carrier-delay (tracking) through forwarding-agent

carrier-delay (tracking)

To enable Enhanced Object Tracking (EOT) to consider the carrier-delay timer when tracking the status of an interface, use the **carrier-delay** command in tracking configuration mode. To disable EOT from considering the carrier-delay timer when tracking the status of an interface, use the **no** form of this command.

carrier-delay
no carrier-delay

Syntax Description

This command has no arguments or keywords.

Command Default

EOT does not consider the carrier-delay timer configured on an interface when tracking the status of the interface.

Command Modes

Tracking configuration (config-track)

Command History

Release	Modification
12.4(9)T	This command was introduced.
15.3(3)M	This command was integrated into Cisco IOS Release 15.3(3)M.
Cisco IOS XE 3.3SE	This command was implemented in Cisco IOS XE Release 3.3SE.

Usage Guidelines

If a link fails, by default there is a two-second timer that must expire before an interface and the associated routes are declared down. If a link goes down and comes back up before the carrier delay timer expires, the down state is effectively filtered, and the rest of the software on the switch is not aware that a link-down event occurred. You can configure the **carrier-delay** *seconds* command in interface configuration mode to extend the timer up to 60 seconds.

When Enhanced Object Tracking (EOT) is configured on an interface, the tracking may detect the interface is down before a configured carrier-delay timer has expired. This is because EOT looks at the interface state and does not consider the carrier-delay timer.

Examples

The following example shows how to configure the tracking module to wait for the interface carrier-delay timer to expire before notifying clients of a state change:

```
Router(config)# track 101 interface ethernet1/0 line-protocol
Router(config-track)# carrier-delay
```

Related Commands

Command	Description
carrier-delay	Sets the carrier delay on an interface.
show track	Displays information about objects that are tracked by the tracking process.
track interface	Configures an interface to be tracked and to enter tracking configuration mode.
track ip route	Tracks the state of an IP route and enters tracking configuration mode.

Command	Description
track ip sla	Tracks the state of a Cisco IOS SLAs operation and enters tracking configuration mode.
track list	Specifies a list of objects to be tracked and the thresholds to be used for comparison.
track resolution	Specifies resolution parameters for a tracked object.
track timer	Specifies the interval that a tracking process polls a tracked object.

clear ip accounting

To clear the active or checkpointed database when IP accounting is enabled, use the **clear ip accounting** command in privileged EXEC mode.

clear ip accounting[**checkpoint**]

Syntax Description

checkpoint	(Optional) Clears the checkpointed database.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
10.0	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
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

The **clear ip accounting** EXEC command clears the active database and creates the checkpointed database.

Examples

The following example clears the active database when IP accounting is enabled:

```
Router# clear ip accounting
```

Related Commands

Command	Description
ip accounting	Enables IP accounting on an interface.
ip accounting-list	Defines filters to control the hosts for which IP accounting information is kept.
ip accounting-threshold	Sets the maximum number of accounting entries to be created.
ip accounting-transit	Controls the number of transit records that are stored in the IP accounting database.
show ip accounting	Displays the active accounting or checkpointed database or displays access list violations.

clear ip icmp rate-limit

To clear all Internet Control Message Protocol (ICMP) unreachable rate-limiting statistics or all statistics for a specified interface, use the **clear ip icmp rate-limit** command in privileged EXEC mode.

clear ip icmp rate-limit[*interface-typeinterface-number*]

Syntax Description

interface-type	(Optional) Type of interface to be configured. Refer to the **interface** command in the Cisco IOS Interface and Hardware Component Command Reference for a list of valid interface types.
interface-number	(Optional) Port, connector, or interface card number. On Cisco 4700 series routers, specifies the network interface module (NIM) or network processor module (NPM) number. The numbers are assigned at the factory at the time of installation or when added to a system, and can be displayed with the **show interfaces** command.

Command Default

All unreachable statistics for all devices are cleared.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(2)T	This command was introduced.
12.2(31)SB2	This command was integrated into Cisco IOS Release 12.2(31)SB2.

Examples

The following example shows how to clear all unreachable statistics on all interfaces:

```
Router# clear icmp rate-limit
```

Related Commands

Command	Description
ip icmp rate-limit unreachable	Limits the rate at which ICMP unreachable messages are generated for a destination.
show ip icmp rate-limit	Displays all ICMP unreachable rate-limiting statistics or all statistics for a specified interface.

clear ip sctp statistics

Note Effective with Cisco IOS Release 12.4(11)T, the **clear ip sctp statistics** command is replaced by the **clear sctp statistics** command. See the **clear sctp statistics** command for more information.

To clear statistics counts for Stream Control Transmission Protocol (SCTP) activity, use the **clear ip sctp statistics** command in privileged EXEC mode.

clear ip sctp statistics

Syntax Description

This command has no arguments or keywords.

Command Default

This command has no default value. If this command is not entered, statistics counts for SCTP activity continue to be logged.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(2)T	This command was introduced.
12.2(4)T	This command was integrated into Cisco IOS Release 12.2(4)T.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the following platforms: Cisco 2600 series, Cisco 3600 series, and Cisco 7200 series. Support for the Cisco AS5300, Cisco AS5350, Cisco AS5400, and Cisco AS5850 is not included in this release.
12.2(11)T	This command was implemented on the Cisco AS5300, Cisco AS5350, Cisco AS5400, Cisco AS5800, and Cisco AS5850.
12.4(11)T	This command was replaced by the **clear sctp statistics** command.
12.4(15)T	This command was moved to the Cisco IOS IP Application Services Command Reference.

Usage Guidelines

This command clears both individual and overall statistics.

Examples

The following command shows how to empty the buffer that holds SCTP statistics. No output is generated from this command.

```
Router# clear ip sctp statistics
```

Related Commands

Command	Description
debug ip sctp api	Reports SCTP diagnostic information and messages.
show ip sctp association list	Displays a list of all current SCTP associations.

Command	Description
show ip sctp association parameters	Displays the parameters configured for the association defined by the association identifier.
show ip sctp association statistics	Displays the current statistics for the association defined by the association identifier.
show ip sctp errors	Displays error counts logged by SCTP.
show ip sctp instances	Displays all currently defined SCTP instances.
show ip sctp statistics	Displays overall statistics counts for SCTP.
show iua as	Displays information about the current condition of an application server.
show iua asp	Displays information about the current condition of an application server process.

clear ip tcp header-compression

To clear the TCP, UDP, and IP header-compression statistics, use the **clear ip tcp header-compression** command in privileged EXEC mode.

clear ip tcp header-compression *interface-type interface-number*

Syntax Description

interface-type	Specifies the interface type.
interface-number	Specifies the interface number.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(1)M	This command was introduced in a release earlier than Cisco IOS Release 15.0(1)M.
12.2(33)SRC	This command was integrated into a release earlier than Cisco IOS Release 12.2(33)SRC.
12.2(33)SXI	This command was integrated into a release earlier than Cisco IOS Release 12.2(33)SXI.
Cisco IOS XE Release 2.1	This command was integrated into Cisco IOS XE Release 2.1.

Examples

The following example shows how to clear the header-compression statistics for an ATM interface:

```
Router# clear ip tcp header-compression ATM2/0
```

Related Commands

Command	Description
show ip tcp header-compression	Displays statistics about TCP header compression.

clear ip traffic

To clear the global or system-wide IP traffic statistics for one or more interfaces, use the **clear ip traffic** command in privileged EXEC mode.

clear ip traffic [**interface** *type number*]

Syntax Description

interface *type number*	(Optional) Clears the global or system-wide IP traffic statistics for a specific interface. If the **interface** keyword is used, the *type* and *number* arguments are required.

Command Default

Using the **clear ip traffic** command with no keywords or arguments clears the global or system-wide IP traffic statistics for all interfaces.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(2)T	This command was introduced.
12.2(31)SB2	This command was integrated into Cisco IOS Release 12.2(31)SB2.
Cisco IOS XE Release 2.1	This command was integrated into Cisco IOS XE Release 2.1.
Cisco IOS XE Release 3.1S	This command was modified to include the optional **interface** keyword and associated *type* and *number* arguments. These modifications were made to provide support for the IPv4 MIBs as described in RFC 4293, *Management Information Base for the Internet Protocol (IP)* .
15.1(4)M	This command was modified. The optional **interface** keyword and associated *type* and *number* arguments were added. These modifications were made to provide support for the IPv4 MIBs as described in RFC 4293, *Management Information Base for the Internet Protocol (IP)* .

Usage Guidelines

Using the **clear ip traffic** command with the optional **interface** keyword clears the ipIfStatsTable counters displayed for the specified interface and also clears the counters displayed by the **show ip traffic interface** command.

Examples

The following example clears the global or system-wide IP traffic statistics on all interfaces:

```
Router# clear ip traffic
```

The following example shows how to clear the IP traffic statistics on Ethernet interface 0/0:

```
Router# clear ip traffic interface ethernet 0/0
```

The following is sample output from the **show ip traffic** command for Ethernet interface 0/0 after clearing the traffic using the **clear ip traffic** command:

```
Router# show ip traffic
```

```
Ethernet0/0 IP-IF statistics :
  Rcvd:  0 total, 0 total_bytes
         0 format errors, 0 hop count exceeded
         0 bad header, 0 no route
         0 bad destination, 0 not a router
         0 no protocol, 0 truncated
         0 forwarded
         0 fragments, 0 total reassembled
         0 reassembly timeouts, 0 reassembly failures
         0 discards, 0 delivers
  Sent:  0 total, 0 total_bytes 0 discards
         0 generated, 0 forwarded
         0 fragmented into, 0 fragments, 0 failed
  Mcast: 0 received, 0 received bytes
         0 sent, 0 sent bytes
  Bcast: 0 received, 0 sent
```

Related Commands

Command	Description
show ip traffic	Displays the global or system-wide IP traffic statistics for one or more interfaces.

clear ip wccp

To remove IPv4 Web Cache Communication Protocol (WCCP) statistics (counts) maintained on the router for a particular service, use the **clear ip wccp** command in privileged EXEC mode.

clear ip wccp [**vrf** *vrf-name*] [*service-number*] [**web-cache**] [**default**]

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) instance to associate with a service group.
service-number	(Optional) Number of the cache service to be removed. The number can be from 0 to 254.
web-cache	(Optional) Directs the router to remove statistics for the web cache service.

Command Default

WCCP statistics are not removed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.1CA	This command was introduced for Cisco 7200 and 7500 platforms.
11.2P	Support for this command was added to a variety of Cisco platforms.
12.0(3)T	This command was expanded to be explicit about service using the **web-cache** keyword and the *service-number* argument.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
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.
Cisco IOS XE Release 2.2	This command was integrated into Cisco IOS XE Release 2.2.
15.0(1)M	This command was modified. The **vrf** keyword and *vrf-name* argument were added.
12.2(33)SRE	This command was modified. The **vrf** keyword and *vrf-name* argument were added.
12.2(50)SY	This command was modified. The **vrf** keyword and *vrf-name* argument were added.
Cisco IOS XE Release 3.3SG	This command was integrated into Cisco IOS XE Release 3.3SG.
Cisco IOS XE 3.3SE	This command was implemented in Cisco IOS XE Release 3.3SE.

Usage Guidelines

Use the **show ip wccp** and **show ip wccp detail** commands to display WCCP statistics. If Cisco Cache Engines are used in your service group, the reverse proxy service is indicated by a value of 99.

Use the **clear ip wccp** command to clear the WCCP counters for all WCCP services in all VRFs.

Examples

The following example shows how to clear all statistics associated with the web cache service:

```
Router# clear ip wccp web-cache
```

Related Commands

Command	Description
clear platform software wccp	Clears WCCPv2 statistics on the Cisco ASR 1000 Series Routers.
ip wccp	Enables support of the specified WCCP service for participation in a service group.
show ip wccp	Displays global statistics related to the WCCP.

clear mls acl counters

To clear the multilayer switching (MLS) access control list (ACL) counters, use the **clear mls acl counters** command in privileged EXEC mode.

clear mls acl counters {**all** [**module** *num*] | **interface** *interface interface-number* [{**loopback** *interface-number* | **null** *interface-number* | **port-channel** *number* | **vlan** *vlan-id*}]}

Syntax Description

all	Clears all the MLS ACL counters for all interfaces.
module *num*	(Optional) Clears all the MLS ACL counters for the specified DFC.
interface *interface*	Clears counters that are associated with the specified interface; possible valid values are **ethernet**, **fastethernet**, **gigabitethernet**, and **tengigabitethernet**. See the "Usage Guidelines" section for additional valid values.
interface-number	Module and port number; see the "Usage Guidelines" section for valid values.
loopback *interface-number*	(Optional) Specifies the loopback interface; valid values are from 0 to 2147483647.
null *interface-number*	(Optional) Specifies the null interface; the valid value is **0**
port-channel *number*	(Optional) Specifies the channel interface; valid values are a maximum of 64 values ranging from 1 to 256.
vlan *vlan-id*	(Optional) Specifies the VLAN ID; valid values are from 1 to 4094.

Command Default

This command has no default settings.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(14)SX	Support for this command was introduced on the Supervisor Engine 720.
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was extended to Cisco IOS Release 12.2(17d)SXB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

The valid values for *interface* include the **ge-wan**, **atm**, and **pos** keywords that are supported on Cisco 7600 series routers that are configured with a Supervisor Engine 2.

This command is supported on Cisco 7600 series routers that are configured with a WS-F6K-DFC3B-XL, release 2.1 and later.

If you enter the **clear mls acl counters all module** *num* command, all the MLS ACL counters for the specified DFC only are cleared. If you enter the **clear mls acl counters all** command without entering the **module** *num* keyword and argument, all the MLS ACL counters for only the non-DFC modules and the supervisor engines are cleared.

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module that are used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module that is installed in a 13-slot chassis, valid values for the module number are from 1 to 13 and valid values for the port number are from 1 to 48.

Examples

This example shows how to reset the MLS ACL counters in all interfaces:

```
Router# clear mls acl counters all
```

Related Commands

Command	Description
show tcam interface	Displays information about the interface-based TCAM.

clear platform software wccp

To clear Web Cache Communication Protocol version 2 statistics on the Cisco ASR 1000 Series Routers, use the **clear platform software wccp**command in privileged EXEC mode.

clear platform software wccp *slot* [{**active** | **standby**}] **statistics counters** | **statistics**

Syntax Description

slot	Shared Port Adapter (SPA) Interprocessor, Embedded Service Processor or Route Processor slot. Valid options are: • **F0** --Embedded Service Processor slot 0 • **F1** --Embedded Service Processor slot 1 • **FP** --Embedded Service Processor • **R0** --Route Processor slot 0 • **R1** --Route Processor slot 1 • **RP** --Route Processor
active	Clears active instances.
standby	Clears standby instances.
statistics	Clears statistics counters.
counters	Clears packet processing counters.

Command Default

WCCPv2 statistics are not cleared.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
Cisco IOS XE Release 3.1S	This command was introduced.

Examples

The following example shows how to clear WCCPv2 statistics on Embedded-Service-Processor slot 0:

```
Router# clear platform software wccp F0 statistics
```

Related Commands

Command	Description
clear ip wccp	Removes WCCP statistics (counts) maintained on the router for a particular service.

clear sctp statistics

To clear statistics counts for Stream Control Transmission Protocol (SCTP) activity, use the **clear sctp statistics** command in privileged EXEC mode.

clear sctp statistics

Syntax Description

This command has no arguments or keywords.

Command Default

This command has no default value. If this command is not entered, statistics counts for SCTP activity continue to be logged.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(11)T	This command was introduced. This command replaces the **clear ip sctp statistics** command.
12.4(15)T	This command was moved to the Cisco IOS IP Application Services Command Reference.

Usage Guidelines

This command clears both individual and overall statistics.

Examples

The following command shows how to empty the buffer that holds SCTP statistics. No output is generated from this command.

```
Router# clear sctp statistics
```

Related Commands

Command	Description
debug ip sctp api	Reports SCTP diagnostic information and messages.
show sctp association list	Displays a list of all current SCTP associations.
show sctp association parameters	Displays the parameters configured for the association defined by the association identifier.
show sctp association statistics	Displays the current statistics for the association defined by the association identifier.
show sctp errors	Displays error counts logged by SCTP.
show sctp instances	Displays all currently defined SCTP instances.
show sctp statistics	Displays overall statistics counts for SCTP.
show iua as	Displays information about the current condition of an application server.
show iua asp	Displays information about the current condition of an application server process.

clear sockets

To close all IP sockets and clear the underlying transport connections and data structures, use the **clear sockets** command in privileged EXEC mode.

clear sockets *process-id*

Syntax Description

process-id	Identifier of the IP process to be cleared.

Command Default

IP socket information is not cleared.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(11)T	This command was introduced.

Usage Guidelines

Using this command results in an abortive close for TCP connections and Stream Control Transfer Protocol (SCTP) associations. When this command is entered, TCP connections abort by sending an RST (restore) and SCTP associations abort by sending an ABORT signal to the peer.

Use the **show processes**command to display the list of running processes and their associated process IDs.

You can use the **show sockets detail** command to confirm all open sockets have been cleared.

Examples

The following example shows how to close all sockets for IP process 35:

```
Router# clear sockets 35
All sockets (TCP, UDP and SCTP) for this process will be cleared.
Do you want to proceed? [yes/no]: y
Cleared sockets for PID 35
```

Related Commands

Command	Description
show processes	Displays information about the active processes.
show sockets	Displays IP socket information.
show udp	Displays IP socket information about UDP processes.

clear tcp statistics

To clear TCP statistics, use the **clear tcp statistics** command in privileged EXEC command.

clear tcp statistics

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
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 example clears all TCP statistics:

```
Router# clear tcp statistics
```

Related Commands

Command	Description
show tcp statistics	Displays TCP statistics.

clear time-range ipc

To clear the time-range interprocess communications (IPC) message statistics and counters between the Route Processor and the line card, use the **clear time-range ipc** command in privileged EXEC mode.

clear time-range ipc

Syntax Description

This command has no argument or keywords.

Command Default

No default behavior or values.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(2)T	This command was introduced.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.

Examples

The following example clears the time-range IPC statistics and counters:

```
Router# clear time-range ipc
```

Related Commands

Command	Description
debug time-range ipc	Enables debugging output for monitoring the time-range IPC messages between the Route Processor and the line card.
show time-range ipc	Displays the statistics about the time-range IPC messages between the Route Processor and line card.

clear wccp

To remove all (IPv4 and IPv6) Web Cache Communication Protocol (WCCP) statistics (counts) maintained on the router for a particular service, use the **clear wccp** command in privileged EXEC mode.

clear wccp [**vrf***vrf-name*] [*service-number*] [**web-cache**] [**default**]

Syntax Description

vrf *vrf-name*	(Optional) Directs the router to remove statistics for a specific virtual routing and forwarding (VRF) instance.
service-number	(Optional) Number of the cache service to be removed. The number can be from 0 to 254.
web-cache	(Optional) Directs the router to remove statistics for the web cache service.
default	(Optional) Directs the router to remove statistics for the default routing table.

Command Default

WCCP statistics are not removed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.2(3)T	This command was introduced.
15.1(1)SY1	This command was integrated into Cisco IOS Release 15.1(1)SY1.

Usage Guidelines

Use the **show wccp** and **show wccp detail** commands to display WCCP statistics. If Cisco Cache Engines are used in your service group, the reverse proxy service is indicated by a value of 99.

Use the **clear wccp** command to clear the WCCP counters for all WCCP services in all VRFs.

Examples

The following example shows how to clear all statistics associated with the web cache service:

```
Router# clear wccp web-cache
```

Related Commands

Command	Description
ip wccp	Enables support of the specified WCCP service for participation in a service group.
ipv6 wccp	Enables support of the specified WCCP service for participation in a service group.
show wccp	Displays global statistics related to the WCCP.

default (tracking)

To set the default values for a tracked list, use the **default** command in tracking configuration mode. To disable the defaults, use the **no** form of this command.

default {**delay** | **object** *object-number* | **threshold percentage**}
no default {**delay** | **object** *object-number* | **threshold percentage**}

Syntax Description

delay	Default delay value.
object *object-number*	Default object for the list. The *object-number*argument has a valid range of 1 to 1000.
threshold percentage	Default threshold percentage.

Command Default

No default values for a track list are set.

Command Modes

Tracking configuration (config-track)

Command History

Release	Modification
12.3(8)T	This command was introduced.
12.2(25)S	This command was integrated into Cisco IOS Release 12.2(25)S.
15.1(3)T	This command was modified. The valid range for 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.
12.2(50)SY	This command was modified. The valid range for the *object-number* argument increased to 1000.

Usage Guidelines

As of Cisco IOS Release 15.1(3)T, 15.1(1)S and 12.2(50)SY, 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 configure a default threshold percentage:

```
Router(config)# track 3 list
Router(config-track)# default threshold percentage
```

Related Commands

Command	Description
show track	Displays tracking information.

Command	Description
threshold weight	Specifies a threshold weight for a tracked list.
track list threshold percentage	Tracks a list of objects as to the up and down object states using a threshold percentage.
track list threshold weight	Tracks a list of objects as to the up and down object states using a threshold weight.

default-state

To set the default state for a stub object, use the **default-state** command in tracking configuration mode. To reset the default state to its internal default state, use the **no** form of this command.

default-state {**up** | **down**}
no default-state {**up** | **down**}

Syntax Description

up	Sets the current default state of a stub object to up.
down	Sets the current default state of a stub object to down.

Command Default

Internal default state is the default.

Command Modes

Tracking configuration (config-track)

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.
Cisco IOS XE 3.3SE	This command was implemented in Cisco IOS XE Release 3.3SE.

Usage Guidelines

Use the **default-state** command to set the default state of a stub object that has been created by the **track stub** command. The stub object can be tracked and manipulated by an external process, Embedded Event Manager (EEM).

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.

Examples

The following example shows how to create a stub object and configure a default state for the stub object:

```
Router(config)# track 2 stub
Router(config-track)# default-state up
```

Related Commands

Command	Description
show track	Displays tracking information.

Command	Description
track stub	Creates a stub object to be tracked.

delay (tracking)

To specify a period of time to delay communicating state changes of a tracked object, use the **delay** command in tracking configuration mode. To disable the delay period, use the **no** form of this command.

delay {**up** *seconds* | [**down** *seconds*] | **up** *seconds* | [**down** *seconds*]}
no delay {**up** *seconds* | [**down** *seconds*] | **up** *seconds* | [**down** *seconds*]}

Syntax Description

up	Specifies the time to delay the notification of an up event.
seconds	Delay value, in seconds. The range is from 0 to 180. The default is 0.
down	Specifies the time to delay the notification of a down event.

Command Default

No delay time for communicating state changes is configured.

Command Modes

Tracking configuration (config-track)

Command History

Release	Modification
12.2(15)T	This command was introduced.
12.2(25)S	This command was integrated into Cisco IOS Release 12.2(25)B.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
Cisco IOS XE Release 2.1	This command was integrated into Cisco IOS XE Release 2.1.
15.3(3)M	This command was integrated into Cisco IOS Release 15.3(3)M.
Cisco IOS XE 3.3SE	This command was implemented in Cisco IOS XE Release 3.3SE.

Usage Guidelines

This command is available to all tracked objects.

If you specify, for example, **delay up 10 down 30**, then if the object state changes from down to up, clients tracking that object are notified after 10 seconds. If the object state changes from up to down, then clients tracking that object are notified after 30 seconds.

Examples

In the following example, the tracking process is tracking the IP-route threshold metric. The delay period to communicate the tracked object state changing to down is set to 30 seconds.

```
Router(config)# track 1 ip route 10.22.0.0/16 metric threshold
Router(config-track)# threshold metric up 16 down 20
Router(config-track)# delay down 30
```

Related Commands

Command	Description
show track	Displays HSRP tracking information.
threshold metric	Sets a threshold metric.
track ip route	Tracks the state of an IP route.

forwarding-agent

To specify the port on which the forwarding agent will listen for wildcard and fixed affinities, use the **forwarding-agent** command in CASA-port configuration mode. To disable listening on that port, use the **no** form of this command.

forwarding-agent *port-number* [*password* [*timeout*]]
no forwarding-agent

Syntax Description

port-number	Port numbers on which the forwarding agent will listen for wildcards broadcast from the services manager. This must match the port number defined on the services manager.
password	(Optional) Text password used for generating the MD5 digest.
timeout	(Optional) Duration (in seconds) during which the Forwarding Agent will accept the new and old password. Valid range is from 0 to 3600 seconds. The default is 180 seconds.

Command Default

The default password timeout is 180 seconds.

The default port for the services manager is 1637.

Command Modes

CASA-port configuration (config-casa)

Command History

Release	Modification
12.0(5)T	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
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 example specifies that the forwarding agent will listen for wildcard and fixed affinities on port 1637:

```
Router(config-casa)# forwarding-agent 1637
```

Related Commands

Command	Description
show ip casa oper	Displays operational information about the Forwarding Agent.