephony-service configuration mode. To disable use of an application for all extensions, use the **no** form of this command.

application *application-name*

no application

Syntax Description

application-name Interactive voice response (IVR) application name.

Command Default

No application is selected for all extensions.

Command Modes

Telephony-service configuration (config-telephony)

Command History

Cisco IOS Release	Cisco Product	Modification
12.2(11)YT	Cisco ITS 2.1	This command was introduced.
12.2(15)T	Cisco ITS 2.1	This command was integrated into Cisco IOS Release 12.2(15)T.

Usage Guidelines

Use this command to assign a Tool Command Language (Tcl) IVR application to all extensions served by the CME router.

Use the **show call application voice summary** command to display a list of applications.

Examples

The following example sets the IVR application for all phones:

```
Router(config)# telephony-service
Router(config-telephony) application TCL IVR
```

Related Commands

Command	Description
show call application voice summary	Displays information about voice applications.

application (voice register global)

To select the session-level application for all dial peers associated with Session Initiation Protocol (SIP) phones, use the **application** command in voice register global configuration mode. To disable use of the application, use the **no** form of this command.

application *application-name*

no application

Syntax Description

application-name Interactive voice response (IVR) application name.

Command Default

Default application on router

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

During Cisco Unified CallManager Express (Cisco Unified CME) or Cisco Unified Session Initiation Protocol (SIP) Survivable Remote Site Telephony (SRST) registration, a dial peer is created for each SIP phone and that dial peer includes the default session application. The **application** command allows you to change the default application for all dial peers associated with the Cisco SIP IP phones, if desired. The applied application (or TCL IVR script) must support call redirection. Use the **show call application voice summary** command to display a list of applications.

The **application** command in voice register pool configuration mode takes precedence over this command in voice register global configuration mode.



Note

Configure the **id** (voice register pool) command before any other voice register pool commands, including the **application** command. The **id** command identifies a locally available individual Cisco SIP IP phone or set of Cisco SIP IP phones.

Examples

The following example shows how to set the Tcl IVR application globally for all SIP phones:

```
Router(config)# voice register global
Router(config-register-global)# mode cme
Router(config-register-global)# application sipapp2
```

Related Commands	Command	Description
	application (dial-peer)	Enables a specific application on a dial peer.
	application (voice register pool)	Selects the session-level application for the dial peer associated an individual SIP phone in a Cisco Unified CME environment or for a group of phones in a Cisco Unified SIP SRST environment.
	id (voice register pool)	Explicitly identifies a locally available individual Cisco SIP IP phone, or when running Cisco Unified SIP SRST, set of Cisco SIP IP phones.
	mode (voice register global)	Enables the mode for provisioning SIP phones in a Cisco Unified CME system.
	show call application voice summary	Displays information about voice applications.
	show dial-peer voice	Displays information for dial peers.
	voice register pool	Enters voice register pool configuration mode for SIP phones.

application (voice register pool)

To select the session-level application for the dial peer associated with an individual Session Initiation Protocol (SIP) phone in a Cisco Unified CallManager Express (Cisco Unified CME) environment or for a group of phones in a Cisco Unified SIP Survivable Remote Site Telephony (SRST) environment, use the **application** command in voice register pool configuration mode. To disable use of the application, use the **no** form of this command.

application *application-name*

no application

Syntax Description	<i>application-name</i>	Name of the selected interactive voice response (IVR) application name.
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Command Default	Default application on router
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Command Modes	Voice register pool configuration (config-register-pool)
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Command History	Cisco IOS Release	Cisco Product	Modification
	12.2(15)ZJ	Cisco SIP SRST 3.0	This command was introduced.
	12.3(4)T	Cisco SIP SRST 3.0	This command was integrated into Cisco IOS Release 12.3(4)T.
	12.4(4)T	Cisco CME 3.4 Cisco SIP SRST 3.4	This command was added to Cisco CME.

Usage Guidelines	<p>During Cisco Unified CME or Cisco Unified SIP SRST registration, a dial peer is created for each SIP phone and that dial peer includes the default session application. The application command allows you to change the default application for all dial peers associated with the Cisco SIP IP phones, if desired. The applied application (or TCL IVR script) must support call redirection. Use the show call application voice summary command to display a list of applications.</p>
------------------	---

The **application** command in voice register pool configuration mode takes precedence over this command in voice register global configuration mode.



Note

Configure the **id** (voice register pool) command before any other voice register pool commands, including the **application** command. The **id** command identifies a locally available individual Cisco SIP IP phone or set of Cisco SIP IP phones.

Examples

The following example shows how to set the IVR application for the SIP phone specified by the **voice register pool** command:

```
Router(config)# voice register pool 1
Router(config-register-pool) application sipapp2
```

The following partial sample output from the **show running-config** command shows that voice register pool 1 has been set up to use the SIP.app application:

```
voice register pool 1
  id network 172.16.0.0 mask 255.255.0.0
  application SIP.app
  voice-class codec 1
```

Related Commands

Command	Description
application (dial-peer)	Enables a specific application on a dial peer.
application (voice register global)	Selects the session-level application for all dial peers associated with SIP phones.
id (voice register pool)	Explicitly identifies a locally available individual Cisco SIP IP phone, or when running Cisco Unified SIP SRST, set of Cisco SIP IP phones.
mode (voice register global)	Enables the mode for provisioning SIP phones in a Cisco Unified CME system.
show call application voice summary	Displays information about voice applications.
show dial-peer voice	Displays information for dial peers.

attendant-console

To specify the phone number of the MLPP attendant-console service, use the **attendant-console** command in voice MLPP configuration mode. To revert to the default, use the **no** form of this command.

attendant-console *number* **redirect-timer** *seconds*

no attendant-console

Syntax Description

<i>number</i>	Pilot number of the MLPP attendant-console service, such as the Cisco Unified CME basic automatic call distribution (B-ACD) and auto-attendant (AA) service.
<i>seconds</i>	Number of seconds that a call rings before being redirected to the attendant-console service. Range: 10 to 60.

Command Default

MLPP call is not diverted to an attendant-console service.

Command Modes

Voice MLPP configuration (config-voice-mlpp)

Command History

Cisco IOS Release	Cisco Product	Modification
12.4(22)YB	Cisco Unified CME 7.1	This command was introduced.
12.4(24)T	—	This command was integrated into Cisco IOS Release 12.4(24)T.

Usage Guidelines

This command enables Cisco Unified CME to divert all unanswered precedence calls above Routine to the specified target number after the specified period of time. This target directory number typically specifies the pilot number of the attendant-console service that is used as a destination of last resort for forwarded MLPP calls.

Examples

The following example shows that any MLPP call that is not answered after 30 seconds is redirected to extension 81005, which is the extension of the BACD queue.

```
Router(config)# voice mlpp
Router(config-voice-mlpp)# attendant-console 81005 redirect-timer 30
```

Related Commands

Command	Description
access-digit	Defines the access digit that phone users dial to request a precedence call.
mlpp preemption	Enables preemption capability on an SCCP phone or analog FXS port.
service	Associates a dial peer with an auto-attendant (AA) service.

authenticate (voice register global)

To define the authenticate mode for SIP phones in a Cisco Unified CME or Cisco Unified SRST system, use the **authenticate** command in voice register global configuration mode. To return to the default, use the **no** form of this command.

Cisco IOS Release 12.4(11)XJ and later releases

authenticate { *credential tag location* | **ood-refer** | **presence** | *realm string* | **register** }

no authenticate { *credential tag location* | **ood-refer** | **presence** | *realm string* | **register** }

Cisco IOS Release 12.4(4)T

authenticate [**all**] [*realm string*]

no authenticate [**all**] [*realm string*]

Syntax Description		
credential tag		Number that identifies the credential file to use for out-of-dialog REFER (OOD-R) or presence authentication. Range: 1 to 5.
<i>location</i>		Name and location of the credential file in URL format. Valid storage locations are TFTP, HTTP, and flash memory.
ood-refer		Incoming OOD-R requests are authenticated using RFC 2617-based digest authentication.
presence		Incoming presence subscription requests from an external presence server are authenticated.
<i>realm string</i>		Realm parameter for challenge and response as specified in RFC 2617 is authenticated.
register		All incoming registration requests are challenged and authenticated. Valid for Cisco Unified CME only.

Command Default Authenticate mode is disabled.

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.
	12.4(11)XJ	Cisco Unified CME 4.1 Cisco Unified SRST 4.1	The credential , ood-refer , presence , and register keywords were added. The register keyword replaced the all keyword.
	12.4(15)T	Cisco Unified CME 4.1 Cisco Unified SRST 4.1	The modifications to this command were integrated into Cisco IOS Release 12.4(15)T.

Usage Guidelines

The **credential** keyword allows OOD-R and presence service to use credential files for authentication. Up to five text files containing username and password pairs can be defined and loaded into the system. The contents of these five files are mutually exclusive; the username and password pairs must be unique across all the files. For Cisco Unified CME, the username and password pairs cannot be the same ones defined for SCCP or SIP phones with the **username** command.

The **ood-refer** keyword specifies that any OOD-R request that passes authentication is authorized to setup calls between referee and refer-target if OOD-R is enabled with the **refer-ood enable** command.

The **presence** keyword enables digest authentication for external watchers. Credentials are verified against a credential file stored in flash. This applies to both OOD-R and presence. The default is to authenticate all SUBSCRIBE requests from external watchers. An external watcher that passes authentication is authorized to subscribe to presence service for all lines allowed to be watched.

The **register** keyword enables authentication for registration requests in which the MAC address of the SIP phone cannot be identified by using other methods. All incoming register requests are challenged and authenticated. The **realm** keyword with the *string* argument specifies the character string to be included in the challenge.

Examples

The following example shows that all registration requests from SIP phones in a Cisco Unified CME system must be authenticated:

```
Router(config)# voice register global
Router(config-register-global)# mode cme
Router(config-register-global)# authenticate register
```

Related Commands

Command	Description
credential load	Reloads a credential file into flash memory.
mode cme	Enables the mode for provisioning SIP phones in a Cisco Unified CME system.
presence-enable	Allows incoming presence subscribe requests from SIP trunks.
refer-ood enable	Enables OOD-R processing.
username (ephone)	Defines a username and password for SCCP phones.
username (voice register pool)	Defines a username and password for authenticating SIP phones.

authentication credential

To create an entry for an application's credential in the database used by the Cisco Unified CME authentication server, use the **authentication credential** command in telephony-service configuration mode. To remove the credential, use the **no** form of this command.

authentication credential *application-name password*

no authentication credential *application-name password*

Syntax Description

<i>application-name</i>	String sent by application to identify itself to the server. Length of string: 1 to 15 characters.
<i>password</i>	String sent by application to identify itself to the server. Length of string: 1 to 15 characters.

Command Default

The credential is not stored in the database.

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 stores a credential in the database used by the Cisco Unified CME authentication server. The authentication server uses this data to authenticate and authorize HTTP requests from IP phones in Cisco Unified CME.

Up to eight credentials can be stored in the database for the Cisco Unified CME authentication server. For applications other than Extension Mobility, the credential must be created in the application.



Note

This command is not required for authorizing requests from Extension Mobility phones in Cisco Unified CME.

Examples

The following example shows how to configure IP phones in Cisco Unified CME to request authorization from the internal authentication server. When the IP phone receives a command from the application, the phone requests authorization from the Cisco Unified CME authentication server to execute that command. The authorization request from the phone includes the specified credential. The authentication server compares the credential in its database to the one in the request, and authorizes or rejects the request based on the results.

```
Router(config)# telephony-service
```

authentication credential

```
Router(config-telephony)# authentication credential att psswrđ  
Router(config-telephony)# url authentication http://192.0.2.0/CCMCIP/authenticate.asp att  
psswrđ  
Router(config-telephony)#
```

Related Commands

Command	Description
url authentication	Specifies authentication server and credential to be used by an application.

auth-mode

To specify the type of authentication to use during CAPF sessions, use the **auth-mode** command in CAPF-server configuration mode. To return to the default, use the **no** form of this command.

auth-mode {**auth-string** | **LSC** | **MIC** | **none** | **null-string**}

no auth-mode

Syntax Description

auth-string	The phone user enters a special authentication string at the phone. The string is entered using the auth-string command and is provided to the phone user by the system administrator.
LSC	The phone provides its phone certificate for authentication. Precedence is given to an LSC if one exists.
MIC	The phone provides its phone certificate for authentication. Precedence is given to an MIC if one exists.
none	No certificate upgrade is initiated.
null-string	No authentication is used.

Command Default

No certificate upgrade is initiated (same as the keyword **none**).

Command Modes

CAPF-server configuration (config-capf-server)

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 12.4(9)T.

Usage Guidelines

This command is used with Cisco Unified CME phone authentication.

If you use the **auth-string** keyword with this command, the phone user is required to enter a specified digit string at the phone to be authenticated for CAPF sessions. The digit string is entered into the configuration using the **auth-string** command or the **capf-auth-str** command and must be communicated to the phone user.

Use the **show capf-server** command to display parameters that you have set with this command.

Examples

The following example specifies authentication strings as the method of CAPF authentication. The **auth-string** command specifies that random authentication strings should be generated for all ephones.

```
capf-server
  auth-mode auth-string
  auth-string generate all
```

Related Commands

	Description
auth-string	Creates or removes authentication strings for one or all secure ephones.
capf-auth-str	Specifies a string of digits for a user to enter at the phone for CAPF authentication.
show capf-server	Displays configuration and session information for the CAPF server.

auto assign

To automatically assign an already defined telephone or extension number to button 1 of Cisco Unified IP phones as they register for service with a Cisco Unified CME router, use the **auto assign** command in telephony-service configuration mode. To return to the default of not automatically assigning dn-tags, use the **no** form of this command.

auto assign *dn-tag* **to** *dn-tag* [**type** *phone-type*] [**cfw** *extension-number* **timeout** *seconds*]

no auto assign *dn-tag* **to** *dn-tag* [**type** *phone-type*] [**cfw** *extension-number* **timeout** *seconds*]

Syntax Description	<i>dn-tag</i> to <i>dn-tag</i>	Range of ephone-dn tags for already configured ephone-dns, from which a tag is assigned to the ephone being created. The maximum number of directory numbers supported is version and platform dependent. Type ? to display the value.
	type <i>phone-type</i>	(Optional) Type of Cisco Unified IP phone to which to restrict automatic assignment of ephone-dn tags. Valid entries are the following: <ul style="list-style-type: none"> • 12SP—12SP+ and 30VIP phones. • 7902—Cisco Unified IP Phone 7902G. • 7905—Cisco Unified IP Phone 7905G. • 7906—Cisco Unified IP Phone 7906G. • 7910—Cisco Unified IP Phone 7910 and 7910G. • 7911—Cisco Unified IP Phone 7911G. • 7912—Cisco Unified IP Phone 7912G. • 7920—Cisco Unified Wireless IP Phone 7920. • 7921—Cisco Unified Wireless IP Phone 7921. • 7931—Cisco Unified Wireless IP Phone 7931G. • 7935—Cisco Unified IP Conference Station 7935. • 7936—Cisco Unified IP Conference Station 7936. • 7937—Cisco Unified IP Conference Station 7937 • 7940—Cisco Unified IP Phones 7940 and 7940G. • 7941—Cisco Unified IP Phone 7941G. • 7941GE—Cisco Unified IP Phone 7941G-GE. • 7942—Cisco Unified IP Phone 7942. • 7945—Cisco Unified IP Phone 7945.

type <i>phone-type</i>	<ul style="list-style-type: none"> • 7960—Cisco Unified IP Phones 7960 and 7960G. • 7961—Cisco Unified IP Phone 7961G. • 7961GE—Cisco Unified IP Phone 7961G-GE. • 7962—Cisco Unified IP Phone 7962. • 7965—Cisco Unified IP Phone 7965. • 7970—Cisco Unified IP Phone 7970G. • 7971—Cisco Unified IP Phone 7971G-GE. • 7975—Cisco Unified IP Phone 7975. • 7985—Cisco Unified IP Phone 7985. • CIPC—Cisco IP Communicator. • all—All ephone types. • anl—Analog gateway. • ata—Cisco ATA-186 or Cisco ATA-188. • bri—SCCP gateway. • vgc-phone—vg248 phone emulation for analog phone. <p>Note You can also add a new phone type to your configuration by using the ephone-type command.</p>
cfw	(Optional) Automatically assigned ephone-dns are provisioned for call-forward busy and no-answer to the specified extension number.
<i>extension-number</i>	(Optional) Extension number to which calls are to be forwarded on busy and no-answer conditions.
timeout <i>seconds</i>	(Optional; required if the cfw keyword is used) Amount of time, in seconds, to wait when a call is not being answered before forwarding it. Range: 3 to 60000.

Command Default

Ephone-dn tags are not automatically assigned to registering Cisco Unified IP phones.

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.
12.3(7)T	Cisco CME 3.1	The 7920 and 7936 keywords were added.
12.3(11)XL	Cisco CME 3.2.1	The 7970 keyword was added.
12.3(14)T	Cisco CME 3.3	The 7971 keyword was added, and this command was integrated into Cisco IOS Release 12.3(14)T.
12.4(4)XC	Cisco Unified CME 4.0	The 7941 , 7941GE , 7961 , and 7961GE keywords were added.

Cisco IOS Release	Cisco Product	Modification
12.4(9)T	Cisco Unified CME 4.0	This command was integrated into Cisco IOS Release 12.4(9)T.
12.4(6)XE	Cisco Unified CME 4.0(2)	The 7931 keyword was added.
12.4(4)XC4	Cisco Unified CME 4.0(3)	The 7931 keyword was added.
12.4(11)T	Cisco Unified CME 4.0(3)	This command was integrated into Cisco IOS Release 12.4(11)T.
12.4(11)XJ2	Cisco Unified CME 4.1	The 7921 and 7985 keywords were introduced.
12.4(15)T	Cisco Unified CME 4.1	This command was integrated into Cisco IOS Release 12.4(15)T.
12.4(15)T1	Cisco Unified CME 4.1(1)	The 7942 , 7945 , 7962 , 7965 , and 7975 keywords were introduced.
12.4(11)XW3	Cisco Unified CME 4.2	The 7942 , 7945 , 7962 , 7965 , and 7975 keywords were introduced.
12.4(15)XY	Cisco Unified CME 4.2(1)	The 7942 , 7945 , 7962 , 7965 , and 7975 keywords were introduced.
12.4(15)XZ	Cisco Unified CME 4.3	The 7942 , 7945 , 7962 , 7965 , and 7975 keywords were introduced.
12.4(20)T	Cisco Unified CME 7.0	The 7937 keyword was introduced and this command was integrated into Cisco IOS Release 12.4(20)T.

Usage Guidelines

Use this command to create an ephone configuration for a Cisco Unified IP phone whose MAC address is not explicitly configured as it registers in Cisco Unified CME. The system-created ephone configuration includes the MAC address of the Cisco Unified IP phone being registered and an already-defined available ephone-dn assigned to button 1 of this phone.

The **auto-reg-ephone** command must be enabled (default) to use this command. If the auto registration feature is disabled, a Cisco Unified IP phone whose MAC address is not explicitly configured cannot register in Cisco Unified CME.

Before using this command, configure the ephone-dn tags to be assigned and define at least one primary number for each dn-tag.

All ephone-dns in a specified range should be of the same type, either single-line or dual-line.

Ephone-dn tags to be assigned must belong to normal ephone-dns and cannot belong to paging ephone-dns, intercom ephone-dns, music-on-hold (MOH) ephone-dns, or message-waiting-indication (MWI) ephone-dns.

The **auto assign** command cannot create shared lines.

If an insufficient number of dn-tags is available, some ephone configurations will not include a telephone or extension number.

Use multiple **auto assign** commands to assign discontinuous ranges of ephone-dn tags and to support multiple types of IP phones. Overlapping ranges of dn-tags may be assigned so that they map to more than one type of phone. If no **type** is specified, the values in the range are assigned to phones of any type, and if a specific range is assigned for a specific phone type, the available ephone-dn tag in that range are used first.

If the phone being registered is connected to a Cisco VG200 series analog phone gateway, configuring the

auto assign command will automatically create one ephone configuration for each configured port, as the port registers with the Cisco Unified CME router. To ensure that the tag-to-port assignment will match the numbering order of the physical ports; for example, dn-tags 1 to 24 assigned to ports 1 to 24 of a Cisco VG224 analog phone gateway, in that order, we recommend that the Cisco Unified CME system be up, running, and configured *before* you boot the analog phone gateway.

The **auto assign** command cannot be used for the Cisco Unified IP Phone 7914 Expansion Module. Phones with one or more expansion modules must be configured manually.

After using this command, reboot the phone for which an ephone is to be configured.

This command is also used by the Cisco Unified CME setup tool to automatically assign ephone-dns after the tool has gathered information about the setup from the user. When lines are assigned by the Cisco Unified CME setup tool in keyswitch mode with two ephone-dn entries created for each individual extension number, the automatic assignment mechanism assigns both ephone-dn entries to an individual ephone associated with an IP phone.

**Note**

Care should be taken when using the **auto assign** command because this command grants telephony service to *any* IP phone that attempts to register. If you use the **auto assign** command, ensure that your network is secure from unauthorized access by unknown IP phones.

Examples

The following examples show how to configure the Auto Assign feature, including prerequisite commands for configuring the **auto assign** command.

The following example shows how to enter the ephone-dn configuration and create ephone-dns configurations, tags 1-4, each having a single primary number:

```
Router(config)# ephone-dn 1
Router(config-ephone-dn)# number 2000
Router(config-ephone-dn)# exit
Router(config)# ephone-dn 2
Router(config-ephone-dn)# number 3000
Router(config-ephone-dn)# exit
Router(config)# ephone-dn 3
Router(config-ephone-dn)# number 4000
Router(config-ephone-dn)# exit
Router(config)# ephone-dn 4
Router(config-ephone-dn)# number 4001
Router(config-ephone-dn)# exit
```

The following example shows how to designate ephone-dn tags 1 to 4 for automatic assignment to any type of IP phone and then perform a fast reboot of all phones:

```
Router(config)# telephony-service
Router(config-telephony)# auto assign 1 to 4
Router (config-telephony)# restart all
```

The following example is the partial output from the **show ephone registered** command listing four registered IP phones, to which ephone-dn tags 1 to 4 have been automatically assigned, after the phones were booted:

```
Router# show ephone registered
ephone-1 Mac:0003.E3E7.F627 TCP socket:[2] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0 debug:0
IP:10.0.0.2 51671 Telecaster 7940 keepalive 28 max_line 2
button 1: dn 1 number 2000
ephone-2 Mac:0030.94C3.F43A TCP socket:[1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0 debug:0
IP:10.0.0.3 50094 Telecaster 7960 keepalive 28 max_line 6
button 1: dn 2 number 3000
ephone-3 Mac:0003.6B40.99DA TCP socket:[3] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0 debug:0
IP:10.0.0.200 51879 Telecaster 7960 keepalive 28 max_line 6
button 1: dn 3 number 4000
ephone-4 Mac:0010.406B.99D9 TCP socket:[4] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0 debug:0
IP:10.0.0.012 51879 Telecaster 7960 keepalive 28 max_line 6
button 1: dn 4 number 4001
.
.
.
```

The following example shows how to designate ephone-dn tags 1 to 12 for automatic assignment to Cisco Unified IP Phone 7910Gs only and ephone-dn tags 13 to 20 for automatic assignment to a Cisco Unified IP Phones 7960 and 7960Gs only, with call forwarding to extension 5001 on busy or after 30 seconds of ringing with no answer:

```
Router(config)# telephony-service
Router(config-telephony)# auto assign 1 to 12 type 7910
Router(config-telephony)# auto assign 13 to 20 type 7960 cfw 5001 timeout 30
```

Related Commands

Command	Description
auto-reg-ephone	Enables registration of Cisco Unified IP phones for which MAC addresses are not explicitly configured.
number	Associates a telephone or extension number with an ephone-dn.
restart (ephone)	Performs a fast reboot of a single phone associated with a Cisco Unified CME router.
restart (telephony-service)	Performs a fast reboot of one or all phones associated with a Cisco Unified CME router.
show ephone	Displays statistical information about registered Cisco Unified IP phones.
show ephone registered	Displays the status of registered phones.

auto logout

To enable the automatic change of an ephone hunt group agent's ephone-dn to not-ready status after a specified number of hunt-group calls are not answered, use the **auto logout** command in ephone-hunt configuration mode. To disable automatic logout, use the **no** form of this command.

auto logout [*number-of-calls*] [**dynamic** | **static**]

no auto logout [*number-of-calls*] [**dynamic** | **static**]

Syntax Description

<i>number-of-calls</i>	(Optional) Number of unanswered hunt-group calls to an ephone-dn before the ephone-dn is automatically changed to not-ready status. Range is from 1 to 20. Default is 1.
dynamic	(Optional) Specifies that this command applies only to dynamic hunt group members (those who are specified by an asterisk (*) wildcard in the hunt group configuration). If neither the dynamic nor static keyword is used, automatic logout applies to both dynamic and static hunt group members.
static	(Optional) Specifies that this command applies only to static hunt group members (those whose extension numbers are explicitly named in the hunt group configuration). If neither the dynamic nor static keyword is used, automatic logout applies to both dynamic and static hunt group members.

Command Default

Automatic change of agent status to not-ready is disabled.

Command Modes

Ephone-hunt configuration (config-ephone-hunt)

Command History

Cisco IOS Release	Cisco Product	Modification
12.3(11)XL	Cisco CME 3.2.1	This command was introduced.
12.3(14)T	Cisco CME 3.3	This command was integrated into Cisco IOS Release 12.3(14)T.
12.4(4)XC	Cisco Unified CME 4.0	The <i>number-of-calls</i> argument and the dynamic and static keywords were added. The criterion for this command was changed from exceeding the timeout command limit to exceeding the number of calls specified in this command.
12.4(9)T	Cisco Unified CME 4.0	The modifications made to this command were integrated into Cisco IOS 12.4(9)T.

Usage Guidelines

This command is valid only for the following Cisco IP phones:

- Cisco Unified IP Phone 7905G
- Cisco Unified IP Phone 7912G
- Cisco Unified IP Phones 7940 and 7940G

- Cisco Unified IP Phones 7960 and 7960G

This command is used with the Automatic Agent Status Not-Ready feature for ephone hunt groups, which automatically puts an agent's phone in not-ready status when it exceeds a specified limit. The limit at which the Automatic Agent Status Not-Ready feature is triggered depends on the Cisco CME version that you are using, as follows:

- Cisco CME 3.3 and earlier versions—Automatic Agent Status Not-Ready is invoked when an ephone-hunt group call rings longer on a member ephone-dn than the period of time configured in the **timeout** command in ephone-hunt configuration mode.
- Cisco Unified CME 4.0 and later versions—Automatic Agent Status Not-Ready is invoked when the specified number of ephone-hunt group calls is unanswered by an agent. The default is one call if the number of calls is not explicitly specified.

When Automatic Agent Status Not-Ready is specified for an ephone hunt group and it is triggered because an ephone-dn member does not answer a specified number of ephone hunt group calls, the following actions take place:

- If the **hunt-group logout HLog** command has been used, the agent is placed in not-ready status. The agent's phone will not receive further hunt-group calls but will receive calls that directly dial the phone's extension numbers. An agent in not-ready status can return to ready status by pressing the HLog soft key or by using the HLog feature access code (FAC).
- If the **hunt-group logout HLog** command has not been used or if the **hunt-group logout DND** command has been used, the phone on which the ephone-dn appears is placed into Do Not Disturb (DND) mode, in which the ephone-dn does not receive any calls at all, including hunt-group calls. The red lamp on the phone lights to indicate DND status. An agent in DND mode can return to ready status by pressing the DND soft key or by using the DND FAC.
- When an agent returns to ready status, the ephone hunt group resumes sending calls to the agent's ephone-dn.



Note

When an agent who is a dynamic member of a hunt group is in not-ready status, the agent's slot in the ephone hunt group is not relinquished. It remains reserved by the agent until the agent leaves the group.

You can use the **auto logout** command with any number of ephone hunt groups, but any ephone-dn to which the **auto logout** command applies must belong to only one ephone. Automatic Agent Status Not-Ready is not supported on shared lines.

Examples

This section provides the following examples:

- [Cisco CME 3.3 and Earlier Versions](#)
- [Cisco Unified CME 4.0 and Later Versions](#)

Cisco CME 3.3 and Earlier Versions

In the following example, ephone hunt group 1 is configured to permit automatic logout. If hunt group calls that are presented to 1001 and 1002 are unanswered (that is, if they ring longer than 40 seconds each), ephone 1 and ephone 2 are automatically put into DND mode. All unanswered calls are sent to voice mail (5000).

```
Router(config)# ephone-dn 1
Router(config-ephone-dn)# number 1001
```

```
Router(config)# ephone-dn 2
Router(config-ephone-dn)# number 1002
```

```

Router(config)# ephone-hunt 1 peer
Router(config-ephone-hunt)# pilot 1111
Router(config-ephone-hunt)# list 1001, 1002
Router(config-ephone-hunt)# final 5000
Router(config-ephone-hunt)# timeout 40
Router(config-ephone-hunt)# auto logout

```

```

Router(config)# ephone 1
Router(config-ephone)# button 1:1
Router(config)# ephone 2
Router(config-ephone)# button 1:2

```

Cisco Unified CME 4.0 and Later Versions

In the following example, Automatic Agent Status Not-Ready is limited to dynamic hunt group members who do not answer two consecutive ephone hunt group calls. Ephone-dn 33, extension 1003, has dynamically joined ephone-hunt group 1. Ephone 3 will be put into DND mode if extension 1003 does not answer two consecutive hunt group calls. Ephones 1 and 2 will not be put into DND if they do not answer hunt-group calls, because the **auto logout** command applies only to dynamic hunt-group agents.

```

Router(config)# telephony-service
Router(config-telephony)# hunt-group logout DND

```

```

Router(config)# ephone-dn 11
Router(config-ephone-dn)# number 1001
Router(config)# ephone-dn 22
Router(config-ephone-dn)# number 1002
Router(config)# ephone-dn 33
Router(config-ephone-dn)# number 1003
Router(config-ephone-dn)# ephone-hunt login

```

```

Router(config)# ephone-hunt 1 peer
Router(config-ephone-hunt)# pilot 1111
Router(config-ephone-hunt)# list 1001, 1002, *
Router(config-ephone-hunt)# final 5000
Router(config-ephone-hunt)# auto logout 2 dynamic

```

```

Router(config)# ephone 1
Router(config-ephone)# button 1:11
Router(config)# ephone 2
Router(config-ephone)# button 1:22
Router(config)# ephone 3
Router(config-ephone)# button 1:33

```

In the following example, Automatic Agent Status Not-Ready cannot be used because all of the ephone-dns are shared.

```

Router(config)# ephone-dn 1
Router(config-ephone-dn)# number 1001
Router(config)# ephone-dn 2
Router(config-ephone-dn)# number 1002

```

```

Router(config)# ephone-hunt 1 peer
Router(config-ephone-hunt)# pilot 1111
Router(config-ephone-hunt)# list 1001, 1002
Router(config-ephone-hunt)# final 6000

```

```

Router(config)# ephone 1
Router(config-ephone)# button 1o1,2
Router(config)# ephone 2
Router(config-ephone)# button 1o1,2

```

Related Commands	Command	Description
	hunt-group logout	Enables separate handling of DND and HLog functionality for hunt-group agents and the display of an HLog soft key on phones.
	timeout	Defines the number of seconds after which a call that is not answered is redirected to the next number in a Cisco Unified CME ephone-hunt-group list.

auto-answer

To enable the intercom auto-answer feature on a SIP phone extension, use the **auto-answer** command in voice register dn configuration mode. To return to the default, use the **no** form of this command.

auto-answer

no auto-answer

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Voice register dn configuration (config-register-dn)

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

Usage Guidelines This command creates an IP phone line connection that resembles a private line, automatic ring-down (PLAR). The auto-answer causes an extension (directory number) to operate in auto-dial fashion for outbound calls and auto answer-with-mute for inbound calls. If an extension is configured for intercom operation, it can be associated with one Cisco IP phone only.

Any caller can dial an intercom extension, and a call to an intercom extension that is originated by a nonintercom caller triggers an automatic answer exactly like a legitimate intercom call. To prevent nonintercom originators from manually dialing an intercom destination, you can use alphabetic characters when you assign numbers to intercom extensions by using the **number** command. These characters cannot be dialed from a normal phone but can be dialed by preprogrammed intercom extensions when calls are made by the router.

Use the **reset** command to reset an individual SIP phone after you make changes to an extension for a SIP phone in Cisco CME.

Examples The following example shows how to set the auto-answer feature on SIP phone directory number 1:

```
Router(config)# voice register dn 1
Router(config-register-dn) number A5001
Router(config-register-dn) auto-answer
```

Related Commands

Command	Description
number (voice register dn)	Associates a telephone or extension number with a directory number.
reset (voice register global)	Performs a complete reboot of all SIP phones associated with a Cisco CME router.
reset (voice register pool)	Performs a complete reboot of a single SIP phone associated with a Cisco CME router.

auto-line

To enable automatic line selection on an IP phone in a Cisco CallManager Express (Cisco CME) system, use the **auto-line** command in ephone configuration mode. To disable automatic line selection, use the **no** form of this command.

auto-line [*button-number* [**answer-incoming**] | **incoming**]

no auto-line

Syntax Description

<i>button-number</i>	(Optional) Selects the line associated with the specified button when the handset is lifted.
answer-incoming	(Optional) Enables automatic line selection for incoming calls on the line associated with the <i>button-number</i> argument.
incoming	(Optional) Enables automatic line selection for incoming calls only.

Command Default

Automatic line selection is enabled.

Command Modes

Ephone configuration (config ephone)

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(7)T	Cisco CME 3.1	The <i>button-number</i> argument was added.
12.4(4)XC	Cisco Unified CME 4.0	The answer-incoming keyword was added.
12.4(9)T	Cisco Unified CME 4.0	The answer-incoming keyword was integrated into Cisco IOS 12.4(9)T.

Usage Guidelines

Use the **auto-line** command with no keyword or argument enables automatic line selection on the specified ephone. Picking up a handset answers the first ringing line or, if no line is ringing, selects the first idle line. This command is also the default behavior if this command is not used.

Use the **auto-line incoming** command enables automatic line selection for incoming calls only. Picking up the handset answers the first ringing line and, if no line is ringing, does not select an idle line for an outgoing call. Pressing a line button selects a line for an outgoing call.

Use the **auto-line** command with the *button-number* argument specifies the line that will automatically be selected when the handset is picked up to make an outgoing call. If a button number is specified and the line associated with that button is unavailable (because it is a shared line in use on another phone), no dial tone is heard when the handset is lifted. You must press an available line button to make an outgoing call. Incoming calls must be answered by pressing the Answer soft key or pressing the ringing line button.

Use the **answer-incoming** keyword with the *button-number* argument enables automatic line selection for incoming calls on the specified button. Picking up the handset answers the incoming call on the line button associated with the *button-number* argument.

Use the **no auto-line** command disables automatic line selection on the ephone that is being configured. Pressing the Answer soft key answers the first ringing line, and pressing a line button selects a line for an outgoing call. Picking up the handset does not answer calls or provide dial tone.

Examples

The following example shows how to disable automatic line selection. The phone user must use the Answer soft key or press a line button to answer calls, or the phone user must press a line button to initiate outgoing calls.

```
Router(config)# ephone 23
Router(config-ephone)# no auto-line
```

The following example shows how to enable automatic line selection for incoming calls only. The phone user picks up the handset to answer the first ringing line. To make outgoing calls, the phone user must press a line button.

```
Router(config)# ephone 24
Router(config-ephone)# auto-line incoming
```

The following example shows how to enable the automatic selection of line button 3 for outgoing calls when the handset is lifted. There is no automatic answering of incoming calls; the user presses the Answer soft key or presses a line button to answer a call.

```
Router(config)# ephone 26
Router(config-ephone)# auto-line 3
```

The following example shows how to enable the automatic selection of line button 3 when the handset is lifted to answer incoming calls or to make outgoing calls.

```
Router(config)# ephone 26
Router(config-ephone)# auto-line 3 answer-incoming
```

Related Commands

	Description
ephone	Enters ephone configuration mode.

auto-reg-ephone

To enable automatic registration of ephones with the Cisco Unified CME system, use the **auto-reg-ephone** command in telephony-service configuration mode. To disable automatic registration, use the **no** form of this command.

auto-reg-ephone

no auto-reg-ephone

Syntax Description This command has no keywords or arguments.

Command Default Automatic registration is enabled.

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 12.4(9)T.

Usage Guidelines This command is enabled by default and allows automatic registration, in which Cisco Unified CME allocates an ephone slot to any ephone that connects to it, regardless of whether the ephone appears in the configuration or not.

The **no** form of this command blocks the automatic registration of ephones whose MAC addresses are not explicitly listed in the configuration. When automatic registration is blocked, Cisco Unified CME records the MAC addresses of phones that attempt to register but cannot because they are blocked.

Use the **show ephone attempted-registrations** command to view the list of phones that have attempted to register but have been blocked. Use the **clear telephony-service ephone-attempted-registrations** command to clear the list of phones that have attempted to register but have been blocked.

Examples The following example disables automatic registration of ephones that are not listed in the configuration:

```
Router(config)# telephony-service
Router(config-telephony)# no auto-reg-ephone
```

Related Commands	Command	Description
	clear telephony-service ephone-attempted-registrations	Empties the log of ephones that unsuccessfully attempt to register with Cisco Unified CME.
	show ephone attempted-registrations	Displays the log of ephones that unsuccessfully attempt to register with Cisco Unified CME.

