



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. See the “About the CLI Command Modes” section on page 1-3 to determine the appropriate mode for each command. For more information, refer to the *Cisco MDS 9000 Family Configuration Guide*.

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callhome

To configure the callhome function, use the **callhome** command in configuration mode. To set a command back to its factory defaults or negate the command, use the **no** form of the command.

callhome [**customer-id** *customer-id*] [**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*] [**disable**] [**email-contact** *email-address*] [**enable**] [**phone-contact** *number*] [**site-id** *site number*] [**streetaddress** *street number, city, state, zip*] [**switch-priority** *priority value*] [**transport email from** *email-address*] [**reply-to** *email-address*] [**smtp-server** *ip address*] **port** *port-number*

no callhome [**customer-id** *customer-id*] [**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*] [**disable**] [**email-contact** *email-address*] [**enable**] [**phone-contact** *number*] [**site-id** *site number*] [**streetaddress** *street number, city, state, zip*] [**switch-priority** *priority value*] [**transport email from** *email-address*] [**reply-to** *email-address*] [**smtp-server** *ip address*] **port** *port-number*

Syntax Description

contract-id <i>contract-id</i>	(Optional). Configures service contract ID of the customer. Allows up to 64 characters for contract number.
customer-id <i>customer-id</i>	(Optional). Configures the customer ID for the switch. Allows customer ID up to 64 alphanumeric characters in free format.
destination-profile	(Optional) 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	Configures destination profile for plain text message.
email-addr <i>email-address</i>	Configures email address. Uses a standard e-mail address that does not have any text size restrictions.
message-size <i>size</i>	Configures a destination message size for a message sent in full text format. Allows from 0 to 1,000,000 bytes for the message size and the default is 500,000. A value of 0 implies that a message of any size can be sent
short-txt-destination	(Optional). Configures a destination profile for a short text message.
email-addr <i>email-address</i>	Configures a destination e-mail address for a message sent in short text format. This text provides the basic explanation of the failure. Uses a pager-related e-mail address for this option.
message-size <i>short-text-size</i>	Configures a destination message size for a message sent in short text format. Allows from 0 to 1,000,000 bytes for the message size and the default is 4000. A value of 0 implies that a message of any size can be sent.
XML-destination	(Optional). Configures destination profile for XML message.
email-addr <i>email-address</i>	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. Do not add a pager-related e-mail address to this destination profile because of the large message size.

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message-size <i>xml-size</i>	Configure a destination message size for a message sent in XML format. 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.
disable	Disables callhome.
email-contact <i>email-address</i>	(Optional). Configures the customer's e-mail address. Allows up to 128 alphanumeric characters in e-mail address format.
enable	Enables callhome.
phone-contact <i>number</i>	(Optional). Configures the customer's phone number. Allows up to 20 alphanumeric characters international phone format. Do not use spaces. Use the + prefix before the number.
site-id <i>site number</i>	(Optional). Identifies the unit to the outsourced throughput. Allows up to 256 alphanumeric characters in free format.
streetaddress <i>street number, city, state, zip</i>	(Optional). Configures the customer's street address where the equipment is located. Allows up to 256 alphanumeric characters in free format for the street number, city, state, and zip (combined).
switch-priority <i>priority value</i>	(Optional). Configures the switch priority. Specifies a priority value. 0 is the highest priority and 7 the lowest.
transport	Optional. Configure the e-mail address from the user.
email	Configure the e-mail address from the user.
from <i>email-address</i>	Configure from email address. Provide from email address, example: SJ-9500-1@xyz.com (Max Size - 255).
reply-to <i>email-address</i>	Configure reply to email address. Provide reply-to email address, example: admin@xyz.com (Max Size - 255).
smtp-server <i>ip address</i>	Configure SMTP server address. The SMTP server (DNS name or IP address) (Max Size - 255).
port <i>port-number</i>	(Optional). Changes depending on the server location. The port usage defaults to 25 if no port number is specified.

Defaults

None.

Command Modes

Configuration mode.

Command History

This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines

The CallHome configuration commands available in the (`config-callhome`) submode.

A CallHome message is used to contact a support person or organization in case an urgent alarm is raised.

Once you have configured the contact information, you must enable the Call Home function. The **enable** command is required for the Call Home function to start operating. When you disable the Call Home function, all input events are ignored.

Note Even if Call Home is disabled, basic information for each Call Home event is sent to syslog.

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Examples

The following examples assign contact informations:

```
switch# config t
switch# snmp-server contact personname@companyname.com
switch(config)# callhome
switch(config-callhome)# email-contact username@company.com
successfully updated the information
switch(config-callhome)# phone-contact +1-800-123-4567
successfully updated the information
switch(config-callhome)# streetaddress 1234 Picaboo Street, Any city, Any state, 12345
successfully updated the information
switch(config-callhome)# switch-priority 0
successfully updated the information
switch(config-callhome)# customer-id Customer1234
successfully updated the information
switch(config-callhome)# site-id Site1ManhattanNY
successfully updated the information
switch(config-callhome)# contract-id Company1234
successfully updated the information
```

The following example configures full-text destination profiles:

```
switch(config-callhome)# destination-profile full-txt-destination email-addr
person@place.com
successfully updated the information
switch(config-callhome)# destination-profile full-txt-destination message-size 1000000
successfully updated the information
```

The following example configures short-text destination profiles:

```
switch(config-callhome)# destination-profile short-txt-destination email-addr
person@place.com
successfully updated the information
switch(config-callhome)# destination-profile short-txt-destination message-size 100000
successfully updated the information
```

The following example configures the from and reply-to e-mail addresses:

```
switch(config-callhome)# transport email from user@company1.com
successfully updated the information
switch(config-callhome)# transport email reply-to person@place.com
successfully updated the information
```

The following example configures the SMTP server and ports:

```
switch(config-callhome)# transport email smtp-server 192.168.1.1
successfully updated the information
switch(config-callhome)# transport email smtp-server 192.168.1.1 port 30
successfully updated the information
```

The following example enables and disables the CallHome function:

```
switch(config-callhome)# enable
callhome enabled successfully
switch(config-callhome)# disable
```

Related Commands

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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.

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callhome test

To simulate a CallHome message generation, use the **callhome test** command.

callhome test [inventory]

Syntax Description	inventory	Sends a dummy CallHome inventory.
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Defaults	none.
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Command Modes	EXEC mode.
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Command History	This command was introduced in Cisco MDS SAN-OS Release 1.0(2).
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Usage Guidelines	You can simulate a message generation by issuing a test command.
------------------	---

Examples	The following example sends a test message to the configured destination(s):
----------	--

```
switch# callhome test
trying to send test callhome message
successfully sent test callhome message
```

The following example sends a test inventory message to the configured destination(s)

```
switch# callhome test inventory
trying to send test callhome message
successfully sent test callhome message
```

Related Commands	Command	Description
	callhome	Configures CallHome functions.
	show callhome	Displays configured Call Home information.

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cd

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

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

Syntax Description

<i>directory</i>	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 mode

Command History

This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines

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

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cdp

Use the **cdp** command to globally configure the Cisco Discovery Protocol parameters. Use the **no** form of this command to revert to factory defaults.

cdp enable | **advertise** *version* | **holdtime** *holdtime-seconds* | **timer** *timer-seconds*

no cdp enable | **advertise** *version* | **holdtime** *holdtime-seconds* | **timer** *timer-seconds*

Syntax Description		
enable		Enables CDP on globally or on a per-interfaces basis.
advertise		Specifies the EXEC command to be executed.
<i>version</i>		Specifies one of two available versions: version 1 (v1) or version 2 (v2—default).
holdtime		Sets the hold time advertised in CDP packets.
<i>holdtime-seconds</i>		Specifies the holdtime in seconds. The default is 180 seconds and the valid range is from 10 to 255 seconds.
timer		Sets the refresh time interval.
<i>timer-seconds</i>		Specifies the time interval in seconds. The default is 60 seconds and the valid range is from 5 to 255 seconds.

Defaults None.

Command Modes Configuration mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.1(1).

Usage Guidelines Use the **cdp enable** command to enable the Cisco Discovery Protocol (CDP) feature at the switch level or at the interface level. Use the **no** form of this command to disable this feature. When the interface link is established, CDP is enabled by default

CDP version 1 (v1) and version 2 (v2) are supported in Cisco MDS 9000 Family switches. CDP packets with any other version number are silently discarded when received.

Examples The following example disables the CDP protocol on the switch. When CDP is disabled on an interface, one packet is sent to clear out the switch state with each of the receiving devices.

```
switch(config)# no cdp enable
Operation in progress. Please check global parameters
switch(config-console)#
```

The following example enables (default) the CDP protocol on the switch. When CDP is enabled on an interface, one packet is sent immediately. Subsequent packets are sent at the configured refresh time

```
switch(config)# cdp enable
Operation in progress. Please check global parameters
```

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```
switch(config)#
```

The following example configures the Gigabit Ethernet interface 8/8 and disables the CDP protocol on this interface. When CDP is disabled on an interface, one packet is sent to clear out the switch state with each of the receiving devices.

```
switch(config)# interface gigbitethernet 8/8
switch(config-if)# no cdp enable
Operation in progress. Please check interface parameters
switch(config-console)#
```

The following example enables (default) the CDP protocol on the selected interface. When CDP is enabled on this interface, one packet is sent immediately. Subsequent packets are sent at the configured refresh time.

```
switch(config-if)# cdp enable
Operation in progress. Please check interface parameters
switch(config)#
```

The following example globally configures the refresh time interval for the CDP protocol in seconds. The default is 60 seconds and the valid range is from 5 to 255 seconds.

```
switch# config terminal
switch(config)# cdp timer 100
switch(config)#
```

The following example globally configures the hold time advertised in CDP packet in seconds. The default is 180 seconds and the valid range is from 10 to 255 seconds.

```
sswitch# config terminal
switch(config)# cdp holdtime 200
switch(config)#
```

The following example globally configures the CDP version. The default is version 2 (v2). The valid options are v1 and v2

```
switch# config terminal
switch(config)# cdp advertise v1
switch(config)#
```

Related Commands

Command	Description
clear cdp	Clears global or interface-specific CDP configurations.
show cdp	Displays configured CDP settings and parameters.

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clear arp-cache

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

clear arp-cache

Syntax Description This command has no arguments or keywords.

Defaults The ARP table is empty by default.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Examples The following example shows how to clear the arp-cache table entries.

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

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

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clear cdp

Use the **clear cdp** command to delete global or interface-specific CDP configurations.

```
clear cdp counters [ interface (gigabitethernet slot-port | mgmt 0 ) ] | table [ interface
(gigabitethernet slot-port | mgmt 0 ) ]
```

Syntax Description

counters	Enables CDP on globally or on a per-interfaces basis.
table	Specifies the EXEC command to be executed.
interface	Displays CDP parameters for an interface.
gigabitethernet	Specifies the Gigabit Ethernet interface.
<i>slot-port</i>	Specifies the slot number and port number separated by a slash (/).
mgmt 0	Specifies the Ethernet management interface.

Defaults

None.

Command Modes

Configuration mode.

Command History

This command was introduced in Cisco MDS SAN-OS Release 1.1(1).

Usage Guidelines

You can issue this command for a specified interface or for all interfaces (management and Gigabit Ethernet interfaces)

Examples

The following example clears CDP traffic counters for all interfaces.

```
switch# clear cdp counters
switch#
```

The following example clears CDP entries for the specified Gigabit Ethernet interface.

```
switch# clear cdp table interface gigabitethernet 4/1
switch#
```

Related Commands

Command	Description
cdp	Configures global or interface-specific CDP settings and parameters.
show cdp	Displays configured CDP settings and parameters.

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clear cores

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

clear cores

Syntax Description This command has no arguments or keywords.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

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

Examples The following example shows how to clear all core dumps for the switch.

```
switch# clear cores
```

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

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clear counters

To clear the counters, use the **clear counters** command in EXEC mode.

```
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.
type		Specifies the interface type. See the Keywords table in the “Usage Guidelines” section.
<i>number</i>		Specifies the number of the slot or interface being cleared.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines The following table lists the keywords and number ranges for the **clear counters** interface types:

keyword	Interface Type	Number
fc	Fibre Channel	1- 2 or 1 - 9 (slot)
mgmt	Management	0-0 (management interface)
port-channel	PortChannel	1-128 (PortChannel)
sup-fc	Inband	0-0 (Inband interface)
vsan	VSAN	1- 4093 (VSAN ID)

Examples The following example shows how to clear global virtual router statistics.

```
switch# clear counters statistics vrrp
```

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

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clear debug-logfile

To clear the debug logfile, use the **clear debug-logfile** command in EXEC mode.

```
clear debug-logfile filename
```

Syntax Description	<i>filename</i>	The name of the log file to be cleared. Maximum size is 1024 bytes.
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Command Modes	EXEC.
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Command History	This command was introduced in Cisco MDS SAN-OS Release 1.0(2).
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Examples	The following example shows how to clear the debug logfile.
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```
switch# clear debug-logfile
```

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clear fcanalyzer

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

clear fcanalyzer

Syntax Description This command has no arguments or keywords.

Command Modes EXEC.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

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

Examples The following example shows how to clear the entire list of configured hosts for remote capture.

```
switch# clear fcanalyzer
```

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

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clear fcflow stats

To clear Fibre Channel flow counters, use the **clear fcflow stats** command in EXEC mode.

```
clear fcflow stats {aggregated | module module-number | index flow-number}
```

Syntax Description		
	aggregated	Clears fcflow aggregated statistics.
	module	Clears statistics for a specified module.
	index	Clears fcflow counters for a specified flow index.
	<i>flow-number</i>	Specifies flow index number.

Command Modes EXEC.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Examples The following example shows how to clear aggregated Fibre Channel flow statistics for flow index 1 of module 2.

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

Related Commands	Command	Description
	show fcflow	Displays the fcflow statistics.

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clear fcns statistics

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

```
clear fcns statistics [vsan vsan-id]
```

Syntax Description

vsan	Statistics are to be cleared for a VSAN.
vsan-id	The ID of the VSAN is from 1 to 4093.

Command Modes

EXEC.

Command History

This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Examples

The following example shows how to clear the name server statistics.

```
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 Commands

Command	Description
show fcns statistics	Displays the name server statistics.

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clear fcs statistics

To clear the fabric configuration server statistics, use the **clear fcs statistics** command in EXEC mode.

```
clear fcs statistics [vsan vsan-id]
```

Syntax Description	vsan	FCS statistics are to be cleared for a specified VSAN.
	<i>vsan-id</i>	The ID of the VSANs are from 1 to 4093.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Examples The following example shows how to clear the fabric configuration server statistics.

```
switch# clear fcs statistics
```

Related Commands	Command	Description
	show fcs	Displays the fabric configuration server information.

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clear fspf counters

To clear the Fabric Shortest Path First statistics, use the **clear fspf counters** command in EXEC mode.

```
clear fspf counters vsan vsan-id [interface type]
```

Syntax Description	
vsan	Indicates that the counters are to be cleared for a VSAN.
<i>vsan-id</i>	The ID of the VSAN is from 1 to 4093.
interface type	(Optional). The counters are to be cleared for an interface. The interface types are fc for Fibre Channel, and port-channel for PortChannel.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

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

Examples The following example clears the FSPF t statistics on VSAN 1.

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

The following example clears FSPF statistics specific to the Fibre Channel interface in VSAN 1, Slot 9 Port 32.

```
switch# clear fspf counters vsan 1 interface fc 9/32
```

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

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clear ips arp

To clear ARP caches, use the **clear ips arp** command in EXEC mode.

```
clear ips arp {address ip-address| interface gigabitethernet module-number}
```

Syntax Description		
address		Clears fcfow aggregated statistics.
<i>ip-address</i>		Enters the peer IP address.
interface gigabitethernet		Specifies the Gigabit Ethernet interface.
<i>module-number</i>		Specifies slot and port of the Gigabit Ethernet interface.

Command Modes EXEC.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.1(1).

Examples The ARP cache can be cleared in two ways: clearing just one entry or clearing all entries in the ARP cache.

The following example clears one ARP cache entry:

```
switch# clear ips arp address 10.2.2.2 interface gigabitethernet 8/7  
arp clear successful
```

The following example clears all ARP cache entries

```
switch# clear ips arp interface gigabitethernet 8/7  
arp clear successful
```

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clear ntp statistics

To clear Network Time Protocol statistics, use the **clear ntp statistics** command in EXEC mode.

```
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 mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines None mode.

Examples The following example shows how to clear NTP statistics for all peers.

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

The following example shows how to clear NTP statistics for I/O devices.

```
switch# clear ntp statistics io
```

The following example shows how to clear NTP statistics for local devices.

```
switch# clear ntp statistics local
```

The following example shows how to clear NTP statistics for memory.

```
switch# clear ntp statistics memory
```

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

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clear processes log

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

```
clear processes log {all | pid pid-number}
```

Syntax Description	all	Description
	all	Deletes all of the log files.
	pid	Deletes the log files of a specific process.
	<i>pid-number</i>	Specifies the process ID, which must be from 0 to 2147483647.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines None.

Examples The following examples show how to clear all of the log files on the switch.

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

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

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clear qos statistics

To clear the quality of services statistics counters, use the **clear qos statistics** command in EXEC mode.

```
clear qos statistics
```

Syntax Description This command has no arguments or keywords.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines None.

Examples The following examples shows how to clear the quality of service counters.

```
switch# clear qos statistics
```

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

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clear rscn statistics

To clear the registered state change notification statistics for a specified VSAN, use the **clear rscn statistics** command in EXEC mode.

```
clear rscn statistics vsan vsan-id
```

Syntax Description	vsan	The RSCN statistics are to be cleared for a VSAN.
	<i>vsan-id</i>	The ID for the VSAN for which you want to clear RSCN statistics.
Defaults	None.	
Command Modes	EXEC mode.	
Command History	This command was introduced in Cisco MDS SAN-OS Release 1.0(2).	
Usage Guidelines	None.	
Examples	The following example shows how to clear rscn statistics for VSAN 1. switch# clear rscn statistics 1	
Related Commands	Command	Description
	show rscn	Displays RSCN information.

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clear screen

To clear the terminal screen, use the **clear screen** command in EXEC mode.

clear screen

Syntax Description This command has no arguments or keywords.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines None.

Examples The following example shows how to clear the terminal screen.

```
switch# clear screen
```

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clear vrrp

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

```
clear vrrp number interface type [vsan-id | mgmt-int]
```

Syntax Description

<i>number</i>	A number from 1-255.
interface	The counters are cleared for an interface.
<i>type</i>	The interface types are mgmt for the management interface, and vsan for the IPFC VSAN interface.
<i>vsan-id</i>	The ID of the VSAN is from 1 to 4093.
<i>mgmt-int</i>	(Optional). The management interface number is 0.

Defaults

None.

Command Modes

EXEC mode.

Command History

This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines

None.

Examples

The following examples shows how to clear all the software counters for virtual router 7 on VSAN 2.

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

Related Commands

Command	Description
show vrrp	Displays VRRP configuration information.

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clear zone

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

```
clear zone {database | statistics} vsan vsan-id
```

Syntax Description	Parameter	Description
	database	Indicates that zone server database 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.
	<i>vsan-id</i>	The ID of the VSAN is from 1 to 4093.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

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 The following examples shows how to clear all configured information in the zone server for VSAN 1.

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

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

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clock

To configure the time zone and the summer time of day, use the **clock** command in configuration mode. To disable the daylight saving time adjustment, use the **no** form of this command.

clock {**summer-time** | **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*}

no clock {**summer-time** | **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*}

Syntax	Description
summer-time	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	Sets the time zone for a specified time zone name.
<i>daylight-timezone-name</i>	The 8-character name of the time zone
<i>start-week</i> <i>end-week</i>	The week ranging from 1 through 5
<i>start-day</i> <i>end-day</i>	The day ranging from Sunday through Saturday
<i>start-month</i> <i>end-month</i>	The month ranging from January through December
<i>start-time</i> <i>end-time</i>	The time ranging from
<i>daylight-offset-to-be-added-in-minutes</i>	The daylight offset ranges from 1 through 1440 minutes that will be added to the start time and deleted from the end time

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

Command Modes Configuration mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

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

Examples The following example shows how to configure the time zone and summer time of day.

```
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 Pacific 1 Sun Apr 02:00 5 Sun Oct 02:00 60
switch(config)# no clock summer-time
```

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```
switch(config)# exit  
switch#
```

Related Commands

Command	Description
clock set	Changes the default time on the switch.
show clock	Displays the current date and time.
show run	Displays changes made to the time zone configuration along with other configuration information.

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clock set

To change the default time on a Cisco MDS 9000 Family switch, use the **clock set** command in EXEC mode.

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

Syntax Description		
	<i>HH</i>	The two-digit time in hours in military format (15 for 3 p.m.).
	<i>MM</i>	The two-digit time in minutes (58).
	<i>SS</i>	The two-digit time in seconds(15).
	<i>DD</i>	The two-digit date (12).
	<i>Month</i>	The month in words (August).
	<i>YYYY</i>	The four-digit year (2002).

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

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 set** 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
```

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configure terminal

To enter the configuration mode, use the **configure terminal** command in EXEC mode.

configure terminal

Syntax Description This command has no arguments or keywords.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines None.

Examples The following example enters the configuration mode:

```
switch# conf t  
switch(config)#
```


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copy

To save a backup of the system software, use the **copy** command in EXEC mode.

```
copy source-URL destination-URL
```

Syntax Description

<i>source-URL</i>	The location URL or alias of the source file or directory to be copied.
<i>destination-URL</i>	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 (startup). 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 .
<i>filename</i>	The name of the Flash file.
sup-#	The number of the supervisor module, where sup-1 is the slot 5 supervisor (active) and sup-2 is the slot 6 supervisor (standby).

Defaults

None.

Command Modes

EXEC mode.

Command History

This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

Usage Guidelines

This command makes the running and the backup copy of the software identical.

A file can only be copied from an active supervisor to a standby supervisor, 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. First change to the required directory (for example, **cd bootflash:**) and verify the available space (for example, **dir bootflash:**).

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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
```

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

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

The following example copies a file from the current directory level.

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

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

The following command downloads a configuration file from an external CompactFlash to the running configuration.

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

The following command downloads a configuration file from an external CompactFlash to the startup configuration.

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

The following command saves a running configuration file to an external CompactFlash.

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

The following command saves a startup configuration file to an external CompactFlash.

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

The following example creates a copy of the binary configuration in NVRAM.

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

The following example creates a backup copy of the binary configuration.

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

The following example overwrites the contents of an existing configuration in NVRAM.

```
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**

The following example copies an image in bootflash on the active supervisor to the bootflash on the standby supervisor.

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

The following example creates a running configuration copy in bootflash.

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

The following examples creates a startup configuration copy in bootflash.

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

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.

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