RADIUS Commands

This chapter contains the following sections:

radius-server default-param

To set the default Remote Authentication Dial-In User Service (RADIUS) server parameters, use the radius-server default-param Global Configuration mode command.

To revert to its default setting, use the no form of this command.

Syntax

radius-server default-param [key RADIUSKEY] [retransmit retries] [timeout timeout]

no radius-server default-param

Parameters

key RADIUSKEY—(Optional) Specifies the key string used for authenticating and encrypting the RADIUS attributes communicated between the switch and the RADIUS server. This key must match the encryption used on the RADIUS daemon. To specify an empty string, enter "". (Length: 0 to 128 characters)

retransmit retries—(Optional) Specifies the number of transmitted requests that are sent to the RADIUS server before a failure is considered to have occurred. (Range: 1 to 10)

timeout timeout—(Optional) Specifies the number of seconds that the switch waits for an answer from the RADIUS server before retrying the query, or switching to the next server. (Range: 1 to 30, default: 3)

Default Configuration

N/A

Command Mode

Global Configuration mode

Example

```
switchxxxxxx(config)# radius-server default-param retransmit 5 timeout 20
```

radius-server host

To configure a RADIUS server, use the radius-server host Global Configuration mode command.

To delete a RADIUS server, use the no form of the command.

Syntax

radius-server host {ip-address | hostname} [acct-port acct-port-number] [auth-port auth-port-number] [key key-string] [priority priority] [retransmit retries] [timeout timeout] [usg-type {802.1x | all | login}]

no radius-server host hostname

Parameters

ip-address—IP address of the RADIUS server.

hostname—Hostname of the RADIUS server.

acct-port acct-port-number—(Optional) Specifies the UDP port number of the RADIUS server for accounting requests. If the UDP port number is set to 0, the host is not used for accounting. (Range: 0 to 65535)

auth-port auth-port-number—(Optional) Specifies the UDP port number of the RADIUS server for authentication requests. If the UDP port number is set to 0, the host is not used for authentication. (Range: 0 to 65535)

key key-string—(Optional) Specifies the authentication and encryption key for all RADIUS communications between the switch and the RADIUS server. This key must match the encryption used on the RADIUS daemon. To specify an empty string, enter "". (Length: 0 to 128 characters)

priority priority—(Optional) Specifies the priority of the RADIUS server, where 0 has the highest priority. (Range: 0 to 65535)

retransmit retries—(Optional) Specifies the number of requests that are sent to the RADIUS server before a failure is considered to have occurred. (Range: 1 to 10, default: 3)

timeout timeout—(Optional) Specifies the number of seconds that the switch waits for an answer from the RADIUS server before retrying the query, or switching to the next server. If there is no value entered in this field, the switch uses the default timeout value. (Range: 1 to 30, default: 3)

usg-type {802.1x | all | login}—(Optional) Specifies the authentication type of the RADIUS server. The possible values are:

- 802.1x—The RADIUS server is used for 802.1x port authentication.

- all—The RADIUS server is used for user login authentication and 802.1x port authentication.

- login—The RADIUS server is used for user login authentication (authenticating users that want to administer the switch).

Default Configuration

The default authentication port number is 1812.

If timeout is not specified, the global value (set in the radius-server default-param command) is used.

If retransmit is not specified, the global value (set in the radius-server default-param command) is used.

If key-string is not specified, the global value (set in the radius-server default-param command) is used.

If a parameter was not set in one of the above commands, the default for that command is used. For example, if a timeout value was not set in the current command, the default timeout set in the radius-server default-param command is used.

The default authentication type is all.

Command Mode

Global Configuration mode

User Guidelines

To specify multiple hosts, this command is used for each host.

Example

The following example specifies a RADIUS server with IP address 192.168.10.1, authentication request port number 20, and a 20-second timeout period:

```
switchxxxxxx(config)# radius-server host radiusserver1 auth-port 20 timeout 20
```

show radius-server

To show information of the RADIUS servers defined on the switch, use the show radius-server Privileged EXEC mode command.

Syntax

show radius-server

Command Mode

Privileged EXEC mode

Example

```
switchxxxxxx# show radius-server
 Prio |    IP Address   | Auth-Port| Retries| Timeout| Usage-Type|   Key
------+--------------+----------+--------+--------+----------+---------
     1 |     10.193.22.1 |   1812   |   3    |   3    |    All    |
```

The following table describes the significant fields shown in the example:

Field	Description
Prio	Priority of the RADIUS server, where 0 has the highest priority.
IP Address	IP address or hostname of the RADIUS server.

Field	Description
Auth-Port	UDP port number of the RADIUS server for authentication requests. The value of zero indicates that the host is not used for authentication.
Retries	Number of requests that are sent to the RADIUS server before a failure is considered to have occurred.
Timeout	Number of seconds that the switch waits for an answer from the RADIUS server before retrying the query, or switching to the next server.
Usage-Type	Authentication type of the RADIUS server. The possible values are: • 802.1x—The RADIUS server is used for 802.1x port authentication. • all—The RADIUS server is used for user login authentication and 802.1x port authentication. • login—The RADIUS server is used for user login authentication (authenticating users that want to administer the switch).
Key	Authentication and encryption key for all RADIUS communications between the switch and the RADIUS server.

show radius-server default-param

To show the default RADIUS server parameters, use the show radius-server default-param Privileged EXEC mode command.

Syntax

show radius-server default-param

Command Mode

Privileged EXEC mode

Example

```
switchxxxxxx# show radius-server default-param
 Retries| Timeout|    Key
--------+--------+---------
     3  |    3   |
```

The following table describes the significant fields shown in the example:

Field	Description
Retries	Default number of requests that are sent to the RADIUS server before a failure is considered to have occurred.
Timeout	Default number of seconds that the switch waits for an answer from the RADIUS server before retrying the query, or switching to the next server.
Key	Default key for authenticating and encrypting the RADIUS communications between the switch and the RADIUS server.

show radius-server default-param