C Commands

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*.

- callhome
- cd
- clear arp-cache
- clear cores
- clear counters
- clear debug-logfile
- clear fcanalyzer
- clear fcflow stats
- clear fcns statistics
- clear fcs statistics
- clear fspf counters
- clear ntp statistics
- clear processes log
- clear qos statistics
- clear rscn statistics
- clear screen
- clear vrrp
- clear zone
- clock
- clock set
- copy

callhome

To configure the callhome function, use the **callhome** command.

callhome [**email-contact** *email_address*] [**phone-contact** *number*] [**streetaddress** *street number, city, state, zip*] [**switch-priority** *priority value*] **customer-id** *customer_ id*] [**site-id** *site number*] [**contract-id** *contract_id*] [**destination-profile full-txt-destination email-addr** *email_address* | **message-size** *size*] [**destination-profile short-txt-destination email-addr** *email_address* | **message-size** *size*] [**destination-profile XML-destination email-addr** *email_address* | **message-size** *size*] [**transport email from** *email_address* |**reply-to** *email_address* | **smtp-server** *ip address* **port** *number*] [**enable**] [**disable**] [**exit**] [**no**]

Syntax Description		
email-contact	Assigns the customer's e-mail address.
email-address	Enter up to 128 alphanumeric characters are accepted in e-mail address format.
phone-contact	Assign the customer's phone number.
number	Enter phone number up to 20 alphanumeric characters are accepted in international format. Do not use spaces. Use the + prefix before the number
streetaddress	Assign the customer's street address where the equipment is located.
street number, city, state, zip	Enter customer address up to 256 alphanumeric characters are accepted in free format.
switch-priority	Optional. Assigns the switch priority.
priority value	Enter priority value. 0 being the highest priority and 7 the lowest.
customer-id	Optional. Assigns the customer ID for the switch.
customer_ id	Provide customer ID up to 64 alphanumeric characters in free format.
site-id	Optional. Identifies the unit to the outsourced throughput.
site number	Enter site number. Up to 256 alphanumeric characters are accepted in free format.
contract-id	Optional. Service contract id of the customer.
contract_id	Provide contract number (as specified in the service agreement) (Max Size - 64)
destination-profile	Configures a destination e-mail address for a message sent in full text format. This text provides the complete, detailed explanation of the failure.
full-txt-destination	Configure destination profile for plain txt message
email-addr	Add email address
email_address	Use a standard e-mail address that does not have any text size restrictions
message-size	Configure a destination message size for a message sent in full text format.
size	Enter the message size. The valid range is 0 to 1,000,000 bytes and the default is 500,000. A value of 0 implies that a message of any size can be sent.
short-txt-destination	**Configure destination profile for short txt message**
email-addr	Configure a destination e-mail address for a message sent in short text format. This text provides the basic explanation of the failure.
email_address	Use a pager-related e-mail address for this option.
message-size	Configures a destination message size for a message sent in short text format.

size	Enter the message size. The valid range is 0 to 1,000,000 bytes and the default is 4000. A value of 0 implies that a message of any size can be sent.
XML-destination	**Configure destination profile for XML message**
email-addr	Configure a destination e-mail address for a message sent in XML format. This option provides the full information that is compatible with Cisco Systems TAC support.
email_address	Enter email address. Do not add a pager-related e-mail address to this destination profile because of the large message size.
message-size	Configure a destination message size for a message sent in XML format.
size	Enter the message size. The valid range is 0 to 1,000,000 bytes and the default is 500,000. A value of 0 implies that a message of any size can be sent.
transport	Optional. Configure the e-mail address fromthe user.
email	Configure the e-mail address from the user.
from	Configure from email address.
email_address	Provide from email address, example: SJ-9500-1@xyz.com (Max Size - 255).
reply-to	Configure replyto email address.
email_address	Provide reply-to email address, example: admin@xyz.com (Max Size - 255).
smtp-server	Configure SMTP server address
ip address	SMTP server(DNS name or IP address) (Max Size - 255).
port	The port number is optional and, if required, may be changed depending on the server location.
number	Enter port number. The port usage defaults to 25 if no port is specified.
enable	Enable callhome.
disable	Disables callhome.
exit	Exit from callhome submode
no	Negate callhome or set its defaults

Defaults

None

Command Modes

callhome command available in **config t** command mode. Callhome configuration commands available in callhome submode.

Usage Guidelines

A call home message is used to contact a support person or organization in case a significantly urgent alarm is raised.

Examples

```
switch# config t
switch(config)# callhome
switch-config-callhome#
switch-config-callhome# email-contact username@company.com
successfully updated the information
```

```
switch-config-callhome#
switch-config-callhome# phone-contact +1-800-123-4567
successfully updated the information
switch-config-callhome#
switch-config-callhome# streetaddress 1234 Picaboo Street, Any city, Any state, 12345
successfully updated the information
switch-config-callhome#
switch-config-callhome# switch-priority 0
successfully updated the information
switch-config-callhome#
switch-config-callhome# customer-id Customer1234
successfully updated the information
switch-config-callhome#
switch-config-callhome# site-id Site1ManhattanNY
successfully updated the information
switch-config-callhome#
switch-config-callhome# contract-id Company1234
successfully updated the information
switch-config-callhome#
switch-config-callhome# destination-profile full-txt-destination email-addr
person@place.com
successfully updated the information
switch-config-callhome#
switch-config-callhome# transport email from user@company1.com
successfully updated the information
switch-config-callhome#
```

Related Commands	Command	Description
	callhome test	Sends a dummy test message to the configured destination (s).
	callhome test inventory	Sends a dummy test inventory message to the configured destination (s).
	show callhome	Displays configured Call Home information.

cd

To change the default directory or file system, use the **cd** command.

cd {*directory* | **bootflash:**[*directory*] | **slot0:**[*directory*] | **volatile:**[*directory*]}

Syntax Description

directory	Name of the directory on the file system.
bootflash:	URI or alias of the bootflash or file system.
slot0:	URI or alias of the slot0 file system.
volatile:	URI or alias of the volatile file system.

Defaults

The initial default file system is flash:. For platforms that do not have a physical device named flash:, the keyword flash: is aliased to the default Flash device.

If you do not specify a directory on a file system, the default is the root directory on that file system.

Command Modes

EXEC

Usage Guidelines

For all EXEC commands that have an optional filesystem argument, the system uses the file system specified by the cd command when you omit the optional filesystem argument. For example, the dir command, which displays a list of files on a file system, contain an optional filesystem argument. When you omit this argument, the system lists the files on the file system specified by the cd command.

Examples

The following example sets the default file system to the Flash memory card inserted in the slot 0:

```
switch# pwd
bootflash:/
switch# cd slot0:
switch# pwd
slot0:/
```

Related Commands

Command	Description
copy	Copies any file from a source to a destination, use the copy EXEC command.
delete	Deletes a file on a Flash memory device.
dir	Displays a list of files on a file system
pwd	Displays the current setting of the cd command.
show file systems	Lists available file systems and their alias prefix names.
undelete	Recovers a file marked "deleted" on a Class A or Class B Flash file system.

clear arp-cache

To clear the arp-cache table entries, use the **clear arp-cache** command.

clear arp-cache

Syntax Description   This command has no keywords or arguments.

Defaults   The ARP table is empty by default.

Command Modes   EXEC

Usage Guidelines   None.

Examples
```
switch# clear arp-cache
switch#
```

Related Commands

Command	Description
show arp	Displays Address Resolution Protocol (ARP) entries.

clear cores

To clear all core dumps for the switch, use the **clear cores** command.

clear cores

Syntax Description   This command has no keywords or arguments.

Defaults   None.

Command Modes   EXEC

Usage Guidelines   The software keeps the last few cores per service and per slot and clears all other cores present on the active supervisor module.

Examples
```
switch# clear cores
switch#
```

Related Commands

Command	Description
show cores	Displays core dumps that have been made.

clear counters

To clear the counters, use the **clear counters** commands.

clear counters {statistics vrrp | interface {fc | mgmt | port-channel | sup-fc | vsan} *number***}**

Syntax Description		
statistics vrrp	Clears global virtual router statistics.
interface	Clears interface counters for the specified interface.
fc *number*	Fibre Channel interface counter; *number* is the slot number (1-2)
mgmt *number*	Management interface counter; *number* is the management interface number (0-0)
port-channel *number*	Port Channel interface counter; *number* is the Port Channel number (1-128)
sup-fc *number*	Inband interface counter; *number* is the Inband interface number (0-0)
vsan *number*	VSAN interface counter; *number* is the VSAN id (1-4093)

Defaults   None.

Command Modes   EXEC

Usage Guidelines   None.

Examples
```
switch# clear counters statistices vrrp
switch#

switch# clear counters interface vsan 13
switch#
```

clear debug-logfile

To clear the debug logfile, use the **clear debug-logfile** command.

clear debug-logfile *filename*

Syntax Description	*filename*	The name of the log file to be cleared. Max size 1024 bytes.

Defaults   None.

Command Modes   EXEC

Usage Guidelines   None.

Examples

```
switch# clear debug-logfile
switch#
```

clear fcanalyzer

To clear the entire list of configured hosts for remote capture, use the **clear fcanalyzer** command.

clear fcanalyzer

Syntax Description   This command has no arguments or keywords.

Defaults   None.

Command Modes   EXEC

Usage Guidelines   This command clears only the list of configured hosts. Existing connections are not terminated.

Examples
```
switch# clear fcanalyzer
switch#
```

Related Commands

Command	Description
show fcanalyzer	Displays the list of hosts configured for a remote capture.

clear fcflow stats

To clear fcflow counters, use the **clear fcflow stats** command.

clear fcflow stats {[aggregated] module *module-number* **index** *flow-number*}

Syntax Description

aggregated	Clears fcflow aggregated statistics.
module	Clears statistics for a specified module.
module-number	The number of the module.
index	Indicates that fcflow counters are to be cleard for a specified flow index.
index	Flow index number.

Defaults   None.

Command Modes   EXEC

Usage Guidelines   None.

Examples

```
switch(config)# # clear fcflow stats aggregated module 2 index 1
switch(config)#
```

Related Commands

Command	Description
show fcflow	Displays the fcflow statistics.

clear fcns statistics

To clear the name server statistics, use the **clear fcns statistics** command.

clear fcns statistics [vsan *vsan-id*]

Syntax Description

vsan	Indicates that statistics are to be cleared for a VSAN.
vsan-id	The ID of the VSAN (1-4093).

Defaults   None.

Command Modes   EXEC

Usage Guidelines   None.

Examples

```
switch# show fcns statistics

Name server statistics for vsan 1
==================================
registration requests received = 0
deregistration requests received = 0
queries received = 23
queries sent = 27
reject responses sent = 23
RSCNs received = 0
RSCNs sent = 0

switch# clear fcns statistics

switch# show fcns statistics

Name server statistics for vsan 1
==================================
registration requests received = 0
deregistration requests received = 0
queries received = 0
queries sent = 0
reject responses sent = 0
RSCNs received = 0
RSCNs sent = 0
switch#
```

Related Commandse

Command	Description
show fcns statistics	Displays the name server statistics.

clear fcs statistics

To clear the Fabric Configuration Server statistics, use the **clear fib statistics** command.

clear fcs statistics [vsan *vsan-range*]

Syntax Description		
vsan	Indicates that FCS statistics are to be cleared for a specified VSAN.	
vsan-range	The range of the VSANs (1-4093).	

Defaults   None.

Command Modes   EXEC

Usage Guidelines   None.

Examples

```
switch# clear fcs statistics
switch#
```

Related Commands

Command	Description
show fcs	Display the Fabric Configuration Server information.

clear fspf counters

To clear the fspf statistics, use the **clear fspf counters** command.

clear fspf counters vsan *vsan-id* [**interface** *interface*]

Syntax Description	vsan	Indicates that the counters are to be cleared for a VSAN.
	vsan int	The id of the VSAN (1-4093).
	interface	fc for Fibre Channel, port-channel for Port Channel

Defaults None.

Command Modes EXEC

Usage Guidelines If the interface is not specified all the counters of a VSAN are cleared. If the interface is specified the counters of the specific interface is cleared.

Examples
```
switch# clear fspf counters vsan 1
switch#
```

Related Commands	Command	Description
	show fspf	Displays global FSPF information for a specific VSAN.

clear ntp statistics

To clear NTP statistics, use the **clear ntp statistics** command.

clear ntp statistics {all-peers | io | local | memory}

Syntax Description

all-peers	Clears I/O statistics for all peers.
io	Clears I/O statistics for I/O devices.
local	Clears I/O statistics for local devices
memory	Clears I/O statistics for memory.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# clear ntp statistics all-peers
switch#

switch# clear ntp statistics io
switch#

switch# clear ntp statistics local
switch#

switch# clear ntp statistics memory
switch#
```

Related Commands

Command	Description
show ntp	Displays the configured server and peer associations.

clear processes log

To clear the log files on the switch, use the **clear processes log** command.

clear processes log {all | pid *integer*}

Syntax Description	all	Deletes all the log files.
	pid *integer*	Deletes the log files of a specific process. The process ID must be from 0-2147483647.

Defaults   None

Command Modes   EXEC

Usage Guidelines None.

Examples
```
switch# clear processes log all
switch#
```

Related Commands	Command	Description
	show processes	Displays the detail running or log information of processes or high availability applications.

clear qos statistics

To clear the QOS statistics counters, use the **clear qos statistics** command.

clear qos statistics

Syntax Description   This command has no arguments or keywords.

Defaults   None

Command Modes   EXEC

Usage Guidelines   None.

Examples
```
swtich# clear qos statistics
switch#
```

Related Commands

Command	Description
show qos statistics	Displays the current QoS settings, along with a the number of frames marked high priority.

clear rscn statistics

To clear the RSCN statistics for a specified VSAN, use the **clear rscn statistics** command.

clear rscn statistics vsan *vsan-range*

Syntax Description

vsan	Indicates that statistics are to be cleared for a VSAN range.
vsan-range	The range of IDs for the VSANs for which you want to clear RSCN statisics.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# clear rscn statistics
switch#
```

Related Commands

Command	Description
show rscn	Displays RSCN information.

clear screen

To clear the terminal screen, use the **clear screen** command.

clear screen

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# clear screen
switch#
```

clear vrrp

To clear all the software counters for the specified virtual router, use the **clear vrrp** command.

clear vrrp *integer* **interface** *interface* [*vsan-id*/*mgmt-int*]

Syntax Description

integer	A number from 1-255.
interface *interface*	**mgmt** for the Management interface, **vsan** for the IPFC VSAN interface.
vsan-id	The ID of the VSAN (1-4093).
mgmt-int	The management interface number (0-0)

Defaults   None

Command Modes   EXEC

Usage Guidelines   None.

Examples

```
switch# clear vrrp 7 interface vsan2
switch#
```

Related Commands

Command	Description
show vrrp	Display the VRRP configuration information.

clear zone

To clear all configured information in the zone server for a specified VSAN, use the **clear zone** command.

clear zone {database | statistics} vsan *range*

Syntax Description

database	Indicates that zone server databse information is to be cleared.
statistics	Indicates that zone server statistics are to be cleared.
vsan	Indicates that zone information is to be cleared for a VSAN.
range	The ID of the VSAN range (1-4093).

Defaults

None.

Command Modes

EXEC

Usage Guidelines

After issuing a **clear zone database** command, you need to explicitly issue the **copy running-config startup-config** to ensure that the running configuration is used when you next start the switch.

Examples

```
switch# clear zone database vsan 1
switch#
```

Related Commands

Command	Description
show zone	Displays zone information for any configured interface.

clock

To configure the time zone and the summer time of day, use the **clock** command.

clock [**summer-time** <*California 1 Sun Apr 02:00 5 Sun Oct 02:00 60*> | **time-zone** <*daylight timezone name> <start week> <start day> <start month> <start time> <end week> <end day> <end month> <end time> <daylight offset to be added in minutes>* >]

The **no** form of this command disables the daylight saving time adjustment feature.

Syntax Description		
	summer-time <*California 1 Sun Apr 02:00 5 Sun Oct 02:00 60*>	Adjusts the daylight savings time for the Pacific time zone by 60 minutes starting the first sunday in April at 2 a.m. and ending the last Sunday in October at 2 a.m.
	time-zone <*daylight timezone name> <start week> <start day> <start month> <start time> <end week> <end day> <end month> <end time> <daylight offset to be added in minutes>* >	Sets the time zone for a specified time zone name. The start and end values are as follows: • week ranging from 1 through 5 • day ranging from Sunday through Saturday • month ranging from January through December The daylight offset ranges from1 through 1440 minutes that will be added to the start time and deleted from the end time.

Defaults   Coordinated Universal Time (UTC), which is same as Greenwich Mean Time (GMT).

Command Modes   Configuration mode

Usage Guidelines   Use this command if you need to change the UTC or GMT time or time zone

Examples
```
switch# config t
switch(config)# clock timezone <daylight timezone name> <start week> <start day> <start
month> <start time> <end week> <end day> <end month> <end time> <daylight offset to be
added in minutes>
switch(config)# clock summer-time California 1 Sun Apr 02:00 5 Sun Oct 02:00 60
switch(config)# no clock summer-time
switch(config)# exit
switch#
```

Related Commands

Command	Description
show clock	Verifies the time zone configuration.
clock set	Change the default time on the switch, issue the **clock** command from EXEC mode.
show run	Displays changes made to the time zone configuration along with other configuration information.

Cisco MDS 9000 Family Command Reference ■

clock set

To change the default time on a Cisco 9000 Family switch, use the **clock set** command from configuration mode.

clock set *<HH>:<MM>:<SS> <DD> <Month> <YYYY>*

Syntax Description		
	HH	The two-digit hour in military format (15 for 3 p.m.)
	MM	The two-digit minute (58).
	SS	The two-digit second(15)
	DD	The two-digit date (12)
	Month	The month in words (August)
	YYYY	The four-digit year (2002)

Defaults   None

Command Modes   EXEC

Usage Guidelines   Generally, if the system is synchronized by a valid outside timing mechanism, such as an NTP clock source, or if you have a switch with calendar capability, you do not need to set the system clock. Use this command if no other time sources are available. The time specified in this command is relative to the configured time zone.

The **clock** command changes are saved across system resets.

Examples   The following example displays the **clock set** command:

```
switch# clock set 15:58:15 12 August 2002
Mon Aug 12 15:58:00 PDT 2002
```

Related Commands	Command	Description
	show clock	Displays the current date and time.

copy

To save a backup of the system software, issue the **copy** command. This command makes the running and the backup copy of the software identical.

copy {*source-URL destination-URL*}

Syntax Description

source-URL	The location URL or alias of the source file or directory to be copied.
destination-URL	The destination URL or alias of the copied file or directory.

The following table lists the aliases for source and destination URLs.

running-config	The configuration currently running on the switch. The **system:running-config** keyword represents the current running configuration file.
startup-config	The configuration used during initialization (start up). You can copy the startup configuration into or from NVRAM. The **nvram:startup-config** keyword represents the configuration file used during initialization.
bootflash:	Source or destination location for internal bootflash memory
slot0:	Source or destination location for the CompactFlash memory or PCMCIA card
volatile:	Source or destination location for the volatile file system.
snapshot-config	Snapshot file
system	Source or destination location for system memory, which includes the running configuration.
tftp:	Source or destination location for a Trivial File Transfer Protocol (TFTP) network server. The syntax for this alias is tftp:[[//location]/directory]/filename.
filename	The name of the Flash file.
sup-#	The number of the supervisor modulewhere sup-1 is the slot 5 supervisor (active) and sup-2 is the slot 6 supervisor (standby).

Defaults

None

Command Modes

EXEC

Usage Guidelines

A file can only be copied from "active" to "standby" (Not from "standby" to "active").

This command does not allow 127.x.x.x IP addresses.

The copy function will not be completed if the required space is not available in the directory. Ensure to change to the required directory (for example, **cd bootflash:**) and verify the available space (for example, **dir bootflash:**).

The entire copying process may take several minutes.

Do not copy a file from an external source directly to the standby supervisor. You must copy from the external source to the active supervisor , and then copy the saved file to the standby supervisor.

Examples   The following example saves your configuration to the startup configuration:

```
switch# copy system:running-config nvram:startup-config
switch#
```

This example copies the file called samplefile from the slot0 directory to the mystorage directory.

```
switch# copy slot0:samplefile slot0:mystorage/samplefile
switch#
```

This example copies a file from the current directory level.

```
switch# copy samplefile mystorage/samplefile
switch#
```

If the current directory is slot0:mydir, this command copies slot0:mydir/samplefile to slot0:mydir/mystorage/samplefile.

Use the following command to download a configuration file from an external CompactFlash to the running configuration.

```
switch copy slot0:dns-config.cfg system:running-config
switch#
```

Use the following command to download a configuration file from an external CompactFlash to the startup configuration.

```
switch# copy slot0:dns-config.cfg nvram:startup-config
switch#
```

Use the following command to save a running configuration file to an external CompactFlash.

```
switch# copy system:running-config slot0:dns-config.cfg
switch#
```

Use the following command to save a startup configuration file to an external CompactFlash.

```
switch# copy system:startup-config slot0:dns-config.cfg
switch#
```

To create a copy of the binary configuration in NVRAM, enter the following command:

```
switch# copy system:running-config nvram:startup-config
switch#
```

To create a backup copy of the binary configuration, enter the following command:

```
switch# copy nvram:startup-config nvram:snapshot-config
switch#
```

To overwrite the contents of an existing configuration in NVRAM, enter the following command:

```
switch# copy nvram:snapshot-config nvram:startup-config
Warning: Snapshot file is going to override the current startup-config.
Do you wish to proceed anyway? {y/n} [y] y
```

To copy an image in bootflash on the active supervisor to the bootflash on the standby supervisor, enter the following command.

```
switch# copy bootflash:myimage  bootflash://sup-2/myimage
switch#
```

To create a running configuration copy in bootflash, enter the following command:

```
switch# copy system:running-config bootflash:my-config
switch#
```

To create a startup configuration copy in bootflash, enter the following command:

```
switch# copy nvram:startup-config bootflash:my-config
switch#
```

Related Commands	Command	Description
	cd	Changes the default directory or file system.
	dir	Displays a list of files on a file system.
	reload	Reloads the operating system.
	show version	Displays the version of the running configuration file