



Command Reference

This section documents Cisco SRS Telephony commands. The following are new and modified commands in Cisco SRS Telephony for Cisco IOS Software Release 12.2(15)T:

- **dialplan-pattern** (modified)
- **user-locale** (new)



Note

For commands not specific to Cisco SRS Telephony, refer to the Cisco IOS Release 12.2 command reference publications.

The following is a list of all of the Cisco SRS Telephony commands.

- **access-code**
- **alias**
- **call-forward busy**
- **call-forward noan**
- **call-manager-fallback**
- **cor**
- **date-format**
- **debug ephone alarm**
- **debug ephone detail**
- **debug ephone error**
- **debug ephone keepalive**
- **debug ephone pak**
- **debug ephone raw**
- **debug ephone register**
- **debug ephone state**
- **debug ephone statistics**
- **default-destination**
- **huntstop**
- **ip source-address**
- **keepalive**

- **limit-dn**
- **max-dn**
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- **moh**
- **pattern direct**
- **pattern ext-to-ext busy**
- **pattern ext-to-ext no-answer**
- **pattern trunk-to-ext busy**
- **pattern trunk-to-ext no-answer**
- **pattern direct**
- **show call-manager-fallback all**
- **show call-manager-fallback dial-peer**
- **show call-manager-fallback ephone-dn**
- **show call-manager-fallback voice-port**
- **show ephone**
- **show ephone-dn**
- **show ephone summary**
- **time-format**
- **timeouts interdigit**
- **transfer-pattern**
- **translate**
- **user-locale**
- **vm-integration**
- **voicemail**

access-code

To configure trunk access codes for each type of line so that the Cisco IP phones can access the trunk lines only during Cisco CallManager fallback mode when the SRS Telephony feature is enabled, use the **access-code** command in CallManager fallback configuration mode. To remove the telephone access code configuration from the Cisco IP phones, use the **no** form of this command.

- **access-code** {**fxo** | **e&m**} *dial-string*
no access-code {**fxo** | **e&m**} [*dial-string*]
- **access-code** {**bri** | **pri**} *dial-string* [**direct-inward-dial**]
no access-code {**bri** | **pri**} [*dial-string*] [**direct-inward-dial**]

Syntax Description		
fxo		Enables a foreign exchange office (FXO) interface.
e&m		Enables an analog ear and mouth (E&M) interface.
<i>dial-string</i>		Sets up dial access codes for each specified line type by creating dial peers.
bri		Enables a BRI interface.
pri		Enables a PRI interface.
direct-inward-dial		(Optional) Enables direct-inward-dial on a POTS dial peer.

Defaults No default behavior or values.

Command Modes CallManager fallback configuration

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers. The direct-inward-dial keyword was added.

Usage Guidelines

The **access-code** command configures trunk access codes for each type of line—BRI, E&M, FXO, and PRI—so that the Cisco IP phones can access the trunk lines in Cisco CallManager fallback mode when the SRS Telephony feature is enabled. This provides system-wide access.

**Note**

The **access-code** command creates temporary dial peers in Cisco CallManager fallback mode. In many cases, you may already have the local PSTN ports configured with appropriate access codes provided by dial peers (for example, dial 9 to select an FXO PSTN line), in which case this command is not needed.

The **access-code** command creates temporary POTS voice dial peers for all the selected types of voice ports, during Cisco CallManager fallback mode. Use this command only if your normal network dial-plan configuration prevents you from configuring permanent POTS voice dial peers to provide trunk access for use in the fallback mode. When the **access-code** command is used, it is important to ensure that all ports covered by the command have valid trunk connections. Selection between ports for outgoing calls is random.

The dial string is used to set up temporary dial peers for each specified line type. If there are multiple lines of the same type, a dial peer is set up for each line. The dial peers are active only during Cisco CallManager fallback mode when the SRS Telephony feature is enabled. The result of this configuration is that all PSTN interfaces of the same type, for example BRI, are treated as equivalent, and any port may be selected to place the outgoing PSTN call. The **direct-inward-dial** keyword enables you to set direct-inward-dial access for PRI and BRI trunk lines.

Examples

The following example sets the **access-code** command for BRI 8:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# access-code bri 8 direct-inward-dial
```

The following example sets the **access-code** command for E&M 8:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# access-code e&m 8
```

The following example sets the **access-code** command for FXO 9:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# access-code fxo 9
```

The following example sets the **access-code** command for PRI 9:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# access-code pri 9 direct-inward-dial
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

alias

To provide a mechanism for rerouting calls to telephone numbers that are unavailable during Cisco CallManager fallback, use the **alias** command in call-manager-fallback configuration mode. To disable rerouting of unmatched call destination calls, use the **no** form of this command.

alias *tag number-pattern* **to** *alternate-number* [**preference** *preference-value*] [**huntstop**]

no alias *tag number-pattern* **to** *alternate-number* [**preference** *preference-value*] [**huntstop**]

Syntax Description

<i>tag</i>	Identifier for alias rule range. The range is from 1 to 10.
<i>number-pattern</i>	Pattern to match the incoming telephone number. This pattern may include wildcards.
to	Connects the tag number pattern to the alternate number.
<i>alternate-number</i>	Alternate telephone number to route incoming calls to match the number pattern. This has to be a specific extension that belongs to an IP phone active registered on the Cisco SRST router.
preference	(Optional) Assigns a dial-peer preference value to the alias.
<i>preference-value</i>	(Optional) Preference value of the associated dial peer from 0 to 10.
huntstop	(Optional) Stops call hunting after trying the <i>alternate-number</i> .

Defaults

No default behavior or values.

Command Modes

Call-manager-fallback configuration

Command History

Cisco IOS Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers. The preference keyword was added.

Usage Guidelines

The **alias** command provides a mechanism for rerouting calls to telephone numbers that are unavailable during fallback. An alias is activated when extension numbers are registered that fall within the range of the command's *alternate-number* argument.

The **alias** command supports all port types.

You can use a **to** *alternate-number* value once only. You can not put the same **to** *alternate-number* value into multiple **alias** command statements.

Examples

In the following example, alias 1 is configured to route calls to extensions 6000 through 6099 to extension 5001 using a dial-peer with a preference value of 2. Extensions 6000 through 6099 are a subset of IP phones without fallback service. During fallback, calls to these extension are routed to 5001.

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# alias 1 60.. to 5001 preference 2
```

Related Commands

Command	Description
call-manager-fallback	Enables Cisco SRST feature support and enters call-manager-fallback configuration mode.
default-destination	Assigns a default destination number for incoming telephone calls on the Cisco SRST router.

call-forward busy

To configure call forwarding to another number when a Cisco IP phone is busy, use the **call-forward busy** command in CallManager fallback configuration mode. To disable call forwarding, use the **no** form of this command.

call-forward busy *directory-number*

no call-forward busy [*directory-number*]

Syntax Description

<i>directory-number</i>	Selected directory number representing a fully qualified E.164 number. This number can contain "." wildcard characters that correspond to the right-justified digits in the directory number extension.
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Defaults

No default behavior or values.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **call-forward busy** command configures call forwarding to another number when a Cisco IP phone is busy. The call forwarding mechanism is applied globally to all phones that register during fallback.

Examples

The following example forwards calls to extension number 5005 when an incoming call reaches a busy IP phone extension number:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# call-forward busy 5005
```

The following example forwards calls to any available extension number in the 50xx bank of extensions when an incoming call reaches a busy IP phone extension number:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# call-forward busy 50..
```

**Note**

You can forward an incoming VoIP call only to destination numbers local to the router. VoIP calls can not be forwarded to an alternate (on-net) VoIP destination.

Related Commands

Command	Description
call-forward noan	Configures call-forwarding to another number when no answer is received from the Cisco IP phone.
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

call-forward noan

To configure call forwarding to another number when no answer is received from a Cisco IP phone, use the **call-forward noan** command in CallManager fallback configuration mode. To disable call forwarding, use the **no** form of this command.

call-forward noan *directory-number* **timeout** *seconds*

no call-forward noan [*directory-number*]

Syntax Description

<i>directory-number</i>	Selected directory number. Represents a fully qualified E.164 number. This number can contain "." wildcard characters that correspond to the right-justified digits in the directory number extension.
timeout	Ring no answer timeout duration. It is the waiting time before the call is forwarded to another phone. The time is set in seconds.
<i>seconds</i>	Time (in seconds) before call forwarding starts. The range is from 3 to 60,000 seconds.

Defaults

No default behavior or values.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **call-forward noan** command configures call forwarding to another number when no answer is received from a Cisco IP phone. The call-forwarding mechanism is applied globally to all phones that register during fallback. The **timeout** keyword sets the waiting time before the call is forwarded to another phone. The time is set in seconds. The range is from 3 to 60,000 seconds.

Examples

The following example shows how to set call forwarding of incoming calls to directory number 5005 when line 1, directory number 5001, does not answer. The **timeout** before the call is forwarded to the directory number 5005 is set for 10 seconds:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# call-forward noan 5005 timeout 10
```

The following example shows how to set call forwarding of incoming calls to an available extension in the 50xx bank of extensions when line 1, directory number 5001, does not answer. The timeout period before the call is forwarded to the directory number 5005 is set for 10 seconds:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# call-forward noan 50.. timeout 10
```

**Note**

An incoming VoIP call can be forwarded only to destination numbers local to the router. VoIP calls cannot be forwarded to an alternate (on-net) VoIP destination.

Related Commands

Command	Description
call-forward busy	Configures call forwarding to another number when a Cisco IP phone is busy.
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

call-manager-fallback

To enable SRS Telephony support and enter CallManager fallback configuration mode, use the **call-manager-fallback** command in global configuration mode. To disable SRS Telephony support, use the **no** form of this command.

call-manager-fallback

no call-manager-fallback

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values.

Command Modes Global configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Examples The following example shows how to enter the CallManager fallback configuration mode:

```
Router(config)# call-manager-fallback
```

The resulting router prompt is Router(config-cm-fallback)#.

Related Commands	Command	Description
	access-code	Configures trunk access codes for each type of line so that the Cisco IP phones can access the trunk lines.
	alias	Provides a mechanism for servicing calls to telephone numbers that are unavailable during CallManager fallback.
	call-forward busy	Configures call forwarding to another number when a Cisco IP phone is busy.
	call-forward noan	Configures call forwarding to another number when no answer is received from a Cisco IP phone.
	cor	Configures COR on the dial peers associated with directory numbers.
	default-destination	Assigns a default destination number for incoming telephone calls.
	dialplan-pattern	Creates a global prefix that can be used to expand the abbreviated extension numbers into fully qualified E.164 numbers.
	huntstop	Sets huntstop for the dial peers associated with a Cisco IP phone lines.
	ip source-address	Enables the router to receive messages from a Cisco IP phones through the specified IP addresses and ports.
	keepalive	Configures the time interval between sending keepalive messages to the router used by a Cisco IP phones.
	max-dn	Sets the maximum number of directory numbers or virtual voice ports that can be supported by the router.
	max-ephone	Configures the maximum number of Cisco IP phones that can be supported by the router.
	reset	Resets a Cisco IP phones.
	timeouts interdigit	Configures the interdigit timeout value for all Cisco IP phones attached to the router.
	transfer-pattern	Allows transfer of telephone calls by Cisco IP phones to other phone numbers.
	translate	Applies a translation rule to modify the phone number dialed by any Cisco IP phone user during the CallManager fallback mode.
	voicemail	Configures the telephone number that is speed-dialed when the message button on a Cisco IP phone is pressed.

cor

To configure a class of restriction (COR) on the dial peers associated with directory numbers, use the **cor** command in call-manager-fallback configuration mode. To disable COR associated with directory numbers, use the **no** form of this command.

```
cor {incoming | outgoing} cor-list-name {cor-list-number starting-number - ending-number |
default}
```

```
no cor cor-list-name cor-list-number
```

Syntax Description		
incoming		COR list to be used by incoming dial peers.
outgoing		COR list to be used by outgoing dial peers.
<i>cor-list-name</i>		COR list name.
<i>cor-list-number</i>		COR list identifier. The maximum number of COR lists that can be created is six, comprised of incoming or outgoing dial peers. The first six COR lists are applied to a range of directory numbers. The directory numbers that do not have a COR configuration are assigned to the default COR list, providing a default COR list has been defined.
<i>starting-number - ending-number</i>		Directory number range; for example, 2000 - 2025.
default		Instructs the COR list to assume behavior according to a predefined default COR list.

Defaults No default behavior or values.

Command Modes Call-manager-fallback configuration

Command History	Cisco IOS Release	Modification
	12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers. The default keyword was added.

Usage Guidelines The **cor** command sets the dial-peer COR parameter for dial peers associated with the directory numbers created during Cisco CallManager fallback. A list-based mechanism is provided to assign COR to specific sets of directory numbers during Cisco CallManager fallback. The COR functionality provides the ability to deny certain call attempts on the basis of the incoming and outgoing class of restrictions

provisioned on the dial peers. This functionality provides flexibility in network design, allows users to block calls (for example, calls to 900 numbers), and applies different restrictions to call attempts from different originators.

COR is used to specify which incoming dial peer can use which outgoing dial peer to make a call. Each dial peer can be provisioned with an incoming and an outgoing COR list.

A default COR is assigned to the directory numbers that do not match any COR list number or number range. The assigned COR is invoked for the dial peers automatically created for each directory number during Cisco CallManager fallback registration.

You can have up to 20 COR lists for each incoming and outgoing calls. A default COR is assigned to directory numbers that do not match any COR list numbers or number ranges. An assigned COR is invoked for the dial peers and created for each directory number automatically during CallManager fallback registration.

If a COR is applied on an incoming dia-peer (for incoming calls) and it is a super set or equal to the COR applied to the outgoing dial peer (for outgoing calls), the call will go through. Voice ports determine whether a call is considered to be incoming or outgoing. If you hook up a phone to an FXS port on an Cisco SRST router and try to make a call from that phone, the call will be considered to be an incoming call to the router and voice port. If you make a call to the FXS phone, then the call will be considered to be outgoing.

By default, an incoming call leg has the highest COR priority. The outgoing COR list has the lowest. If there is no COR configuration for incoming calls on a dial peer, then you can make a call from a phone attached to the dial-peer, so that the call will go out of any dial peer regardless of the COR configuration on that dial peer.

Table 1 Combinations of COR List and Results

COR List on Incoming Dial Peer	COR List on Outgoing Dial Peer	Result
No COR	No COR	Call will succeed.
No COR	COR list applied for outgoing calls	Call will succeed. By default, the incoming dial peer has the highest COR priority when no COR is applied. If you apply no COR for an incoming call leg to a dial peer, then the dial peer can make a call out of any other dial peer regardless of the COR configuration on the outgoing dial peer.
COR list applied for incoming calls	No COR	Call will succeed. By default, the outgoing dial peer has the lowest priority. Because there are some COR configurations for incoming calls on the incoming or originating dial peer, it is a superset of the outgoing call's COR configuration for the outgoing or terminating dial peer.
COR list applied for incoming calls (super set of COR list applied for outgoing calls on the outgoing dial peer)	COR list applied for outgoing calls (subsets of COR list applied for incoming calls on the incoming dial peer)	Call will succeed. The COR list for incoming calls on the incoming dial-peer is a superset of COR list for outgoing calls on the outgoing dial peer
COR list applied for incoming calls (sub set of COR list applied for outgoing calls on the outgoing dial peer)	COR list applied for outgoing calls (supersets of COR list applied for incoming calls on the incoming dial peer)	Call will not succeed. The COR list for incoming calls on the incoming dial peer is not a superset of the COR list for outgoing calls on the outgoing dial peer.

Examples

The following example shows how to set the dial-peer COR parameter for incoming calls to Cisco IP phone dial peers and directory numbers created during Cisco CallManager fallback:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# cor incoming LockforPhoneC 1 5002 - 5010
```

The following example shows how to set the dial-peer COR parameter for outgoing calls to the Cisco IP phone dial peers and directory numbers created during fallback:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# cor outgoing LockforPhoneC 1 5010 - 5020
```

The following example shows how to set the dial-peer COR parameter for incoming calls to the Cisco IP phone dial peers and directory numbers in the default COR list:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# cor outgoing LockforPhoneC default
```

The following example shows how sub- and super-COR sets are created. First, a custom dial-peer COR is created with names declared under it:

```
Router(config)# dial-peer cor custom
Router(config-dp-cor)# name 911
Router(config-dp-cor)# name 1800
Router(config-dp-cor)# name 1900
Router(config-dp-cor)# name local_call
```

In the following configuration examples, COR lists are created and applied to the dial peer.

```
Router(config)# dial-peer cor list call911
Router(config-dp-corlist)# member 911
```

```
Router(config)# dial-peer cor list call1800
Router(config-dp-corlist)# member 1800
```

```
Router(config)# dial-peer cor list call1900
Router(config-dp-corlist)# member 1900
```

```
Router(config)# dial-peer cor list calllocal
Router(config-dp-corlist)# member local_call
```

```
Router(config)# dial-peer cor list engineering
Router(config-dp-corlist)# member 911
Router(config-dp-corlist)# member local_call
```

```
Router(config)# dial-peer cor list manager
Router(config-dp-corlist)# member 911
Router(config-dp-corlist)# member 1800
Router(config-dp-corlist)# member 1900
Router(config-dp-corlist)# member local_call
```

```
Router(config)# dial-peer cor list hr
Router(config-dp-corlist)# member 911
Router(config-dp-corlist)# member 1800
Router(config-dp-corlist)# member local_call
```

In the example below five dial-peers are configured for destination numbers 734....., 1800....., 1900....., 316....., and 911. A COR list is applied to each of the dial peers.

```
Router(config)# dial-peer voice 1 voip
Router(config-dial-peer)# destination pattern 734...
Router(config-dial-peer)# session target ipv4:1.1.1.1
Router(config-dial-peer)# cor outgoing calllocal
```

```

Router(config)# dial-peer voice 2 voip
Router(config-dial-peer)# destination pattern 1800.....
Router(config-dial-peer)# session target ipv4:1.1.1.1
Router(config-dial-peer)# cor outgoing call1800

Router(config)# dial-peer voice 3 pots
Router(config-dial-peer)# destination pattern 1900.....
Router(config-dial-peer)# port 1/0/0
Router(config-dial-peer)# cor outgoing call1900

Router(config)# dial-peer voice 4 pots
Router(config-dial-peer)# destination pattern 911
Router(config-dial-peer)# port 1/0/1
Router(config-dial-peer)# cor outgoing call911

Router(config)# dial-peer voice 5 pots
Router(config-dial-peer)# destination pattern 316...
Router(config-dial-peer)# port 1/1/0 ; No cor is applied.

```

Finally, the COR list is applied to the individual phone numbers.

```

Router(config)# call-manager-fallback
Router(config-cm-fallback)# max-conferences 8
Router(config-cm-fallback)# cor incoming engineering 1 1001 - 1001
Router(config-cm-fallback)# cor incoming hr 2 1002 - 1002
Router(config-cm-fallback)# cor incoming manager 3 1003 - 1008

```

The example configuration allows for the following:

- Extension 1001 to call 408... numbers, 911 and 316....
- Extension 1002 to call 408..., 1800 numbers, 911 and 316....
- Extension 1003 through 1008 to call all of the possible Cisco SRST router numbers
- All extensions to call 316....

Related Commands

Command	Description
call-manager-fallback	Enables Cisco SRST feature support and enters call-manager-fallback configuration mode.
corlist-incoming	Specifies the COR list to be used when a specified dial peer acts as the incoming dial peer.
corlist-outgoing	Specifies the COR list to be used by outgoing dial peers.
dial-peer cor list	Defines a COR list name.

date-format

To set the date display format on all the Cisco IP phones attached to the router, use the **date-format** command in CallManager fallback configuration mode. To display the date in the default format, use the **no** form of this command.

```
date-format {mm-dd-yy | dd-mm-yy}
```

```
no date-format {mm-dd-yy | dd-mm-yy}
```

Syntax Description

mm-dd-yy	Sets to month, day, and year. Each slot needs a two-digit number. This format is the default setting.
dd-mm-yy	Sets to day, month, and year. Each slot needs a two-digit number.

Defaults

The default is **mm-dd-yy**.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.2(4)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **date-format** command sets the date display format on all the Cisco IP phones attached to the router.

Examples

The following example sets the date format to date, month, and year for all affected Cisco IP phones:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# date-format dd-mm-yy
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

debug ephone alarm

To set SkinnyStation alarm messages debugging for the Cisco IP phone, use the **debug ephone alarm** debug command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

```
debug ephone alarm [mac-address mac-address]
```

```
no debug ephone alarm [mac-address mac-address]
```

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series, and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone alarm** command shows all the SkinnyStation alarm messages sent by the Cisco IP phone. Under normal circumstances, this message is sent by the Cisco IP phone just before it registers, and has the severity level for the alarm set to “Informational” and contains the reason for the phone reboot or re-register. This type of message is entirely benign and does not indicate an error condition.

If the **mac-address** keyword is not used, the **debug ephone alarm** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers associated with the Cisco IP phone.

Examples

The following example shows a SkinnyStation alarm message that is sent before the Cisco IP phone registers:

```
Router# debug ephone alarm
```

```

phone keypad reset
CM-closed-TCP
CM-bad-state

```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone error	Sets error debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone state	Sets state debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone detail

To set detail debugging for the Cisco IP phone, use the **debug ephone detail** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

debug ephone detail [**mac-address** *mac-address*]

no debug ephone detail [**mac-address** *mac-address*]

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone detail** command includes the error and state levels.

If the **mac-address** keyword is not used, the **debug ephone detail** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Examples

The following is sample output of detail debugging of the Cisco IP phone with MAC address 0030.94c3.8724. The sample is an excerpt of some of the activities that take place during call setup, connected state, active call, and the call getting disconnected:

```
Router# debug ephone detail mac-address 0030.94c3.8724
```

```
Ephone detail debugging is enabled

1d04h: ephone-1[1]:OFFHOOK
.
.
1d04h: Skinny Call State change for DN 1 SIEZE
.
.
1d04h: ephone-1[1]:SetCallState line 1 DN 1 TsOffHook
.
.
1d04h: ephone-1[1]:SetLineLamp 1 to ON
.
.
1d04h: ephone-1[1]:KeypadButtonMessage 5
.
.
1d04h: ephone-1[1]:KeypadButtonMessage 0
.
.
1d04h: ephone-1[1]:KeypadButtonMessage 0
.
.
1d04h: ephone-1[1]:KeypadButtonMessage 2
.
.
1d04h: ephone-1[1]:Store ReDial digit: 5002
.
SkinnyTryCall to 5002 instance 1
.
.
1d04h: ephone-1[1]:Store ReDial digit: 5002
1d04h: ephone-1[1]:
SkinnyTryCall to 5002 instance 1
.
.
1d04h: Skinny Call State change for DN 1 ALERTING
.
.
1d04h: ephone-1[1]:SetCallState line 1 DN 1 TsRingOut
.
.
1d04h: ephone-1[1]:SetLineLamp 1 to ON
1d04h: SetCallInfo calling dn 1 dn 1
calling [5001] called [5002]
.
.
1d04h: ephone-1[1]: party1 calling
1d04h: ephone-1[1]: party2
.
.
1d04h: SkinnyUpdateDnState by EFXS_RING_GENERATE
for DN 2 to state RINGING
.
.
1d04h: SkinnyGetCallState for DN 2 CONNECTED
.
.
1d04h: ephone-1[1]:SetLineLamp 3 to ON
1d04h: ephone-1[1]:UpdateCallState DN 1 state 4 calleddn 2
.
.
1d04h: Skinny Call State change for DN 1 CONNECTED
.
```

```

.
1d04h: ephone-1[1]:OpenReceive DN 1 codec 4:G711Ulaw64k duration 10 ms bytes 80
.
.
1d04h: ephone-1[1]:OpenReceiveChannelAck 1.2.172.21 port=20180
1d04h: ephone-1[1]:Outgoing calling DN 1 Far-ephone-2 called DN 2
1d04h: SkinnyGetCallState for DN 1 CONNECTED
.
.
1d04h: ephone-1[1]:SetCallState line 3 DN 2 TsOnHook
.
.
1d04h: ephone-1[1]:SetLineLamp 3 to OFF
.
.
1d04h: ephone-1[1]:SetCallState line 1 DN 1 TsOnHook
.
.
1d04h: ephone-1[1]:Clean Up Speakerphone state
1d04h: ephone-1[1]:SpeakerPhoneOnHook
1d04h: ephone-1[1]:Clean up activeline 1
1d04h: ephone-1[1]:StopTone sent to ephone
1d04h: ephone-1[1]:Clean Up phone offhook state
1d04h: SkinnyGetCallState for DN 1 IDLE
1d04h: called DN -1, calling DN -1 phone -1
1d04h: ephone-1[1]:SetLineLamp 1 to OFF
1d04h: UnBinding ephone-1 from DN 1
1d04h: UnBinding called DN 2 from DN 1
1d04h: ephone-1[1]:ONHOOK
1d04h: ephone-1[1]:SpeakerPhoneOnHook
1d04h: ephone-1[1]:ONHOOK NO activeline
.
.
.

```

Related Commands

Command	Description
debug ephone error	Sets error debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone state	Sets state debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone error

To set error debugging for the Cisco IP phone, use the **debug ephone error** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

debug ephone error [**mac-address** *mac-address*]

no debug ephone error [**mac-address** *mac-address*]

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug phone error** command cancels debugging at the detail and state level. This command is used to detect significant internal errors.

If the **mac-address** keyword is not used, the **debug ephone error** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Examples

The following is sample output of error debugging for the Cisco IP phone with MAC address 0030.94c3.8724:

```
Router# debug ephone error mac-address 0030.94c3.8724
```

■ debug ephone error

```
EPHONE error debugging is enabled
```

```
socket [2] send ERROR 11
Skinny Socket [2] retry failure
```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone state	Sets state debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone keepalive

To set keepalive debugging for the Cisco IP phone, use the **debug ephone keepalive** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

```
debug ephone keepalive [mac-address mac-address]
```

```
no debug ephone keepalive [mac-address mac-address]
```

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone keepalive** command sets keepalive debugging.

If the **mac-address** keyword is not used, the **debug ephone keepalive** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Examples

The following is sample output of the keepalive status for the Cisco IP phone with MAC address 0030.94C3.E1A8:

```
Router# debug ephone keepalive mac-address 0030.94c3.E1A8
```

```
EPHONE keepalive debugging is enabled for phone 0030.94C3.E1A8
```

debug ephone keepalive

```

1d05h: ephone-1 Set interface FastEthernet0/0  ETHERNET
1d05h: ephone-1[1]:Keepalive socket[1] SEP003094C3E1A8
1d05h: ephone-1 Set interface FastEthernet0/0  ETHERNET
1d05h: ephone-1[1]:Keepalive socket[1] SEP003094C3E1A8
1d05h: Skinny Checking for stale sockets
1d05h: ephone-1 Set interface FastEthernet0/0  ETHERNET
1d05h: ephone-1[1]:Keepalive socket[1] SEP003094C3E1A8
1d05h: ephone-1 Set interface FastEthernet0/0  ETHERNET
1d05h: ephone-1[1]:Keepalive socket[1] SEP003094C3E1A8
1d05h: Skinny active socket list (3/96):  1 2 4

```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone error	Sets error debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone state	Sets state debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone pak

To provide voice packet level debugging and to print the contents of one voice packet in every 1024 voice packets, use the **debug ephone pak** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

debug ephone pak [**mac-address** *mac-address*]

no debug ephone pak [**mac-address** *mac-address*]

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.\
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone pak** command provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.

If the **mac-address** keyword is not used, the **debug ephone pak** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Examples

The following is sample output of packet debugging for the Cisco IP phone with MAC address 0030.94c3.8724:

```
Router# debug ephone pak mac-address 0030.94c3.8724
```

```

EPHONE packet debugging is enabled

01:29:14: ***ph_xmit_ephone DN 3 tx_pkts 5770 dest=10.2.1.1 orig len=32
  pakcopy=0 discards 27 ip_enctype 0 0 last discard: unsupported payload type
01:29:14: to_skinny_duration 130210 offset -30 last -40 seq 0 adj 0
01:29:14: IP: 45B8 003C 0866 0000 3F11 3F90 2800 0001 0A02 0101
01:29:14: TTL 63 TOS B8 prec 5
01:29:14: UDP: 07D0 6266 0028 0000
01:29:14: sport 2000 dport 25190 length 40 checksum 0
01:29:14: RTP: 8012 16AF 9170 6409 0E9F 0001
01:29:14: is_rtp:1 is_frfl1:0 vlen:0 delta_t:160 vofr1:0 vofr2:0
scodec:11 rtp_bits:8012 rtp_codec:18 last_bad_payload 19
01:29:14: vencap FAILED
01:29:14: PROCESS SWITCH
01:29:15: %SYS-5-CONFIG_I: Configured from console by console
01:29:34: ***SkinnyPktIp DN 3 10.2.1.1 to 40.0.0.1 pkts 4880 FAST sw
01:29:34: from_skinny_duration 150910
01:29:34: nw 3BBC2A8 addr 3BBC2A4 mac 3BBC2A4 dg 3BBC2C4 dgs 2A
01:29:34: MAC: 1841 0800
01:29:34: IP: 45B8 0046 682E 0000 3E11 E0BD 0A02 0101 2800 0001
01:29:34: TTL 62 TOS B8 prec 5
01:29:34: UDP: 6266 07D0 0032 0000
01:29:34: sport 25190 dport 2000 length 50 checksum 0
01:29:34: RTP: 8012 55FF 0057 8870 3AF4 C394
01:29:34: RTP: rtp_bits 8012 seq 55FF ts 578870 ssrc 3AF4C394
01:29:34: PAYLOAD:
01:29:34: 1409 37C9 54DE 449C 3B42 0446 3AAB 182E
01:29:34: 56BC 5184 58E5 56D3 13BE 44A7 B8C4
01:29:34:
01:29:37: ***ph_xmit_ephone DN 3 tx_pkts 6790 dest=10.2.1.1 orig len=32
  pakcopy=0 discards 31 ip_enctype 0 0 last discard: unsupported payload type
01:29:37: to_skinny_duration 153870 offset -150 last -40 seq 0 adj 0
01:29:37: IP: 45B8 003C 0875 0000 3F11 3F81 2800 0001 0A02 0101
01:29:37: TTL 63 TOS B8 prec 5
01:29:37: UDP: 07D0 6266 0028 0000
01:29:37: sport 2000 dport 25190 length 40 checksum 0
01:29:37: RTP: 8012 1AAF 9173 4769 0E9F 0001
01:29:37: is_rtp:1 is_frfl1:0 vlen:0 delta_t:160 vofr1:0 vofr2:0

```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone error	Sets error debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone state	Sets state debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone raw

To provide raw low-level protocol debugging display for all Skinny Client Control Protocol messages, use the **debug ephone raw** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

debug ephone raw [**mac-address** *mac-address*]

no debug ephone raw [**mac-address** *mac-address*]

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone raw** command provides raw low-level protocol debug display for all Skinny Client Control Protocol messages. The debug display provides byte level display of Skinny TCP socket messages.

If the **mac-address** keyword is not used, the **debug ephone raw** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Examples

The following is sample output of raw protocol debugging for the Cisco IP phone with MAC address 0030.94C3.E1A8:

debug ephone raw

```

Router# debug ephone raw mac-address 0030.94c3.E1A8

EPHONE raw protocol debugging is enabled for phone 0030.94C3.E1A8

1d05h: skinny socket received 4 bytes on socket [1]
0 0 0 0
1d05h:
1d05h: SkinnyMessageID = 0
1d05h: skinny send 4 bytes
4 0 0 0 0 0 0 0 0 1 0 0
1d05h: socket [1] sent 12 bytes OK (incl hdr) for ephone-(1)

1d06h: skinny socket received 4 bytes on socket [1]
0 0 0 0
1d06h:
1d06h: SkinnyMessageID = 0
1d06h: skinny send 4 bytes
4 0 0 0 0 0 0 0 0 1 0 0
1d06h: socket [1] sent 12 bytes OK (incl hdr) for ephone-(1)

```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone error	Sets error debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone state	Sets state debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone register

To set registration debugging for the Cisco IP phone, use the **debug ephone register** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

debug ephone register [**mac-address** *mac-address*]

no debug ephone register [**mac-address** *mac-address*]

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone register** command sets registration debugging for the Cisco IP phones.

If the **mac-address** keyword is not used, the **debug ephone register** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Syntax Description

The following is sample output of registration debugging for the Cisco IP phone with MAC address 0030.94c3.8724:

```
Router# debug ephone register mac-address 0030.94c3.8724

Ephone registration debugging is enabled
```

debug ephone register

```

1d06h: New Skinny socket accepted [1] (2 active)
1d06h: sin_family 2, sin_port 50778, in_addr 10.1.0.21
1d06h: skinny_add_socket 1 10.1.0.21 50778
1d06h: ephone-(1)[1] StationRegisterMessage (2/3/12) from 10.1.0.21
1d06h: ephone-(1)[1] Register StationIdentifier DeviceName SEP003094C3E1A8
1d06h: ephone-(1)[1] StationIdentifier Instance 1 deviceType 7
1d06h: ephone-1[-1]:stationIpAddr 10.1.0.21
1d06h: ephone-1[-1]:maxStreams 0
1d06h: ephone-(1) Allow any Skinny Server IP address 10.1.0.6
.
.
1d06h: ephone-1[1]:RegisterAck sent to ephone 1: keepalive period 30
.
.

```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone error	Sets error debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages
debug ephone state	Sets state debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone state

To set state debugging for the Cisco IP phone, use the **debug ephone state** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

debug ephone state [**mac-address** *mac-address*]

no debug ephone state [**mac-address** *mac-address*]

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone state** command sets state debugging for the Cisco IP phones.

If the **mac-address** keyword is not used, the **debug ephone state** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Examples

The following is sample output of state debugging for the Cisco IP phone with MAC address 0030.94c3.E1A8:

```
Router# debug ephone state mac-address 0030.94c3.E1A8

EPHONE state debugging is enabled for phone 0030.94C3.E1A8
```

debug ephone state

```

1d06h: ephone-1[1]:OFFHOOK
1d06h: ephone-1[1]:SIEZE on activeline 0
1d06h: ephone-1[1]:SetCallState line 1 DN 1 TsOffHook
1d06h: ephone-1[1]:Skinny-to-Skinny call DN 1 to DN 2 instance 1
1d06h: ephone-1[1]:SetCallState line 1 DN 1 TsRingOut
1d06h: ephone-1[1]:Call Info DN 1 line 1 ref 158 called 5002 calling 5001
1d06h: ephone-1[1]: Jane calling
1d06h: ephone-1[1]: Jill
1d06h: ephone-1[1]:SetCallState line 3 DN 2 TsRingIn
1d06h: ephone-1[1]:Call Info DN 2 line 3 ref 159 called 5002 calling 5001
1d06h: ephone-1[1]: Jane calling
1d06h: ephone-1[1]: Jill
1d06h: ephone-1[1]:SetCallState line 3 DN 2 TsCallRemoteMultiline
1d06h: ephone-1[1]:SetCallState line 1 DN 1 TsConnected
1d06h: ephone-1[1]:OpenReceive DN 1 codec 4:G711Ulaw64k duration 10 ms bytes 80
1d06h: ephone-1[1]:OpenReceiveChannelAck 1.2.172.21 port=24010
1d06h: ephone-1[1]:StartMedia 1.2.172.22 port=24612
1d06h: DN 1 codec 4:G711Ulaw64k duration 10 ms bytes 80
1d06h: ephone-1[1]:CloseReceive
1d06h: ephone-1[1]:StopMedia
1d06h: ephone-1[1]:SetCallState line 3 DN 2 TsOnHook
1d06h: ephone-1[1]:SetCallState line 1 DN 1 TsOnHook
1d06h: ephone-1[1]:SpeakerPhoneOnHook
1d06h: ephone-1[1]:ONHOOK
1d06h: ephone-1[1]:SpeakerPhoneOnHook
1d06h: SkinnyReportDnState DN 1 ONHOOK

```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone error	Sets ephone debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages.
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone statistics	Sets statistics debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

debug ephone statistics

To set call statistics debugging for the Cisco IP phone, use the **debug ephone statistics** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

```
debug ephone statistics [mac-address mac-address]
```

```
no debug ephone statistics [mac-address mac-address]
```

Syntax Description

mac-address	(Optional) Defines the MAC address of the Cisco IP phone.
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **debug ephone statistics** command provides a debug monitor display of the periodic messages from the Cisco IP phone to the router. These include transmit-and-receive packet counts and an estimate of drop packets. The call statistics can also be displayed for live calls using the **show ephone** command.

If the **mac-address** keyword is not used, the **debug ephone statistics** debug command debugs all Cisco IP phones that are registered to the router. You can remove debugging for the Cisco IP phones that you do not want to debug by using the **mac-address** keyword with the **no** form of this command.

Debugging can be enabled or disabled on any number of Cisco IP phones. The Cisco IP phones that have debugging enabled can be seen by entering the **show ephone** command and looking at the debug field in the output. When debugging is enabled for a Cisco IP phone, the debug output is displayed for any Cisco IP phone directory numbers or virtual voice ports associated with the Cisco IP phone.

Examples

The following is sample output of statistics debugging for the Cisco IP phone with MAC address 0030.94C3.E1A8:

```
Router# debug ephone statistics mac-address 0030.94C3.E1A8
```

```

EPHONE statistics debugging is enabled for phone 0030.94C3.E1A8

1d06h: Clear Call Stats for DN 1 call ref 162
1d06h: Clear Call Stats for DN 1 call ref 162
1d06h: Clear Call Stats for DN 1 call ref 162
1d06h: Clear Call Stats for DN 2 call ref 163
1d06h: ephone-1[1]:GetCallStats line 1 ref 162 DN 1: 5001
1d06h: ephone-1[1]:Call Stats for line 1 DN 1 5001 ref 162
1d06h: ephone-1[1]:TX Pkts 0 bytes 0 RX Pkts 0 bytes 0
1d06h: ephone-1[1]:Pkts lost 4504384 jitter 0 latency 0
1d06h: ephone-1[1]:Src 0.0.0.0 0 Dst 0.0.0.0 0 bytes 80 vad 0 G711Ulaw64k
1d06h: ephone-1[1]:GetCallStats line 1 ref 162 DN 1: 5001
1d06h: STATS: DN 1 Packets Sent 0
1d06h: STATS: DN 2 Packets Sent 0
1d06h: ephone-1[1]:Call Stats found DN -1 from Call Ref 162
1d06h: ephone-1[1]:Call Stats for line 0 DN -1 5001 ref 162
1d06h: ephone-1[1]:TX Pkts 275 bytes 25300 RX Pkts 275 bytes 25300
1d06h: ephone-1[1]:Pkts lost 0 jitter 0 latency 0

```

Related Commands

Command	Description
debug ephone detail	Sets detail debugging for the Cisco IP phone.
debug ephone error	Sets error debugging for the Cisco IP phone.
debug ephone keepalive	Sets keepalive debugging for the Cisco IP phone.
debug ephone pak	Provides voice packet level debugging and prints the contents of one voice packet in every 1024 voice packets.
debug ephone raw	Provides raw low-level protocol debugging display for all Skinny Client Control Protocol messages.
debug ephone register	Sets registration debugging for the Cisco IP phone.
debug ephone state	Sets state debugging for the Cisco IP phone.
show debugging	Displays information about the types of debugging that are enabled for your router.

default-destination

To assign a default destination number for routing incoming telephone calls to IP phones on the SRS Telephony router that can not go to fallback mode, use the **default-destination** command in CallManager fallback configuration mode. To delete the default destination number on the SRS Telephony router, use the **no** form of this command.

default-destination *phone-number*

no default-destination *phone-number*

Syntax Description

<i>phone-number</i>	Telephone number of the default destination.
---------------------	--

Defaults

No default behavior or values.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **default-destination** command assigns default destination number for calls that cannot be reached in the fallback mode. For example, if 100 phones are connected to a Cisco router configured with Cisco SRT Telephony and the WAN link fails, then only the maximum allowed number of the phones for each platform can fall back to the router. The remaining phones are not reachable during the fallback mode. All calls to these phones will be directed to the number configured by the **default-destination** command.

Examples

The following example sets the default destination to 40802:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# default-destination 40802
```

default-destination**Related Commands**

Command	Description
alias	Provides a mechanism for servicing calls to telephone numbers that are unavailable during CallManager fallback.
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

dialplan-pattern

To create a global prefix that can be used to expand the extension numbers of inbound and outbound calls into fully qualified E.164 numbers, use the **dialplan-pattern** command in call-manager-fallback configuration mode. To disable the **dialplan-pattern** command settings, use the **no** form of this command.

```
dialplan-pattern tag pattern extension-length extension-length [extension-pattern
extension-pattern] [no-reg]
```

```
no dialplan-pattern tag [pattern extension-length extension-length extension-pattern
extension-pattern] [no-reg]
```

Syntax Description		
	<i>tag</i>	Dial-plan string tag used before a ten-digit telephone number. The tag number is from 1 to 5.
	<i>pattern</i>	Dial-plan pattern, such as the area code, the prefix, and the first one or two digits of the extension number, plus wild card markers or dots (.) for the remainder of the extension number digits.
	extension-length	Sets the number of extension digits that will appear as a caller ID.
	<i>extension-length</i>	The number of extension digits. The extension length must match the setting for IP phones in Cisco CallManager mode. The range is from 1 to 32.
	extension-pattern	(Optional) Sets an extension number's leading digit pattern when it is different from the E.164 telephone number's leading digits defined in the <i>pattern</i> variable.
	<i>extension-pattern</i>	(Optional) The extension number's leading digit pattern. Consists of one or more digits and wild card markers or dots (.). For example, 5.. would include extension 500 to 599, 5... would include 5000 to 5999. The extension pattern must match the setting for IP phones in Cisco CallManager mode.
	no-reg	(Optional) Prevents the E.164 numbers in the dial peer from registering with the gatekeeper.

Defaults No default behavior or values

Command Modes Call-manager-fallback configuration

Command History	Cisco IOS Release	Modification
	12.1(5)YD	This command was introduced on the Cisco 2600 series and Cisco 3600 series multiservice routers, and on the Cisco IAD2420 series.
	12.2(2)XT	This command was implemented on the Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.

Cisco IOS Release	Modification
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.
12.2(11)YT	The extension-pattern keyword was added.

Usage Guidelines

The **dialplan-pattern** command builds additional dial peers. For example, if a hidden Plain Old Telephone System (POTS) dial peer is created, such as the following:

```
Router(config)# dial-peer voice 20001 pots
Router(config-dial-peer)# destination-pattern 1001
Router(config-dial-peer)# voice-port 50/0/2
```

and a dial-plan pattern is created, such as 40855510., then an additional dial peer will be created that allows calls to both the 1001 and 4085551001 numbers. For example:

```
Router(config)# dial-peer voice 20002 pots
Router(config-dial-peer)# destination-pattern 4085551001
Router(config-dial-peer)# voice-port 50/0/2
```

Both dial peers can be seen with the **show dial-peer** command.

The **dialplan-pattern** command also creates a global prefix that can be used by inbound calls (calls to an IP phone in a Cisco SRST system) and outbound calls (calls made from an IP phone in a Cisco SRST system) to expand their extension numbers to fully qualified E.164 numbers.

For inbound calls (calls to an IP phone in a Cisco SRST system) where the calling party number matches the dial-plan pattern, the call is considered a local call and has a distinctive ring that identifies the call as internal. Any calling party number that does not match the dial-plan pattern is considered an external call and has a distinctive ring that is different from the internal ringing.

For outbound calls, the **dialplan-pattern** command converts the calling party's extension number to an E.164 calling party number. Outbound calls that do not use an E.164 number and go through a Primary Rate Interface (PRI) connection to the Public Switched Telephony Network (PSTN), may be rejected by the PRI link as the calling party identifier.

A dial-plan pattern is required to register the Cisco IP phone lines with a gatekeeper. Directory numbers for the Cisco IP phones must match the number the *extension-length* argument. For example, if the extension length is 3, then all extension must be three numbers in length. Otherwise, the extension number cannot be converted to a qualified E.164 number.

If there are multiple patterns, called-party numbers are checked in numeric order, starting with pattern 1, until a match is found or the until last pattern has been checked. The valid dial-plan pattern with the lowest tag is used as a prefix to all local Cisco IP phones.

When **extension-pattern** *extension-length* keyword and argument are used, the leading digits of an extension pattern are stripped and replaced with the corresponding leading digits of the dial-plan. For example, the following command maps all extension numbers 4xx to the PSTN number 40855501xx, so that extension 412 corresponds to 4085550112.

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# dialplan-pattern 1 4085550100 extension-length 3
extension-pattern 4..
```

The number of *extension-pattern* argument characters must match the *extension-length* argument. For example, if the *extension-length* is three, then the *extension-pattern* can be 8., 1., 51., and so forth.

The **no-reg** keyword provides the option of not registering specific numbers to the gatekeeper so that those numbers can be used for other telephony services.

Examples

The following example shows how to create dial-plan pattern 1 for extension numbers 5000 to 5099 with a prefix of 408555. If an inbound calling party number (4085555044) matches dial-plan pattern 1, then the recipient phone will display an extension (5044) as the caller ID and use an internal ringing tone. If an outbound calling party extension number (5044) matches dial-plan pattern 1, then the calling party extension will be converted to an E.164 number (4085555044). The E.164 calling party number that will appear as the caller ID.

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# dialplan-pattern 1 40855550.. extension-length 4
extension-pattern 50..
```

In the following example the **dialplan-pattern** command creates dial-plan pattern 1 for extensions 800 to 899 with the telephone prefix starting with 4085559. As each number in the extension pattern is declared with the **number** command, two POTs dial-peers are created. In the example, they are 801 (an internal office number) and 4085579001 (an external number).

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# dialplan-pattern 1 40855590.. extension-length 3
extension-pattern 8..
```

In the following example shows a configuration for two Cisco SRST systems. Each is configured with the same **dialplan pattern** commands, but one system uses 50.. and the other uses 60.. for extension numbers. Calls from the “50..” system to the “60..” system, and vice versa, are treated as internal calls. Calls that go across a H.323 network and calls that go to a PSTN through an Integrated Service Digital Network (ISDN) interface on one of the configured Cisco SRST routers are represented as E.164.

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# dialplan-pattern 1 40855550.. extension-length 4
extension-pattern 50..
Router(config-cm-fallback)# dialplan-pattern 2 51055560.. extension-length 4
extension-pattern 60..
```

Related Commands

Command	Description
call-manager-fallback	Enables Cisco SRST support and enters call-manager-fallback configuration mode.

huntstop

To set the huntstop attribute for the dial peers associated with the Cisco IP phone dial peers created during CallManager fallback, use the **huntstop** command in CallManager fallback configuration mode. To disable huntstop, use the **no** form of this command.

huntstop

no huntstop

Syntax Description This command has no arguments or keywords.

Defaults Huntstop is enabled by default.

Command Modes CallManager fallback configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

In CallManager fallback configuration mode, the huntstop attribute by default is set uniformly to all Cisco IP phone lines (for example, to all or to none).



Note

Use the **no huntstop** command only if you want to disable huntstop.

Examples

The following example shows how to disable huntstop for all the Cisco IP phones:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# no huntstop
```

Related Commands	Command	Description
	call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.
	huntstop (dial-peer)	Disables all further dial-peer hunting if a call fails using hunt groups.

ip source-address

To enable a router to receive messages from Cisco IP phones through the specified IP addresses and ports, use the **ip source-address** command in CallManager fallback configuration mode. To disable the router from receiving messages from Cisco IP phones, use the **no** form of this command.

ip source-address *ip-address* [**port** *port*] [**any-match** | **strict-match**]

no ip source-address [*ip-address* **port** *port*] [**any-match** | **strict-match**]

Syntax Description

<i>ip-address</i>	The IP address is the preexisting router IP address, typically one of the addresses of the Ethernet port of the router.
port	(Optional) The port to which the gateway router connects to receive messages from the Cisco IP phones.
<i>port</i>	(Optional) The port number. The default port number is 2000.
any-match	(Optional) Disable strict IP address checking for registration.
strict-match	(Optional) Require strict IP address checking for registration.

Defaults

Default port number: 2000

Default server address match: **any-match**

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **ip source-address** command is a mandatory command, and the fallback subsystem does not start if the IP address is not provided. If the port number is not provided, the default value (2000) is used. The IP address is usually the IP address of the Ethernet port to which the phones are connected.

Use the **any-match** keyword to instruct the router to permit Cisco IP phone registration even when the IP server address used by the phone does not match the IP source address. This option can be used to allow registration of Cisco IP phones on different subnets that with different default Dynamic Host Configuration Protocol (DHCP) routers or different TFTP server addresses.

Use the **strict-match** keyword to instruct the router to reject Cisco IP phone registration attempts if the IP server address used by the phone does not exactly match the source address. By dividing the Cisco IP phones into groups on different subnets and giving each group different DHCP default-router or TFTP server addresses, this option can be used to restrict the number of Cisco IP phones allowed to register.

The **ip source-address** command enables a router to receive messages from Cisco IP phones through the specified IP addresses and port. If the router receives a registration request from a Cisco IP phone, the router in return requests the phone configuration and dial-plan information from the Cisco IP phone. This data is stored locally in the memory of the router and is used to create voice port and dial-plan information. The voice port and dial-plan information is used to handle telephony calls to and from the Cisco IP phone if the Cisco CallManager is unreachable.

Examples

The following example shows how to set the IP source address and port:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# ip source-address 10.6.21.4 port 2002 strict-match
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

keepalive

To configure the time interval between successive keepalive messages from Cisco IP phones, use the **keepalive** command in CallManager fallback configuration mode. To restore to the default interval, use the **no** form of this command.

keepalive *seconds*

no keepalive *seconds*

Syntax Description

seconds Keepalive message transmission interval, in seconds. The valid range is from 10 to 65535 seconds. The default timeout value is 30.

Defaults

30 seconds

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **keepalive** command configures the time interval between successive keepalive messages from Cisco IP phones to the SRS Telephony router. If the router fails to receive three successive keepalive messages, it considers the Cisco IP phone to be out of service until the phone reregisters.



Note

The **keepalive** command is applicable only after a Cisco IP phone has registered with the SRS Telephony-enabled router.

Examples

The following example sets the keepalive timeout value to 60 seconds:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# keepalive 60
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

limit-dn

To specify the maximum number of lines available on each Cisco IP phone, use the **limit-dn** command in CallManager fallback configuration mode. To return to the default setting, use the **no** form of this command.

```
limit-dn {7910 | 7940 | 7960} max-lines
```

```
no limit-dn [7910 | 7940 | 7960]
```

Syntax Description

7910	Cisco IP Phone 7910.
7940	Cisco IP Phone 7940.
7960	Cisco IP Phone 7960.
<i>max-lines</i>	Maximum lines setting is from 1 to 6. The default is 6.

Defaults

Maximum number of lines: 6

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.2(4)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series, and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **limit-dn** command specifies the maximum number of lines (directory numbers) available for each Cisco IP phone type.



Note

You must specify this value during initial SRS Telephony router configuration, before any Cisco IP phone actually registers with the SRS Telephony router. You can modify the number of lines at a later time.

The range of the maximum number of lines is from 1 to 6. The default number of lines is 6. If there is any active phone with a number greater than the specified limit, warning information is displayed for phone reset.

Examples

The following example shows how to set a directory number limit of 2 for the Cisco IP Phone 7910:

```
Router(config)# call-manager-fallback  
Router(config-cm-fallback)# limit-dn 7910 2
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

max-dn

To set the maximum number of directory numbers or virtual voice ports that can be supported by the router, use the **max-dn** command in CallManager fallback configuration mode. To return to the default number of directories or virtual voice ports, use the **no** form of this command.

max-dn *max-directory-numbers*

no max-dn

Syntax Description

max-directory-numbers Maximum number of directory numbers or virtual voice ports supported by the router. The maximum number is platform-dependent. See the “Specifications” section on page 1-7. The default is 0.

Defaults

0 directory numbers

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **max-dn** command limits the number of Cisco IP phone directory numbers or virtual voice ports available on the router.



Note

Once you have specified the maximum number of directory numbers available, you cannot reduce that number of directory numbers or virtual voice ports without rebooting the router.

Examples

The following example sets the maximum number of directory numbers or virtual voice ports to 12:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# max-dn 12
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

max-ephones

To configure the maximum number of Cisco IP phones that can be supported by a router, use the **max-ephones** command in CallManager fallback configuration mode. To return to the default number of Cisco IP phones, use the **no** form of this command.

max-ephones *max-phones*

no max-ephones

Syntax Description

max-phones Maximum number of Cisco IP phones supported by the router. The maximum number is platform-dependent. See the [“Specifications” section on page 1-7](#). The default is 0.

Defaults

0 Cisco IP phones.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **max-ephones** command limits the number of Cisco IP phones supported on the router.



Note

Once you have specified the maximum number of Cisco IP phones, you cannot reduce that number without rebooting the router.

Examples

The following example sets the maximum number of Cisco IP phones for a Cisco router to 24:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# max-ephones 24
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

moh

To configure music on hold (MOH), use the **moh** command in CallManager fallback configuration mode. To disable music on hold, use the **no** form of this command.

moh *filename*

no moh *filename*

Syntax Description

filename Filename of the music file. The music file must be in the system Flash.

Defaults

MOH is enabled by default.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **moh** command allows you to specify the .au and .wav format music files that are played to callers who have been put on hold. MOH works only for G.711 calls and on-net VoIP and PSTN calls. For all other calls, callers hear a periodic tone. For example, internal calls between Cisco IP phones do not get MOH, instead callers hear a tone.



Note

Music-on-hold files can be .wav or .au file format; however, the file format must contain 8-bit 8 kHz data; for example, CCITT a-law or u-law data format.

Examples

The following example enables MOH and specifies the music files:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# moh minuet.wav
Router(config-cm-fallback)# moh minuet.au
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

pattern direct

To configure the dual-tone multifrequency (DTMF) digit pattern forwarding necessary to activate the voice-mail system when the user presses the messages button on the phone, use the **pattern direct** command in voicemail integration configuration mode. To disable DTMF digit pattern forwarding when the user presses the messages button on the phone, use the **no** form of this command.

```
pattern direct tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

```
no pattern direct tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

Syntax Description

<i>tag</i>	Alphanumeric string fewer than four DTMF digits in length. The alphanumeric string consists of a combination of four letters (A,B,C, and D), two symbols (* and #), and ten digits (0 to 9). The tag numbers match the numbers defined in the voice-mail system's integration file, immediately preceding either the number of the calling party, the number of the called party, or a forwarding number. The Cisco IOS Telephony Service router supports a maximum of four tags.
CGN	Calling number (CGN) information is sent to the voice-mail system.
CDN	Called number (CDN) information is sent to the voice-mail system.
FDN	Forwarding number (FDN) information is sent to the voice-mail system.



Note

Although it is unlikely that you will use multiple instances of the **CGN**, **CDN**, or **FDN** keyword in a single command line, it is permissible to do so.

Defaults

This feature is disabled by default.

Command Modes

Voice-mail integration configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.
12.2(13)T	This command was introduced to the SRS Telephony Version 2.02

Usage Guidelines

The **pattern direct** command is used to configure the sequence of DTMF digits passed to a voice-mail system attached to the Cisco IOS Telephony Service router through one or more voice ports. When a call is placed directly from a Cisco IP phone attached to the Cisco IOS Telephony Service router, the voice-mail system expects to receive a sequence of DTMF digits at the beginning of the call that identify the mailbox of the user calling the voice-mail system accompanied by a string of digits indicating that the caller is attempting to access the designated mailbox in order to retrieve messages.

Examples

The following example sets the DTMF pattern for a calling number (\$CGN) for a direct call to the voice-mail system:

```
Router(config) vm-integration
Router(config-vm-integration) pattern direct 2 CGN
```

Related Commands

Command	Description
pattern ext-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern ext-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern trunk-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an external trunk call reaches a busy extension and the call is forwarded to voicemail.
pattern trunk-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when an external trunk call reaches an unanswered extension and the call is forwarded to voicemail.
vm-integration	Enters voice-mail integration mode and enables voice-mail integration with DTMF and analog voice-mail system.

pattern ext-to-ext busy

To configure the dual-tone multifrequency (DTMF) digit pattern forwarding necessary to activate the voice-mail system once an internal extension attempts to connect to a busy extension and the call is forwarded to voicemail, use the **pattern ext-to-ext busy** command in voicemail integration configuration mode. To disable DTMF digit pattern forwarding when an internal extension calls a busy extension and the call is forwarded to a voice-mail system, use the **no** form of this command.

```
pattern ext-to-ext busy tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

```
no pattern ext-to-ext busy tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

Syntax Description

<i>tag</i>	Alphanumeric string fewer than four DTMF digits in length. The alphanumeric string consists of a combination of four letters (A,B,C, and D), two symbols (* and #), and ten digits (0 to 9). The tag numbers match the numbers defined in the voice-mail system's integration file, immediately preceding either the number of the calling party, the number of the called party, or a forwarding number. The Cisco IOS Telephony Service router supports a maximum of four tags.
CGN	Calling number (CGN) information is sent to the voice-mail system.
CDN	Called number (CDN) information is sent to the voice-mail system.
FDN	Forwarding number (FDN) information is sent to the voice-mail system.



Note

Although it is unlikely that you will use multiple instances of the **CGN**, **CDN**, or **FDN** keyword in a single command line, it is permissible to do so.

Defaults

This feature is disabled by default.

Command Modes

Voice-mail integration configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.

Release	Modification
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.
12.2(13)T	This command was introduced to Cisco SRS Telephony Version 2.02

Usage Guidelines

The **pattern ext-to-ext busy** command is used to configure the sequence of DTMF digits passed to a voice-mail system attached to the Cisco IOS Telephony Service router through one or more voice ports. When a call is routed to the voice-mail system by call forward on busy from a Cisco IP phone attached to the Cisco IOS Telephony Service router, the voice-mail system expects to receive a sequence of digits identifying the mailbox associated with the forwarding phone together with digits that identify the extension number of the calling IP phone.

Examples

The following example sets the DTMF pattern for a local call forwarded on busy to the voice-mail system:

```
Router(config) vm-integration
Router(config-vm-integration) pattern ext-to-ext busy 7 FDN * CGN *
```

Related Commands

Command	Description
pattern direct	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when the user presses the messages button on the phone.
pattern ext-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern trunk-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an external trunk call reaches a busy extension and the call is forwarded to voicemail.
pattern trunk-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when an external trunk call reaches an unanswered extension and the call is forwarded to voicemail.
vm-integration	Enters voice-mail integration mode and enables voice-mail integration with DTMF and analog voice-mail system.

pattern ext-to-ext no-answer

To configure the dual-tone multifrequency (DTMF) digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail, use the **pattern ext-to-ext no-answer** command in voicemail integration configuration mode. To disable DTMF digit pattern forwarding, use the **no** form of this command.

```
pattern ext-to-ext no-answer tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

```
no pattern ext-to-ext no-answer tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

Syntax Description

<i>tag</i>	Alphanumeric string fewer than four DTMF digits in length. The alphanumeric string consists of a combination of four letters (A,B,C, and D), two symbols (* and #), and ten digits (0 to 9). The tag numbers match the numbers defined in the voice-mail system's integration file, immediately preceding either the number of the calling party, the number of the called party, or a forwarding number. The Cisco IOS Telephony Service router supports a maximum of four tags.
CGN	Calling number (CGN) information is sent to the voice-mail system.
CDN	Called number (CDN) information is sent to the voice-mail system.
FDN	Forwarding number (FDN) information is sent to the voice-mail system.



Note

Although it is unlikely that you will use multiple instances of the **CGN**, **CDN**, or **FDN** keyword in a single command line, it is permissible to do so.

Defaults

This feature is disabled by default.

Command Modes

Voice-mail integration configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.
12.2(13)T	This command was introduced to Cisco SRS Telephony Version 2.02

Usage Guidelines

The **pattern ext-to-ext no-answer** command is used to configure the sequence of DTMF digits passed to a voice-mail system attached to the Cisco IOS Telephony Service router through one or more voice ports. When a call is routed to the voice-mail system by call forward on no-answer from an IP phone attached to the Cisco IOS Telephony Service router, the voice-mail system expects to receive a sequence of digits identifying the mailbox associated with the forwarding phone together with digits that identify the extension number of the calling IP phone.

Examples

The following example sets the DTMF pattern for a local call forwarded on **no-answer** to the voice-mail system:

```
Router(config) vm-integration
Router(config-vm-integration) pattern ext-to-ext no-answer 5 FDN * CGN *
```

Related Commands

Command	Description
pattern direct	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when the user presses the messages button on the phone.
pattern ext-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern trunk-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an external trunk call reaches a busy extension and the call is forwarded to voicemail.
pattern trunk-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when an external trunk call reaches an unanswered extension and the call is forwarded to voicemail.
vm-integration	Enters voice-mail integration mode and enables voice-mail integration with DTMF and analog voice-mail system.

pattern trunk-to-ext busy

To configure the dual-tone multifrequency (DTMF) digit pattern forwarding necessary to activate the voice-mail system once an external trunk call reaches a busy extension and the call is forwarded to voicemail, use the **pattern trunk-to-ext busy** command in voicemail integration configuration mode. To disable DTMF digit pattern forwarding when an external trunk call reaches a busy extension and the call is forwarded to a voice-mail system, use the **no** form of this command.

```
pattern trunk-to-ext busy tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
    [tag3 {CGN | CDN | FDN}] [tag4]
```

```
no pattern trunk-to-ext busy tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
    [tag3 {CGN | CDN | FDN}] [tag4]
```

Syntax Description

<i>tag</i>	Alphanumeric string fewer than four DTMF digits in length. The alphanumeric string consists of a combination of four letters (A,B,C, and D), two symbols (* and #), and ten digits (0 to 9). The tag numbers match the numbers defined in the voice-mail system's integration file, immediately preceding either the number of the calling party, the number of the called party, or a forwarding number. The Cisco IOS Telephony Service router supports a maximum of four tags.
CGN	Calling number (CGN) information is sent to the voice-mail system.
CDN	Called number (CDN) information is sent to the voice-mail system.
FDN	Forwarding number (FDN) information is sent to the voice-mail system.



Note

Although it is unlikely that you will use multiple instances of the **CGN**, **CDN**, or **FDN** keyword in a single command line, it is permissible to do so.

Defaults

This feature is disabled by default.

Command Modes

Voice-mail integration configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.

Release	Modification
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.
12.2(13)T	This command was introduced to Cisco SRS Telephony Version 2.02

Usage Guidelines

The **pattern trunk-to-ext busy** command is used to configure the sequence of DTMF digits passed to a voice-mail system attached to the Cisco IOS Telephony Service router through one or more voice ports. When a call is routed to the voice-mail system by call forward on busy from an IP phone attached to the Cisco IOS Telephony Service router, the voice-mail system expects to receive a sequence of digits identifying the mailbox associated with the forwarding phone together with digits indicating that the call originated from a PSTN or VoIP caller.

Examples

The following example sets the DTMF pattern for call forwarding when an external trunk call reaches a busy extension and the call is forwarded to the voice-mail system:

```
Router(config) vm-integration
Router(config-vm-integration) pattern trunk-to-ext busy 6 FDN * CGN *
```

Related Commands

Command	Description
pattern direct	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when the user presses the messages button on the phone.
pattern ext-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern ext-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern trunk-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when an external trunk call reaches an unanswered extension and the call is forwarded to voicemail.
vm-integration	Enters voice-mail integration mode and enables voice-mail integration with DTMF and analog voice-mail system.

pattern trunk-to-ext no-answer

To configure the dual-tone multifrequency (DTMF) digit pattern forwarding necessary to activate the voice-mail system when an external trunk call reaches an unanswered extension and the call is forwarded to voicemail, use the **pattern trunk-to-ext no-answer** command in voicemail integration configuration mode. To disable DTMF digit pattern forwarding when an external trunk call reaches another extension where the called party does not answer and the call is forwarded to a voice-mail system, use the **no** form of this command.

```
pattern trunk-to-ext no-answer tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

```
no pattern trunk-to-ext no-answer tag1 {CGN | CDN | FDN} [tag2 {CGN | CDN | FDN}]
[tag3 {CGN | CDN | FDN}] [tag4]
```

Syntax Description

<i>tag</i>	Alphanumeric string fewer than four DTMF digits in length. The alphanumeric string consists of a combination of four letters (A,B,C, and D), two symbols (* and #), and ten digits (0 to 9). The tag numbers match the numbers defined in the voice-mail system's integration file, immediately preceding either the number of the calling party, the number of the called party, or a forwarding number. The Cisco IOS Telephony Service router supports a maximum of four tags.
CGN	Calling number (CGN) information is sent to the voice-mail system.
CDN	Called number (CDN) information is sent to the voice-mail system.
FDN	Forwarding number (FDN) information is sent to the voice-mail system.



Note

Although it is unlikely that you will use multiple instances of the **CGN**, **CDN**, or **FDN** keyword in a single command line, it is permissible to do so.

Defaults

This feature is disabled by default.

Command Modes

Voice-mail integration configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.

Release	Modification
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.
12.2(13)T	This command was introduced to Cisco SRS Telephony Version 2.02

Usage Guidelines

The **pattern trunk-to-ext no-answer** command is used to configure the sequence of DTMF digits passed to a voice-mail system attached to the Cisco IOS Telephony Service router through one or more voice ports. When a call is routed to the voice-mail system by call forward on no-answer from an IP phone attached to the Cisco IOS Telephony Service router, the voice-mail system expects to receive a sequence of digits identifying the mailbox associated with the forwarding phone together with digits indicating that the call originated from a PSTN or VoIP caller.

Examples

The following example sets the DTMF pattern for call forwarding when an external trunk call reaches an unanswered extension and the call is forwarded (FDN) to a voice-mail system:

```
Router(config) vm-integration
Router(config-vm-integration) pattern trunk-to-ext no-answer 4 FDN * CGN *
```

Related Commands

Command	Description
pattern direct	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when the user presses the messages button on the phone.
pattern ext-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern ext-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern trunk-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an external trunk call reaches a busy extension and the call is forwarded to voicemail.
vm-integration	Enters voice-mail integration mode and enables voice-mail integration with DTMF and analog voice-mail system.

reset

To reset Cisco IP phones, use the **reset** command in CallManager fallback configuration mode.

```
reset {all seconds | mac-address mac-address}
```

Syntax Description	all	All Cisco IP phones.
	<i>seconds</i>	Time interval, in seconds, that passes between each Cisco IP phone resetting. The range is from 0 to 15 seconds.
	mac-address <i>mac-address</i>	MAC address of a particular Cisco IP phone.

Defaults No default behavior or values.

Command Modes CallManager fallback configuration

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

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

Examples The following example resets all Cisco IP phones in eight-second intervals:

```
Router(config)# call-manager-fallback  
Router(config-cm-fallback)# reset all 8
```

The following example resets the Cisco IP phone with MAC address CFBA.321B.96FA:

```
Router(config)# call-manager-fallback  
Router(config-cm-fallback)# reset mac-address CFBA.321B.96FA
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

show call-manager-fallback all

To display the detailed configuration of all Cisco IP phones, voice ports, and dial peers in your network while the Cisco CallManager fallback feature is active, use the **show call-manager-fallback all** command in EXEC mode.

show call-manager-fallback all

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Examples

The following is sample output from the **show call-manager-fallback all** command:

```
Router# show call-manager-fallback all

CONFIG
=====
ip source-address 10.0.0.1 port 2000
max-ephones 10
max-dn 10
no huntstop
translate called 1
call-forward busy 5001
call-forward noan 5001 timeout 8
cor incoming allowall 1 5001-5010
cor outgoing allow1800 2 5010-5020
alias 2 3... to 5555
keepalive 30

ephone-dn 1
number 4444
no huntstop
translate called 1
```

```
ephone-dn 2
number 3333
no huntstop
translate called 1

ephone-dn 3
number 5555 secondary 3...
no huntstop
translate called 1

ephone-dn 4
no huntstop
translate called 1
.
.
voice-port 50/0/1
station-id number 4444
timeout ringing 8
translate called 1
!
voice-port 50/0/2
station-id number 3333
timeout ringing 8
translate called 1
!
voice-port 50/0/3
station-id number 5555
timeout ringing 8
translate called 1
!
voice-port 50/0/4
timeout ringing 8
translate called 1
.
.
dial-peer voice 20046 pots
destination-pattern 4444
call-forward busy 5001
call-forward noan 5001
port 50/0/1

dial-peer voice 20047 pots
destination-pattern 3333
call-forward busy 5001
call-forward noan 5001
port 50/0/2

dial-peer voice 20048 pots
destination-pattern 5555
call-forward busy 5001
call-forward noan 5001
port 50/0/3

dial-peer voice 20049 pots
preference 9
destination-pattern 3...
call-forward busy 5001
call-forward noan 5001
port 50/0/3
```

Table 2 provides an alphabetical listing of the command fields in the sample output.

Table 2 *show call-manager-fallback all Field Descriptions*

Field	Description
destination-pattern	Destination pattern (telephone number) configured for this dial peer.
dial-peer voice	Voice dial peer.
ephone-dn	Cisco IP phone directory number.
huntstop	Huntstop is set.
ip source address	IP address used by the Cisco IP phones to register with the router for service.
keepalive	Cisco IP phone keepalive period in seconds.
max-ephones	Maximum number of Cisco IP phones.
max-dn	Maximum directory numbers or virtual voice ports.
port	TCP port number used by the Cisco IP phones to communicate with the router.
station-id number	Number used for caller-ID purposes when calls are made using the line.
voicemail	A voice-mail (speed-dial) number is set.
voice-port	(Virtual) voice port designator.

Related Commands

Command	Description
show call-manager fallback dial-peer	Displays output for the dial peers in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback ephone-dn	Displays output for the Cisco IP phone directory numbers or virtual voice ports in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback voice-port	Displays output for the voice ports in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.

show call-manager-fallback dial-peer

To display output for the dial peers while Cisco CallManager fallback mode is active, use the **show call-manager-fallback dial-peer** command in EXEC mode.

show call-manager-fallback dial-peer

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Examples The following is sample output from the **show call-manager-fallback dial-peer** command:

```
Router# show call-manager-fallback dial-peer
```

```
dial-peer voice 20046 pots
destination-pattern 4444
call-forward busy 5001
call-forward noan 5001
port 50/0/1
```

```
dial-peer voice 20047 pots
destination-pattern 3333
call-forward busy 5001
call-forward noan 5001
port 50/0/2
```

```
dial-peer voice 20048 pots
destination-pattern 5555
call-forward busy 5001
call-forward noan 5001
port 50/0/3
```

```
dial-peer voice 20049 pots
preference 9
```

show call-manager-fallback dial-peer

```
destination-pattern 3...
call-forward busy 5001
call-forward noan 5001
port 50/0/3
```

Table 3 provides an alphabetical listing of the command fields in the sample output.

Table 3 *show call-manager-fallback dial-peer Field Descriptions*

Field	Description
destination pattern	Destination pattern (telephone number) configured for this dial peer.
dial-peer voice	Voice dial peer.
huntstop	Huntstop is set.
port	(Virtual) voice port designator.

Related Commands

Command	Description
show call-manager fallback all	Displays the detailed configuration of all the Cisco IP phones, voice ports, and dial peers in a network in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback ephone-dn	Displays output for the Cisco IP phone directory numbers or virtual voice ports in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback voice-port	Displays output for the voice ports in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.

show call-manager-fallback ephone-dn

To display output for the Cisco IP phone directory numbers or virtual voice ports while Cisco CallManager fallback is active, use the **show call-manager-fallback ephone-dn** command in EXEC mode.

show call-manager-fallback ephone-dn

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Examples The following is sample output from the **show call-manager-fallback ephone-dn** command:

```
Router# show call-manager-fallback ephone-dn
```

```
ephone-dn 1
number 4444
no huntstop
translate called 1

ephone-dn 2
number 3333
no huntstop
translate called 1

ephone-dn 3
number 5555 secondary 3...
no huntstop
translate called 1

ephone-dn 4
no huntstop
translate called 1
```

Table 4 provides an alphabetical listing of the command fields in the sample output.

Table 4 *show call-manager-fallback ephone-dn Field Descriptions*

Field	Description
ephone-dn	Cisco IP phone directory number.
huntstop	Huntstop is set.
number	Cisco IP phone number.

Related Commands

Command	Description
show call-manager fallback all	Displays the detailed configuration of all the Cisco IP phones, voice ports, and dial peers in your network in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback dial-peer	Displays output for the dial peers in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback voice-port	Displays output for the voice ports in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.

show call-manager-fallback voice-port

To display output for the voice ports while Cisco CallManager is active, use the **show call-manager-fallback voice-port** command in EXEC mode.

show call-manager-fallback voice-port

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Examples The following is sample output from the **show call-manager-fallback voice-port** command:

```
Router# show call-manager-fallback voice-port

voice-port 50/0/1
  station-id number 4444
  timeout ringing 8
  translate called 1
!
voice-port 50/0/2
  station-id number 3333
  timeout ringing 8
  translate called 1
!
voice-port 50/0/3
  station-id number 5555
  timeout ringing 8
  translate called 1
!
voice-port 50/0/4
  timeout ringing 8
  translate called 1
!
```

Table 5 describes the significant fields shown in the display.

Table 5 *show call-manager-fallback voice-port Field Descriptions*

Field	Description
voice-port	(Virtual) voice port.
station-id number	The phone number used for caller-ID purposes for calls made from this voice port.

Related Commands

Command	Description
show call-manager fallback all	Displays the detailed configuration of all the Cisco IP phones, voice ports, and dial peers in your network in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback dial-peer	Displays fallback output for the dial peers in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.
show call-manager fallback ephone-dn	Displays fallback output for the Cisco IP phone directory numbers or virtual voice ports in Cisco CallManager fallback mode when the SRS Telephony feature is enabled.

show ephone

To display Cisco IP phone output, use the **show ephone** command in EXEC mode.

```
show ephone [mac-address | summary | registered | unregistered | 7910 | 7940 | 7960 | ringing |
offhook | dn dn-tag | remote | telephone-number phone-number]
```

Syntax Description	
<i>mac-address</i>	(Optional) Specifies the MAC address of the Cisco IP phone.
summary	(Optional) Displays summary information for all Cisco IP phones registered with the SRST router.
registered	(Optional) Displays status information for any Cisco IP phones that are currently registered with the SRST router.
unregistered	(Optional) Displays status information for all unregistered Cisco IP phones.
7910	(Optional) Displays information about any Cisco IP Phone 7910s registered with the SRST router.
7940	(Optional) Displays information about any Cisco IP Phone 7940s registered with the SRST router.
7960	(Optional) Displays information about any Cisco IP Phone 7960s registered with the SRST router.
ringing	(Optional) Displays status information for all Cisco IP phones registered with the SRST router that are currently in ringing mode.
offhook	(Optional) Displays a list of Cisco IP phones that are currently engaged or off hook.
dn <i>dn-tag</i>	(Optional) Cisco IP phone associated with a directory number tag.
remote	(Optional) Displays status information about all nonlocal Cisco IP phones (that is, phones that have no ARP entry).
telephone-number <i>phone-number</i>	(Optional) Displays status information for a Cisco IP phone featuring the specified telephone number.

Command Modes	
	EXEC

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on the Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **show ephone** command displays statistical information for registered and unregistered Cisco IP phones. If a MAC address is not specified, all phones that can be identified by the SRST router are displayed. This command includes several keywords to enable you to get different types of output specific to your needs.

Examples

The following is sample output from the **show ephone** command:

```
Router# show ephone

ephone-1 Mac:0003.E3E7.F627 TCP socket:[1] activeLine:1 REGISTERED
mediaActive:1 offhook:1 ringing:0 reset:0 reset_sent:0 debug:0
IP:10.0.0.51 50570 Telecaster 7940 keepalive 49
button 1: dn 1 number 3001 CONNECTED
Active Call on DN 1:3001 10.0.0.51 31808 to 1.2.159.100 22708
Tx Pkts 452 bytes 41584 Rx Pkts 452 bytes 41584 Lost 0
Jitter 0 Latency 0

ephone-2 Mac:0030.94C3.E1A8 TCP socket:[2] activeLine:1 REGISTERED
mediaActive:1 offhook:1 ringing:0 reset:0 reset_sent:0 debug:0
IP:1.2.159.100 50942 Telecaster 7960 keepalive 78
button 1: dn 2 number 3002 CONNECTED
Active Call on DN 2:3002 1.2.159.100 22708 to 10.0.0.51 31808
Tx Pkts 452 bytes 41584 Rx Pkts 452 bytes 41584 Lost 0
Jitter 0 Latency 0

ephone-3 Mac:0030.94C3.F946 TCP socket:[-1] activeLine:0 UNREGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:0
IP:10.2.1.2 52163 Telecaster 7960 keepalive 59

ephone-4 Mac:0030.94C3.F43A TCP socket:[-1] activeLine:0 UNREGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:0
IP:10.2.1.1 51768 Telecaster 7960 keepalive 59
```

The following is sample output from the **show ephone mac-address** command for the Cisco IP phone with the MAC address 0030.94c3.f43a:

```
Router# show ephone 0030.94c3.f43a

ephone-3 Mac:0030.94C3.F43A TCP socket:[3] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:0
IP:1.5.81.13 Telecaster 7960 keepalive 28
button 1: dn 3 number 5003 IDLE
button 2: dn 5 number 5005 IDLE
button 3: dn 6 number 5006 IDLE
speed dial 1:3005
speed dial 2:3006
```

The following is sample output from the **show ephone dn dn-tag** command:

```
Router# show ephone dn 5

Tag 5, Normal or Intercom dn
ephone 1, mac-address 0030.94C3.CAA2, line 2
ephone 2, mac-address 0030.94c2.9919, line 3
```

The following is sample output from the **show ephone 7910** command:

```
Router# show ephone 7910

ephone-5 Mac:0004.DD1E.56ED TCP socket:[1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0 debug:0
```

```
IP:10.30.0.83 52234 Telecaster 7910  keepalive 270 max_line 2 dual-line
button 1: dn 15 number 5000 IDLE
button 2: dn 16 number 5500 IDLE
```

The following is sample output from the **show ephone 7960** command:

```
Router# show ephone 7960
```

```
ephone-11 Mac:0007.0EA6.2AA9 TCP socket:[13] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0 debug:0
IP:10.30.0.53 52548 Telecaster 7960  keepalive 272 max_line 6
button 1: dn 16 number 9001 IDLE
button 2: dn 17 number 9002 IDLE
button 3: dn 18 number 9003 IDLE
button 4: dn 26 number A5001 auto dial A5002 IDLE
button 5: dn 31 number 1111 IDLE
speed dial 1:8001
```

```
ephone-12 Mac:0002.B9EB.0CB1 TCP socket:[14] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0 debug:0
IP:10.30.0.54 50387 Telecaster 7960  keepalive 272 max_line 6
button 1: dn 20 number 9005 IDLE
button 2: dn 21 number 9006 IDLE
button 3: dn 22 number 9007 IDLE
button 4: dn 23 number 9008 IDLE
button 5: dn 30 number 1110 IDLE
```

The following is sample output from the **show ephone registered** command:

```
Router# show ephone registered
```

```
ephone-1 Mac:0653.D6B4.C601 TCP socket:[4] activeLine:0 REGISTERED
ephone-2 Mac:0653.D6B4.C602 TCP socket:[6] activeLine:0 REGISTERED
ephone-3 Mac:0653.D6B4.C603 TCP socket:[2] activeLine:0 REGISTERED
ephone-4 Mac:0653.D6B4.C604 TCP socket:[7] activeLine:0 REGISTERED
ephone-5 Mac:0653.D6B4.C605 TCP socket:[9] activeLine:0 REGISTERED
ephone-6 Mac:0653.D6B4.C608 TCP socket:[1] activeLine:0 REGISTERED
ephone-7 Mac:0653.D6B4.C609 TCP socket:[8] activeLine:0 REGISTERED
ephone-8 Mac:0653.D6B4.C614 TCP socket:[5] activeLine:0 REGISTERED
ephone-9 Mac:0653.D6B4.C622 TCP socket:[11] activeLine:0 REGISTERED
ephone-10 Mac:0653.D6B4.C623 TCP socket:[3] activeLine:0 REGISTERED
ephone-11 Mac:0007.0EA6.2AA9 TCP socket:[13] activeLine:0 REGISTERED
ephone-12 Mac:0002.B9EB.0CB1 TCP socket:[14] activeLine:0 REGISTERED
ephone-13 Mac:0653.D6B4.C625 TCP socket:[10] activeLine:0 REGISTERED
ephone-14 Mac:0653.D6B4.C624 TCP socket:[12] activeLine:0 REGISTERED
```

The following is sample output from the **show ephone telephone-number phone-number** command:

```
Router# show ephone telephone-number 4085998001
```

```
DP tag: 1, primary
Tag 1, Normal or Intercom dn
ephone 1, mac-address 0030.94c3.CAA2, line 1
```

Table 6 provides an alphabetic listing of the command fields in the sample output.

Table 6 *show ephone Field Descriptions*

Field	Description
Active Call	An active call is in progress.
activeLine	Indicates the line (button) on the phone that is in use. Zero indicates that no line is in use.

Table 6 *show ephone Field Descriptions (continued)*

Field	Description
button 1 : dn 1	Shows the directory number (DN) tag number associated with the phone button.
bytes	Total number of voice data bytes sent or received by the Cisco IP phone.
debug	If set to 1, indicates that debug for the phone is enabled; otherwise, it is set to 0.
DP tag	Dial-peer tag for the destination-pattern matching the specified telephone number.
dual_line	Indicates that the dual telephone line feature available on single-line Cisco IP phones (the Cisco 7905 or Cisco 7910, for example) has been activated.
ephone-1	Cisco IP phone tag number.
IDLE	The state of the DN is idle.
IP	Assigned IP address of the Cisco IP phone.
Jitter	The amount of variation (in milliseconds) of the time interval between voice packets received by the Cisco IP phone.
keepalive	Number of keepalive messages received from the Cisco IP phone by the router.
Latency	The estimated playout delay for voice packets received by the Cisco IP phone.
line 1	Indicates which line on the IP phone is associated with the specified telephone number.
Lost	Number of voice packets lost, as calculated by the Cisco IP phone, based on examining voice packet timestamp and sequence numbers during playout.
Mac	MAC address.
max_line	Indicates the maximum number of lines that may be assigned to the Cisco IP phone in question.
mediaActive	If set to 1, indicates that an active conversation is going on; otherwise, it is set to 0.
number	The telephone number associated with the Cisco IP phone button and its DN tag.
offhook	If set to 1, indicates that the Cisco IP phone is off the hook.
paging	Indicates the paging group to which the Cisco IP phone has been assigned.
REGISTERED	Indicates that the Cisco IP phone is active and registered. Alternatives states are UNREGISTERED (indicating that the connection to the Cisco IP phone was closed in a normal manner) and DECEASED (indicating that the connection to the Cisco IP phone was closed because of a keepalive timeout).
reset	Pending reset.
reset_sent	Request for reset sent to the Cisco IP phone.

Table 6 *show ephone Field Descriptions (continued)*

Field	Description
ringing	If set to 1, indicates that the IP phone's ringer is turned on and the phone is ringing; otherwise, it is set to 0.
Rx Pkts	Number of received voice packets.
speed dial	Speed-dial is set to a specific directory number.
Tag 1	Specifies the tag number identified in the ephone-dn command output.
TCP socket	Indicates the TCP socket number used to communicate with the IP phone. This can be correlated with the output of various other debug and show commands.
Telecaster 7960	Indicates the type and model of the Cisco IP phone. This information is received from the phone during its registration with the router.
Tx Pkts	Number of transmitted voice packets.

The following is a sample output from the **show ephone summary** command:

```
Router# show ephone summary
```

```
ephone-1 Mac:0030.94C3.37CB TCP socket:[-1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:0
IP:10.1.1.1 Telecaster 7910 keepalive 45 1:1
sp1:5002 sp2:5003
```

```
ephone-2 Mac:0030.94C3.F96A TCP socket:[-1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:0
IP:10.1.1.2 Telecaster 7960 keepalive 45 1:2 2:3 3:4
sp1:5004 sp2:5001
```

```
ephone-3 Mac:0030.94C3.F946 TCP socket:[-1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:0
IP:10.2.1.2 Telecaster 7960 keepalive 59
```

```
ephone-4 Mac:0030.94C3.F43A TCP socket:[-1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:0
IP:10.2.1.1 Telecaster 7960 keepalive 59
```

[Table 3-9](#) provides an alphabetic listing of the command fields shown in the sample output.

Table 7 *show ephone summary Field Descriptions*

Field	Description
activeLine	Indicates the line (button) on the phone that is in use. Zero indicates that no line is in use
debug	If set to 1, indicates that debug for the phone is enabled; otherwise, it is set to 0.
ephone-1	Cisco IP phone tag number.
IP	Assigned IP address of the Cisco IP phone.

Table 7 *show ephone summary Field Descriptions (continued)*

Field	Description
keepalive	Number of keepalive messages received from the IP phone by the router.
Mac	MAC address.
mediaActive	If set to 1, indicates that an active conversation is going on; otherwise, it is set to 0.
offhook	If set to 1, indicates that the phone is off the hook.
REGISTERED	Indicates that the phone is active and registered. Alternatives states are UNREGISTERED (indicating that the connection to the Cisco IP phone was closed in a normal manner) and DECEASED (indicating that the connection to the Cisco IP phone was closed because of a keepalive timeout).
reset	Pending reset.
reset_sent	Request for reset sent to the Cisco IP phone.
ringing	If set to 1, indicates that the Cisco IP phone's ringer is turned on and the phone is ringing; otherwise, it is set to 0.
sp1	Speed-dial 1 set to a directory number.
sp2	Speed-dial 2 set to a directory number.
TCP socket	Indicates the TCP socket number used to communicate with the Cisco IP phone. This can be correlated with the output of various other debug and show commands.
Telecaster 7960	Indicates the type and model of the IP phone. This information is received from the phone during its registration with the router.

Related Commands

Command	Description
show ephone-dn	Displays the Cisco IP phone destination number.
show ephone-dn summary	Displays summary of the Cisco IP phone destination numbers.
show telephony-service	Displays the detailed configuration of all Cisco IP phones.

show ephone-dn

To display a Cisco IP phone destination number, use the **show ephone-dn** command in EXEC mode.

show ephone-dn [*tag* | **summary**]

Syntax Description	
<i>tag</i>	(Optional) Destination number tag. The destination number can be from 1 to 24.
loopback	(Optional) Cisco IP phone destination numbers in loopback mode.
summary	(Optional) Summary of all Cisco IP phone destination number.

Command Modes EXEC

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Examples

The following is sample output from the **show ephone-dn** command:

```
Router# show ephone-dn 7

50/0/7 INVALID

EFGS 50/0/7 Slot is 50, Sub-unit is 0, Port is 7
Type of VoicePort is EFGS
Operation State is UP
Administrative State is UP
No Interface Down Failure
Description is not set
Noise Regeneration is enabled
Non Linear Processing is enabled
Non Linear Mute is disabled
Non Linear Threshold is -21 dB
Music On Hold Threshold is Set to -38 dBm
In Gain is Set to 0 dB
Out Attenuation is Set to 0 dB
Echo Cancellation is enabled
Echo Cancellation NLP mute is disabled
```

```

Echo Cancellation NLP threshold is -21 dB
Echo Cancel Coverage is set to 8 ms
Playout-delay Mode is set to default
Playout-delay Nominal is set to 60 ms
Playout-delay Maximum is set to 200 ms
Playout-delay Minimum mode is set to default, value 4 ms
Playout-delay Fax is set to 300 ms
Connection Mode is normal
Connection Number is not set
Initial Time Out is set to 10 s
Interdigit Time Out is set to 10 s
Call Disconnect Time Out is set to 60 s
Ringing Time Out is set to 8 s
Wait Release Time Out is set to 30 s
Companding Type is u-law
Region Tone is set for US
Station name None, Station number None

```

```

Caller ID Info Follows:
Standard BELLCORE

```

```

Voice card specific Info Follows:
Digit Duration Timing is set to 100 ms

```

The following is sample output from the **show ephone-dn summary** command:

```
Router# show ephone-dn summary
```

```

PORT      DN STATE   CODEC   VAD VTSP STATE      VPM STATE
-----
50/0/1    DOWN      -       - -              EFXS_ONHOOK
50/0/2    DOWN      -       - -              EFXS_ONHOOK
50/0/3    DOWN      -       - -              EFXS_ONHOOK
50/0/4    INVALID   -       - -              EFXS_INIT
50/0/5    INVALID   -       - -              EFXS_INIT
50/0/6    INVALID   -       - -              EFXS_INIT

```

[Table 8](#) provides an alphabetical listing of the command fields shown in the sample output.

Table 8 *show ephone-dn Field Descriptions*

Field	Description
Administrative State	Administrative (configured) state of the voice port.
Caller ID Info	Information about the caller ID.
CODEC	Codec type.
Companding Type	Not applicable to the Cisco IP phone.
Connection Mode	Not applicable to the Cisco IP phone.
Connection Number	Not applicable to the Cisco IP phone.
Description	Not applicable to the Cisco IP phone.
DN STATE	State of the Cisco IP phone line associated with directory numbers (DN).

Table 8 *show ephone-dn Field Descriptions (continued)*

Field	Description
Echo Cancellation	Not applicable to the Cisco IP phone.
Echo Cancel Coverage	Not applicable to the Cisco IP phone.
EFXS	The voice port type.
In Gain	Not applicable to the Cisco IP phone.
Initial Time Out	Amount of time the system waits for an initial input digit from the caller.
Interdigit Time Out	Amount of time the system waits for a subsequent input digit from the caller.
Music-On-Hold Threshold	Not applicable to the Cisco IP phone.
No Interface Down Failure	State of the interface.
Noise Regeneration	Not applicable to the Cisco IP phone.
Non-Linear Processing	Not applicable to the Cisco IP phone.
Operational State	Operational state of the voice port.
Out Attenuation	Not applicable to the Cisco IP phone.
Playout-delay Maximum	Not applicable to the Cisco IP phone.
Playout-delay Mode	Not applicable to the Cisco IP phone.
Playout-delay Nominal	Not applicable to the Cisco IP phone.
Port	Port number for this interface associated with the voice interface card.
Region Tone	Not applicable to the Cisco IP phone.
Ringling Time Out	Ringling time out duration.
Station name	Station name.
Station number	Station number.
Slot	Slot used in the voice interface card for this port.
Sub-unit	Subunit used in the voice interface card for this port.
Type of VoicePort	Indicates the voice port type.
VAD	Voice activity detection.
Voice card specific Info	Information specific to the voice card.
VPM STATE	State indication for the VPM software component.
VTSP STATE	State indication for the VTSP software component.
Wait Release Time Out	The time that a voice port stays in the call-failure state while the router sends a busy tone, reorder tone, or an out-of-service tone to the port.

Related Commands

Command	Description
show ephone	Displays Cisco IP phone output.

show ephone summary

To display a summary of all Cisco IP phones, use the **show ephone summary** EXEC command.

show ephone summary

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History	Release	Modification
	12.1(5)YD	This command was introduced on the Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series integrated access devices (IADs).
	12.2(2)XG	This command was implemented on the Cisco MC3810-V3 concentrators.
	12.2(2)XB	This command was integrated into Cisco IOS Release 12.2(2)XB and was implemented on the Cisco 7200 series routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.

Usage Guidelines The **show ephone summary** command is similar to the **show ephone** command. However, the **show ephone summary** command does not display the destination numbers listed. If you do not specify a MAC address, you get the status information about all the Cisco IP phones.

Examples The following is sample output from the **show ephone summary** command:

```
Router# show ephone summary

ephone-1 Mac:0030.94C3.37CB TCP socket:[1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:1
IP:10.1.1.1 Telecaster 7910 keepalive 75

ephone-2 Mac:0030.94C3.F96A TCP socket:[2] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:1
IP:10.1.1.2 Telecaster 7960 keepalive 90

ephone-3 Mac:0030.94C3.F43A TCP socket:[-1] activeLine:0 DECEASED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:1
IP:10.2.1.1 Telecaster 7960 keepalive 2258

ephone-4 Mac:0030.94C3.F946 TCP socket:[-1] activeLine:0 REGISTERED
mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 debug:1
IP:0.0.0.0 Unknown 0 keepalive 0
```

Table 3-9 provides an alphabetical listing of the command fields in the sample output.

Table 3-9 *show ephone summary Field Descriptions*

Field	Description
activeLine	Indicates the line (button) on the phone that is in use. Zero indicates that no line is in use
debug	If set to 1, indicates debug for the phone is enabled; otherwise, it is set to 0.
ephone-1	Cisco IP phone tag number.
IP	Assigned IP address of the Cisco IP phone.
keepalive	Number of keepalive messages received from the Cisco IP phone by the router.
Mac	MAC address.
mediaActive	If set to 1, indicates that an active conversation is going on; otherwise it is set to 0.
offhook	If set to 1, indicates that the phone is off the hook.
REGISTERED	Indicates that the Cisco IP phone is active and registered. Alternatives states are UNREGISTERED (indicating that the connection to the Cisco IP phone was closed in a normal manner) and DECEASED (indicating that the connection to the Cisco IP phone was closed because of a keepalive timeout).
reset	Pending reset.
reset_sent	Request for reset sent to the Cisco IP phone.
ringing	If set to 1, indicates that the Cisco IP phone's ringer is turned on and the phone is ringing, otherwise set to 0.
TCP socket	Indicates the TCP socket number used to communicate with the Cisco IP phone. This can be correlated with the output of various other debug and show commands.
Telecaster <i>model number</i>	Indicates the type and model of the Cisco IP phone. This information is received from the phone during its registration with the router.

Related Commands

Command	Description
show ephone	Displays Cisco IP phone output.

time-format

To set the time display format on all Cisco IP phones attached to a router, use the **time-format** command in CallManager fallback configuration mode. To disable the time display format, use the **no** form of this command.

time-format {12 | 24}

no time-format {12 | 24}

Syntax Description

12	Sets format to 12-hour increments.
24	Sets format to 24-hour increments.

Defaults

12-hour format.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **time-format** command sets the time display format on all the Cisco IP phones attached to the router.

Examples

The following example shows the time format on the Cisco IP phones being set to the 24-hour format:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# time-format 24
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

timeouts interdigit

To configure the interdigit timeout value for all Cisco IP phones attached to a router, use the **timeouts interdigit** command in CallManager fallback configuration mode. To return the interdigit timeout value to its default, use the **no** form of this command.

timeouts interdigit *seconds*

no timeouts interdigit *seconds*

Syntax Description	<i>seconds</i>	Interdigit timeout duration, in seconds, for all Cisco IP phones. Valid entries are integers from 2 to 120. The default is 10.
Defaults	10 seconds	
Command Modes	CallManager fallback configuration	
Command History	Release	Modification
	12.2(2)XB	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs; Cisco 7200 series routers.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **timeouts interdigit** command specifies how long, in seconds, the system waits after a caller enters the initial digit or a subsequent digit of the dialed string. The **timeouts interdigit** timer is activated when the caller enters a digit and is restarted each time the caller enters subsequent digits until the destination address is identified. If the configured timeout value is exceeded before the destination address is identified, a tone sounds and the call is terminated. The default is 10 seconds.

To disable the **timeouts interdigit** timer, set the *seconds* value to 0.

Examples

The following example sets the interdigit timeout value to 5 seconds for all Cisco IP phones:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# timeouts interdigit 5
```

In this example, the 5 seconds refers to the elapsed time after which an incompletely dialed number times out. For example, if you dial nine digits (408555898) instead of the required ten digits (4085558984) you hear a busy tone after the 5 “timeout” seconds have elapsed.

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.
timeouts interdigit	Configures the interdigit timeout value for a specified voice port.

transfer-pattern

To allow Cisco IP phones to transfer telephone calls from callers outside the local IP network to another Cisco IP phone, use the **transfer-pattern** command in CallManager fallback configuration mode. To disable transfer of calls to other numbers, use the **no** form of this command.

transfer-pattern *transfer-pattern*

no transfer-pattern

Syntax Description	<i>transfer-pattern</i>	String of digits for permitted call transfers.
--------------------	-------------------------	--

Defaults	This feature is enabled by default.
----------	-------------------------------------

Command Modes	CallManager fallback configuration
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Command History	Release	Modification
	12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
	12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines	The transfer-pattern command allows you to transfer a call from a non-IP phone number to another Cisco IP phone on the same IP network using the specified transfer pattern. By default, all Cisco IP phone directory numbers or virtual voice ports are allowed as transfer targets.
------------------	--

Examples	The following example sets a transfer pattern:
----------	--

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# transfer-pattern 52540..
```

A maximum of 32 transfer patterns can be entered. In this example, 55540.. (the two decimal points are used here as wildcards) permits transfers to any numbers in the range from 555-4000 to 555-4099.

transfer-pattern**Related Commands**

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

translate

To apply a translation rule to modify the phone number dialed by any Cisco IP phone user while CallManager fallback is active, use the **translate** command in CallManager fallback configuration mode. To disable this feature, use the **no** form of this command.

```
translate { called | calling } translation-rule-tag
```

```
no translate { called | calling } translation-rule-tag
```

Syntax Description

called	Translation rule to apply to the number called by a Cisco IP phone.
calling	Translation rule to apply to the calling party number sent in the call setup message for calls originated from a Cisco IP phone.
<i>translation-rule-tag</i>	Tag number by which the rule set is referenced. This is an arbitrarily chosen number. The range is from 1 to 2147483647.

Defaults

No default behavior or values.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series and Cisco 3600 series multiservice routers; Cisco IAD2420 series IADs.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **translate** command allows you to apply a previously configured number-translation rule to modify the number dialed by a specific extension. Translation rules are a powerful general-purpose number-manipulation mechanism that performs operations such as automatically adding telephone area and prefix codes to dialed numbers.

Examples

The following example applies translation rule 20 to the inbound called number:

```
Router(config)# translation-rule 20
Router(config-translate)# rule 0 1234 2345 abbreviated
Router(config-translate)# exit
Router(config)# call-manager-fallback
```

```
Router(config-cm-fallback) translate called 20
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.
translation-rule	Creates a translation name and enters translation-rule configuration mode.

user-locale

To set language for displays on the Cisco IP Phone 7940 and Cisco IP Phone 7960 by country, use the **user-locale** command in call-manager-fallback configuration mode. To disable the country selection and use the default country (United State), use the **no** form of this command.

user-locale *country-code*

no user locale *country-code*

Syntax Description

country-code

For systems running Cisco CallManager V3.2 use, one of the following ISO-3166 codes:

- France—**FR**
- Germany—**DE**
- Italy—**IT**
- Portugal—**PT**
- Spain—**ES**
- United States—**US** (default)

Defaults

The default country code is US (United States).

Command Modes

Call-manager-fallback configuration

Command History

Release	Modification
12.2(11)YT	This command was introduced for use on the Cisco IP Phone 7940 and Cisco IP Phone 7960 for Cisco SRS Telephony systems running Cisco CallManager V3.2. Support includes country codes for Austria, Canada, Denmark, France, Germany, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States (default).

Usage Guidelines

All of the *country-code* options are available to Cisco Survivable Remote Site Telephony systems running under Cisco CallManager V3.2. Systems running Cisco CallManager prior to V3.2 can use only the default country, United States (US).

To deactivate one country code and activate another, use the **no network-locale** command.

Examples

The following example shows how to set the user locale the ISO-3166 code for Spain:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# user-locale ES
```

Related Commands

Command	Description
call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.

vm-integration

To enter voice-mail integration configuration mode and enable voice-mail integration with dual tone multifrequency (DTMF) and analog voice-mail on systems connected to the Public Switched Telephone Network (PSTN) through the Foreign Exchange Office (FXO) or Foreign Exchange Service (FXS) ports, use the **vm-integration** command in global configuration mode. To disable voice-mail integration, use the **no** form of this command.

vm-integration

no vm-integration

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes Global configuration

Command History	Release	Modification
	12.2(2)XT	This command was introduced on the following platforms: Cisco 1750, Cisco 1751, Cisco 2600 series, and Cisco 3600 series multiservice routers; and Cisco IAD2420 series IADs.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725 and Cisco 3745 routers.
	12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.
	12.2(13)T	This command was introduced to Cisco SRS Telephony Version 2.02

Usage Guidelines The vm-integration command allows integration with DTMF and analog voice-mail systems. Typically, calls are forwarded to voice mail when the called number is busy or does not answer. To play personal greetings, a voice-mail system requires the number of the phone that does not answer, known as the redirected dialed number identification service (RDNIS). During fallback, a RDNIS must be passed to voice-mail systems through the PSTN. If the trunks are FXS or FXO, the vm-integration command can facilitate the in-band passing of RDNIS information to a voice-mail system.

The vm-integration command does not support Primary Rate Interface (PRI) or Basic Rate Interface (BRI). If trunks are an Integrated Services Digital Network (ISDN), then it may be possible to pass the RDNIS as part of Q.931 signalling. Cisco SRST includes RDNIS in the Q.931 setup signalling by default. Note, however, that some carriers drop RDNIS, thus nullifying this solution

Examples

The following example shows how to enter the voice-mail integration configuration mode:

```
Router(config) vm-integration
Router(config-vm-integration)
```

Related Commands

Command	Description
pattern direct	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when the user presses the messages button on the phone.
pattern ext-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern ext-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an internal extension fails to connect to an extension and the call is forwarded to voicemail.
pattern trunk-to-ext busy	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system once an external trunk call reaches a busy extension and the call is forwarded to voicemail.
pattern trunk-to-ext no-answer	Configures the DTMF digit pattern forwarding necessary to activate the voice-mail system when an external trunk call reaches an unanswered extension and the call is forwarded to voicemail.

voicemail

To configure the telephone number that is speed-dialed when the messages button on a Cisco IP phone is pressed, use the **voicemail** command in CallManager fallback configuration mode. To disable the messages button, use the **no** form of this command.

voicemail *phone-number*

no voicemail

Syntax Description

phone-number Phone number configured as a speed-dial number for retrieving messages.

Defaults

No phone number is configured, and the messages button is ineffective.

Command Modes

CallManager fallback configuration

Command History

Release	Modification
12.1(5)YD	This command was introduced on the following platforms: Cisco 2600 series and Cisco 3600 series multiservice routers, and Cisco IAD2420 series IADs.
12.2(2)XT	This command was implemented on Cisco 1750 and Cisco 1751 multiservice routers.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 3725, Cisco 3745, and Cisco MC3810-V3 routers.
12.2(8)T1	This command was implemented on the Cisco 2600-XM and Cisco 2691 routers.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 1760 routers.

Usage Guidelines

The **voicemail** command configures the telephone number that is speed-dialed when the messages button on a Cisco IP phone is pressed. The same voicemail telephone number is configured for all Cisco IP phones connected to the router.

Examples

The following example specifies 4085551000 as the speed-dial number that is dialed to retrieve messages when the messages button is pressed:

```
Router(config)# call-manager-fallback
Router(config-cm-fallback)# voicemail 914085551000
```

The number 914085551000 is called when the Cisco IP phone messages button is pressed to retrieve messages.

Related Commands	Command	Description
	call-manager-fallback	Enables SRS Telephony feature support and enters CallManager fallback configuration mode.