



Configuring Server Groups

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Viewing a List of Server Groups

Server groups define the elements with which the Cisco Unified SIP Proxy system interacts for each network.

Procedure

Step 1 Choose **Configure > Server Groups > Groups**.

The system displays the Server Groups page with the Groups tab highlighted, containing the fields described in [Table 5](#).

Table 5 **Server Groups (Groups Tab) Fields**

Parameter	Description
State	<p>Can be one of the following:</p> <ul style="list-style-type: none"> • New—New record. Will be added to the active configuration when it is committed. • Modified—Modified record. Will become the active configuration when it is committed. • Deleted—Deleted record. Will be removed from the active configuration when it is committed. • Active—Active record and active configuration.
Name	<p>Name of this server group.</p> <p>Note The system inserts the server group name into the SIP URI of the outgoing request. Some devices, such as Cisco Unified Communications Manager, validate the URI of requests before processing, so you may need to configure the end device with a Fully Qualified Domain Name (FQDN) to allow for this functionality.</p>
Load Balancing Scheme	<p>Configures the load-balancing algorithm for all SIP server groups.</p> <p>Can be one of the following:</p> <ul style="list-style-type: none"> • global (default) • call-id—Specifies that a hash algorithm with call-id is performed to select an element. • request-uri—Specifies that a hash algorithm with a request URI is performed to select an element. • to-uri—Specifies that a hash algorithm with a To header URI is performed to select an element. • weight—Specifies that the element is selected proportional to its weight relative to the weights of other elements of the same q-value. This value is only applicable if implementing weight-based routing. • highest-q—Specifies that the first element in the list of available elements with the same highest q-value is selected.
Network	Name of the network associated with this server group.
Elements	Elements associated with this server group.
Pinging Allowed	Whether pinging is allowed. Can be either true or false.
Failover Response Codes	<p>The response code(s) that indicates the next-hop server is unable to process the request. The valid values are numbers between 500 and 599.</p> <p>To add multiple failover response codes, separate the individual codes by a comma and indicate ranges with a dash. Commas and dashes must be followed by a space.</p>

- Step 2** To delete a server group, do the following:
- Check the check box next to the server group to delete.
 - Click **Remove**.
 - In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
- Step 3** To revert any changes you have made back to the state they were in at the time of the last commit, do the following:
- Check the check box next to the name of the server group that has the changes to which you want to revert.
 - Click **Revert**.
 - In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
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Related Topics

- [Managing the System Configuration](#)
- Back to the [Configuring Server Groups](#) menu page

Adding a Server Group

Before You Begin

You must create and configure at least one network before you can add a server group. See [Configuring Networks](#).

Procedure

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- Step 1** Choose **Configure > Server Groups > Groups**.
- The system displays the Server Groups page with the Groups tab highlighted.
- Step 2** Click **Add**.
- The system displays the Server Group (New) page.
- Step 3** Enter information. See [Table 5](#).
- Step 4** Click **Add**.
- Step 5** In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
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Related Topics

- [Managing the System Configuration](#)
- Back to the [Configuring Server Groups](#) menu page

Editing a Server Group

Procedure

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- Step 1** Choose **Configure > Server Groups > Groups**.
- The system displays the Server Groups page with the Groups tab highlighted.
- Step 2** Click the underlined name of the server group to edit.
- The system displays the Server Group ‘<name of server group>’ page with the Group Settings tab highlighted.
- Step 3** Edit the information. See [Table 5](#).
- Step 4** Click **Update**.
- Step 5** In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
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Related Topics

- [Managing the System Configuration](#)
- Back to the [Configuring Server Groups](#) menu page

Viewing and Editing the General Settings for All Server Groups

Follow this procedure to view and edit the general settings that affect all server groups.

Procedure

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- Step 1** Choose **Configure > Server Groups > General Settings**.
- The system displays the Server Groups page with the General Settings tab highlighted, containing the fields described in [Table 6](#).

Table 6 *Server Groups (General Settings Tab) Fields*

Parameter	Description
Server Group Element Retries	
UDP	Maximum number of consecutive failed attempts to send a request to a server group element via the specified protocol before the element is considered down. A failed attempt can occur because of a timeout, ICMP error, or receipt of a failure response. The valid range is from 0 to 65535.
TCP	
TLS	

Table 6 **Server Groups (General Settings Tab) Fields (continued)**

Parameter	Description
Global Load Balancing Scheme	
Load Balancing Scheme	<p>Configures the load-balancing algorithm for all SIP server groups.</p> <p>Can be one of the following:</p> <ul style="list-style-type: none"> • call-id (default)—Specifies that a hash algorithm with call-id is performed to select an element. • request-uri—Specifies that a hash algorithm with a request URI is performed to select an element. • to-uri—Specifies that a hash algorithm with a To header URI is performed to select an element. • weight—Specifies that the element is selected proportional to its weight relative to the weights of other elements of the same q-value. This value is only applicable if implementing weight-based routing. • highest-q—Specifies that the first element in the list of available elements with the same highest q-value is selected.
Global Ping	
Pinging Allowed	Whether pinging is allowed. Can be either enable or disable.
Default Failed Element Retry After Duration (in milliseconds)	
Failover Response Codes	<p>The response code(s) that indicates the next-hop server is unable to process the request. The valid values are numbers between 500 and 599.</p> <p>To add multiple failover response codes, separate the individual codes by a comma and indicate ranges with a dash. Commas and dashes must be followed by a space.</p>

Step 2 To edit the settings, change the values.

Step 3 Click **Update**.

Step 4 In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.

Related Topics

- [Managing the System Configuration](#)
- Back to the [Configuring Server Groups](#) menu page

Viewing and Deleting Server Group Elements

There can be multiple elements in each server group.

Procedure

Step 1 Choose **Configure > Server Groups > Groups**.

The system displays the Server Groups page with the Groups tab highlighted.

Step 2 To see the elements associated with this server group, click **click here** under the Elements header.

The system displays the Server Group '<name of server group>' page with the Elements tab highlighted. The page contains the fields described in [Table 7](#).

Table 7 Server Group (Elements Tab) Fields

Parameter	Description
State	Can be one of the following: <ul style="list-style-type: none"> New—New record. Will be added to the active configuration when it is committed. Modified—Modified record. Will become the active configuration when it is committed. Deleted—Deleted record. Will be removed from the active configuration when it is committed. Active—Active record and active configuration.
IP Address	Specifies the interface host name or IP address of the server group element.
Port	Specifies the port used by the server group element. Valid values are from 1024 to 65535. The default is 5060.
Transport	Specifies the transport type of the server group element. Can be one of the following: <ul style="list-style-type: none"> UDP (default) TCP TLS
Nested Server Group	Whether or not this server group can contain another server group.
Q-Value	Specifies a real number that specifies the priority of the server group element with respect to others in the server group. Valid values are from 0.0 to 1.0. The default value is 1.0.
Weight	Specifies the percentage assigned to the IP element in the server group if implementing weight-based routing. The valid range is from 0 to 100. The default weight is 0.

- Step 3** To delete a server group element, do the following:
- Check the check box next to the name of the element.
 - Click **Remove**.
 - In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
- Step 4** To revert any changes you have made back to the state they were in at the time of the last commit, do the following:
- Check the check box next to the name of the server group element that has the changes to which you want to revert.
 - Click **Revert**.
 - In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
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Related Topics

- [Managing the System Configuration](#)
- Back to the [Configuring Server Groups](#) menu page

Adding and Editing a Server Group Element

Procedure

- Step 1** Choose **Configure > Server Groups > Groups**.
- The system displays the Server Groups page with the Groups tab highlighted.
- Step 2** Click **click here** under the Elements header that corresponds with the server group to which you want to add an element.
- The system displays the Server Group '<name of server group>' page with the Elements tab highlighted.
- Step 3** To add an element, do the following:
- Click **Add**. The system displays the Server Group '<name of server group>' Element (New) page.
 - Choose whether this element will be for an endpoint or server group.
 - Enter information about the element as described in [Table 7](#).
 - Click **Add**.
- Step 4** To edit an element, do the following:
- Click the underlined IP address for the element to edit. The system displays the Server Group '<name of server group>' Element page.
 - Make changes to the values.
 - Click **Update**.
- Step 5** In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
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Related Topics

- [Managing the System Configuration](#)
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Viewing a List of SIP Ping Network Connections

Before You Begin

You must have already created at least one network. See [Configuring Networks](#).

Procedure

Step 1 Choose **Configure > Server Groups > SIP Ping**.

The system displays the SIP Ping page with the SIP Ping tab highlighted, containing the fields described in [Table 8](#).

Table 8 *SIP Ping Fields*

Parameter	Description
Network	Name of this SIP ping network connection.
IP Address	Specifies the interface host name or IP address that listens for responses to the SIP pings. Note When you specify a hostname, the server performs a DNS lookup to confirm that the host can be resolved. It then uses the IP address when the configuration is saved. If the system cannot resolve the hostname, it displays an “IP Address validation failed” error.
Port	The UDP port that listens for responses to the SIP pings. The valid range is from 1024 to 65535. The default value is 4000. Note Be sure this port number is different from the port number specified for the server’s SIP listen point.
SIP Method	The request method for the SIP pings. Can be one of the following: <ul style="list-style-type: none"> • OPTIONS (default) • PING • INFO
Ping Type	The ping type for the SIP ping. Can be one of the following: <ul style="list-style-type: none"> • Proactive—Specifies that pinging is performed to both up and down elements, and both are pinged at the same interval. • Reactive—Specifies that pinging is performed to only down elements. This is the default value. • Adaptive—Specifies that pinging is performed to both up and down elements, and both are pinged at different intervals.

Table 8 **SIP Ping Fields (continued)**

Parameter	Description
Up Interval	(Optional; only available if you choose Adaptive or Proactive for Ping Type) Specifies the consecutive ping interval for up elements. The default value is 5000 milliseconds.
Down Interval	(Optional; only available if you choose Adaptive or Reactive for Ping Type) Specifies the consecutive ping interval in milliseconds. For Adaptive pinging, this value configures the down element ping interval. The default value is 5000 milliseconds.
Ping Timeout	Specifies the maximum number of milliseconds between a ping and a response before the ping is considered unsuccessful. The minimum allowed value is 0. The default value is 500.

- Step 2** To delete a SIP ping network connection, do the following:
- Check the check box next to the SIP ping network connection to delete.
 - Click **Remove**.
 - In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.

Related Topics

- [Managing the System Configuration](#)
- Back to the [Configuring Server Groups](#) menu page

Adding a SIP Ping Configuration

Restrictions

- You can only define one SIP ping configuration for each network. To create multiple SIP ping configurations, you must create and configure multiple networks.
- You can only add a SIP ping for server group elements with a transport type of UDP.

Before You Begin

You must create and configure at least one network before you can add a SIP ping configuration. See [Configuring Networks](#).

Procedure

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- Step 1** Choose **Configure > Server Groups > SIP Ping**.
- The system displays the SIP Ping page with the SIP Ping tab highlighted.
- Step 2** Click **Add**.
- The system displays the SIP Ping Configuration (New) page.
- Step 3** Enter information. See [Table 8](#).

- Step 4** Click **Add**.
- Step 5** In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
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Related Topics

- [Managing the System Configuration](#)
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Editing a SIP Ping Configuration

Procedure

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- Step 1** Choose **Configure > Server Groups > SIP Ping**.
- The system displays the SIP Ping page with the SIP Ping tab highlighted.
- Step 2** Check the check box next to the SIP ping network configuration to edit.
- Step 3** Click **Edit**.
- The system displays the SIP Ping Configuration ‘<name of network>’ page.
- Step 4** Edit information. See [Table 8](#).
- Step 5** Click **Update**.
- Step 6** In the Cisco Unified SIP Proxy header, click **Commit Candidate Configuration** to commit this change.
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Related Topics

- [Managing the System Configuration](#)
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Viewing a List of Call Admission Control Endpoints

The system automatically adds call admission control endpoints when you add a server group and elements and then commit the configuration.

Procedure

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- Step 1** Choose **Configure > Server Groups > Call Admission Control**.
- The system displays the Server Groups page with the Call Admission Control tab highlighted.
- For each call admission control endpoint, the system lists the IP address, port, transport, network and call admission control limit.
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Related Topics

- [Managing the System Configuration](#)
- [Configuring Call Admission Control](#)
- Back to the [Configuring Server Groups](#) menu page

Changing the Limit of a Call Admission Control Endpoint

Procedure

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- | | |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Step 1 | Choose Configure > Server Groups > Call Admission Control .

The system displays the Server Groups page with the Call Admission Control tab highlighted. |
| Step 2 | Click the underlined limit to change.

The system displays the CAC Endpoint page. |
| Step 3 | Check the unlimited check box to make the limit unlimited, or enter a value in the field. |
| Step 4 | Click Update . |
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Related Topics

- Back to the [Configuring Server Groups](#) menu page
- [Configuring Call Admission Control](#)

