



# H Commands

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# hardware ejector enable

To enable the hardware card ejector functionality when the ejector lever is unlocked, use the hardware ejector enable command.

**hardware ejector enable**

**Syntax Description** This command has no arguments or keywords.

**Command Default** Enabled.

**Command Modes** Global configuration mode.

Command History	Release	Modification
	6.2(3)	This command was introduced.

**Usage Guidelines** This command does not require a license.

The purpose of the ejector release button on the supervisor or linecard is to unlock the ejector release lever. When enabled, this command causes the supervisor to power down when the ejector release button is pressed. In the case of a linecard, both ejector release buttons have to be pressed in order for the power down of the linecard to occur.

## Examples

This example shows the configuration command to enable the hardware power down feature when the ejector release button(s) are pressed:

```
switch# config terminal
switch(config)# hardware ejector enable
```

This example shows the configuration command to disable the hardware power down feature when the ejector release button is pressed:

```
switch# config terminal
switch(config)# no hardware ejector enable
```

# hardware fabric crc

To enable internal CRC detection and isolation functionality, use the **hardware fabric crc** command in configuration mode. To disable this functionality, use the no form of the command.

```
hardware fabric crc [ threshold count ]
no hardware fabric crc
```

```
hardware fabric crc [ threshold count ] [ log-only ]
no hardware fabric crc
```

## Syntax Description

<b>threshold count</b>	(Optional) Specifies the CRC triggering threshold count per 24-hour sampling window. The range is 1–100 CRC errors.
<b>log-only</b>	(Optional) Specifies to log internal CRC errors without taking any isolation action.

## Command Default

Disables modules that are identified as the source of the CRC errors. The default triggering threshold is 3 CRC errors per internal data link per 24 hour window.

## Command Modes

Global configuration (config)

## Command History

Release	Modification
8.5(1)	Internal CRC detection and error logging without isolation is enabled by default.
8.4(2)	Log only option was introduced.
6.0(x)	This command was introduced.

## Usage Guidelines

Use the command without the **log-only** option to allow NX-OS to automatically determine and shutdown the module suspected to be the source of the errors.

For information on the system messages generated, see the "%XBAR-2-XBAR\_MONITOR" message in the [Cisco MDS 9000 Family and Nexus 7000 Series NX-OS System Messages Reference](#).

For information on different stages of internal CRC detection, isolation, and logging, see the "High Availability Overview" chapter in the [Cisco MDS 9000 Series High Availability Configuration Guide, Release 8.x](#).

This feature is supported only on Director class switches.

The monitoring windows are consecutive—at the end of each monitoring window the CRC counters are reread and used as the new base for the next monitoring window.

## Examples

The following example shows how to enable internal CRC detection, isolation, and logging with the default error rate of 3 or more internal CRC errors per internal link per 24 hours:

```
switch# config terminal
switch(config)# hardware fabric crc threshold
```

The following example shows how to enable internal CRC detection and error logging without isolation:

```
switch# config terminal
switch(config)# hardware fabric crc log-only
```

The following example shows how to disable internal CRC detection, isolation, and error logging:

```
switch# config terminal
switch(config)# no hardware fabric crc
```

#### Related Commands

Command	Description
<b>show hardware fabric crc status</b>	Displays the CRC status.
<b>show logging logfile</b>	Displays the syslog buffer on the switch.

# 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

<b>md5</b>	Specifies the MD5 <sup>1</sup> hash algorithm.
<b>sha</b>	Specifies the SHA <sup>2</sup> .

<sup>1</sup> MD5 = Message-Digest

<sup>2</sup> SHA = Secure Hash Algorithm

## Command Default

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
<b>crypto ike domain ipsec</b>	Enters IKE configuration mode.
<b>crypto ike enable</b>	Enables the IKE protocol.
<b>policy</b>	Configures IKE policy parameters.
<b>show crypto ike domain ipsec</b>	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

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

## Command Default

None.

## Command Modes

Configuration submenu.

## 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 10:0:0:0:0:0:1 target 11:0:0:0:0:0:1 vsan 100 tape
switch(config-ioa-cl-flgrp)# host 10:0:0:0:0:0:1 target 11:0:0:0:0:0:1 vsan 100
compression
switch(config-ioa-cl-flgrp)# host 10:0:0:0:0:0:2 target 11:0:0:0:0:0:2 vsan 100 tape
compression
sjc-sw2(config-ioa-cl-flgrp)# end
```

## Related Commands

Command	Description
<b>flowgroup</b>	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

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

## Command Default

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
<b>ficon vsan vsan-id</b>	Enables FICON on the specified VSAN.
<b>show ficon</b>	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

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

## Command Default

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
<b>clear logging onboard</b>	Clears OBFL information.
<b>show logging onboard</b>	Displays OBFL information.

