



E Commands

This chapter describes the Cisco NX-OS system management commands that begin with the letter E.

erspan-id

To configure the flow ID for an Encapsulated Remote Switched Port Analyzer (ERSPAN)) session, use the **erspan-id** command.

erspan-id *flow_id*

Syntax Description	<i>flow_id</i>	ERSPAN flow ID. The range is from 1 to 1023.
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Defaults	None
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Command Modes	config-erspan-src
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Supported User Roles	network-admin network-operator
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Command History	Release	Modification
	5.1(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
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Examples	This example shows how to configure the flow ID for an ERSPAN session:
	<pre>switch# configure terminal switch(config)# monitor session 5 type erspan-source switch(config-erspan-src)# erspan-id 100 switch(config-erspan-src)#</pre>

Related Commands	Command	Description
	ip dscp	Configures the DSCP value of the packets in the ERSPAN traffic.
	ip ttl	Configures the IP time-to-live (TTL) value of the ERSPAN traffic.
	vrf	Configures the VRF for ERSPAN traffic forwarding.
	monitor-session	Enters the monitor configuration mode for configuring an ERSPAN or SPAN session for analyzing traffic between ports.

ethanalyzer local interface

To capture packets to or from the supervisor or management interface, use the **ethanalyzer local interface** command. To stop packet capture, use the **no** form of this command.

```
ethanalyzer local interface { inband | mgmt } [[capture-filter capt-expression]
[capture-ring-buffer duration seconds write bootflash | files files write bootflash |
filesize kilobytes write bootflash [display-filter disp-expression] [limit-captured-frames limit]
[limit-frame-size bytes] [write location]] [brief]

no ethanalyzer local interface { inband | mgmt } [[capture-filter capt-expression]
[capture-ring-buffer duration seconds write bootflash | files files write bootflash | filesize
kilobytes write bootflash [display-filter disp-expression] [limit-captured-frames limit]
[limit-frame-size bytes] [write location]] [brief]
```

Syntax Description		
inband		Captures packets going between the supervisor module and the interface modules.
mgmt		Captures packets going to or from the mgmt0 port.
capture-filter <i>capt-expression</i>		(Optional) Filters the display of output based on the expression. The expression is a quoted string.
capture-ring-buffer		(Optional) Captures ring buffer option.
duration		Stop writing to the file or switch to the next file after value seconds have elapsed.
<i>seconds</i>		Duration in seconds. The range is from 0-2147483647.
write		Filename to save capture to.
files		Stop writing to capture files after value number of files were written or begin again with the first file after value number of files were written (form a ring buffer).
<i>files</i>		Number of files. The range is from 2 to 64.
<i>bootflash</i>		Specifies the bootflash file name.
filesize		Stop writing to a capture file or switch to the next file after it reaches a size of value kilobytes.
<i>kilobytes</i>		Size in kilobytes. The range is from 1to 65536.
display-filter <i>disp-expression</i>		(Optional) Filters the display of output based on the expression. The expression is a quoted string.
limit-captured-frames <i>limit</i>		(Optional) Configures the maximum number of frames to capture. The range is from 0 to 2147483647. The default is 100.
limit-frame-size <i>bytes</i>		(Optional) Captures the configured number of bytes from a frame. The range is from 64 to 65535.
write <i>location</i>		(Optional) Saves the captured information to the configured location. The location can be any case-sensitive, alphanumeric string up to 64 characters.
brief		(Optional) Displays the protocol summary of the captured packets.

Defaults

No packets captured.

Command Modes Any command mode

SupportedUserRoles network-admin
network-operator
vdc-admin
vdc-operator

Command History	Release	Modification
	4.2(5) and 5.0(1)	Added the option capture-ring-buffer to the syntax description.
	4.0(1)	This command was introduced.

Usage Guidelines Cisco Ethalyzer is based on the Wireshark open source code.
This command does not require a license.

Examples This example shows how to capture all packets on the mgmt 0 port:

```
switch# ethalyzer local interface mgmt
#
```

Related Commands	Command	Description
	ethalyzer local read	Reads the captured packet data from an Ethalyzer capture.

ethanalyzer local read

To read packets captured by Ethanalyzer, use the **ethanalyzer local read** command. To stop reading the packet capture, use the **no** form of this command.

ethanalyzer local read *location*

no ethanalyzer local read *location*

Syntax Description	<i>location</i>	Location to read captured packets from. The location can be any case-sensitive, alphanumeric string up to 64 characters.
Defaults	None	
Command Modes	Any command mode	
SupportedUserRoles	network-admin network-operator vdc-admin vdc-operator	
Command History	Release	Modification
	4.0(1)	This command was introduced.
Usage Guidelines	Cisco Ethanalyzer is based on the Wireshark open source code. This command does not require a license.	
Examples	This example shows how to capture all packets on the mgmt 0 port: <pre>switch# ethanalyzer local read bootflash:test-mgmt0 #</pre>	
Related Commands	Command	Description
	ethanalyzer local interface	Captures packets to or from the supervisor or mgmt0 port.

event cli

To specify the event criteria for an Embedded event manager (EEM) applet that is run by matching a Cisco NX-OS command-line interface (CLI) command, use the **event cli** command. To remove the CLI command event criteria, use the **no** form of this command.

```
event cli [tag tag] match regex [count countnum] [time interval]
```

```
no event cli match regex [count countnum] [time interval]
```

Syntax Description	
tag <i>tag</i>	(Optional) Identifies this specific event when multiple events are included in the policy.
match <i>regex</i>	Specifies the regular expression (<i>regex</i>) used to perform the CLI command pattern match. The CLI command must have been successfully parsed before the pattern match is attempted. The pattern match is compared with the fully expanded CLI command string. If the expression contains embedded blanks, enclose it in double quotation marks.
count <i>countnum</i>	(Optional) Specifies the number of matching occurrences before an EEM event is triggered. When a number is not specified, an EEM event is triggered after the first match. The <i>countnum</i> argument must be an integer greater than 0.
time <i>interval</i>	(Optional) Specifies the time interval during which the one or more occurrences must take place. When the keyword is not specified, no time period check is applied. The <i>interval</i> argument is an integer that represents seconds in the range from 0 to 4294967295.

Defaults None

Command Modes Applet configuration (config-applet)

Supported User Roles network-admin
vdc-admin

Command History	Release	Modification
	5.2.(1)	Added the tag <i>tag</i> keywords.
	4.0(1)	This command was introduced.

Usage Guidelines The **event cli match** *regex* command must meet the following criteria:

1. It must be a fully qualified CLI string that must include the complete, not relative, path. For example, to describe the **shutdown** command under interface mode, the command should be:

```
switch(config-applet)# event cli match "conf t ; interface * ; shutdown"
```

2. The delimiter between the modes must be “;”, which is a space followed by a semi-colon and followed by another space.

This command does not require a license.

Examples

This example shows how to specify a CLI command for the EEM applet to match:

```
switch# configure terminal
switch(config)# event manager applet eventcli-applet
switch(config-applet)# event cli match "write memory.*" time 13
switch(config-applet)#
```

event counter

To specify the event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of a named counter crossing a threshold, use the **event counter** command. To remove the counter event criteria, use the **no** form of this command.

```
event counter [tag tag] name name entry-val value entry-op {gt | ge | eq | ne | lt | le} [exit-val
value exit-op {gt | ge | eq | ne | lt | le}]
```

```
no event counter name name
```

Syntax Description	
tag <i>tag</i>	(Optional) Identifies this specific event when multiple events are included in the policy.
name <i>name</i>	Specifies the name of the counter that will be monitored. The <i>name</i> identifier can be any string value.
entry-val <i>value</i>	Specifies the value with which the contents of the current counter are compared to decide if a counter event should be raised. The range is from —2147483648 to 2147483647, inclusive.
entry-op <i>op</i>	Compares the contents of the current counter value with the entry value using the specified operator: <ul style="list-style-type: none"> • gt—Greater than • ge—Greater than or equal to • eq—Equal to • ne—Not equal to • lt—Less than • le—Less than or equal to <p>If there is a match, an event is triggered and event monitoring is disabled until the exit criteria are met.</p>
exit-val <i>value</i>	(Optional) Specifies the value with which the contents of the current counter are compared to decide whether the exit criteria are met. The range is from —2147483648 to 2147483647, inclusive.
exit-op <i>op</i>	(Optional) Compares the contents of the current counter with the exit value using a specified operator: <ul style="list-style-type: none"> • gt—Greater than • ge—Greater than or equal to • eq—Equal to • ne—Not equal to • lt—Less than • le—Less than or equal to <p>If there is a match, an event is triggered and event monitoring is reenabled.</p>

Defaults

None

Command Modes Applet configuration (config-applet)

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	5.2.(1)	Added the tag tag keywords.
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to specify an event criteria for an EEM applet that is run when the defined *critical_errors* counter exceeds the entry value:

```
switch# configure terminal  
switch(config)# event manager applet eventcntr-applet  
switch(config-applet)# event counter name critical_errors entry-val 3 entry-op gt  
switch(config-applet)#
```

event fanabsent

To specify an event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of a fan absent event, use the **event fanabsent** command. To remove the fan absent event criteria, use the **no** form of this command.

event fanabsent [*fan number*] **time** *interval*

no event fanabsent [*fan number*] **time** *interval*

Syntax Description

fan number	(Optional) Specifies a fan number to monitor for a fan absent event. The range is from 1 to 4.
time interval	Specifies the time interval (in seconds) within which the fan can stay absent. The range is from 0 to 4294967295.

Defaults

None

Command Modes

Applet configuration (config-applet)

Supported User Roles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to specify that an EEM applet runs when a fan absent event occurs:

```
switch# configure terminal
switch(config)# event manager applet absent-applet
switch(config-applet)# event fanabsent time 42
switch(config-applet)#
```

event fanbad

To specify an event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of a fan bad event, use the **event fanbad** command. To remove the fan bad event criteria, use the **no** form of this command.

event fanbad [*fan number*] *time interval*

no event fanbad [*fan number*] *time interval*

Syntax Description	
fan number	(Optional) Specifies a fan number to monitor for a fan bad event. The range is from 1 to 4.
time interval	Specifies the time interval (in seconds) within which the fan can stay bad. The range is from 0 to 4294967295.

Defaults None

Command Modes Applet configuration (config-applet)

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to specify that an EEM applet runs when a fan bad event occurs:

```
switch# configure terminal
switch(config)# event manager applet bad-applet
switch(config-applet)# event fanbad time 42
switch(config-applet)#
```

event gold

To specify an event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of a Generic Online Diagnostic (GOLD) failure event when monitoring one or more modules, use the **event gold** command. To remove the GOLD failure event criteria, use the **no** form of this command.

```
event gold [failure-type {sup | fabric | lc | port}] module {module | all} test { name | test-id }
    [severity {minor | moderate | major}] testing-type {bootup | ondemand | scheduled |
    monitoring} consecutive-failure cnt
```

```
no event gold [failure-type {sup | fabric | lc | port}] module {module | all} test { name | test-id }
```

Syntax Description

failure-type	Specifies the GOLD failure event type: <ul style="list-style-type: none"> • sup—Specifies the supervisor failure event (default action is switchover). • fabric—Specifies the fabric card failure event (default action is fabric reload or poweroff). • lc—Specifies the linecard failure event (default action is module reload or poweroff). • port—Specifies the port failure event (default action is port error disable).
module	Specifies that one module or all modules must be monitored: <p>Note The module keyword is required to complete the event gold command.</p>
<i>module</i>	Number of a specific module to be monitored.
all	Specifies that all modules are to be monitored.
test name	Specifies the test name of the event criteria. The range is
<i>test-id</i>	Specifies the test ID of the event criteria. The test ID is in the range of 1 to 30.
severity	(Optional) Specifies the event criteria match for the diagnostic result matches with the GOLD diagnostic error: <ul style="list-style-type: none"> • minor—Specifies to match to minor GOLD diagnostic errors. • moderate—Specifies to match moderate GOLD diagnostic errors. • major—Specifies to match major GOLD diagnostic errors.
testing-type	Specifies the event criteria based on the testing types of diagnostic from GOLD: <ul style="list-style-type: none"> • bootup—Specifies the diagnostic tests running on system bootup. • ondemand—Specifies the diagnostic tests running from CLI after the module is online. • schedule—Specifies the scheduled diagnostic tests. • monitoring—Specifies the diagnostic tests that are running periodically in the background to monitor the health of the system.
consecutive-failure <i>cnt</i>	Specifies the event criteria based on consecutive test failure information from GOLD.

Defaults

None

Command Modes Applet configuration (config-applet)

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to specify that an EEM applet runs when a new GOLD failure event occurs for any module:

```
switch# configure terminal
switch(config)# event manager applet gold-match
switch(config-applet)# event gold module all test atBoot testing-type bootup
switch(config-applet)#
```

event manager applet

To register an applet with the Embedded Event Manager (EEM) and to enter applet configuration mode, use the **event manager applet** command. To remove the applet command from the configuration, use the **no** form of this command.

event manager applet *applet-name* [**override** *policy-name*] [**class** *class-options*]

no event manager applet *applet-name*

Syntax Description

<i>applet-name</i>	Unique identifier for the applet. This identifier can be any string value.
override <i>policy-name</i>	(Optional) Specifies this policy will override a system policy. <i>policy-name</i> is the name of the system policy to override. It should begin with a double underscore.
class <i>class-options</i>	(Optional) Specifies the EEM policy class. <i>class-options</i> can be either one of the following: <ul style="list-style-type: none"> <i>class-letter</i>: Letter from A to Z that identifies each policy class. Specify any one class-letter. default: Policies registered with the default class.

Defaults

None

Command Modes

Global configuration

Supported User Roles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.
7.2(0)D1(1)	This command was modified to add class options

Usage Guidelines

This command does not require a license.

Examples

This example shows how to register an applet with EEM and to enter applet configuration mode:

```
switch# configure terminal
switch(config)# event manager applet eem-applet
switch(config-applet)#
```

event manager clear counter

To specify an Embedded Event Manager (EEM) counter to clear, use the **event manager clear counter** command.

event manager clear counter *counter-name*

Syntax Description	<i>counter-name</i> Name of the counter to clear.
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Defaults	None
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Command Modes	Applet configuration (config-applet)
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SupportedUserRoles	network-admin vdc-admin
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Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
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Examples	This example shows how to clear an EEM counter:
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```
switch# configure terminal
switch(config)# event manager clear counter eem-counter
switch(config)#
```

event manager clear history events

To clear all Embedded Event Manager (EEM) event history, use the **event manager clear history events** command.

event manager clear history events

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Applet configuration (config-applet)

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to clear all of the EEM event history:

```
switch# configure terminal
switch(config)# event manager clear history events
switch(config)#
```

event manager environment

To set an Embedded Event Manager (EEM) environment variable, use the **event manager environment** command. To disable an EEM environment variable, use the **no** form of this command.

event manager environment *varname varvalue*

no event manager environment *varname*

Syntax Description	
<i>varname</i>	Name of the EEM environment variable.
<i>varvalue</i>	String of characters, including embedded spaces, to be placed in the environment variable <i>varname</i> .

Defaults None

Command Modes Embedded event manager

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to set an EEM environment variable:

```
switch# configure terminal
switch(config)# event manager environment _cron_entry 0-59/2 0-23/1 * * 0-7
switch(config)#
```

event manager policy

To register an Embedded Event Manager (EEM) policy with the EEM, use the **event manager policy** command. To remove the event manager policy command from the configuration file, use the **no** form of this command.

event manager policy *VSHscriptfilename*

no event manager policy *VSHscriptfilename*

Syntax Description

VSHscriptfilename Name of the VSH script file to register with the EEM. This name becomes the name of the EEM policy.

Note System policy names begin with two underscore characters (__).

Defaults

None

Command Modes

Applet configuration (config-applet)

Supported User Roles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

The EEM schedules and runs policies on the basis of an event specification that is contained within the policy itself. When the **event manager policy** command is invoked, the EEM examines the policy and registers it to be run when the specified event occurs.

Examples

This example shows how to register a policy:

```
switch# configure terminal
switch(config)# event manager policy fanpolicy.vsh
switch(config)#
```

event manager run

To manually run a registered Embedded Event Manager (EEM) policy, use the **event manager run** command.

event manager run *policy-name*

Syntax Description	<i>policy-name</i>	Name of the registered EEM policy to run.
	Note	System policy names begin with two underscore characters (__).

Defaults	None
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Command Modes	Applet configuration (config-applet)
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Supported User Roles	network-admin vdc-admin
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Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
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Examples	This example shows how to manually run a registered EEM policy:
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```
switch# configure terminal
switch(config)# event manager run fanpolicy.vsh
switch(config)#
```

event manager scheduler

To schedule Embedded Event Manager (EEM) policies and set the policy scheduling options, use the **event manager scheduler** command in global configuration mode. To remove the scheduling of EEM policies, use the **no** form of this command.

event manager scheduler applet thread class *class-options* **number** *thread-number*

no event manager scheduler applet thread class *class-options* **number** *thread-number*

Syntax Description

applet	Specifies the EEM applet policy
thread	Specifies the thread for the class
class <i>class-options</i>	Specifies the EEM policy class. <i>class-options</i> can be one or a combination of the following: <ul style="list-style-type: none"> <i>class-letter</i>: Letter from A to Z that identifies each policy class. You can specify multiple instances of <i>class-letter</i>. default: Specifies policy registered with default class. range <i>class-letter-range</i>: Specifies a range of EEM policy class. Multiple instances of range <i>class-letter-range</i> can be specified. The letters used in <i>class-letter-range</i> must be in uppercase.
number <i>thread-number</i>	Specifies the number of concurrent execution threads for the specified class. <i>thread-number</i> is in the range of 1 to 65535.

Defaults

Policy scheduling is active.

Command Modes

Global Configuration (config#).

Command History

Release	Modification
7.2(0)D1(1)	This command was introduced.

Usage Guidelines

During registration, EEM policies will be assigned a class if **class** *class-letter* is specified by the **event manager applet** or **event manager policy** commands. EEM policies registered without a class will be assigned the **default** class. Threads that have **default** as the class will service the default class when the thread is available for work. Threads that are assigned specific class letters will service any policy with a matching class letter.

If there is no EEM execution thread available to run the policy in the specified class and a scheduler rule for the class is configured, the policy will wait until a thread of that class is available for execution. Synchronous policies that are triggered from the same input event should be scheduled in the same execution thread.

For **class**, specify any of these options- *class-letter*, **default**, or **range** *class-letter-range*. You can specify all these options in the same CLI statement.

To schedule EEM policies and set the script scheduling options, use the **event manager scheduler script** command in global configuration mode. To remove the EEM script scheduling options and restore the default value, use the **no** form of this command.

Examples

The following example shows how to create two EEM scheduling threads to run applets of the default class:

```
switch# configure terminal
switch(config)# event manager scheduler applet thread class default number 2
```

The following example shows how to create one EEM execution thread to run Tcl scripts of class A, B, D and E.

```
switch(config)# event manager scheduler script thread class A B range D-E number 1
```

Related Commands

Command	Description
event manager applet	Registers an EEM applet with the EEM and enters applet configuration mode.
event manager policy	Registers an EEM policy with the EEM.
event manager scheduler hold	Holds the EEM policy scheduling execution.
event manager scheduler script	Sets the options for EEM script scheduling.
debug event manager scheduler suspend	Suspends the EEM policy scheduling execution.

event manager scheduler clear

To clear Embedded Event Manager (EEM) policies that are executing or pending execution, use the **event manager scheduler clear** command in privileged EXEC mode.

```
event manager scheduler clear {all | policy job-id | queue-type applet [class class-options]}
[processor {rp_primary | rp_standby}]
```

Syntax Description

all	Clears all policies that are currently executing or pending execution.
policy <i>job-id</i>	Clears the EEM policy specified by the <i>job-id</i> . <i>job-id</i> is a number in the range of 1 to 4294967295 that identifies each policy in the queue.
queue-type	Clears the queue type of the EEM policy.
applet	Specifies the EEM queue type, applet.
class <i>class-options</i>	(Optional) Clears the EEM policies of a specified class. <i>class-options</i> can be one or a combination of the following: <ul style="list-style-type: none"> class-letter: Letter from A to Z that identifies each policy class. You can specify multiple instances of <i>class-letter</i>. default: Specifies policy registered with default class. range <i>class-letter-range</i>: Specifies a range of EEM policy class. Multiple instances of range <i>class-letter-range</i> can be specified. The letters used in <i>class-letter-range</i> must be in uppercase.
processor	(Optional) Specifies the processor to execute the command.
rp_primary	(Optional) Indicates the default Route Processor (RP). The policy runs on the primary RP when an event correlation causes the policy to be scheduled.
rp_standby	(Optional) Indicates the standby RP. The policy runs on the standby RP when an event correlation causes the policy to be scheduled.

Defaults

None.

Command Modes

Privileged EXEC.

Command History

Release	Modification
7.2(0)D1(1)	This command was introduced.

Usage Guidelines

For **class**, specify at least one of the options: *class-letter*, **default**, or **range *class-letter-range***. You can specify all these options in the same CLI statement.

Examples

The following example shows how to clear EEM policies that are pending execution. The show commands display sample output before and after the policy is cleared.

```
switch# show event manager policy pending
no. job id status time of event          event type    name
1   1      pend  Thu Sep 7  02:54:04 2006  syslog       applet: one
2   2      pend  Thu Sep 7  02:54:04 2006  syslog       applet: two
3   3      pend  Thu Sep 7  02:54:04 2006  syslog       applet: three

switch# event manager scheduler clear policy 2
switch# show event manager policy pending
no. job id status time of event          event type    name
1   1      pend  Thu Sep 7  02:54:04 2006  syslog       applet: one
3   3      pend  Thu Sep 7  02:54:04 2006  syslog       applet: three
```

Related Commands

Command	Description
event manager policy	Registers an EEM policy with the EEM.
show event manager policy pending	Displays EEM policies that are pending execution.

event manager scheduler hold

To hold a scheduled Embedded Event Manager (EEM) policy event or event queue in the EEM scheduler, use the **event manager scheduler hold** command in the privileged EXEC mode. To resume the policy event or event queue, use the **event manager scheduler release** command.

event manager scheduler hold {**all** | **policy** *job-id* | **queue-type** **applet** [**class** *class-options*]}

Syntax Description

all	Holds all the EEM policy event or event queue in the EEM scheduler.
policy <i>job-id</i>	Holds the EEM policy event or event queue in the EEM scheduler as specified by the <i>job-id</i> . <i>job-id</i> is a number in the range of 1 to 4294967295 that identifies each policy in the queue.
queue-type	Holds the EEM policy event or event based on the EEM queue type.
applet	Specifies the EEM queue type, applet.
class <i>class-options</i>	(Optional) Specifies the EEM policy class. <i>class-options</i> can be one or all of the following: <ul style="list-style-type: none"> class-letter : Letter from A to Z that identifies each policy class. You can specify multiple instances of <i>class-letter</i>. default: Specifies the policy registered with default class. range <i>class-letter-range</i>: Specifies a range of EEM policy class. Multiple instances of range <i>class-letter-range</i> can be specified. The letters used in <i>class-letter-range</i> must be in uppercase.

Defaults

None.

Command Modes

Privileged EXEC.

Command History

Release	Modification
7.2(0)D1(1)	This command was introduced.

Usage Guidelines

Use the **show event manager policy pending** command to display the policies pending in the server execution queue.

Use the **event manager scheduler hold** command to hold a policy or a policy queue in the server.

For **class**, specify any of the options- *class-letter*, **default**, and **range** *class-letter-range*. You can specify all these options in the same CLI statement.

Examples

The following example shows how to hold a scheduled policy event in the EEM scheduler. The **show** commands display sample output before and after the policy event is held.

```
switch# show event manager policy pending
no. job id status time of event          event type    name
1  1      pend  Thu Sep 7  02:54:04 2006  syslog       applet: one
2  2      pend  Thu Sep 7  02:54:04 2006  syslog       applet: two
3  3      pend  Thu Sep 7  02:54:04 2006  syslog       applet: three
switch# event manager scheduler hold policy 2
switch# show event manager policy pending
no. job id status time of event          event type    name
1  1      pend  Thu Sep 7  02:54:04 2006  syslog       applet: one
2  2      held  Thu Sep 7  02:54:04 2006  syslog       applet: two
3  3      pend  Thu Sep 7  02:54:04 2006  syslog       applet: three
```

Related Commands

Command	Description
event manager policy	Registers an EEM policy with the EEM.
event manager scheduler release	Resumes the policy event or event queue.
show event manager policy pending	Displays EEM policies that are pending execution.

event manager scheduler modify

To modify the scheduling parameters of the Embedded Event Manager (EEM) policies, use the **event manager scheduler modify** command in the privileged EXEC mode.

```
event manager scheduler modify {all | policy job-id | queue-type applet} {class class-options
[queue-priority { high | last | low | normal}] | queue-priority { high | last | low | normal} [class
class-options]}
```

Syntax Description		
all	Changes all EEM policies that are currently executing or in the pending execution mode.	
policy <i>job-id</i>	Changes the EEM policy specified by the <i>job-id</i> . <i>job-id</i> is a number in the range of 1 to 4294967295 that identifies each policy in the queue.	
queue-type	Changes the queue type of EEM policy.	
applet	Specifies the EEM queue type, applet.	
class <i>class-options</i>	Specifies the EEM policy class. <i>class-options</i> can be one or all of the following: <ul style="list-style-type: none"> class-letter: Letter from A to Z that identifies each policy class. You can specify multiple instances of <i>class-letter</i>. default: Specifies policy registered with default class. 	
queue-priority	(Optional) Changes the priority of the queuing order of the EEM policies.	
high	(Optional) Specifies the queue priority as high.	
last	(Optional) Specifies the queue priority as last.	
low	(Optional) Specifies the queue priority as low.	
normal	(Optional) Specifies the queue priority as normal.	

Defaults None.

Command Modes Privileged EXEC.

Command History	Release	Modification
	7.2(0)D1(1)	This command was introduced.

Usage Guidelines Use the **show event manager policy pending** command to display the policies pending in the server execution queue.

Use the **event manager scheduler modify** command to modify the scheduling parameters of a policy.

For **class**, specify any of the options- *class-letter* or **default**. You can specify all these options in the same CLI statement..

Examples

The following example shows how to modify the scheduling parameters of EEM policies. The **show** commands display sample output before and after the scheduling parameters are modified.

```
switch# show event manager policy pending
no. job id status time of event          event type      name
1  default pend   Thu Sep 7 02:54:04 2006  syslog         applet: one
2  default pend   Thu Sep 7 02:54:04 2006  syslog         applet: two
3  B          pend   Thu Sep 7 02:54:04 2006  syslog         applet: three
switch# event manager scheduler modify all class A
switch# show event manager policy pending
no. job id status time of event          event type      name
1  A          pend   Thu Sep 7 02:54:04 2006  syslog         applet: one
2  A          pend   Thu Sep 7 02:54:04 2006  syslog         applet: two
3  A          pend   Thu Sep 7 02:54:04 2006  syslog         applet: three
```

Related Commands

Command	Description
event manager policy	Registers an EEM policy with the EEM.
show event manager policy pending	Displays EEM policies that are pending execution.

event manager scheduler release

To resume execution of the specified Embedded Event Manager (EEM) policies, use the **event manager scheduler release** command in the privileged EXEC mode.

event manager scheduler release {**all** | **policy** *job-id* | **queue-type** **applet** [**class** *class-options*]}

Syntax Description

all	Resumes execution of all EEM policies.
policy <i>job-id</i>	Resumes the EEM policy specified by the <i>job-id</i> . <i>job-id</i> is a number in the range of 1 to 4294967295 that identifies each policy in the queue.
queue-type	Resumes execution of policies based on EEM queue type.
applet	Specifies the EEM applet.
class <i>class-options</i>	Specifies the EEM policy class. <i>class-options</i> can be one or all of the following: <ul style="list-style-type: none"> class-letter: Letter from A to Z that identifies each policy class. You can specify multiple instances of <i>class-letter</i>. default: Specifies the policy registered with default class. range <i>class-letter-range</i>: Specifies a range of EEM policy class. Multiple instances of range <i>class-letter-range</i> can be specified. The letters used in <i>class-letter-range</i> must be in uppercase.

Defaults

By default the command is disabled.

Command Modes

Privileged EXEC.

Command History

Release	Modification
7.2(0)D1(1)	This command was introduced.

Usage Guidelines

To release the EEM policies held using the **event manager scheduler hold** command, use the **event manager scheduler release** command.

For **class**, specify any of the options: *class-letter*; **default** or **range** *class-letter-range*. You can specify all these options in the same CLI statement.

Examples

The following example shows how to resume the execution of all EEM policies.

```
switch# show event manager release all
```

The following example shows how to resume the execution for policies of class A to E.

```
switch# event manager scheduler release queue-type applet class range A-E
```

Related Commands	Command	Description
	event manager scheduler hold	Holds the policy event or event queue.

event module-failure

To specify an event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of a module failure event, use the **event module-failure** command. To remove the module failure event criteria, use the **no** form of this command.

```
event module-failure type err-name module {all | module} count count [time interval]
```

```
no event module-failure type err-name module {all | module} count count
```

Syntax Description

type <i>err-name</i>	Specifies the type of failure condition. Select one of the <i>err-name</i> conditions: any —Any failure addon-sequence-failure —Addon sequence failure hitless-upgrade-diag-failure —Runtime diagnostic failure after hitless upgrade hitless-upgrade-failure —Hitless upgrade failure hitless-upgrade-procmgr-notif —LC software failure after hitless upgrade hitless-upgrade-reg-failure —Registration failure after hitless upgrade hitless-upgrade-seq-timeout —Hitless upgrade sequence timeout image-download-failed —Image download failure image-upgrade-failed —Image upgrade failed insertion-seq-failure —Insertion sequence failure lc-failed —LC failed lc-not-responding —LC not responding lc-ready-timeout —LC ready timeout lc-sw-failure —LC software failure registration-failure —Registration failure registration-timeout —Registration timeout runtime-diag-failure —Runtime diag failure runtime-diag-timeout —Runtime diag timeout sequence-timeout —Sequence timeout srg-info-resp-timeout —SRG info response timeout unexpected-registration —Unexpected registration received upgrade-srg-not-compatible —Upgrade SRG not compatible
module	Specifies that one module or all modules must be monitored.
<i>module</i>	Number of a specific module to be monitored.
all	Specifies that all modules are to be monitored.
count <i>count</i>	Specifies the number of matching occurrences before a module failure event is triggered. The range is from 0 to 4294967295.
time <i>interval</i>	(Optional) Specifies the time interval (in seconds) within which the events need to happen. The range is from 0 to 4294967295.

Defaults None

Command Modes Embedded event manager

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	5.2.(1)	Added the tag tag keywords.
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to specify that an EEM applet runs when a module failure event occurs:

```
switch# configure terminal
switch(config)# event manager applet modfail-applet
switch(config-applet)# event module-failure type unexpected-registration module 6 count 2
switch(config-applet)#
```

event module status

To configure a status event on a module, use the **event module status** command. To remove the status event configuration, use the **no** form of this command.

```
event module status {online | offline | any} module {all | module-number}
```

```
no event module status {online | offline | any} module {all | module-number}
```

Syntax Description

online	Specifies the online status.
offline	Specifies the offline status.
any	Specifies the online or offline status.
module	Specifies a module.
all	Specifies all modules.
<i>module-number</i>	Module number. The range is from 1 to 18.

Defaults

None

Command Modes

Applet Configuration (config-applet)

Supported User Roles

network-admin
vdc-admin

Command History

Release	Modification
4.0	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a status event on a module:

```
switch(config)# event manager applet EVM1
switch(config-applet)# event module status any module 10
switch(config-applet)#
```

This example shows how to remove the status event configuration:

```
switch(config-applet)# no event module status any module 10
switch(config-applet)#
```

Related Commands	Command	Description
	event manager applet	Registers an applet with the Embedded Event Manager (EEM).
	event manager policy	Registers an Embedded Event Manager (EEM) policy with the EEM.

event oir

To specify that an Embedded Event Manager (EEM) applet be run on the basis of an event raised when a hardware online insertion and removal (OIR) occurs, use the **event oir** command. This command has three forms; **fan**, **module**, and **powersupply**. To remove the OIR specification from the configuration, use the **no** form of this command.

```
event oir [tag tag] {fan | module | powersupply} {insert | remove | anyoir} [number]
```

```
no event oir [tag tag] {fan | module | powersupply} {insert | remove | anyoir} [number]
```

Syntax Description	tag tag	(Optional) Identifies this specific event when multiple events are included in the policy.
	fan	Specifies the system fans. Optionally, specify an individual fan.
	module	Specifies the system modules. Optionally, specify an individual module.
	powersupply	Specifies the system power supplies. Optionally, specify an individual power supply.
	insert	Specifies to insert OIR.
	remove	Specifies to remove OIR.
	anyoir	Specifies to either insert or remove OIR.
	<i>number</i>	(Optional) If you selected fan , enter a fan number to monitor for an OIR event. The range is from 1 to 4. If you selected module , enter a module number to monitor for an OIR event. The range is from 1 to 10. If you selected powersupply , enter a power supply number to monitor for an OIR event. The range is from 1 to 3.

Defaults None

Command Modes Applet Configuration (config-applet)

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	5.2.(1)	Added the tag tag keywords.
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples

This example shows how to specify that an EEM applet be run on the basis of an event raised when a module OIR occurs:

```
switch# configure terminal  
switch(config)# event manager applet oir-applet  
switch(config-applet)# event oir module anyoir  
switch(config-applet)#
```

event policy-default

To use the event if a system policy is being overridden, use the **event policy-default** command. To use the overridden policy, use the **no** form of this command.

event policy-default count *count* [**time interval**]

no event policy-default count *count*

Syntax Description	count <i>count</i>	time interval
	Specifies the number of matching occurrences before a default event is triggered. The range is from 0 to 4294967295.	(Optional) Specifies the time interval (in seconds) within which the events need to happen. The range is from 0 to 4294967295.

Defaults None

Command Modes Applet Configuration (config-applet)

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to use the event in the system policy being overridden:

```
switch# configure terminal
switch(config)# event policy-default count 6
switch(config)#
```

event snmp

To specify the event criteria for an Embedded Event Manager (EEM) applet that is run by sampling Simple Network Management Protocol (SNMP) object identifier values, use the **event snmp** command. To remove the SNMP event criteria, use the **no** form of this command.

```
event snmp [tag tag] oid value get-type {exact | next} entry-op {gt | ge | eq | ne | lt | le} entry-val
value [{exit-comb {or | and} exit-op {gt | ge | eq | ne | lt | le} exit-val value exit-time time} |
{exit-op {gt | ge | eq | ne | lt | le} exit-val value}] poll-interval value
```

```
no event snmp [tag tag] oid value get-type {exact | next} entry-op {gt | ge | eq | ne | lt | le}
entry-val value [{exit-comb {or | and} exit-op {gt | ge | eq | ne | lt | le} exit-val value exit-time
time} | {exit-op {gt | ge | eq | ne | lt | le} exit-val value}] poll-interval value
```

Syntax Description

tag <i>tag</i>	(Optional) Identifies this specific event when multiple events are included in the policy.
oid <i>value</i>	Specifies the SNMP object identifier (object ID) values in the <i>value</i> argument as the event criteria. The <i>value</i> of the data element must be in SNMP dotted notation. An OID is defined as a type in the associated MIB and each type has an object value. Monitoring of some OID types is supported. When the oid keyword is used, an error message is returned if the OID is not one of the following: <ul style="list-style-type: none"> • INTEGER_TYPE • COUNTER_TYPE • GAUGE_TYPE • TIME_TICKS_TYPE • COUNTER_64_TYPE • OCTET_PRIM_TYPE • OPAQUE_PRIM_TYPE
get-type	Specifies the type of SNMP get operation to be applied to the object ID specified by the oid <i>value</i> argument.
exact	Retrieves the object ID specified by the oid <i>value</i> argument.
next	Retrieves the object ID that is the alphanumeric successor to the object ID specified by the oid <i>value</i> argument.
entry-op <i>op</i>	Compares the contents of the current object ID value with the entry value using the specified operator: <ul style="list-style-type: none"> • gt—Greater than • ge—Greater than or equal to • eq—Equal to • ne—Not equal to • lt—Less than • le—Less than or equal to <p>If there is a match, an event is triggered and event monitoring is disabled until the exit criteria are met.</p>

entry-val <i>value</i>	Specifies the <i>value</i> with which the contents of the current object ID are compared to decide if an SNMP event should be raised.
exit-comb	(Optional) Indicates the combination of exit conditions that must be met before event monitoring is reenabled.
or	(Optional) Specifies that an exit comparison operator and an exit object ID value or an exit time value must exist.
and	(Optional) Specifies that an exit comparison operator, an exit object ID value, and an exit time value must exist.
exit-op <i>op</i>	<p>(Optional) Compares the contents of the current object ID with the exit value using the specified operator:</p> <ul style="list-style-type: none"> • gt—Greater than • ge—Greater than or equal to • eq—Equal to • ne—Not equal to • lt—Less than • le—Less than or equal to <p>If there is a match, an event is triggered and event monitoring is reenabled.</p> <p>Note This keyword and its argument are not optional if the exit-comb keyword is defined.</p>
exit-val <i>value</i>	<p>(Optional) Specifies the value with which the contents of the current object ID are compared to decide whether the exit criteria are met.</p> <p>Note This keyword and its argument are not optional if the exit-comb keyword is defined.</p>
poll-interval <i>value</i>	Specifies the time interval between consecutive polls. The <i>value</i> argument is an integer that represents seconds in the range from 1 to 4294967295. The minimum polling interval is 1 second.

Defaults

None

Command Modes

Applet Configuration (config-applet)

Supported User Rolesnetwork-admin
vdc-admin**Command History**

Release	Modification
5.2.(1)	Added the tag tag keywords.
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to specify the event criteria for an EEM applet that is run by sampling SNMP object identifier values:

```
switch# configure terminal
switch(config)# event manager applet snmp-applet
switch(config-applet)# event snmp oid 4.2.1.6 get-type next entry-op eq entry-val 42
poll-interval 2
switch(config-applet)#
```

event storm-control

To specify an event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of a storm control event, use the **event storm-control** command. To remove the storm control event criteria, use the **no** form of this command.

event storm-control

no event storm-control

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Applet Configuration (config-applet)

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to specify that an EEM applet runs when a storm control event occurs:

```
switch# configure terminal
switch(config)# event manager applet storm-applet
switch(config-applet)# event storm-control
switch(config-applet)#
```

event syslog

To configure Cisco NX-OS Embedded Event Manager (EEM) to monitor an event, use the **event syslog** command. To remove the syslog configuration, use the **no** form of this command.

event syslog [**tag** *tag*] [**occurs** | **pattern** *msg-text* | **period** | **priority** [0-7 | **emergencies** | **alerts** | **critical** | **errors** | **warnings** | **notifications** | **informational** | **debugging**]]

no event syslog [**tag** *tag*] [**occurs** | **pattern** *msg-text* | **period** | **priority** [0-7 | **emergencies** | **alerts** | **critical** | **errors** | **warnings** | **notifications** | **informational** | **debugging**]]

Syntax Description	
tag <i>tag</i>	(Optional) Identifies this specific event when multiple events are included in the policy.
occurs	(Optional) Specifies the number of occurrences. The range is from 1 to 65000.
pattern <i>msg-text</i>	(Optional) Specifies the matching regular expression (regex). The pattern can contain character text, an environment variable, or a combination of the two. If the string contains embedded blanks, it is enclosed with double quotation marks.
period	(Optional) Specifies the time interval during which the event occurs. The range is from 0 to 4294967295.
priority	(Optional) Specifies the priority level of the syslog messages. If this keyword is not selected, all syslog messages are set at the informational priority level. If this keyword is selected, the priority level argument must be defined.
0-7	(Optional) Enters the priority of the log message.
emergencies	(Optional) Specifies that the system is unusable.
alerts	(Optional) Specifies that immediate action is needed.
critical	(Optional) Specifies critical conditions.
errors	(Optional) Specifies error conditions.
warnings	(Optional) Specifies warning conditions.
notifications	(Optional) Specifies normal but significant conditions.
informational	(Optional) Specifies informational messages. This is the default.
debugging	(Optional) Specifies debugging messages.

Defaults None

Command Modes Embedded event manager

Supported User Roles network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	Added the tag <i>tag</i> keywords.
5.1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a syslog message to monitor when an EEM applet is triggered:

```
switch# configure terminal
switch(config-applet)# event syslog occurs 10 pattern "authentication failed"
Configuration accepted successfully
```

This example shows how to remove the syslog message monitor configuration:

```
switch# configure terminal
switch(config-applet)# event syslog occurs 10 pattern "authentication failed"
Configuration accepted successfully
```

Related Commands

Command	Description
action syslog	Configures a syslog message to generate when an Embedded Event Manager (EEM) applet is triggered.

event temperature

To specify an event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of a temperature event, use the **event temperature** command. To remove the temperature event criteria, use the **no** form of this command.

```
event temperature [module module] [sensor number] threshold {major | minor | any}
```

```
no event temperature threshold {major | minor | any}
```

Syntax Description

module <i>module</i>	(Optional) Specifies that a specific module must be monitored. The range is from 1 to 10.
sensor <i>number</i>	(Optional) Specify that a specific sensor must be monitored. The range is from 1 to 18.
threshold	Specifies the threshold event that triggers the EEM applet. Choose either major , minor , or any (major or minor).
major	Specifies a major event.
minor	Specifies a minor event.
any	Specifies any event.

Defaults

None

Command Modes

Applet Configuration (config-applet)

Supported User Roles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to specify that an EEM applet runs when a temperature event occurs:

```
switch# configure terminal
switch(config)# event manager applet temp-applet
switch(config-applet)# event temperature threshold major
switch(config-applet)#
```

event track

To specify the event criteria for an Embedded Event Manager (EEM) applet that is run on the basis of an object tracking subsystem report for the specified object number, use the **event track** command. To remove the report event criteria, use the **no** form of this command.

```
event track [tag tag] object-id state {any | up | down}
```

```
no event track [tag tag] object-id
```

Syntax Description	Parameter	Description
	tag <i>tag</i>	(Optional) Identifies this specific event when multiple events are included in the policy.
	<i>object-id</i>	Tracked object number. The range from 1 to 500.
	state	Specifies that the tracked object transition causes an event to be raised.
	up	Specifies an event is to be raised when the tracked object transitions from a down state to an up state.
	down	Specifies an event is to be raised when the tracked object transitions from an up state to a down state.
	any	Specifies an event is to be raised when the tracked object transitions to or from any state.

Defaults None

Command Modes Applet Configuration (config-applet)

Supported User Roles network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	Added the tag <i>tag</i> keywords.
	4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to specify that an EEM applet runs when the state of a tracked object changes:

```
switch# configure terminal
switch(config)# event manager applet tracking-applet
switch(config-applet)# event track 42 state down
switch(config-applet)#
```


exporter

To specify a NetFlow exporter to use for a NetFlow monitor, use the **exporter** command. To remove a NetFlow exporter, use the **no** form of this command.

exporter *name*

no exporter *name*

Syntax Description

<i>name</i>	Name of the exporter.
-------------	-----------------------

Defaults

None

Command Modes

NetFlow monitor configuration (config-flow-monitor)

Supported User Roles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a NetFlow exporter for a NetFlow monitor:

```
switch(config)# flow monitor Custom-Flow-Monitor-1
switch(config-flow-monitor)# exporter Custom-Flow-Exporter-1
switch(config-flow-monitor)#
```

This example shows how to remove a NetFlow exporter:

```
switch(config-flow-monitor)# no exporter
```

Related Commands

Command	Description
show flow sw-monitor	Displays information about NetFlow monitors.