S through Z Commands

S through Z Commands

set (EEM)

Note Effective with Cisco IOS Release 12.4(22)T, the **set** (EEM) command is replaced by the **action set**(EEM) command. See the **action set** (EEM) command for more information.

To set the value of a local Embedded Event Manager (EEM) applet variable, use the **set**command in applet configuration mode. To remove the value of an EEM applet variable, use the **no** form of this command.

set *label variable-name variable-value*

no set *label variable-name variable-value*

Syntax Description

label	Unique identifier that can be any string value. Actions are sorted and run in ascending alphanumeric key sequence using the label as the sort key. If the string contains embedded blanks, enclose it in double quotation marks.
variable-name	The EEM applet variable name. Currently only the _exit_status variable is supported.
variable-value	Integer value that represents the variable. For the _exit_status variable, this is the value that represents the exit status for the applet. Zero represents a successful exit status, and a nonzero value represents a failed exit status.

Command Default

No EEM applet variable values are set.

Command Modes

Applet configuration (config-applet)

Command History

Release	Modification
12.3(14)T	This command was introduced.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	This command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Release	Modification
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.
12.4(22)T	This command was replaced by the **action set** command.

Usage Guidelines

In EEM applet configuration mode, three types of configuration statements are supported. The **event** commands are used to specify the event criteria to trigger the applet to run, the **action** commands are used to specify an action to perform when the EEM applet is triggered, and the **set** command is used to set the value of an EEM applet variable. Currently only the _exit_status variable is supported for the **set** command.

Examples

The following example shows how to set the _exit_status variable to represent a successful status after an event has occurred three times and an action has been performed:

```
Router(config)# event manager applet cli-match
Router(config-applet)# event cli pattern {.*interface loopback*} sync yes occurs 3
Router(config-applet)# action 1.0 cli command "no shutdown"
Router(config-applet)# set 1.0 _exit_status 0
```

Related Commands

Command	Description
event manager applet	Registers an event applet with the Embedded Event Manager and enters applet configuration mode.

show event manager detector

To display information about Embedded Event Manager (EEM) event detectors, use the **show event manager detector** command in privileged EXEC mode.

show event manager detector [**all**| *detector-name*] **[detailed]**

Syntax Description

all	(Optional) Displays information about all available event detectors.

detector-name	(Optional) Name of event detector. The following values are valid: • **application** --Application event detector. • **cli** --Command-line interface (CLI) event detector. • config--Config event detector. • **counter** --Counter event detector. • **env** --Environmental event detector. • **gold** --Generic Online Diagnostic (GOLD) event detector. • **interface** --Interface event detector. • **ioswdsysmon** --Watchdog system monitor event detector. • **none** --No event detector. • **oir** --Online insertion and removal (OIR) event detector. • **resource** --Resource event detector. • **rf** --Redundancy Framework (RF) event detector. • **rpc** --Remote Procedure Call (RPC) event detector. • **snmp** --Simple Network Management Protocol (SNMP) event detector. • **snmp-notification** --SNMP notification event detector. • **syslog** --Syslog event detector. • **test** --Test event detector. • timer--Timer event detector. • track--Track event detector.
detailed	(Optional) Displays detailed information about a specified event detector.

Command Modes Privileged EXEC (#)

Command History

Release	Modification
12.4(20)T	This command was introduced.
12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.
12.2(54)SG	This command was integrated into Cisco IOS Release 12.2(54)SG.

Usage Guidelines

Use the **show event manager detector** command to display information about EEM event detectors. The all keyword displays information about all event detectors. The detailed keyword displays detailed information, including:

- The event registration syntax for the Tool Command Language (Tcl) policies.
- The available array variables for the Tcl policies after event_reqinfo() is called.
- The event registration syntax for applet policies.
- The built-in variables available when an applet policy is triggered by this event detector.

Examples

The following is sample output from the **show event manager detector** command specifying the counter value:

```
Router# show event manager detector counter
No.  Name                Version   Node        Type
1    counter             01.00     node5/1     RP
Router# show event manager detector counter detailed
No.  Name                Version   Node        Type
1    counter             01.00     node5/1     RP
       Tcl Configuration Syntax:
       ::cisco::eem::event_register_counter
                [tag <tag-val>]
                name <counter-name>
                entry_val <entry-val>
                entry_op {gt | ge | eq | ne | lt | le}
                exit_val <exit-val>
                exit_op {gt | ge | eq | ne | lt | le}
                [queue_priority {normal | low | high | last}]
                [maxrun <sec.msec>] [nice {0 | 1}]
       Tcl event_reqinfo Array Names:
       event_id
       event_type
       event_type_string
       event_pub_time
       event_pub_sec
       event_pub_msec
       event_severity
       name
       value

       Applet Configuration Syntax:
       [ no ] event [tag <tag-val>] counter
                name <counter-name>
                entry-val <entry-val>
                entry-op {gt | ge | eq | ne | lt | le}
                exit-val <exit-val>
                exit-op {gt | ge | eq | ne | lt | le}
                [maxrun <sec.msec>]
```

```
Applet Built-in Environment Variables:
$_event_id
$_event_type
$_event_type_string
$_event_pub_time
$_event_pub_sec
$_event_pub_msec
$_event_severity
$_counter_name
$_counter_value
```

The table below describes the significant fields shown in the display.

Table 1: show event manager detector Field Descriptions

Field	Description
No.	The number assigned to the event detector.
Name	Name of the event detector.
Version	Version number.
Node	Node name.
Type	Where the event detector resides.

show event manager directory user

To display the directory to use for storing user library files or user-defined Embedded Event Manager (EEM) policies, use the **show event manager directory user** command in privileged EXEC mode.

show event manager directory user [**library**| **policy**]

Syntax Description

library	(Optional) User library files.
policy	(Optional) User-defined EEM policies.

Command Default

The directories for both user library and user policy files are displayed.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	This command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.

Usage Guidelines

Use the **event manager directory user** command to specify the directory to use for storing user library or user policy files.

Examples

The following example shows the /usr/fm_policies folder on disk 0 as the directory to use for storing EEM user library files:

```
Router# show event manager directory user library
disk0:/usr/fm_policies
```

Related Commands

Command	Description
event manager directory user	Specifies a directory to use for storing user library files or user-defined EEM policies.

show event manager environment

To display the name and value of Embedded Event Manager (EEM) environment variables, use the **show event manager environment** command in privileged EXEC mode.

show event manager environment [**all**| *variable-name*]

Syntax Description

all	(Optional) Displays information for all environment variables. This is the default.
variable-name	(Optional) Displays information about the specified environment variable.

Command Default

If no argument or keyword is specified, information for all environment variables is displayed.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)S	This command was introduced.
12.3(14)T	This command was integrated into Cisco IOS Release 12.3(14)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	This command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.

Examples

The following is sample output from the **show event manager environment**command:

```
Router# show event manager environment
No.  Name                          Value
1    _cron_entry                   0-59/1 0-23/1 * * 0-7
2    _show_cmd                     show version
3    _syslog_pattern               .*UPDOWN.*Ethernet1/0.*
```

```
4     _config_cmd1                  interface Ethernet1/0
5     _config_cmd2                  no shutdown
```

The table below describes the significant fields shown in the display.

Table 2: show event manager environment Field Descriptions

Field	Description
No.	The index number assigned to the EEM environment variable.
Name	The name given to the EEM environment variable when it was created.
Value	The text content defined for the EEM environment variable when it was created.

Related Commands

Command	Description
event manager environment	Sets an EEM environment variable.

show event manager history events

To display the Embedded Event Manager (EEM) events that have been triggered, use the **show event manager history events** command in privileged EXEC mode.

show event manager history events [detailed] [**maximum** *number*]

Syntax Description

detailed	(Optional) Displays detailed information about each EEM event.
maximum	(Optional) Specifies the maximum number of events to display.
number	(Optional) Number in the range from 1 to 50. The default is 50.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(25)S	This command was introduced.
12.3(14)T	This command was integrated into Cisco IOS Release 12.3(14)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	This command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.
12.4(20)T	The output was modified to include the Job ID and Status fields.

Usage Guidelines

Use the **show event manager history events** command to track information about the EEM events that have been triggered.

Examples

The following is sample output from the **show event manager history events**command showing that two types of events, Simple Network Management Protocol (SNMP) and application, have been triggered.

```
Router# show event manager history events
No.  Time of Event            Event Type          Name
1    Fri Aug13  21:42:57 2004  snmp                applet: SAAping1
2    Fri Aug13  22:20:29 2004  snmp                applet: SAAping1
3    Wed Aug18  21:54:48 2004  snmp                applet: SAAping1
4    Wed Aug18  22:06:38 2004  snmp                applet: SAAping1
5    Wed Aug18  22:30:58 2004  snmp                applet: SAAping1
6    Wed Aug18  22:34:58 2004  snmp                applet: SAAping1
7    Wed Aug18  22:51:18 2004  snmp                applet: SAAping1
8    Wed Aug18  22:51:18 2004  application         applet: CustApp1
```

The following is sample output from the **show event manager history events**command that includes the Job ID and Status fields:

```
Router# show event manager history events
No. Job ID  Status   Time of Event             Event Type  Name
1   1       success  Thu Sep 7  02:54:04 2006  syslog      applet: two
2   2       success  Thu Sep 7  02:54:04 2006  syslog      applet: three
3   3       success  Thu Sep 7  02:54:04 2006  syslog      applet: four
4   4       abort    Thu Sep 7  02:54:04 2006  syslog      applet: five
5   5       abort    Thu Sep 7  02:54:04 2006  syslog      applet: six
6   6       abort    Thu Sep 7  02:54:04 2006  syslog      applet: seven
7   7       abort    Thu Sep 7  02:54:04 2006  syslog      applet: eight
8   8       cleared  Thu Sep 7  02:54:04 2006  syslog      applet: nine
9   9       cleared  Thu Sep 7  02:54:04 2006  syslog      applet: ten
10  10      cleared  Thu Sep 7  02:54:04 2006  syslog      applet: eleven
```

The following is sample output from the **show event manager history events**command using the detailed keyword:

```
Router# show event manager history events detailed
No. Job ID  Status   Time of Event             Event Type          Name
1   1       success  Thu Sep 7  02:54:04 2006  syslog              applet: two
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
2   2       success  Thu Sep 7  02:54:04 2006  syslog              applet: three
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
3   3      success   Thu Sep 7  02:54:04 2006  syslog              applet: four
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
4   4      abort     Thu Sep 7  02:54:04 2006  syslog              applet: five
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
5   5      abort     Thu Sep 7  02:54:04 2006  syslog              applet: six
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
6   6      abort     Thu Sep 7  02:54:04 2006  syslog              applet: seven
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
7   7      cleared   Thu Sep 7  02:54:04 2006  syslog              applet: eight
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
8   8      cleared   Thu Sep 7  02:54:04 2006  syslog              applet: nine
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
9   9      cleared   Thu Sep 7  02:54:04 2006  syslog              applet: ten
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
10  10     success   Thu Sep 7  02:54:04 2006  syslog              applet: eleven
 msg {23:13:29: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console}
```

The table below describes the significant fields shown in the displays.

Table 3: show event manager history events Field Descriptions

Field	Description
No.	Event number.

Field	Description
Job ID	Unique internal EEM scheduler job identification number.
Status	Policy completion status for the policy scheduled for this event. There are three possible status values: • Success--Indicates that the policy for this event completed normally. • Abort--Indicates that the policy for this event terminated abnormally. • Cleared--Indicates that the policy for this event was removed from execution using the event manager scheduler clear command.
Time of Event	Day, date, and time when the event was triggered.
Event Type	Type of event.
Name	Name of the policy that was triggered.

Related Commands

Command	Description
event manager history size	Modifies the size of the EEM history tables.
event manager scheduler clear	Clears EEM policies that are executing or pending execution.

show event manager history traps

To display the Embedded Event Manager (EEM) Simple Network Management Protocol (SNMP) traps that have been sent, use the **show event manager history traps** command in privileged EXEC mode.

show event manager history traps [**server**| **policy**]

Syntax Description

server	(Optional) Displays SNMP traps that were triggered from the EEM server.
policy	(Optional) Displays SNMP traps that were triggered from within an EEM policy.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)S	This command was introduced.
12.3(14)T	This command was integrated into Cisco IOS Release 12.3(14)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	This command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.

Usage Guidelines

Use the **show event manager history traps** command to identify whether the SNMP traps were implemented from the EEM server or from an EEM policy.

Examples

The following is sample output from the **show event manager history traps**command:

```
Router# show event manager history traps policy
No.  Time                     Trap Type           Name
1    Wed Aug18  22:30:58 2004  policy              EEM Policy Director
```

```
2    Wed Aug18  22:34:58 2004  policy             EEM Policy Director
3    Wed Aug18  22:51:18 2004  policy             EEM Policy Director
```

The table below describes the significant fields shown in the display.

Table 4: show event manager history traps Field Descriptions

Field	Description
No.	Trap number.
Time	Date and time when the SNMP trap was implemented.
Trap Type	Type of SNMP trap.
Name	Name of the SNMP trap that was implemented.

Related Commands

Command	Description
event manager history size	Modifies the size of the EEM history tables.

show event manager metric processes

To display Embedded Event Manager (EEM) reliability metric data for Cisco IOS Software Modularity processes, use the **show event manager metric processes**command in privileged EXEC mode.

show event manager metric processes {**all**| *process-name*}

Syntax Description

all	Displays the process metric data for all Cisco IOS Software Modularity processes.
process-name	Specific process name.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(18)SXF4	This command was introduced.

Usage Guidelines

Use this command to display the reliability metric data for Cisco IOS Software Modularity processes. The system keeps a record of when processes start and end, and this data is used as the basis for reliability analysis.

The information provided by this command allows you to get availability information for a process or group of processes. A process is considered available when it is running.

Examples

The following is partial sample output from the **show event manager metric processes**command. In this partial example, the first and last entries showing the metric data for the processes on all the cards inserted in the system are displayed.

```
Router# show event manager metric processes all
=====================================
node name: node0
process name: devc-pty, instance: 1
sub_system: 0, version: 00.00.0000
--------------------------------
last event type: process start
recent start time: Fri Oct10  20:34:40 2003
recent normal end time: n/a
recent abnormal end time: n/a
number of times started: 1
number of times ended normally: 0
number of times ended abnormally: 0
most recent 10 process start times:
--------------------------
Fri Oct10  20:34:40 2003
--------------------------
most recent 10 process end times and types:
cumulative process available time: 6 hours 30 minutes 7 seconds 378 milliseconds
cumulative process unavailable time: 0 hours 0 minutes 0 seconds 0 milliseconds
```

```
process availability:  0.100000000
number of abnormal ends within the past 60 minutes (since reload): 0
number of abnormal ends within the past 24 hours (since reload): 0
number of abnormal ends within the past 30 days (since reload): 0
.
.
.
====================================
node name: node0
process name: cdp2.iosproc, instance: 1
sub_system: 0, version: 00.00.0000
--------------------------------
last event type: process start
recent start time: Fri Oct10  20:35:02 2003
recent normal end time: n/a
recent abnormal end time: n/a
number of times started: 1
number of times ended normally: 0
number of times ended abnormally: 0
most recent 10 process start times:
-------------------------
Fri Oct10  20:35:02 2003
-------------------------
most recent 10 process end times and types:

cumulative process available time: 6 hours 29 minutes 45 seconds 506 milliseconds
cumulative process unavailable time: 0 hours 0 minutes 0 seconds 0 milliseconds
process availability:  0.100000000
number of abnormal ends within the past 60 minutes (since reload): 0
number of abnormal ends within the past 24 hours (since reload): 0
number of abnormal ends within the past 30 days (since reload): 0
```

The table below describes the significant fields shown in the display.

Table 5: show event manager metric processes Field Descriptions

Field	Description
node name	Node name.
process name	Software Modularity process name.
instance	Instance number of the Software Modularity process.
sub_system	Subsystem number.
version	Version number.

show event manager policy active

To display Embedded Event Manager (EEM) policies that are executing, use the **show event manager policy active** command in privileged EXEC mode.

show event manager policy active [**queue-type** {**applet**| **call-home**| **axp**| **script**}| **class** *class-options*| **detailed**]

Syntax Description

queue-type	(Optional) Specifies the queue type of the EEM policy.
applet	(Optional) Specifies EEM applet policy.
call-home	(Optional) Specifies EEM Call-Home policy.
axp	(Optional) Specifies EEM axp policy.
script	(Optional) Specifies EEM script policy.
class	(Optional) Specifies EEM class policy.
class-options	Specifies the EEM class policy. You can specify either one or all of the following: • *class-letter*-- The class letter assigned for the EEM policy. Letters range from A to Z. Multiple instances of class letter can be specified. • **default** --Specifies policies registered with default class. • **range** *class-letter-range*-- Specifies the EEM policy class in a range. Multiple instances of **range** *class-letter-range* can be specified. The letters used in *class-letter-range* must be in uppercase.
detailed	(Optional) Specifies the detailed content of the EEM policies.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(22)T	This command was introduced.
12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

Use the **show event manager policy active** command to display the running policies.

Examples

The following is sample output from the **show event manager policy active**command that includes the priority, scheduler node, and event type fields:

```
Router# show event manager policy active
no. job id   p s    status    time of event             event type        name
1    1       N A    wait      Wed Oct8 21:45:10 2008    syslog            continue.tcl
2    12609   N A    running   Mon Oct29 20:49:42 2007   timer watchdog    loop.tcl
```

The table below describes the significant fields shown in the displays.

Table 6: show event manager policy active Field Descriptions

Field	Description
no.	Index number automatically assigned to the policy.
job id	Unique internal EEM scheduler job identification number.
p	Priority of the policy. There are four priorities: • L--Indicates that the policy is of low priority. • H--Indicates that the policy is of high priority. • N--Indicates that the policy is of normal priority. • Z--Indicates that the policy is of least priority.
s	Scheduler node of the policy. There are two nodes: • A--Indicates that the scheduler node of this policy is active. • S--Indicates that the scheduler node of this policy is standby.

Field	Description
status	Scheduling status for the policy. There are six possible status values: • pend--Indicates that the policy is awaiting execution. • runn--Indicates that the policy is executing. • exec--Indicates that the policy has completed executing and is awaiting scheduler cleanup tasks. • hold--Indicates that the policy is being held. • wait--Indicates that the policy is waiting for a new event. • continue--Indicates that the policy receives a new event and is ready to run.
time of event	Date and time when the policy was queued for execution in the EEM server.
event type	Type of event.
name	Name of the EEM policy file.

Related Commands

Command	Description
show event manager	Shows the event manager details of an EEM policy.

show event manager policy available

To display Embedded Event Manager (EEM) policies that are available to be registered, use the **show event manager policy available** command in privileged EXEC mode.

show event manager policy available [**description** [*policy-name*]| [**detailed** *policy-filename*] [**system**| **user**]]

Syntax Description

description	(Optional) Specifies a brief description of the available policy.
policy-name	(Optional) Name of the policy.
detailed	(Optional) Displays the actual sample policy for the specified *policy-filename*.
policy-filename	(Optional) Name of sample policy to be displayed.
system	(Optional) Displays all available system policies.
user	(Optional) Displays all available user policies.

Command Default

If no keyword is specified, information for all available system and user policies is displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(25)S	This command was introduced.
12.3(14)T	The **user** keyword was added, and this command was integrated into Cisco IOS Release 12.3(14)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	The **detailed** keyword and the *policy-filename* argument were added, and this command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.

Release	Modification
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.
12.4(20)T	The output was modified to display bytecode scripts with a file extension of .tbc.
15.0(1)M	The command was modified. The **description** keyword and *policy-name* argument were added.

Usage Guidelines

This command is useful if you forget the exact name of a policy required for the **event manager policy** command.

The **detailed** keyword displays the actual specified sample policy. Use **description** *policy-name* to describe a policy. If *policy-name* is not specified, the output of show command displays the description of all the available policies.

In Cisco IOS Release 12.4(20)T, EEM 2.4 introduced bytecode support to allow storage of Tcl scripts in bytecode format, and the output of this command was modified to display files with a .tbc extension as well as the usual .tcl extension for Tcl scripts.

Examples

The following is sample output from the **show event manager policy available**command:

```
Router# show event manager policy available
No.  Type    Time Created                 Name
1    system  Tue Sep 12 09:41:32 2002     sl_intf_down.tcl
2    system  Tue Sep 12 09:41:32 2002     tm_cli_cmd.tcl
```

The table below describes the fields shown in the display.

Table 7: show event manager policy available Field Descriptions

Field	Description
No.	Index number automatically assigned to the policy.
Type	Indicates whether the policy is a system policy.
Time Created	Time stamp indicating the date and time when the policy file was created.
Name	Name of the EEM policy file.

The following is sample output from the **show event manager policy available**command with the **detailed** keyword and a policy name specified:

```
Router# show event manager policy available detailed tm_cli_cmd.tcl
::cisco::eem::event_register_timer cron name crontimer2 cron_entry $_cron_entry maxrun 240
#------------------------------------------------------------------
```

```
# EEM policy that will periodically execute a cli command and email the
# results to a user.
#
# July 2005, Cisco EEM team
#
# Copyright (c) 2005 by cisco Systems, Inc.
# All rights reserved.
#------------------------------------------------------------------
### The following EEM environment variables are used:
###
### _cron_entry (mandatory)            - A CRON specification that determines
###                                      when the policy will run. See the
###                                      IOS Embedded Event Manager
###                                      documentation for more information
###                                      on how to specify a cron entry.
### Example: _cron_entry                 0-59/1 0-23/1 * * 0-7
###
### _email_server (mandatory)          - A Simple Mail Transfer Protocol (SMTP)
###                                      mail server used to send e-mail.
### Example: _email_server               mailserver.customer.com
###
```

The following is sample output from the **show event manager policy available**command showing a Tcl script with a .tcl filename extension and a bytecode script with a filename extension of .tbc. This example is for a Cisco IOS Release 12.4(20)T or later image.

```
Router# show event manager policy available
No.  Type    Time Created                 Name
1    system  Tue Jun 10 09:41:32 2008     sl_intf_down.tcl
2    system  Tue Jun 10 09:41:32 2008     tm_cli_cmd.tbc
```

Related Commands

Command	Description
event manager policy	Registers an EEM policy with the EEM.

show event manager policy pending

To display Embedded Event Manager (EEM) policies that are pending for execution, use the **show event manager policy pending** command in privileged EXEC mode.

show event manager policy pending [**queue-type** {**applet**| **call-home**| **axp**| **script**}| **class** *class-options*| **detailed**]

Syntax Description

queue-type	(Optional) Specifies the queue type of the EEM policy.
applet	(Optional) Specifies EEM applet policy.
call-home	(Optional) Specifies EEM Call-Home policy.
axp	(Optional) Specifies EEM axp policy.
script	(Optional) Specifies EEM script policy.
class	(Optional) Specifies EEM class policy.
class-options	(Optional) Specifies the EEM policy class. You can specify either one or all of the following: • *class-letter*-- The class letter assigned for the EEM policy. Letters range from A to Z. Multiple instances of class letter can be specified. • **default** --Specifies policies registered with default class. • **range** *class-letter-range*-- Specifies the EEM policy class in a range. Multiple instances of **range** *class-letter-range* can be specified. The letters used in *class-letter-range* must be in uppercase.
detailed	(Optional) Specifies the detailed content of the EEM policies.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(25)S	This command was introduced.
12.3(14)T	This command was integrated into Cisco IOS Release 12.3(14)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	This command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.
12.4(20)T	The output was modified to include the Job ID and Status fields.
12.4(22)T	This command is supported with new options to qualify the policy queues reported in the output display and provides detailed policy information.

Usage Guidelines

Pending policies are policies that are pending execution in the EEM server execution queue. When an event is triggered, the policy that is registered to handle the event is queued for execution in the EEM server. Use the **show event manager policy pending** command to display the policies in this queue and to view the policy details.

Examples

The following is sample output from the **show event manager policy pending**command:

```
Router# show event manager policy pending
no. job id   p s    status    time of event              event type     name
1    12851   N A    pend    Mon Oct29   20:51:18 2007   timer watchdog   loop.tcl
2    12868   N A    pend    Mon Oct29   20:51:24 2007   timer watchdog   loop.tcl
3    12873   N A    pend    Mon Oct29   20:51:27 2007   timer watchdog   loop.tcl
4    12907   N A    pend    Mon Oct29   20:51:41 2007   timer watchdog   loop.tcl
5    13100   N A    pend    Mon Oct29   20:52:55 2007   timer watchdog   loop.tcl
```

The table below describes the significant fields shown in the displays.

Table 8: show event manager policy pending Field Descriptions

Field	Description
no.	Index number automatically assigned to the policy.
job id	Unique internal EEM scheduler job identification number.

Field	Description
p	Priority of the policy. There are four priorities: • L--Indicates that the policy is of low priority. • H--Indicates that the policy is of high priority. • N--Indicates that the policy is of normal priority. • Z--Indicates that the policy is of least priority.
s	Scheduler node of the policy. There are two nodes: • A--Indicates that the scheduler node of this policy is active. • S--Indicates that the scheduler node of this policy is standby.
status	Scheduling status for the policy. There are six possible status values: • pend--Indicates that the policy is awaiting execution. • runn--Indicates that the policy is executing. • exec--Indicates that the policy has completed executing and is awaiting scheduler cleanup tasks. • hold--Indicates that the policy is being held. • wait--Indicates that the policy is waiting for a new event. • continue--Indicates that the policy receives a new event and is ready to run.
time of event	Date and time when the policy was queued for execution in the EEM server.
event type	Type of event.
name	Name of the EEM policy file.

Related Commands

Command	Description
show event manager	Shows the event manager details of an EEM policy.

show event manager policy registered

To display Embedded Event Manager (EEM) policies that are already registered, use the **show event manager policy registered** command in privileged EXEC mode.

show event manager policy registered [**description** [*policy-name*]| **detailed** *policy-filename* [**system**| **user**]| [**event-type** *event-name*] [**system**| **user**] [**time-ordered**| **name-ordered**]]

Syntax Description

description	(Optional) Displays a brief description about the registered policy.
policy-name	(Optional) Policy name for which the description should be displayed. If policy name is not provided, then description of all registered policies are displayed.
detailed	(Optional) Displays the contents of the specified policy.
system	(Optional) Displays the registered system policies.
user	(Optional) Displays the registered user policies.
policy-filename	(Optional) Name of policy whose contents are to be displayed.
event-type	(Optional) Displays the registered policies for the event type specified in the *event-name*argument. If the event type is not specified, all registered policies are displayed.

event-name	(Optional) Type of event. The following values are valid: • **application** --Application event type. • **cli** --Command-line interface (CLI) event type. • **config** --Configuration change event type. • **counter** --Counter event type. • **env** --Environmental event type. • **interface** --Interface event type. • **ioswdsysmon** --Watchdog system monitor event type. • **none** --Manually run policy event type. • **oir** --OIR event type. • **rf** --Redundancy facility event type. • **snmp** --Simple Network Management Protocol (SNMP) event type. • **snmp-object** --Snmp object event type. • **syslog** --Syslog event type. • **test** --Test event type. • **timer-absolute** --Absolute timer event type. • **timer-countdown** --Countdown timer event type. • **timer-cron** --Clock daemon (CRON) timer event type. • **timer-watchdog** --Watchdog timer event type.
time-ordered	(Optional) Displays the policies in the order of the time at which they were registered. This is the default.
name-ordered	(Optional) Displays the policies, in alphabetical order, by policy name.

Command Default If this command is invoked with no optional keywords, it displays all registered EEM system and user policies for all event types. The policies are displayed according to the time at which they were registered.

Command Modes Privileged EXEC (#)

Command History

Release	Modification
12.0(26)S	This command was introduced.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.2(25)S	This command was integrated into Cisco IOS Release 12.2(25)S.
12.3(14)T	Additional event types and the **user** keyword were added, and this command was integrated into Cisco IOS Release 12.3(14)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	The **detailed** keyword and the *policy-filename* argument were added, and this command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.
15.0(1)M	This command was modified. The **description** keyword and the *policy-name* argument were added.

Usage Guidelines

The output shows registered policy information in two parts. The first line in each policy description lists the index number assigned to the policy, the policy type (system), the type of event registered, the time when the policy was registered, and the name of the policy file. The remaining lines of each policy description display information about the registered event and how the event is to be handled; the information comes directly from the Tool Command Language (Tcl) command arguments that make up the policy file. Output of the **show event manager policy registered** command is most helpful to persons who are writing and monitoring EEM policies.

The **detailed** keyword displays the actual specified sample policy including details about the environment variables used by the policy and instructions for running the policy.

Examples

The following is sample output from the **show event manager policy registered**command:

```
Router# show event manager policy registered
No.  Class   Type    Event Type          Trap  Time Registered           Name
1    applet  system  snmp                Off   Fri Aug 13 17:42:52 2004  IPSLAping1
 oid {1.3.6.1.4.1.9.9.42.1.2.9.1.6.4} get-type exact entry-op eq entry-val {1}
 exit-op eq exit-val {2} poll-interval 5.000
 action 1.0 syslog priority critical msg Server IPecho Failed: OID=$_snmp_oid_val
 action 1.1 snmp-trap strdata EEM detected server reachability failure to 10.1.88.9
 action 1.2 publish-event sub-system 88000101 type 1 arg1 10.1.88.9 arg2 IPSLAEcho arg3
```

```
fail
 action 1.3 counter name _IPSLA1F value 1 op inc
```

The table below describes the significant fields shown in the display.

Table 9: show event manager policy registered Field Descriptions

Field	Description
No.	Index number automatically assigned to the policy.
Class	Class of policy, either applet or script.
Type	Identifies whether the policy is a system policy.
Event Type	Type of event.
Trap	Identifies whether an SNMP trap is enabled.
Time Registered	Time stamp indicating the day, date, and time when the policy file was registered.
Name	Name of the EEM policy file.

The following is sample output from the **show event manager policy registered**command showing the use of the **detailed** keyword for the policy named tm_cli_cmd.tcl:

```
Router# show event manager policy registered detailed tm_cli_cmd.tcl
::cisco::eem::event_register_timer cron name crontimer2 cron_entry $_cron_entry maxrun 240
#-------------------------------------------------------------------
# EEM policy that will periodically execute a cli command and email the
# results to a user.
#
# July 2005, Cisco EEM team
#
# Copyright (c) 2005 by cisco Systems, Inc.
# All rights reserved.
#-------------------------------------------------------------------
### The following EEM environment variables are used:
###
### _cron_entry (mandatory)            - A CRON specification that determines
###                                      when the policy will run. See the
###                                      IOS Embedded Event Manager
###                                      documentation for more information
###                                      on how to specify a cron entry.
### Example: _cron_entry                 0-59/1 0-23/1 * * 0-7
###
### _email_server (mandatory)          - A Simple Mail Transfer Protocol (SMTP)
###                                      mail server used to send e-mail.
### Example: _email_server               mailserver.example.com
###
```

Related Commands

Command	Description
event manager policy	Registers an EEM policy with the EEM.

show event manager scheduler

To display the schedule activities of the scheduled Embedded Event Manager (EEM) policies, use the **show event manager scheduler** command in privileged EXEC mode.

show event manager scheduler thread [**queue-type** {**applet**| **call-home**| **axp**| **script**} **[detailed]**]

Syntax Description

thread	Specifies the thread for the scheduler.
queue-type	(Optional) Specifies the queue type of the EEM policy.
applet	(Optional) Specifies EEM applet policy.
call-home	(Optional) Specifies EEM Call-Home policy.
axp	(Optional) Specifies EEM axp policy.
script	(Optional) Specifies EEM script policy.
detailed	(Optional) Specifies the detailed content of the EEM policies.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(22)T	This command was introduced.
12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

Use the **show event manager scheduler** commandto show the EEM's scheduler activities. This command shows all the EEM execution threads from the scheduler perspective and the details of the running policies.

You can specify one or all of the following options: **applet**, **call-home**, **axp**, **script**, and **detailed**.

Examples

The following is sample output from the **show event manager scheduler**command:

```
Router# show event manager scheduler thread
1 Script threads service class default
  total: 1 running: 1 idle: 0
2 Script threads service class range A-D
  total: 3 running: 0 idle: 3
```

```
3 Applet threads service class default
  total: 32 running: 0 idle: 32
4 Applet threads service class W X
  total: 5 running: 0 idle: 5
Router# show event manager scheduler script thread detailed
1 Script threads service class default
  total: 1 running: 1 idle: 0
1 job id: 1, pid: 215, name: continue.tcl
2 Script threads service class range A-D
  total: 3 running: 0 idle: 3
3 Applet threads service class default
  total: 32 running: 0 idle: 32
4 Applet threads service class W X
  total: 5 running: 0 idle: 5
```

Related Commands

Command	Description
show event manager	Shows the event manager details of an EEM policy.

show event manager session cli username

To display the username associated with Embedded Event Manager (EEM) policies that use the command-line interface (CLI) library, use the **show event manager session cli username** command in privileged EXEC mode.

show event manager session cli username

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(18)SXF4	This command was integrated into Cisco IOS Release 12.2(18)SXF4 to support Software Modularity images only.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(18)SXF5	This command was integrated into Cisco IOS Release 12.2(18)SXF5.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.

Usage Guidelines

Use this command to display the username associated with a Tool Command Language (Tcl) EEM policy. If you are using authentication, authorization, and accounting (AAA) security and implement authorization on a command basis, you should use the **event manager session cli username** command to set a username to be associated with a Tcl session. The username is used when a Tcl policy executes a CLI command. TACACS+ verifies each CLI command using the username associated with the Tcl session that is running the policy. Commands from Tcl policies are not usually verified because the router must be in privileged EXEC mode to register the policy.

Examples

The following example shows that the username of eemuser is associated with a Tcl session:

```
Router# show event manager session cli username
```

Related Commands

Command	Description
event manager session cli username	Associates a username with EEM policies that use the CLI library.

show event manager statistics

To track and display statistics including dropped events of Embedded Event Manager (EEM) policies, use the **show event manager statistics** command in privileged EXEC mode.

show event manager statistics {**detector**| **policy**| **server**}

Syntax Description

detector	EEM event detector statistics.
policy	EEM policy statistics.
server	EEM Server statistics.

Command Default

The statistics including dropped events are displayed.

Command Modes

Privileged EXEC

Command History

Release	Modification
15.2(2)T	This command was introduced.
15.1(1)SY	This command was integrated into Cisco IOS Release 15.1(1)SY.

Usage Guidelines

Use the **show event manager statistics** command to display statistic including dropped events.

Examples

The following example shows the statistics of all the event detectors:

```
Router# show event manager statistics detector

                                                 Triggered Dropped
No.  Name                 Node        Type       Events    Events
-------------------------------------------------------------------
1    application          node0/0     RP         0         0
2    rf                   node0/0     RP         0         0
3    identity             node0/0     RP         0         0
4    neighbor-discovery   node0/0     RP         0         0
5    routing              node0/0     RP         0         0
6    nhrp                 node0/0     RP         0         0
7    track                node0/0     RP         0         0
8    resource             node0/0     RP         0         0
9    syslog               node0/0     RP         0         0
10   cli                  node0/0     RP         0         0
11   counter              node0/0     RP         0         0
12   interface            node0/0     RP         0         0
13   ioswdsysmon          node0/0     RP         0         0
14   none                 node0/0     RP         0         0
```

```
15   oir                 node0/0     RP      0         0
16   snmp                node0/0     RP      0         0
17   snmp-object         node0/0     RP      0         0
18   ipsla               node0/0     RP      0         0
19   snmp-notification   node0/0     RP      0         0
20   timer               node0/0     RP      0         0
21   test                node0/0     RP      0         0
22   config              node0/0     RP      0         0
23   env                 node0/0     RP      0         0
24   nf                  node0/0     RP      0         0
25   rpc                 node0/0     RP      0         0
```

The following example shows the statistics of all the servers:

```
Router# show event manager statistics server

                        Triggered Dropped   Queue    Queue    Average
Client                  Events    Events    Size      Max     Run Time
-----------------------------------------------------------------------
Call Home                 0         0         0        64       0.000
EEM Applets               0         0         0        64       0.000
EEM IOS .sh Scripts       0         0         0        128      0.000
EEM Tcl Scripts           0         0         0        64       0.000

EEM Policy Counters
Name                    Value
-----------------------------------------------------------------
count2                    0
counter1                  0


EEM Policy Timers
Name                     Type           Time Remaining
-----------------------------------------------------------------
EEMinternalname0       watchdog            19.460
crontimer                cron                N/A

EEM User Context
-----------------------------------------------------------------
Key: keyname
Value: <first 1k of context value.>
```

Related Commands

Command	Description
event manager applet	Registers an event applet with EEM and enters applet configuration mode.

show event manager version

To display the version of Embedded Event Manager (EEM) software running on the device, use the **show event manager version**command in privileged EXEC mode.

show event manager version

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(20)T	This command was introduced.
12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

Use the show event manager version command to display details about the EEM software running on the device. The following values are listed:

- The version of the EEM software.
- The version of the EEM software components.
- The version of each available EEM event detector.

Examples

The following is sample output from the show event manager version command:

```
Router#show event manager version
Embedded Event Manager Version 2.40
Component Versions:
eem: (v240_throttle)2.21.49
eem-gold: (v240_throttle)1.2.34
eem-call-home: (v240_throttle)2.0.0
Event Detectors:
Name                Version   Node        Type
appl                01.00     node0/0     RP
syslog              01.00     node0/0     RP
track               01.00     node0/0     RP
cli                 01.00     node0/0     RP
counter             01.00     node0/0     RP
interface           01.00     node0/0     RP
ioswdsysmon         01.00     node0/0     RP
none                01.00     node0/0     RP
oir                 01.00     node0/0     RP
snmp                01.00     node0/0     RP
snmp-notification   01.00     node0/0     RP
timer               01.00     node0/0     RP
test                01.00     node0/0     RP
config              01.00     node0/0     RP
env                 01.00     node0/0     RP
```

The table below describes the significant fields shown in the display.

Table 10: show event manager version Field Descriptions

Field	Description
Embedded Event Manager Version 2.40	Version of EEM software.
Component Versions:	Software components.
Event Detectors	Each available event detector.
Name	Name of the event detector.
Version	Version number.
Node	Node name.
Type	Where the event detector resides.
appl	Application event detector.
syslog	Syslog event detector.
track	Track event detector.
cli	Command-line interface (CLI) event detector.
counter	Counter event detector.
interface	Interface event detector.
ioswdsysmon	Watchdog system monitor event detector.
none	No event detector.
oir	Online insertion and removal (OIR) event detector.
snmp	Simple Network Management Protocol (SNMP) event detector.
snmp-notification	SNMP notification event detector.
timer	Timer event detector.
test	Test event detector.
config	Config event detector.
env	Environmental event detector.

Related Commands

Command	Description
show event manager detector	Displays information about EEM event detectors.

track stub-object

To create a stub object that can be tracked by Embedded Event Manager (EEM) and to enter tracking configuration mode, use the **track stub-object** command in global configuration mode. To remove the stub object, use the **no** form of this command.

track *object-number* **stub-object**

no track *object-number* **stub-object**

Syntax Description

object-number	Object number that represents the object to be tracked. The range is from 1 to 1000.

Command Default

No stub objects are created.

Command Modes

Global configuration (config)

Command History

Release	Modification
12.4(2)T	This command was introduced.
12.2(31)SB3	This command was integrated into Cisco IOS Release 12.2(31)SB3.
12.2(33)SRB	This command was integrated into Cisco IOS Release 12.2(33)SRB.
Cisco IOS XE Release 2.1	This command was integrated into Cisco IOS XE Release 2.1.
12.2(33)SXI	This command was integrated into Cisco IOS Release 12.2(33)SXI.
15.1(3)T	This command was modified. The valid range of the *object-number* argument increased to 1000.
15.1(1)S	This command was modified. The valid range for the *object-number* argument increased to 1000.

Usage Guidelines

Use the **track stub-object** command to create a stub object, which is an object that can be tracked and manipulated by an external process, EEM. After the stub object is created, the **default-state** command can be used to set the default state of the stub object.

EEM is a distributed, scalable, and customized approach to event detection and recovery offered directly in a Cisco IOS device. EEM offers the ability to monitor events and take informational or corrective action when the monitored events occur or when a threshold is reached. An EEM policy is an entity that defines an event and the actions to be taken when that event occurs.

As of Cisco IOS Release 15.1(3)T, a maximum of 1000 objects can be tracked. Although 1000 tracked objects can be configured, each tracked object uses CPU resources. The amount of available CPU resources on a router is dependent upon variables such as traffic load and how other protocols are configured and run. The ability to use 1000 tracked objects is dependent upon the available CPU. Testing should be conducted on site to ensure that the service works under the specific site traffic conditions.

Examples

The following example shows how to create and configure stub object 1 with a default state of up:

```
Router(config)#
track 1 stub-object
Router(config-track)#
 default-state up
```

Related Commands

Command	Description
default-state	Sets the default state for a stub object.
show track	Displays tracking information.

trigger (EEM)

To enter trigger applet configuration mode and specify the multiple event configuration statements for an Embedded Event Manager (EEM) applet, use the **trigger**command in applet configuration mode. To disable the multiple event configuration statements, use the **no** form of this command.

trigger [**occurs** *occurs-value*] [**period** *period-value*] [**period-start** *period-start-value*] [**delay** *delay-value*]

no trigger [**occurs** *occurs-value*] [**period** *period-value*] [**period-start** *period-start-value*] [**delay** *delay-value*]

Syntax Description

occurs	(Optional) Specifies the number of times the total correlation occurs before an EEM event is raised. When a number is not specified, an EEM event is raised on the first occurrence.
occurs-value	(Optional) Number in the range from 1 to 4294967295.
period	(Optional) Specifies the time interval during which the one or more occurrences must take place. If not specified, the time-period check is not applied.
period-value	(Optional) Number that represents seconds and optional milliseconds in the format sssssssss[.mmm]. The range for seconds is from 0 to 4294967295. The range for milliseconds is from 0 to 999. If using milliseconds only, specify the milliseconds in the format 0.mmm.
period-start	(Optional) Specifies the start of an event correlation window. If not specified, event monitoring is enabled after the first CRON period occurs.
period-start-value	(Optional) String that specifies the beginning of an event correlation window.
delay	(Optional) Specifies the number of seconds after which an event will be raised if all the conditions are true. If not specified, the event will be raised immediately.
delay-value	(Optional) Number that represents seconds and optional milliseconds in the format sssssssss[.mmm]. The range for seconds is from 0 to 4294967295. The range for milliseconds is from 0 to 999. If using milliseconds only, specify the milliseconds in the format 0.mmm.

Command Default

Disabled.

Command Modes

Applet configuration (config-applet)

Command History

Release	Modification
12.4(20)T	This command was introduced.
12.2(33)SRE	This command was integrated into Cisco IOS Release 12.2(33)SRE.

Usage Guidelines

The **trigger** command relates multiple event statements using the optional **tag** keyword with the *event-tag* argument specified in each event statement.

Examples

The following example shows how to use the **trigger** command to enter trigger applet configuration mode and specify multiple event configuration statements for an EEM applet. In this example, the applet is run when the **show bgp all** command and any syslog message that contains the string "COUNT" occurs within a period of 60 seconds.

```
Router(config)# event manager applet delay_50
Router(config-applet)# event
 tag 1.0 cli pattern "show bgp all" sync yes occurs 32 period 60 maxrun 60
Router(config-applet)# event
 tag 2.0 syslog pattern "COUNT"
Router(config-applet)# trigger occurs 1 delay 50
Router(config-applet-trigger)# correlate event 1.0 or event 2.0
Router(config-applet-trigger)# attribute tag 1.0 occurs 1
Router(config-applet-trigger)# attribute tag 2.0 occurs 1
Router(config-applet-trigger)# action 1.0 cli command "show memory"
Router(config-applet)# action 2.0 cli command "enable"
Router(config-applet)# action 3.0 cli command "config terminal"
Router(config-applet)# action 4.0 cli command " ip route 192.0.2.0 255.255.255.224 192.0.2.12"
Router(config-applet)# action 91.0 cli command "exit"
Router(config-applet)# action 99.0 cli command "show ip route | incl 192.0.2.5"
```

Related Commands

Command	Description
attribute (EEM)	Specifies a complex event for an EEM applet.
correlate	Builds a single complex event.
event manager applet	Registers an event applet with the Embedded Event Manager and enters applet configuration mode.