6

GKTMP Command Reference

This chapter describes commands that support the new Cisco IOS Gatekeeper functions and includes the following commands:

- **server trigger**
- **timer server timeout**
- **server registration-port**
- **show gatekeeper servers**
- **debug gatekeeper servers**

Note As with all Cisco IOS commands, you can abbreviate the Cisco IOS Gatekeeper trigger registration commands. To abbreviate a command, simply enter the first few characters of the command and press tab. To obtain online help for a command, enter the first few characters of the command followed by a question mark.

For additional Cisco IOS commands, see the following documents:

Cisco High Performance Gatekeeper

Cisco IOS Voice, Video, and Fax Configuration Guide, Release 12.2

Cisco IOS Voice, Video, and Fax Command Reference, Release 12.2

server trigger

To configure a static server trigger for external applications, enter the **server trigger** command from Gatekeeper mode. Enter the **no** form of this command to remove a single statically configured trigger entry. Enter the "all" form of the command to remove every static trigger you configured if you want to delete them all.

> **server trigger {arq | lcf | lrj | lrq | rrq | urq | drq | rai | brq}** *gkid priority server-id*
> *server-ip_address server-port*

> **no server trigger { arq | lcf | lrj | lrq | rrq | urq | drq | rai | brq}** *gkid priority*

> **no server trigger all**

Syntax Description	**arq**	**lcf**	**lrj**	**lrq**	**rrq**	urq	**drq**	**rai**	**brq**	The RAS messages for which you can create triggers on the Cisco IOS Gatekeeper. You can specify only one message type per server trigger command. There is a different trigger submode for each message type. Each trigger submode has its own set of applicable commands.
	gkid	The identifier of the Cisco IOS Gatekeeper.
	priority	The priority for this particular trigger. Possible values are 1 through 20. 1 is the highest.
	server-id	The identifier of the external application.
	server-ip_address	The IP address of the server on which the external application is running.
	server-port	The port on which the server listens for messages from the Cisco IOS Gatekeeper.

Command Modes   Gatekeeper configuration

Submode Commands

The following subcommands can be used in any of the trigger submodes:

- **info-only**
- **shutdown**

The following subcommands can be used in specific trigger submodes to configure certain types of trigger conditions:

- **destination-info**
- **redirect-reason**
- **remote-ext-address**
- **endpoint-type**
- **supported-prefix**

info-only

To indicate to the Cisco IOS Gatekeeper that messages that meet the specified trigger parameters should be sent as notifications only and that the Cisco IOS Gatekeeper should not wait for a response from the external application, use the **info-only** subcommand.

info-only

Syntax Description	**info-only**	Informational only. No need to wait for acknowledgment.

Command Modes	Any of the Cisco IOS Gatekeeper trigger submodes

shutdown

To temporarily disable a trigger, use the **shutdown** subcommand. Cisco IOS Gatekeepers do not consult triggers in shutdown state when determining whether a message should be forwarded to an external application.

shutdown

Syntax Description	**shutdown**	Changes the administrative state of a trigger to shutdown.

Command Modes	Any of the Cisco IOS Gatekeeper trigger submodes

destination-info

To configure a trigger that is based on a particular destination, use the **destination-info** subcommand.

destination-info {e164 | email-id | h323-id} *value*

Syntax Description	**e164**	Indicates that the destination address is an E.164 address.
	email-id	Indicates that the destination address is an e-mail ID.
	h323-id	Indicates that the destination address is an H.323 ID.
	value	Specifies the value against which to compare the destination address in the RAS messages. For E.164 addresses, the following wildcards can be used: • A trailing series of periods, each of which represents a single character. • A trailing asterisk, which represents one or more characters.

Command Modes	Cisco IOS Gatekeeper ARQ, LRQ, LCF, LRJ, and DRQ trigger submodes

redirect-reason

To configure a trigger that is based on a specific redirect reason, use the **redirect-reason** subcommand.

redirect-reason *value*

Syntax Description	value	Specifies the value against which to compare the redirect reason in the RAS messages. Possible values are 0-65535. Currently–used redirect reasons are:
		• 0—Unknown reason
		• 1—Call forwarding busy or called DTE busy
		• 2—Call forwarded no reply
		• 4—Call deflection
		• 9—Called DTE out of order
		• 10—Call forwarding by the call DTE
		• 15—Call forwarding unconditionally

Command Modes   Cisco IOS Gatekeeper ARQ, LRQ, DRQ, and BRQ trigger submodes

remote-ext-address

To configure a trigger that is based on a specific remote extension address, use the **remote-ext-address** subcommand.

remote-ext-address *e164 value*

Syntax Description	e164	Indicates that the remote extension address is an E.164 address.
	value	Specifies the value against which to compare the destination address in the RAS messages. The following wildcards can be used:
		• A trailing series of periods, each of which represents a single character.
		• A trailing asterisk, which represents one or more characters.

Command Modes   Cisco IOS Gatekeeper LCF trigger submode

endpoint-type

To configure a trigger that is based on a specific endpoint, use the **endpoint-type** subcommand.

endpoint-type *value*

Syntax Description	*value*	Specifies the value against which to compare the endpoint-type in the RAS messages. The possible values are:
		• gatekeeper—The endpoint is an H.323 gatekeeper.
		• h320-gateway—The endpoint is an H.320 gateway.
		• mcu—The endpoint is an MCU.
		• other-gateway—The endpoint is a type of gateway not specified on this list.
		• proxy—The endpoint is an H.323 proxy.
		• terminal—The endpoint is an H.323 terminal.
		• voice-gateway—The endpoint is a voice type gateway.

Command Modes   Cisco IOS Gatekeeper RRQ, URQ, and RAI trigger submodes

supported-prefix

To configure a trigger that is based on a specific supported prefix, use the **supported-prefix** subcommand.

> **supported-prefix** *value*

Syntax Description	value	Specifies the value against which to compare the supported prefix in the RAS messages. The possible values are any E.164 pattern used as a gateway technology prefix. The value string can contain any of the following: 0123456789#*,

Command Modes   Cisco IOS Gatekeeper RRQ, URQ, and RAI trigger submodes

timer server timeout

To define the server timeout for GKTMP messages, use the **timer server timeout** command.

timer server timeout *value*

Syntax Description

value	The timeout in seconds. Possible values are 1 through 5. The default value is 3.

Command Modes   Gatekeeper configuration

server registration-port

To define a listener port to be used by the external applications to establish connections to the gatekeeper on this router, use the **server registration-port** gatekeeper configuration command.

server registration-port *port_number*

no server registration-port

The **no** form of this command forces the gatekeeper on this router to close the listener port so that it cannot receive any additional registrations. However, existing connections between the gatekeeper and external application are left open.

Syntax Description		
port_number	The port on which the Cisco IOS Gatekeeper should listen for registration messages from external applications.	

Command Modes   Gatekeeper configuration

show gatekeeper servers

To display a list of the triggers (whether dynamically registered from the external applications or statically configured from the command-line interface), use the **show gatekeeper servers** EXEC command.

show gatekeeper servers [*gkid*]

Syntax Description

gkid	Specifies the ID of the gatekeeper. If you specify a gatekeeper ID, only the information about the external applications that are registered with the specified gatekeeper is displayed. If you do not specify a gatekeeper ID, information about all the external applications that are registered with any of the Cisco IOS Gatekeepers on this router is displayed.

Command Modes   EXEC mode

Examples   The following example shows the **show gatekeeper servers** command output:

Example 6-1   show gatekeeper servers Output

```
router# show gatekeeper servers gk102

                GATEKEEPER SERVERS STATUS
                =========================

    Gatekeeper Server listening port: 20000
       Gatekeeper GKTMP version:2.0

    Gatekeeper-ID: gk102
    --------------------
    RRQ  Priority: 1
      Server-ID: sj-server
      Server IP address: 1.14.93.28:42387
      Server type: dynamically registered
      Connection Status: active
        Server GKAPI version:2.0
      Trigger Information:
        Supported Prefix: 10#
        Supported Prefix: 3#
    RRQ  Priority: 2
      Server-ID: sf-server
      Server IP address: 1.14.93.43:3820
      Server type: CLI-configured
      Connection Status: inactive
        Server GKAPI version:2.0
      Trigger Information:
        Endpoint-type: MCU
        Endpoint-type: VOIP-GW
        Supported Prefix: 99#
    ARQ  Priority: 1
      Server-ID: sj-server
      Server IP address: 1.14.93.28:42387
```

```
                  Server type: dynamically registered
                  Connection Status: active
                    Server GKAPI version:2.0
                  Trigger Information:
                    Destination Info: M:nilkant@zone14.com
                    Destination Info: E:1800.......
                    Redirect Reason: Call forwarded no reply
                    Redirect Reason: Call deflection
```

debug gatekeeper servers

To turn debugging on, use the **debug gatekeeper servers** EXEC command. This command traces all the message exchanges between the Cisco IOS Gatekeeper and the external application. This command also displays any errors that occur when sending messages to the external application or when parsing messages from the external application. The **no** form of this command turns debugging off.

debug gatekeeper servers

no debug gatekeeper servers

Syntax Description   This command has no keywords or arguments.

Command Modes   EXEC mode

Examples   The following example shows the debug gatekeeper servers output:

Example 6-2   debug gatekeeper servers Output

```
router#debug gatekeeper servers
############ begin screen trace
00:08:47:GK:processing server msg:
REGISTER RRQ
From:server1
To:gk617
Priority:1


00:08:47:GK TMSG encoded to write buffer:
"REGISTER RRQ
From:gk617
To:server1
Priority:1
Status:success


"

00:11:16:GK TMSG encoded to write buffer:
"REQUEST RRQ
From:gk617
To:server1
Transaction-Id:6121529400000001
Content-Length:62

c=I:1.14.93.92:1720
r=I:1.14.93.92:24999
t=proxy
a=H:px14
"

00:11:16:GK:processing server msg:
RESPONSE RRQ
From:server1
To:gk617
```

```
Transaction-Id:6121529400000001
Content-Length:35

a=M:jsmith
p=1# 2 # 3# 1800...

00:11:45:GK TMSG encoded to write buffer:
"REQUEST RRQ
From:gk617
To:server1
Transaction-Id:6121529400000002
Content-Length:72

c=I:1.14.93.130:1720
r=I:1.14.93.130:4307
t=voice-gateway
a=H:gw130
"

00:11:45:GK:processing server msg:
RESPONSE RRJ
From:server1
To:gk617
Transaction-Id:6121529400000002
Content-Length:18

R=securityDenial
########### end screen trace
```

debug gatekeeper servers