S through Z Commands

S through Z Commands

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 1: 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 2: 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 3: 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 4: 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 5: 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 6: 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 7: 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 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.

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.