CHAPTER 9

H 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 "About the CLI Command Modes" section on page 1-3 to determine the appropriate mode for each command.

hash

To configure a hash algorithm for an IKE protocol policy, use the **hash** command in IKE policy configuration submode. To revert to the default, use the **no** form of the command.

hash {**md5** | **sha**}

no hash

Syntax Description

md5	Specifies the MD5[1] hash algorithm.
sha	Specifies the SHA[2].

1. MD5 = Message-Digest
2. SHA = Secure Hash Algorithm

Defaults

SHA.

Command Modes

IKE policy configuration submode.

Command History

Release	Modification
2.0(x)	This command was introduced.

Usage Guidelines

To use this command, the IKE protocol must be enabled using the **crypto ike enable** command.

Examples

The following example shows how to configure the hash algorithm for the IKE protocol:

```
switch# config terminal
switch(config)# crypto ike domain ipsec
switch(config-ike-ipsec)# policy 1
switch(config-ike-ipsec-policy)# hash md5
```

Related Commands

Command	Description
crypto ike domain ipsec	Enters IKE configuration mode.
crypto ike enable	Enables the IKE protocol.
policy	Configures IKE policy parameters.
show crypto ike domain ipsec	Displays IKE information for the IPsec domain.

host

To configure the host PWWN for the flow**,** use the **host** command. To delete a flow from a given flowgroup, use the **no** form of the command.

host {*pwwn* **target** *pwwn* **vsan** *vsan id* [**tape**] [**compression**]}

no host {*pwwn* **target** *pwwn* **vsan** *vsan id* [**tape**] [**compression**]}

Syntax Description

pwwn	Specifies the host and target pwwn for the flow.
vsan	Specifies the VSAN where this flow is accelerated.
vsan id	Specifies the vsan ID where this flow is accelerated. The range is from 1 to 4093.
tape	Enables tape acceleration.
compression	Enables compression.

Defaults

None.

Command Modes

Configuration submode.

Command History

Release	Modification
NX-OS 4.2(1)	This command was introduced.

Usage Guidelines

None.

Examples

The following example shows how to add a flow from a given flowgroup:

```
switch# conf t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# ioa cluster tape_vault
switch(config-ioa-cl)# flowgroup tsm
switch(config-ioa-cl-flgrp)# host 10:0:0:0:0:0:0:1 target 11:0:0:0:0:0:0:1 vsan 100 tape
switch(config-ioa-cl-flgrp)# host 10:0:0:0:0:0:0:1 target 11:0:0:0:0:0:0:1 vsan 100
compression
switch(config-ioa-cl-flgrp)# host 10:0:0:0:0:0:0:2 target 11:0:0:0:0:0:0:2 vsan 100 tape
compression
sjc-sw2(config-ioa-cl-flgrp)# end
```

Related Commands

Command	Description
flowgroup	Configures IOA flowgroup.

host

Use the **host** command to configure the switch offline state, the mainframe access control parameters, and the mainframe time stamp parameters. To disable the configuration or to revert to factory defaults, use the **no** form of the command.

host {**control** [**switch offline**] | **port control** | **set-timestamp**}

no host {**control** [**switch offline**] | **port control** | **set-timestamp**}

Syntax Description

control	Allows the host control of FICON.
switch offline	(Optional) Allows the host to move the switch to an offline state and shut down the ports (default).
port control	Enables the host to configure FICON parameters.
set-timestamp	Allows the host to set the director clock.

Defaults

Host offline control enabled.

Command Modes

FICON configuration mode.

Command History

Release	Modification
1.3(1)	This command was introduced.

Usage Guidelines

By default, the clock in each VSAN is the same as the switch hardware clock. Mainframe users are allowed to change the VSAN-clock.

Examples

The following example prohibits mainframe users from moving the switch to an offline state:

```
switch# config terminal
switch(config)# ficon vsan 2
switch(config-ficon)# no host control switch offline
```

The following example allows the host to move the switch to an offline state and shut down the ports:

```
switch(config-ficon)# host control switch offline
```

The following example prohibits mainframe users to configure FICON parameters in the Cisco MDS switch (default):

```
switch(config-ficon)# no host port control
```

The following example allows mainframe users to configure FICON parameters in the Cisco MDS switch:

```
switch(config-ficon)# host port control
```

The following example prohibits mainframe users from changing the VSAN-specific clock:

```
switch(config-ficon)# no host set-timestamp
```

The following example allows the host to set the clock on this switch (default):

```
switch(config-ficon)# host set-timestamp
```

Related Commands

Command	Description
ficon vsan vsan-id	Enables FICON on the specified VSAN.
show ficon	Displays configured FICON details.

hw-module logging onboard

To configure on-board failure logging (OBFL), use the **hw-module logging onboard** command. To disable this feature, use the **no** form of the command.

hw-module logging onboard [**module** *slot*] [*log-type*]

no hw-module logging onboard [**module** *slot*] [*log-type*]

Syntax Description

module *slot*	Configures OBFL for a specified module.
log-type	Specifies the type of events for on-board failure logging.
cpu-hog	Specifies CPU hog events.
environmental-history	Specifies environmental history events.
error-stats	Specifies error statistics events.
interrupt-stats	Specifies interrupt statistics events.
mem-leak	Specifies memory leak events.
miscellaneous-error	Specifies miscellaneous information events.
obfl-log	Specifies boot uptime, device version, and OBFL history.

Defaults

Enabled.

Command Modes

Configuration mode.

Command History

Release	Modification
3.0(1)	This command was introduced.

Usage Guidelines

OBFL data uses the module's persistent logging facility to store data in its CompactFlash memory. When OBFL is disabled, the persistent logging facility discards all entries sent to it for logging.

Examples

The following example configures on-board failure logging of memory leak events on module 2:

```
switch# config terminal
switch(config)# hw-module logging onboard module 2 mem-leak
```

Related Commands

Command	Description
clear logging onboard	Clears OBFL information.
show logging onboard	Displays OBFL information.