

carrier-delay (tracking) through forwarding-agent

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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

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| 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. |
| 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

| 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. |

| Command | Description |
|--------------------|---|
| 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 | | |
|--------|--|--|
| | | |
| | | |
| | | |

| 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

| ds | Command | Description | |
|----|--------------------------------|---|--|
| | ip icmp rate-limit unreachable | Limits the rate at which ICMP unreachable messages are generated for a destination. | |
| | | | |

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| Command | Description |
|-------------------------|--|
| show ip icmp rate-limit | Displays all ICMP unreachable rate-limiting statistics or all statistics for a specified interface. |

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clear ip sctp statistics

| | 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 statistics command in privileged EXEC mode. | | | |
| clear ip sctp statis | clear ip sctp statistics | | |
| This command has | no arguments or keywords. | | |
| This command has r to be logged. | no default value. If this command is not entered, statistics counts for SCTP activity continue | | |
| Privileged EXEC (# | ¥) | | |
| 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. | | |
| | | | |
| | sctp statistics com To clear statistics command clear ip sctp statist This command has This command has This command has to be logged. Privileged EXEC (a Release 12.2(2)T 12.2(4)T 12.2(8)T 12.2(11)T | | |

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. |
| 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

| nmands | 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 <i>type</i> and <i>number</i> 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 <i>type</i> and <i>number</i> arguments. These modifications were made to provide support for the IPv4 MIBs as described in RFC 4293, <i>Management Information Base for the Internet Protocol (IP)</i> . |
| | 15.1(4)M | This command was modified. The optional interface keyword and associated <i>type</i> and <i>number</i> arguments were added. These modifications were made to provide support for the IPv4 MIBs as described in RFC 4293, <i>Management Information Base for the Internet Protocol (IP)</i> . |

Usage Guidelines

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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
```

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

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

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| 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 <i>service-number</i> 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 <i>vrf-name</i> argument were added. |
| | 12.2(33)SRE | This command was modified. The vrf keyword and <i>vrf-name</i> argument were added. |

| Release | Modification |
|----------------------------|--|
| 12.2(50)SY | This command was modified. The vrf keyword and <i>vrf-name</i> 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

| Command | Description |
|------------------------------|---|
| clear platform software wccp | Clears WCCPv2 statistics on the Cisco ASR 1000 Series Routers. |
| ір 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

| 'Y | Release | Modification |
|----|------------|---|
| | 12.2(14)SX | Support for this command was introduced on the Supervisor Engine 720. |

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| | Release | Modification | |
|---|---|--|--|
| | 12.2(17d)SXB | Support for this co Cisco IOS Release | ommand on the Supervisor Engine 2 was extended to e 12.2(17d)SXB. |
| | 12.2(33)SRA | This command wa | s integrated into Cisco IOS Release 12.2(33)SRA. |
| Usage Guidelines | | <i>face</i> include the ge-wan , at figured with a Supervisor E | m , and pos keywords that are supported on Cisco 7600 ngine 2. |
| | | • | ters that are configured with a WS-F6K-DFC3B-XL, |
| If you enter the clear mls acl counters all module <i>num</i> command, all the MLS ACL of DFC only are cleared. If you enter the clear mls acl counters all command without of keyword and argument, all the MLS ACL counters for only the non-DFC modules are cleared. | | ounters all command without entering the module num | |
| | depend on the specified in a Gigabit Ethernet interface | terface type and the chassis ce and have a 48-port 10/10 | le and port number. Valid values for <i>interface-number</i> s and module that are used. For example, if you specify 0BASE-T Ethernet module that is installed in a 13-slot 1 to 13 and valid values for the port number are from |
| Examples | This example shows how | to reset the MLS ACL cour | nters 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] statisticscounters| 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

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| 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. |

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| Command | Description |
|----------------------|--|
| 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

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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. | | |
| | 1 | y the list of running processes and their associated process IDs. | |
| | You can use the show sockets detail comn | and 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 Do you want to proceed? [yes/no]: y Cleared sockets for PID 35 | this process will be cleared. | |
| 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

| 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

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

Router# clear time-range ipc

| 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[vrfvrf-name][service-number][web-cache][default]

Syntax Description

| 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 GuidelinesUse 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 |
|-----------|---|
| ір wccp | Enables support of the specified WCCP service for participation in a service group. |
| ірv6 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 <i>object-number</i> 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)

| Commond Illiotomy | | |
|------------------------|------------|---|
| 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 <i>object-number</i> argument increased to 1000. |
| | 15.1(1)S | This command was modified. The valid range for the <i>object-number</i> argument increased to 1000. |
| | 12.2(50)SY | This command was modified. The valid range for the <i>object-number</i> 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

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The following example shows how to configure a default threshold percentage:

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

| Command | Description |
|---------------------------------|--|
| show track | Displays tracking information. |
| 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

| x 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

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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
```

| Command | Description |
|------------|--------------------------------------|
| show track | Displays tracking information. |
| 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

| սթ | 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

| Modification |
|---|
| This command was introduced. |
| This command was integrated into Cisco IOS Release 12.2(25)B. |
| This command was integrated into Cisco IOS Release 12.2(28)SB. |
| This command was integrated into Cisco IOS Release 12.2(33)SRA. |
| This command was integrated into Cisco IOS Release 12.2(33)SXH. |
| This command was integrated into Cisco IOS XE Release 2.1. |
| This command was integrated into Cisco IOS Release 15.3(3)M. |
| 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

| ds | 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)

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. |

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