show tcp through start-forwarding agent

show track

To display information about objects that are tracked by the tracking process, use the **show track** command in privileged EXEC mode.

show track [*object-number* **[brief]**| **interface [brief]**| **ip sla[brief]**| **timer**]

Syntax Description

object-number	(Optional) Object number that represents the object to be tracked. The range is from 1 to 1000.
brief	(Optional) Displays a single line of information related to the preceding argument or keyword.
interface	(Optional) Displays tracked interface objects.
resolution	(Optional) Displays resolution of tracked parameters.
timers	(Optional) Displays polling interval timers.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(15)T	This command was introduced.
12.3(8)T	The output was enhanced to include the track-list objects.
12.2(25)S	This command was integrated into Cisco IOS Release 12.2(25)S.
12.4(2)T	The output was enhanced to display stub objects.
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.
12.4(9)T	This command was enhanced to display information about the status of an interface when carrier-delay detection has been enabled.
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.
12.4(20)T	The output was enhanced to display IP SLAs information.

Release	Modification
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.
12.2(50)SY	This command was modified. The valid range for the *object-number* argument increased to 1000.
15.3(3)S	This command was modified. The output was enhanced to display IPv6 route information.
XE 3.10S	This command was modified. The output was enhanced to display IPv6 route information.
Cisco IOS XE 3.3SE	This command was implemented in Cisco IOS XE Release 3.3SE.

Usage Guidelines

Use this command to display information about objects that are tracked by the tracking process. When no arguments or keywords are specified, information for all objects is displayed.

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 device 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 information about the state of IP routing on the interface that is being tracked:

```
Device# show track 1

Track 1
 Interface Ethernet0/2 ip routing
 IP routing is Down (no IP addr)
  1 change, last change 00:01:08
 Tracked by:
  HSRP Ethernet0/3 1
```

The following example shows information about the line-protocol state on the interface that is being tracked:

```
Device# show track 1

Track 1
 Interface Ethernet0/1 line-protocol
 Line protocol is Up
  1 change, last change 00:00:05
 Tracked by:
  HSRP Ethernet0/3 1
```

The following example shows information about the reachability of a route that is being tracked:

```
Device# show track 1

Track 1
 IP route 10.16.0.0 255.255.0.0 reachability
```

```
 Reachability is Up (RIP)
  1 change, last change 00:02:04
 First-hop interface is Ethernet0/1
 Tracked by:
  HSRP Ethernet0/3 1
```

The following example shows information about the threshold metric of a route that is being tracked:

```
Device# show track 1

Track 1
 IP route 10.16.0.0 255.255.0.0 metric threshold
 Metric threshold is Up (RIP/6/102)
  1 change, last change 00:00:08
 Metric threshold down 255 up 254
 First-hop interface is Ethernet0/1
 Tracked by:
  HSRP Ethernet0/3 1
```

The following example shows the object type, the interval in which it is polled, and the time until the next poll:

```
Device# show track timer

Object type   Poll Interval  Time to next poll
interface             1             0.844
ip route             15           expired
ip sla                5           expired
ipv6 route           15           expired
application           5             2.944
list                  0.500         0.88
stub                  1           expired
```

The following example shows the state of the IP SLAs tracking:

```
Device# show track 50

Track 50
  IP SLA 400 state
  State is Up
    1 change, last change 00:00:23
  Delay up 60 secs, down 30 secs
  Latest operation return code: Unknown
```

The following example shows whether a route is reachable:

```
Device# show track 3

Track 3
   IP SLA 1 reachability
   Reachability is Up
     1 change, last change 00:00:47
   Latest operation return code: over threshold
   Latest RTT (millisecs) 4
   Tracked by:
     HSRP Ethernet0/1 3
```

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

Table 1: show track Field Descriptions

Field	Description
Track	Object number that is being tracked.
Interface Ethernet0/2 ip routing	Interface type, interface number, and object that is being tracked.

Field	Description
IP routing is	State value of the object, displayed as Up or Down. If the object is down, the reason is displayed.
1 change, last change	Number of times that the state of a tracked object has changed and the time (in *hh:mm:ss*) since the last change.
Tracked by	Client process that is tracking the object.
First-hop interface is	Displays the first-hop interface.
Object type	Object type that is being tracked.
Poll Interval	Interval (in seconds) in which the tracking process polls the object.
Time to next poll	Period of time, in seconds, until the next polling of the object.

The following output shows that there are two objects. Object 1 has been configured with a weight of 10 “down,” and object 2 has been configured with a weight of 20 “up.” Object 1 is down (expressed as 0/10) and object 2 is up. The total weight of the tracked list is 20 with a maximum of 30 (expressed as 20/30). The “up” threshold is 20, so the list is “up.”

```
Device# show track

Track 6
 List threshold weight
  Threshold weight is Up (20/30)
   1 change, last change 00:00:08
   object 1 Down (0/10)
   object 2 weight 20 Up (20/30)
  Threshold weight down 10 up 20
   Tracked by:
    HSRP Ethernet0/3 1
```

The following example shows information about the Boolean configuration:

```
Device# show track

Track 3
 List boolean and
 Boolean AND is Down
  1 change, last change 00:00:08
   object 1 not Up
   object 2 Down
 Tracked by:
  HSRP Ethernet0/3 1
```

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

Table 2: show track Field Descriptions

Field	Description
Track	Object number that is being tracked.
Boolean AND is Down	Each object defined in the list must be in a down state.
1 change, last change	Number of times that the state of a tracked object has changed and the time (in *hh:mm:ss*) since the last change.
Tracked by	Client process that is tracking the object; in this case, HSRP.

The following example shows information about a stub object that has been created to be tracked using Embedded Event Manager (EEM):

```
Device# show track

Track 1
  Stub-object
  State is Up
    1 change, last change 00:00:04, by Undefined
```

The following example shows information about a stub object when the **brief** keyword is used:

```
Device# show track brief

Track   Object                          Parameter        Value Last Change
1       Stub-object Undefined                            Up    00:00:12
```

The following example shows information about the line-protocol state on an interface that is being tracked and which has carrier-delay detection enabled:

```
Device# show track

Track 101
Interface Ethernet1/0 line-protocol
Line protocol is Down (carrier-delay)
1 change, last change 00:00:03
```

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

Table 3: show track brief Field Descriptions

Field	Description
Track	Object number that is being tracked.
Interface Ethernet1/0 line-protocol	Interface type, interface number, and object that is being tracked.
Line protocol is Down (carrier-delay)	State of the interface with the carrier-delay parameter taken into consideration.

Field	Description
last change	Time (in *hh:mm:ss*) since the state of a tracked object last changed.

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

Table 4: show track brief Field Descriptions

Field	Description
Track	Object number that is being tracked.
Object	Definition of stub object.
Parameter	Tracking parameters.
Value	State value of the object, displayed as Up or Down.
last change	Time (in *hh:mm:ss*) since the state of a tracked object last changed.

The following example shows sample output with respect to IPv6 routing:

```
Router# show track
Track 107
  Interface Ethernet0/0 ipv6 routing
  IPv6 routing is Down (ipv6 interface disabled)
    1 change, last change 00:03:53
  Delay up 70 secs
Track 108
  Interface Ethernet0/0 ipv6 routing
  IPv6 routing is Down (ipv6 interface disabled)
    1 change, last change 00:03:53
  Delay up 10 secs, down 30 secs
Track 111
  Interface Ethernet0/1 line-protocol
  Line protocol is Up
    1 change, last change 00:14:17
Track 601
  IPv6 route 2001:DB8::EEEE/64 metric threshold
  Metric threshold is Down (no ipv6 route)
    1 change, last change 00:10:21
  Metric threshold down 255 up 254
  First-hop interface is unknown
Track 607
  IPv6 route 2001:DB8::FFFF/64 metric threshold
  Metric threshold is Down (no ipv6 route)
    1 change, last change 00:10:21
  Metric threshold down 255 up 254
  First-hop interface is unknown
Track 608
  IPv6 route 2001:DB8::FFFF:AD45/64 metric threshold
  Metric threshold is Down (no ipv6 route)
    1 change, last change 00:10:21
  Metric threshold down 140 up 120
  First-hop interface is unknown
Track 612
  IPv6 route 2001:DB8:0000::FFFF/64 reachability
  Reachability is Down (no ipv6 route)
```

```
   1 change, last change 00:10:14
  Delay up 30 secs, down 20 secs
  First-hop interface is unknown
```

The following example shows sample output with respect to IPv6 routing in brief format:

```
Router# show track
Track Object                                  Parameter          Value  Last Change
1      application                            home-agent         Up     00:14:25
101    interface     Ethernet0/0              ip routing         Up     00:14:25
107    interface     Ethernet0/0              ipv6 routing       Down   00:04:01
108   interface     Ethernet0/0               ipv6 routing       Down   00:04:01
111   interface     Ethernet0/1               line-protocol      Up     00:14:25
201    ip route      11.0.0.1/8               metric threshold   Down   00:14:25
211   ip route      21.0.0.1/8                reachability       Down   00:14:25
301    ip sla        1                        reachability       Down   00:14:25
302    ip sla        1                        reachability       Down   00:14:25
311    ip sla        1                        state              Down   00:14:25
312    ip sla        1                        state              Down   00:14:25
403    list                                   boolean            Down   00:14:25
413    list                                   boolean            Down   00:14:25
501   Stub-object  Undefined                                    Up     00:11:01
502   Stub-object  Undefined                                    Down   00:11:01
503    Stub-object  Undefined                                   Down   00:11:01
601    ipv6 route   2001:DB8::EEEE/64         metric threshold   Down   00:10:29
607    ipv6 route   2001:DB8::FFFF/64         metric threshold   Down   00:10:29
608    ipv6 route   2001:DB8::FFFF:AD45/64    metric threshold   Down   00:10:29
612    ipv6 route   2001:DB8:0000::FFFF/64    reachability       Down   00:10:22
```

Related Commands

Command	Description
showtrack resolution	Displays the resolution of tracked parameters.
track interface	Configures an interface to be tracked and enters tracking configuration mode.
track ip route	Tracks the state of an IP route and enters tracking configuration mode.