



Cisco IOS Voice Commands:

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This chapter contains commands to configure and maintain Cisco IOS voice applications. The commands are presented in alphabetical order. Some commands required for configuring voice may be found in other Cisco IOS command references. Use the command reference master index or search online to find these commands.

For detailed information on how to configure these applications and features, refer to the *Cisco IOS Voice Configuration Guide*.

limit-dn (cm-fallback)

To set a limit of directory numbers on each Cisco IP phone when the Survivable Remote Site (SRS) Telephony feature is enabled, use the **limit-dn** command in call-manager-fallback configuration mode. To reset to the default, use the **no** form of this command.

limit-dn [7910 | 7940 | 7960] *max-lines*

no limit-dn [7910 | 7940 | 7960]

| Syntax Description | | |
|--------------------|------------------|--|
| | 7960 | Cisco IP Phone 7960. |
| | 7940 | Cisco IP Phone 7940. |
| | 7910 | Cisco IP Phone 7910. |
| | <i>max-lines</i> | Maximum number of directory numbers. Range is from 1 to 34. Default is 34. |

Defaults 34 directory numbers

Command Modes Call-manager-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, Cisco 3600 series, and Cisco IAD2420 series. |
| | 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. |
| | 12.2(8)T1 | This command was implemented on the Cisco 2600-XM and Cisco 2691. |
| | 12.2(11)T | This command was implemented on the Cisco 1760. |

Usage Guidelines This command rations the maximum number of directory numbers for each Cisco IP phone type, when the SRS Telephony features is enabled. In the CallManager environment the network supports large numbers of Cisco IP phones; but when CallManager falls back to STS Telephony, the specified routers have limits to the directory numbers. Therefore this configuration allows you to ration the directory numbers accordingly.



Note

You must configure this command during the initial SRS Telephony router configuration, before any IP phone actually registers to the SRS Telephony router. You can modify the number of lines at a later time.

The range of the maximum lines setting is from 1 to 34. The default maximum directory number is set to 34. If there is any active phone with last line number greater than this limit, warning information is displayed for phone reset.

Examples

The following example sets a directory number limit of 2 for the Cisco IP phone 7910:

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

Related Commands

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

link (RLM)

To enable a Redundant Link Manager (RLM) link, use the **link** command in RLM configuration mode. To disable this function, use the **no** form of this command.

link {hostname *name* | address *ip-address*} source *loopback-source* weight *factor*

no link {hostname *name* | address *ip-address*} source *loopback-source* weight *factor*

| Syntax Description | Parameter | Description |
|--------------------|--------------------------------------|--|
| | hostname <i>name</i> | RLM host name. If host name is used, RLM looks up the DNS server periodically for the host name configured until lookup is successful or the configuration is removed. |
| | address <i>ip-address</i> | IP address of the link. |
| | source <i>loopback-source</i> | Loopback interface source. We recommend that you use the loopback interface as the source, so that it is independent of the hardware condition. Also, the source interface should be different in every link to avoid falling back to the same routing path. If you intend to use the same routing path for the failover, a single link is sufficient to implement it. |
| | weight <i>factor</i> | An arbitrary number that sets link preference. The higher the weighting factor number assigned, the higher priority it gets to become the active link. If all entries have the same weighting factor assigned, all links are treated equally. There is no preference among servers according to the assumption that only one server accepts the connection requests at any given time. Otherwise, preferences are extended across all servers. |

Defaults Disabled

Command Modes RLM configuration

| Command History | Release | Modification |
|-----------------|---------|------------------------------|
| | 11.3(7) | This command was introduced. |

Usage Guidelines This command is a preference-weighted multiple entries command. Within the same server, the link preference is specified in weighting.

Examples The following example specifies the RLM group (network access server), device name, and link addresses and their weighting preferences:

```
rlm group 1
server r1-server
link address 10.1.4.1 source Loopback1 weight 4
link address 10.1.4.2 source Loopback2 weight 3
```

load (telephony-service)

To associate a phone firmware file with a type of Cisco IP phone, use the **load** command in telephony-service configuration mode. To disassociate a phone firmware file with a type of Cisco IP phones, use the **no** form of this command.

load *phone-type firmware-file*

no load *phone-type firmware-file*

| Syntax Description | | |
|--------------------|----------------------|--|
| | <i>phone-type</i> | Type of IP phone. The following choices are valid: <ul style="list-style-type: none"> • 7910—Cisco IP Phone 7910 • 7914—Cisco IP Expansion Module 7914 • 7935—Cisco IP Conference Station 7935 • 7960-7940—Cisco IP Phone 7940 and Cisco IP Phone 7960 • ATA—Cisco ATA-186 and Cisco ATA-188 |
| | <i>firmware-file</i> | Filename for the IP phone firmware to be associated with the IP phone type. For every phone-type except ATA, do not use a file extension. Filenames are case-sensitive. |

Defaults No default behavior or values

Command Modes Telephony-service configuration

| Command History | Release | Modification |
|-----------------|------------|--|
| | 12.1(5)YD | This command was introduced on the following platforms: Cisco 2600 series, Cisco 3600 series, and Cisco IAD2420. |
| | 12.2(2)XT | This command was implemented on the Cisco 1750 and Cisco 1751. |
| | 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. |
| | 12.2(8)T1 | This command was implemented on the Cisco 2600-XM and Cisco 2691. |
| | 12.2(11)T | This command was implemented on the Cisco 1760. |
| | 12.2(11)YT | Support was added for the Cisco IP Phone Expansion Module 7914. |
| | 12.2(15)T | This command was integrated into Cisco IOS Release 12.2(15)T. |

Usage Guidelines This command updates the Cisco IOS Telephony Service (ITS) configuration file for the specified type of IP phone to add the name of the correct firmware file that it should load. This filename also provides the version number for the phone firmware that is in the file. Later, whenever a phone is started or rebooted the phone reads the configuration file to determine the name of the firmware file that it should load and then looks for that firmware file on the TFTP server.

Cisco IP phones update themselves with new phone firmware whenever they are initially started up or reloaded.

A separate **load** command is needed for each type of phone. The Cisco IP Phone 7960 and Cisco IP Phone 7940 have the same phone firmware and share the **7960-7940** keyword.

When specifying the phone firmware filename in this command, do not use any file extension. For example, if the firmware file for Cisco IP Phone Expansion Module 7914s is named W05473955.bin, you enter **load 7914 W05473955**.

Following the **load** command, you use the **tftp-server** command to enable TFTP access to the file by Cisco IP phones. Note that the **tftp-server** command requires that you use the file extension as part of the filename.

Examples

The following example identifies the Cisco IP phone firmware file that is used by Cisco IP Phone 7960 and Cisco IP Phone 7910, and then defines the ITS router Flash memory as the location of the phone firmware file:

```
Router(config)# telephony-service
Router(config-telephony-service)# load 7960-7940 P00303020209
Router(config-telephony-service)# load 7910 P00403020209
Router(config-telephony-service)# exit
Router(config)# tftp-server flash:P00303020209.bin
Router(config)# tftp-server flash:P00403020209.bin
```

Related Commands

| Command | Description |
|--------------------------|--|
| telephony-service | Enables Cisco IOS Telephony Service and enters telephony-service configuration mode. |
| tftp-server | Enables TFTP access to firmware files on the TFTP server. |

load-balance

To configure load balancing, use the **load-balance** command in gatekeeper configuration mode. To disable load balancing, use the **no** form of this command.

load-balance [**endpoints** *max-endpoints*] [**calls** *max-calls*] [**cpu** *max-%cpu*]
 [**memory** *max-%mem-used*]

no load-balance [**endpoints** *max-endpoints*] [**calls** *max-calls*] [**cpu** *max-%cpu*]
 [**memory** *max-%mem-used*]

| Syntax Description | |
|---------------------------------------|---|
| endpoints <i>max-endpoints</i> | (Optional) Maximum number of endpoints. |
| calls <i>max-calls</i> | (Optional) Maximum number of calls. |
| cpu <i>max-%cpu</i> | (Optional) Maximum percentage of CPU utilization. |
| memory <i>max-%mem-used</i> | (Optional) Maximum percentage of memory used. |

Defaults Load balancing is performed by the gatekeeper.

Command Modes Gatekeeper configuration

| Command History | Release | Modification |
|-----------------|------------|--|
| | 12.1(2)XM | This command was introduced. |
| | 12.2(2)T | This command was integrated into Cisco IOS Release 12.2(2)T. |
| | 12.2(2)XB1 | This command was implemented on the Cisco AS5850. |

Usage Guidelines Load balancing occurs when one gatekeeper reaches the default or the configured load level. Upon reaching the load-level threshold, the gatekeeper begins sending alternate gatekeeper information in Registration, Admission, and Status (RAS) messages, and the gateways then attempt to migrate from the loaded gatekeeper to its least busy alternate. The move is permanent; endpoints are not actively moved back to the original gatekeeper if it stabilizes. However, they may return to that gatekeeper if the new gatekeeper reaches a load threshold and transfers them again. The gatekeepers share the load, but they may not have equal shares. The process of load balancing allows for more effective zone management.

Examples The following example configures load balancing:

```
load-balance endpoints 200 calls 100 cpu 75 memory 80
```

| Related Commands | Command | Description |
|------------------|---------------------------|---|
| | zone cluster local | Configures alternate gatekeepers for each zone. |

local

To define the local domain, including the IP address and port that the border element (BE) should use for interacting with remote BEs, use the **local** command in Annex G configuration mode. To reset to the default, use the **no** form of this command.

local ip *ip-address* [**port** *local-port*]

no local ip

Syntax Description

| | |
|-------------------------------|---|
| ip <i>ip-address</i> | IP address of the local border element. |
| port <i>local-port</i> | (Optional) Port number of the local border element, which is used for exchanging Annex G messages. Default is 2099. |

Defaults

Port number: 2099

Command Modes

Annex G configuration

Command History

| Release | Modification |
|------------|--|
| 12.2(2)XA | This command was introduced. |
| 12.2(4)T | This command was integrated into Cisco IOS Release 12.2(4)T. This command does not support the Cisco AS5300, Cisco AS5350, and Cisco AS5400 in this release. |
| 12.2(2)XB1 | This command was implemented on the Cisco AS5850. |
| 12.2(11)T | This command was integrated into Cisco IOS Release 12.2(11)T. |

Usage Guidelines

The local IP address can be a virtual Hot Standby Routing Protocol (HSRP) address for high reliability and availability. You can configure multiple gatekeepers and BEs identically and use HSRP to designate a primary BE and other standby BEs. If the primary BE is down, a standby BE operates in its place.

Examples

The following example sets the IP address and port that the BE should use. (Note that this example uses a nonstandard port number. If you do not want to use a nonstandard port number, use the default value of 2099.)

```
Router(config)# call-router h323-annexg be20
Router(config-annexg)# local ip 121.90.10.80 port 2010
```

Related Commands

| Command | Description |
|--------------------------------|--|
| call-router | Enables the Annex G border element configuration commands. |
| show call-router status | Displays the Annex G BE status. |

loopback (controller)

To set the loopback method for testing a T1 or E1 interface, use the **loopback** command in controller configuration mode. To reset to the default, use the **no** form of this command.

```
loopback { diagnostic | local { payload | line } | remote { v54 channel-group channel-number | iboc
| esf { payload | line } }
```

```
no loopback
```

| Syntax Description | | |
|--------------------------|--|--|
| diagnostic | | Loops the outgoing transmit signal back to the receive signal. |
| local | | Places the interface into local loopback mode. |
| payload | | Places the interface into external loopback mode at the payload level. |
| line | | Places the interface into external loopback mode at the line level. |
| remote | | Keeps the local end of the connection in remote loopback mode. |
| v54 channel-group | | Activates a V.54 channel-group loopback at the remote end. Available for both T1 and E1 facilities. |
| <i>channel-number</i> | | Channel number for the V.54 channel-group loopback. Range is from 0 to 1. |
| iboc | | Sends an inband bit-oriented code to the far end to cause it to go into line loopback. |
| esf | | T1 or E1 frame type of Extended Super Frame (ESF). Only available under T1 or E1 controllers when ESF is configured on the controller. The following are keywords: <ul style="list-style-type: none"> • payload—Activates remote payload loopback by sending Facility Data Link (FDL) code. FDL is a 4-kbps out-of-band signaling channel in ESF. • line—Activates remote line loopback by sending FDL code. |

Defaults No loopback is configured.

Command Modes Controller configuration

| Command History | Release | Modification |
|-----------------|------------------------|---|
| | 11.3(1)MA | This command was introduced as a controller configuration command for the Cisco MC3810. |
| | 12.0(5)T and 12.0(5)XK | The command was introduced as an ATM interface configuration command for the Cisco 2600 series and Cisco 3600 series. |
| | 12.0(5)XE | The command was introduced as an ATM interface configuration command for the Cisco 7200 series and Cisco 7500 series. |
| | 12.0(5)XK and 12.0(7)T | The command was introduced as a controller configuration command for the Cisco 2600 series and Cisco 3600 series. |
| | 12.1(1)T | The command was modified as a controller configuration command for the Cisco 2600 series. |

Usage Guidelines

You can use a loopback test on lines to detect and distinguish equipment malfunctions caused either by the line and channel service unit/digital service unit (CSU/DSU) or by the interface. If correct data transmission is not possible when an interface is in loopback mode, the interface is the source of the problem.

Examples

The following example sets the diagnostic loopback method on controller T1 0/0:

```
controller t1 0/0
  loopback diagnostic
```

The following example sets the payload loopback method on controller E1 0/0:

```
controller e1 0/0
  loopback local payload
```

loop-detect

To enable loop detection for T1, use the **loop-detect** command in controller configuration mode. To cancel loop detection, use the **no** form of this command.

loop-detect

no loop-detect

Syntax Description This command has no arguments or keywords.

Defaults Loop detection is disabled.

Command Modes Controller configuration

| Command History | Release | Modification |
|-----------------|-----------|--|
| | 11.3(1)MA | This command was introduced on the Cisco MC3810. |

Usage Guidelines This command applies to Voice over Frame Relay and Voice over ATM on the Cisco MC3810 multiservice concentrator.

Examples The following example configures loop detection for controller T1 0:

```
controller t1 0
 loop-detect
```

| Related Commands | Command | Description |
|------------------|-----------------------------|---|
| | loopback (interface) | Diagnoses equipment malfunctions between an interface and a device. |

loss-plan

To specify the analog-to-digital gain offset for an analog Foreign Exchange Office (FXO) or Foreign Exchange Station (FXS) voice port, use the **loss-plan** command in voice-port configuration mode. To reset to the default, use the **no** form of this command.

loss-plan { **plan1** | **plan2** | **plan3** | **plan4** | **plan5** | **plan6** | **plan7** | **plan8** | **plan9** }

no loss-plan

Syntax Description

| | |
|--------------|--|
| plan1 | FXO: A-D gain = 0 dB, D-A gain = 0 dB. FXS: A-D gain = -3 dB, D-A gain = -3 dB. |
| plan2 | FXO: A-D gain = 3 dB, D-A gain = 0 dB. FXS: A-D gain = 0 dB, D-A gain = -3 dB. |
| plan3 | FXO: A-D gain = -3 dB, D-A gain = 0 dB. FXS: Not applicable. |
| plan4 | FXO: A-D gain = -3 dB, D-A gain = -3 dB. FXS: Not applicable. |
| plan5 | FXO: Not applicable. FXS: A-D gain = -3 dB, D-A gain = -10 dB. |
| plan6 | FXO: Not applicable. FXS: A-D gain = 0 dB, D-A gain = -7 dB. |
| plan7 | FXO: A-D gain = 7 dB, D-A gain = 0 dB. FXS: A-D gain = 0 dB, D-A gain = -6 dB. |
| plan8 | FXO: A-D gain = 5 dB, D-A gain = -2 dB. FXS: Not applicable. |
| plan9 | FXO: A-D gain = 6 dB, D-A gain = 0 dB. FXS: Not applicable. |

Defaults

FXO: A-D gain = 0 dB, D-A gain = 0 dB (loss plan 1)
FXS: A-D gain = -3 dB, D-A gain = -3 dB (loss plan 1)

Command Modes

Voice-port configuration

Command History

| Release | Modification |
|-----------|---|
| 11.3(1)MA | This command was introduced on the Cisco MC3810. |
| 12.0(7)XK | The following additional signal level choices were added: plan 3, plan 4, plan 8, and plan 9. |
| 12.1(2)T | This command was integrated into Cisco IOS Release 12.1(2)T. |

Usage Guidelines

This command sets the analog signal level difference (offset) between the analog voice port and the digital signal processor (DSP). Each loss plan specifies a level offset in both directions—from the analog voice port to the DSP (A-D) and from the DSP to the analog voice port (D-A).

Use this command to obtain the required levels of analog voice signals to and from the DSP.

This command is supported only on Cisco MC3810 multiservice concentrators, on FXO and FXS analog voice ports.

Examples

The following example configures FXO voice port 1/6 for a -3 dB offset from the voice port to the DSP and for a 0 dB offset from the DSP to the voice port:

```
voice-port 1/6
  loss-plan plan3
```

The following example configures FXS voice port 1/1 for a 0 dB offset from the voice port to the DSP and for a -7 dB offset from the DSP to the voice port:

```
voice-port 1/1
  loss-plan plan6
```

Related Commands

| Command | Description |
|---------------------------|---|
| impedance | Specifies the terminating impedance of a voice port interface. |
| input gain | Specifies the gain applied by a voice port to the input signal from the PBX or other customer premises equipment. |
| output attenuation | Specifies the attenuation applied by a voice port to the output signal toward the PBX or other customer premises equipment. |

lrq forward-queries

To enable a gatekeeper to forward location request (LRQ) messages that contain E.164 addresses that match zone prefixes controlled by remote gatekeepers, use the **lrq forward-queries** command in gatekeeper configuration mode. To disable this function, use the **no** form of this command.

lrq forward-queries [add-ttl]

no lrq forward-queries

Syntax Description

| | |
|----------------|---|
| add-ttl | Adds a hop count field to the LRQ if one is not present by filling in the time-to-live (TTL) field as if the LRQ is freshly originated from a Cisco gatekeeper. Maximum value is 10. Default 6. |
|----------------|---|

Defaults

Disabled

Command Modes

Gatekeeper configuration

Command History

| Release | Modification |
|----------|---|
| 12.0(3)T | This command was introduced on the following platforms: Cisco 2500 series, Cisco 3600 series, and Cisco MC3810. |
| 12.3(2)T | The add-ttl keyword was added. |

Usage Guidelines

LRQ forwarding is dependent on a Cisco nonstandard field that first appeared in Cisco IOS Release 12.0(3)T. This means that any LRQ message received from a non-Cisco gatekeeper or any gatekeeper running a Cisco IOS software image prior to Cisco IOS Release 12.0(3)T is not forwarded.

The routing of E.164-addressed calls is dependent on the configuration of zone prefix tables (for example, area code definitions) on each gatekeeper. Each gatekeeper is configured with a list of prefixes controlled by itself and by other remote gatekeepers. Calls are routed to the zone that manages the matching prefix. Thus, in the absence of a directory service for such prefix tables, you, the network administrator, may have to define extensive lists of prefixes on all the gatekeepers in your administrative domain.

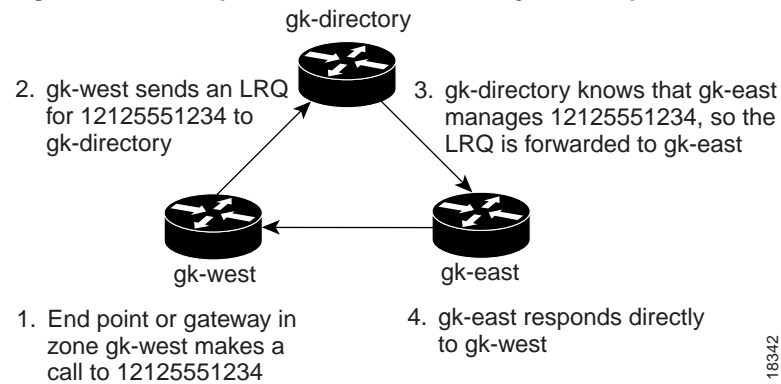
To simplify this task, you can select one of your gatekeepers as the “directory” gatekeeper and configure that gatekeeper with the complete list of prefixes and the **lrq forward-queries** command. You can then simply configure all the other gatekeepers with their own prefixes and the wildcard prefix “*” for your directory gatekeeper.

This command affects only the forwarding of LRQ messages for E.164 addresses. LRQ messages for H.323-ID addresses are never forwarded.

Examples

The following example selects one gatekeeper as the directory gatekeeper. See [Figure 4](#).

Figure 4 Example Scenario with Directory Gatekeeper and Two Remote Gatekeepers

**Configuration on gk-directory**

On the directory gatekeeper called gk-directory, identify all the prefixes for all the gatekeepers in your administrative domain:

```
zone local gk-directory cisco.com
zone remote gk-west cisco.com 172.16.1.1
zone remote gk-east cisco.com 172.16.2.1

zone prefix gk-west 1408.....
zone prefix gk-west 1415.....
zone prefix gk-west 1213.....
zone prefix gk-west 1650.....

zone prefix gk-east 1212.....
zone prefix gk-east 1617.....

lrq forward-queries
```

Configuration on gk-west

On the gatekeeper called gk-west, configure all the locally managed prefixes for that gatekeeper:

```
zone local gk-west cisco.com
zone remote gk-directory cisco.com 172.16.2.3

zone prefix gk-west 1408.....
zone prefix gk-west 1415.....
zone prefix gk-west 1213.....
zone prefix gk-west 1650.....
zone prefix gk-directory *
```

Configuration on gk-east

On the gatekeeper called gk-east, configure all the locally managed prefixes for that gatekeeper:

```
zone local gk-east cisco.com
zone remote gk-directory cisco.com 172.16.2.3

zone prefix gk-east 1212.....
zone prefix gk-east 1617.....
zone prefix gk-directory *
```

■ lrq forward-queries

When an endpoint or gateway in zone gk-west makes a call to 12125551234, gk-west sends an LRQ message for that E.164 address to gk-directory, which forwards the message to gk-east. Gatekeeper gk-east responds directly to gk-west.

The following example configures an LRQ message with a fresh TTL value, adding a new hop count field:

```
Router(config-gk)# lrq forward-queries add-ttl
```

Related Commands

| Command | Description |
|----------------------------------|--|
| lrq reject-unknown-prefix | Enables the gatekeeper to reject all LRQ messages for zone prefixes that are not configured. |

lrq lrj immediate-advance

To enable the Cisco IOS gatekeeper to immediately send a sequential location request (LRQ) message to the next zone after it receives a location reject (LRJ) message from a gatekeeper in the current zone, use the **lrq lrj immediate-advance** command in gatekeeper configuration mode. To disable this function, use the **no** form of this command.

lrq lrj immediate-advance

no lrq lrj immediate-advance

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Gatekeeper configuration

| Command History | Release | Modification |
|-----------------|----------|---|
| | 12.2(4)T | This command was introduced. This command does not support the Cisco AS5300, Cisco AS5350, and Cisco AS5400 series in this release. |

Usage Guidelines In a network in which LRQ messages are forwarded through multiple gatekeepers along a single path, a single LRQ message sent from a gatekeeper could solicit multiple LRJ and location confirmation (LCF) responses. If an LRJ response is received first, a potentially unnecessary LRQ message could be sent to the next zone, increasing traffic.

To avoid this problem, perform the following:

- Configure the zone prefix to send sequential LRQ messages rather than to use the **blast** option, using the **zone prefix** command.
- Configure the sequential timer on each gatekeeper along the path, using the **timer lrq seq delay** command.

Examples The following example enables the gatekeeper to immediately send a sequential LRQ message to the next zone after it receives an LRJ message from a gatekeeper in the current zone.

```
lrq lrj immediate-advance
```

| Related Commands | Command | Description |
|------------------|----------------------------|---|
| | timer lrq seq delay | Defines the time interval between successive sequential LRQ messages. |
| | timer lrq window | Defines the time window during which the gatekeeper collects responses to one or more outstanding LRQ messages. |
| | zone prefix | Adds a prefix to the gatekeeper zone list. |

lrq reject-resource-low

To configure a gatekeeper to notify a sending gatekeeper on receipt of a location request (LRQ) message that no terminating endpoints are available, use the **lrq reject-resource-low** command in gatekeeper configuration mode. To disable this function, use the **no** form of this command.

lrq reject-resource-low

no lrq reject-resource-low

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Gatekeeper configuration

| Release | Modification |
|-----------|---|
| 12.2(11)T | This command was introduced on the following platforms: Cisco 2500 series, Cisco 2600 series, Cisco 3600 series, Cisco 3700 series, Cisco 7200 series, and Cisco 7400 series. |

Examples The following example causes the gatekeeper to notify the sending gatekeeper on receipt of an LRQ message that no terminating endpoints are available:

```
Router(config)# gatekeeper
Router(config-gk)# lrq reject-resource-low
```

lrq reject-unknown-circuit

To enable the gatekeeper to reject a location request (LRQ) message that contains an unknown destination circuit, use the **lrq reject-unknown-circuit** command in gatekeeper configuration mode. To disable the rejection, use the **no** form of this command.

lrq reject-unknown-circuit

no lrq reject-unknown-circuit

Syntax Description This command has no keywords or arguments.

Defaults Disabled

Command Modes Gatekeeper configuration

| Command History | Release | Modification |
|-----------------|-----------|------------------------------|
| | 12.2(11)T | This command was introduced. |

Usage Guidelines The gatekeeper checks the destination circuit field in each LRQ message. If the field contains a circuit unknown to the gatekeeper and this command is entered, the gatekeeper rejects the LRQ request. If this command is disabled, the gatekeeper tries to resolve the alias without considering the circuit.

Examples The following example causes the gatekeeper to reject unknown carriers in an LRQ request:

```
Router(config)# gatekeeper
Router(config-gk)# lrq reject-unknown-circuit
```

| Related Commands | Command | Description |
|------------------|--|--|
| | endpoint circuit-id h323id | Assigns a circuit to a non-Cisco endpoint. |
| | show gatekeeper endpoint circuits | Displays the information of all registered endpoints for a gatekeeper. |

lrq reject-unknown-prefix

To enable the gatekeeper to reject all location request (LRQ) messages for zone prefixes that are not configured, use the **lrq reject-unknown-prefix** command in gatekeeper configuration mode. To reenable the gatekeeper to accept and process all incoming LRQ messages, use the **no** form of this command.

lrq reject-unknown-prefix

no lrq reject-unknown-prefix

Syntax Description This command has no arguments or keywords.

Defaults The gatekeeper accepts and processes all incoming LRQ messages.

Command Modes Gatekeeper configuration

| Command History | Release | Modification |
|-----------------|------------|---|
| | 11.3(6)NA2 | This command was introduced on the Cisco 2500 series and Cisco 3600 series. |
| | 12.0(3)T | This command was integrated into Cisco IOS Release 12.0(3)T. |

Usage Guidelines Use this command to configure the gatekeeper to reject any incoming LRQ messages for a destination E.164 address that does not match any of the configured zone prefixes.

Whether or not you use this command, the following is true when the E.164 address matches a zone prefix:

- If the matching zone prefix is local (that is, controlled by this gatekeeper), the LRQ message is serviced.
- If the matching zone prefix is remote (that is, controlled by some other gatekeeper), the LRQ message is rejected.

If you do not use this command and the target address does not match any known local or remote prefix, the default behavior is to attempt to service the call using one of the local zones. If this default behavior is not suitable for your site, use this command on your router to force the gatekeeper to reject such requests.

Examples Consider the following gatekeeper configuration:

```
zone local gk408 cisco.com
zone local gk415 cisco.com
zone prefix gk408 1408.....
zone prefix gk415 1415.....
lrq reject-unknown-prefix
```

In this sample configuration, the gatekeeper is configured to manage two zones. One zone contains gateways with interfaces in the 408 area code, and the second zone contains gateways in the 415 area code. Then using the **zone prefix** command, the gatekeeper is configured with the appropriate prefixes so that calls to those area codes hop off in the optimal zone.

Now say some other zone has been erroneously configured to route calls to the 212 area code to this gatekeeper. When the LRQ message for a number in the 212 area code arrives at this gatekeeper, the gatekeeper fails to match the area code, and the message is rejected.

If this was your only site that had any gateways in it and you wanted your other sites to route all calls that require gateways to this gatekeeper, you can undo the **lrq reject-unknown-prefix command** by simply using the **no lrq reject-unknown-prefix command**. Now when the gatekeeper receives an LRQ message for the address 12125551234, it attempts to find an appropriate gateway in either one of the zones gk408 or gk415 to service the call.

Related Commands

| Command | Description |
|----------------------------|--|
| lrq forward-queries | Enables a gatekeeper to forward LRQ messages that contain E.164 addresses that match zone prefixes controlled by remote gatekeepers. |

lrq timeout blast window

To configure the timeout window for use when sending multiple location request (LRQ) messages (either sequentially or simultaneously), use the **lrq timeout blast window** command in gatekeeper configuration mode. To reset to the default, use the **no** form of this command.

lrq timeout blast window *seconds*

no lrq timeout blast window

| | | |
|---------------------------|----------------|--|
| Syntax Description | <i>seconds</i> | Duration of the window, in seconds. Range is from 1 to 10. Default is 6. |
|---------------------------|----------------|--|

| | |
|-----------------|-----------|
| Defaults | 6 seconds |
|-----------------|-----------|

| | |
|----------------------|--------------------------|
| Command Modes | Gatekeeper configuration |
|----------------------|--------------------------|

| Command History | Release | Modification |
|------------------------|----------------|---|
| | 12.1(2)T | This command was introduced on the following platforms: Cisco 2500 series, Cisco 2600 series, Cisco 3600 series, Cisco 7200 series, and Cisco MC3810. |

| | |
|-----------------|--|
| Examples | The following example sets the window to 3 seconds: <pre>lrq timeout blast window 3</pre> |
|-----------------|--|

| Related Commands | Command | Description |
|-------------------------|----------------------------------|--|
| | gatekeeper gw-type-prefix | Sets the gatekeepers responsible for each technology prefix. |
| | zone prefix | Adds a prefix to a gatekeeper's zone list. |

Irq timeout seq delay

To configure the delay for use when sending location request (LRQ) messages sequentially, use the **irq timeout seq delay** command in gatekeeper configuration mode. To reset to the default, use the **no** form of this command.

irq timeout seq delay *value*

no irq timeout seq delay

| | | |
|---------------------------|--------------|---|
| Syntax Description | <i>value</i> | Duration of the delay, in 100-millisecond units. Range is from 1 to 10. The default is 5 (500 ms or 0.5 seconds). |
|---------------------------|--------------|---|

| | |
|-----------------|--|
| Defaults | Five 100-millisecond units (500 ms or 0.5 seconds) |
|-----------------|--|

| | |
|----------------------|--------------------------|
| Command Modes | Gatekeeper configuration |
|----------------------|--------------------------|

| | | |
|------------------------|----------------|---|
| Command History | Release | Modification |
| | 12.1(2)T | This command was introduced on the following platforms: Cisco 2500 series, Cisco 2600 series, Cisco 3600 series, Cisco 7200 series, and Cisco MC3810. |

Examples The following example sets the window to 300 milliseconds:

```
irq timeout seq delay 3
```

| | | |
|-------------------------|----------------------------------|--|
| Related Commands | Command | Description |
| | gatekeeper gw-type-prefix | Sets the gatekeepers responsible for each technology prefix. |
| | zone prefix | Adds a prefix to a gatekeeper's zone list. |