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## CHAPTER 14

# R Commands

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The commands in this chapter apply to the Cisco MDS 9000 Family of multilayer directors and fabric switches. All commands are shown here in alphabetical order regardless of command mode. Please see the Command Mode section to determine the appropriate mode for each command. For more information, see the *Cisco MDS 9000 Family Configuration Guide*.

- radius-server host
- reload
- rmdir
- role name
- rscn
- run-script

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## radius-server host

To configure RADIUS authentication related parameters, use the **radius** command.

**radius-server host** *server name or ip address* **accounting**

**radius-server host** *server name or ip address* **acct-port** *port number* [**accounting**] [**authentication** **accounting**] [**primary accounting** | **authentication accounting**]

**radius-server host** *server name or ip address* **auth-port** *port number* [**accounting**] [**acct-port** *port number* | **accounting** | **authentication accounting** | **primary accounting** | **primary authentication**]

**radius-server host** *server name or ip address* **authentication accounting**

**radius-server host** *server name or ip address* **key** *shared secret anyword*

**radius-server host** *server name or ip address* **primary accounting** | **primary authentication**

**radius-server key** *shared secret anyword*]

**radius-server retransmit** *count*

**radius-server timeout** *seconds*

### Syntax

|                                  |   |
|----------------------------------|---|
| <b>radius</b>                    | Configures RADIUS server.                             |
| <b>host</b>                      | Adds RADIUS server                                    |
| <i>server name or ip address</i> | Enter RADIUS server's DNS name or its IP address      |
| <b>accounting</b>                | Use for accounting                                    |
| <b>acct-port</b>                 | RADIUS server's port for accounting                   |
| <b>authentication</b>            | Use for authentication                                |
| <b>key</b>                       | RADIUS shared secret                                  |
| <b>primary</b>                   | Whether this RADIUS server is a primary server or not |
| <b>key</b>                       | Global RADIUS shared secret.                          |
| <b>retransmit</b>                | RADIUS server retransmit count                        |
| <b>timeout</b>                   | RADIUS server timeout period in seconds               |

### Defaults

None.

### Command Modes

Configuration mode

### Usage Guidelines

None.

### Examples

```
switch# config t
switch(config)# radiusradius host 10.10.0.0 primary
switch(config)#
switch(config)# radius host 10.10.0.0 key HostKey
```

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```
switch(config)#
switch(config)# radius host 10.10.0.0 auth-port 2003
switch(config)#
switch(config)# radius host 10.10.0.0 acct-port 2004
switch(config)#
switch(config)# radius host 10.10.0.0 accounting
switch(config)#
switch(config)# radius host radius1 primary
switch(config)#
switch(config)# radius host radius2 key 0 abcd
switch(config)#
switch(config)# radius host radius3 key 7 1234
switch(config)#

switch# config t
switch(config)# radius key AnyWord
switch(config)#
switch(config)# radius key 0 AnyWord
switch(config)#
switch(config)# radius key 7 public
switch(config)#

switch# config t
switch(config)# radius timeout 999
switch(config)#
```

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# reload

To reload the entire switch, an active supervisor module, a standby supervisor module, or a specific module; or to force a netboot on a given module, use the **reload** command.

**reload** [**module** *module-number*][**force-dnld**]

| Syntax Description | module <i>module</i> | Is used to reload a specific module or active/standby supervisor module.  |
|--------------------|----------------------|---|
|                    | <b>force-dnld</b>    | Is used to reload, initiate netboot, and force the download of the latest module firmware version to a specific module. |

**Defaults** None

**Command Modes** EXEC

**Usage Guidelines** Use the **reload** command to reboot the system, or to reboot a specific module, or to force a netboot on a specific module. The **reload** command used by itself, powers down all the modules and reboots the supervisor modules

The **reload module *module*** command is used if the given slot has a module or standby supervisor module. It then power-cycles that module. If the given slot has active supervisor module, then it causes the currently active supervisor module to reboot and the currently standby supervisor module becomes active.

The **reload module *module* force-dnld** command is similar to the previous command. This command forces netboot to be performed. If the slot contains a linecard module, then the module netboots with the latest firmware and updates its corresponding flash with this image.

**Examples** The following example describes using reload to reboot the self.

```
switch# reload
This command will reboot the system. (y/n)? y
```

The following example describes how to use reload to initiate netboot on a specific module.

```
switch# reload module 8 force-dnld
```

The following example describes using reload to reboot a specific linecard module.

```
switch# reload module 8
reloading module 8 ...
```

The following example describes using reload to reboot a active supervisor module.

```
switch# reload module 5
This command will cause cause supervisor switchover. (y/n)? y
```

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| Related Commands | Command  | Description                                     |
|------------------|--|---|
|                  | <code>install</code>   | Installs a new software image.                  |
|                  | <code>copy system:running-config nvram:startup-config</code> | Copies any file from a source to a destination. |

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## rmdir

To delete an existing directory from the flash file system, use the **rmdir** command.

```
rmdir {bootflash: | slot0 : | volatile:} directory
```

| Syntax Description | Parameter         | Description   |
|--------------------|-------------------|---|
|                    | <b>bootflash:</b> | Source or destination location for internal bootflash memory              |
|                    | <b>slot0:</b>     | Source or destination location for the CompactFlash memory or PCMCIA card |
|                    | <b>volatile:</b>  | Source or destination location for volatile file system.                  |
|                    | <i>directory</i>  | Name of the directory to create.  |

**Defaults** This command has no default settings.

**Command Modes** EXEC

**Usage Guidelines** This command is only valid on flash file systems.  
The **rmdir** command deletes an existing directory at the current directory level or at a specified directory level. The directory must be empty in order to be deleted.

**Examples** This example deletes the directory called test in the slot0 directory.

```
switch# rmdir slot0:test
```

This example deletes the directory called test at the current directory level.

```
switch# rmdir test
```

If the current directory is slot0:mydir, this command deletes the slot0:mydir/test directory.

| Related Commands | Command      | Description                                       |
|------------------|--------------|---|
|                  | <b>dir</b>   | Displays a list of files on a file system         |
|                  | <b>mkdir</b> | Creates a new directory in the flash file system. |

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## role name

only network admin can use this command

available commands depend on privs

To configure and assign users to a new role or to modify the profile for an existing role, use the **role name** command.

**role name** *name* [ **description** *user description* ] [ **exit** ] [ **no** ] [ **rule** *number* **permit** **clear** **feature** *name* | **config** **feature** *name* | **debug** **feature** *name* | **show** **feature** *name* ] [ **rule** *number* **deny** **clear** **feature** *name* | **config** **feature** *name* | **debug** **feature** *name* | **exec** **feature** *name* | **show** **feature** *name*

### SyntaxDescription

|                         |  |
|-------------------------|--|
| <b>role name</b>        | Configures RADIUS server.              |
| <i>name</i>             | Adds RADIUS server                     |
| <b>description</b>      | Add a description for the role         |
| <i>user description</i> | Add description of users to the role.  |
| <b>exit</b>             | Exit from this submode                 |
| <b>no</b>               | Negate a command or set its defaults   |
| <b>rule</b>             | Enter the rule number 1-16.            |
| <i>number</i>           | Enter the rule number 1-16.            |
| <b>permit</b>           | Remove commands from the rol           |
| <b>deny</b>             | Add commands to the role               |
| <b>clear</b>            | Clear commands                         |
| <b>config</b>           | Configuration commands                 |
| <b>debug</b>            | Debug commandss                        |
| <b>show</b>             | Show commands                          |
| <b>feature</b>          | Enter the feature name                 |
| <b>exec</b>             | Exec commands                          |
| <i>name</i>             | Enter the feature name (Max Size - 32) |

### Defaults

None.

### Command Modes

Configuration mode

### Usage Guidelines

Roles are assigned rules. Roles are a group of rules defining a users access to certain commands on MDS. Users are assigned roles. The rules within roles can be assigned to permit or deny access to:

clear Clear commands  
 config Configuration commands  
 debug Debug commandss  
 exec Exec commands  
 show Show commands

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The above commands can then be permit or deny features within that command line.

### Examples

```
switch# config t
switch(config)# role name techdocs
switch(config-role)#
switch(config)# no role name techdocs
switch(config)#
switch(config-role)# description Entire Tech. Docs. group
switch(config-role)# no description
switch# config t
switch(config)# role name sangroup
switch(config-role)#
switch(config-role)# rule 1 permit config
switch(config-role)# rule 2 deny config feature fspf
switch(config-role)# rule 3 permit debug feature zone
switch(config-role)# rule 4 permit exec feature fcping
switch(config-role)# no rule 4
```

Role: network-operator

Description: Predefined Network Operator group. This role cannot be modified  
Access to Show commands and selected Exec commands

### Related Commands

| Command          | Description   |
|------------------|---|
| <b>show role</b> | Displays all roles configured on the switch including the rules based on each role. |



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## rscn

To configure Registered State Change Notification (RSCN), a Fibre Channel service that informs Nx ports about changes in the fabric, use the **rscn** command.

```
rscn {event-qualifier value | supress interface type_slot number/number }
```

| Syntax                         | Description                                |
|--------------------------------|--|
| <b>rscn</b>                    | Configures RADIUS server.                  |
| <b>event-qualifier</b>         | Always send RSCNs with this even-qualifier |
| <b>description</b>             | Add a description for the role             |
| <b>supress</b>                 | Supress RSCNs                              |
| <b>value</b>                   | Supported values, 0 = unknow event         |
| <i>value</i>                   | Supported values, 0 = unknow event         |
| <b>interface</b>               | Interface name                             |
| <i>type_slot number/number</i> | Interface name and slot number             |

**Defaults** None.

**Command Modes** Configuration mode

**Usage Guidelines** None.

**Examples**

```
switch# config t
switch(config)# rscn event-qualifier value 0
switch(config)#
switch(config)# rscn supress interface fc2/1
switch(config)# exit
```

| Related Commands | Command                     | Description                              |
|------------------|-----------------------------|--|
|                  | <b>show rscn internal</b>   | Displays RSCN internal information.      |
|                  | <b>show rscn src-table</b>  | Displays State Change Registration table |
|                  | <b>show rscn statistics</b> | Displays RSCN Statistics                 |

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## run-script

To execute the commands specified in a file, use the **run script** command.

```
run-script {bootflash: | slot0 : | volatile:} filename
```

|                           |                   |   |
|---------------------------|-------------------|---|
| <b>Syntax Description</b> | <b>bootflash:</b> | Source or destination location for internal bootflash memory              |
|                           | <b>slot0:</b>     | Source or destination location for the CompactFlash memory or PCMCIA card |
|                           | <b>volatile:</b>  | Source or destination location for volatile file system.                  |
|                           | <i>filename</i>   | The name of the file containing the commands.                             |

**Defaults** None.

**Command Modes** Exec

**Usage Guidelines** To use this command, be sure to create the file and specify commands in the required order.

**Examples** This example executes the CLI commands specified in the testfile that resides in the slot0 directory.

```
switch# show file slot0:testfile
conf t
interface fc 1/1
no shutdown
end
sh interface fc1/1
```

In response to the **run-script** command, the file output is displayed here:

```
switch# run-script slot0:testfile
'conf t'
Enter configuration commands, one per line. End with CNTL/Z.

'interface fc 1/1'

'no shutdown'

'end'

'sh interface fc1/1'
fc1/1 is down (Fcot not present)
  Hardware is Fibre Channel
  Port WWN is 20:01:00:05:30:00:48:9e
  Admin port mode is auto, trunk mode is on
  vsan is 1
  Beacon is turned off
  Counter Values (current):
    0 frames input, 0 bytes, 0 discards
    0 runts, 0 jabber, 0 too long, 0 too short
```

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```
0 input errors, 0 CRC, 0 invalid transmission words
0 address id, 0 delimiter
0 EOF abort, 0 fragmented, 0 unknown class
0 frames output, 0 bytes, 0 discards
Received 0 OLS, 0 LRR, 0 NOS, 0 loop inits
Transmitted 0 OLS, 0 LRR, 0 NOS, 0 loop inits
Counter Values (5 minute averages):
0 frames input, 0 bytes, 0 discards
0 runts, 0 jabber, 0 too long, 0 too short
0 input errors, 0 CRC, 0 invalid transmission words
0 address id, 0 delimiter
0 EOF abort, 0 fragmented, 0 unknown class
0 frames output, 0 bytes, 0 discards
Received 0 OLS, 0 LRR, 0 NOS, 0 loop inits
Transmitted 0 OLS, 0 LRR, 0 NOS, 0 loop inits
```

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