

Chapter 16

RIPng Operational Mode Commands

Table 36 summarizes the command-line interface (CLI) commands you can use to monitor Routing Information Protocol next generation (RIPng). In the table, the commands are grouped by functionality. In the remainder of this chapter, they are explained alphabetically.

Table 36: Commands for Monitoring RIPng

Task or Information to Monitor	Command
Neighbors with which this router exchanges information.	show ripng neighbor on page 431
RIPng packet and error counters.	show ripng general-statistics on page 430
	clear ripng general-statistics on page 429
	show ripng statistics on page 432
	clear ripng statistics on page 430
Display entries in the RIPng routing tables.	show route protocol ripng table inet6 on page 434

clear ripng general-statistics

Syntax	clear ripng general-statistics <logical-router <i>logical-router-name</i> >
Description	Reset RIPng neighbor counters to zero.
Options	logical-router <i>logical-router-name</i> —(Optional) Name of a particular logical router on which the command operates.
Required Privilege Level	clear
See Also	show ripng general-statistics on page 430

clear ripng statistics

Syntax clear ripng statistics <name | instance> <logical-router logical-router-name>

Description Reset RIPng neighbor counters to zero.

Required Privilege Level clear

See Also show ripng statistics on page 432

Options none—Reset RIPng counters for all neighbors.

name—(Optional) Reset RIPng counters for specified RIPng neighbor.

instance—(Optional) Reset RIPng counters for specified instance.

logical-router *logical-router-name*—(Optional) Name of a particular logical router on which the command operates.

show ripng general-statistics

Syntax show ripng general-statistics <name> <logical-router logical-router-name>

Description Display brief RIPng protocol statistics.

Options none—Display brief statistics about all RIPng neighbors.

name—(Optional) Display brief statistics about a specific RIPng neighbor.

logical-router *logical-router-name*—(Optional) Name of a particular logical router on which the command operates.

Required Privilege Level view

See Also show ripng general-statistics on page 430

Output Fields bad msgs—Number of bad messages received from a neighbor, such as wrong family or unknown neighbor.

no recv intf—Number of packets received with no matching interface.

curr memory—Amount of memory currently used by RIPng.

max memory—Highwater mark of memory used by RIPng.

```
user@host> show ripng general-statistics
```

```
RIPng I/O info:
  bad msgs      :    0
  no recv intf  :    0
  curr memory   :    0
  max memory    :    0
```

show ripng neighbor

Syntax show ripng neighbor <name> <logical-router *logical-router-name*>

Description Display information about RIPng neighbors.

Options none—Display brief information about all RIPng neighbors.

name—(Optional) Display detailed information about a specific RIPng neighbor.

logical-router *logical-router-name*—(Optional) Name of a particular logical router on which the command operates.

Required Privilege Level view

Output Fields Neighbor—Name of RIPng neighbor.

State—State of the connection. The interface can be either Up or Dn (Down).

Source Address—Source address.

Dest Address—Destination address.

Send—Send options. It can be broadcast, multicast, none, version 1, or yes.

Receive—Type of packets to accept. It can be both, none, version 1, or yes.

In Met—Metric added to incoming routes when advertising into RIPng routes that were learned from other protocols.

Sample Output: show ripng neighbor

```
user@host> show ripng neighbor
      Source      Dest      In
Neighbor  State  Address      Address  Send Recv Met
-----  -
fe-0/0/2.0  Up  fe80::290:69ff:fe68:b002  ff02::9  yes yes  1
```

show ripng statistics

Syntax	show ripng statistics <name> <logical-router <i>logical-router-name</i> >
Description	Display RIPng statistics about messages sent and received on an interface, as well as information received from advertisements from other routers.
Options	<p><i>name</i>—(Optional) Display detailed information about a specific RIPng neighbor.</p> <p>logical-router <i>logical-router-name</i>—(Optional) Name of a particular logical router on which the command operates.</p>
Required Privilege Level	view
See Also	clear ripng statistics on page 430
Output Fields	<p>RIPng info—Information about RIPng on the specified interface.</p> <p>port—UDP port number used for RIPng.</p> <p>update interval—Number of seconds since last update.</p> <p>holddown—Hold-down interval, in seconds.</p> <p>timeout—Timeout interval, in seconds.</p> <p>restart in progress, restart time <i>xxs</i>, restart will complete in <i>xxs</i>—Displayed when RIPng is in the process of graceful restart.</p> <p>restart time <i>xxs</i>—Total time in seconds (<i>xxs</i>) that it takes to complete RIPng graceful restart. The range is from 1 through 600 seconds, and the default is 60 seconds.</p> <p>restart will complete in <i>xxs</i>—Amount of time in seconds (<i>xxs</i>) remaining until graceful restart is declared complete. This is the restart time minus the time elapsed.</p> <p>restart is complete; restart time <i>xxs</i>—Displayed when RIPng has completed the process of graceful restart.</p> <p>restart time <i>xxs</i>—Total time in seconds (<i>xxs</i>) that it took to complete RIPng graceful restart. The configurable range is from 1 through 600 seconds, and the default is 60 seconds.</p> <p>bad msgs—Number of bad messages received.</p> <p>rts learned—Number of routes learned through RIPng.</p> <p>rts held down—Number of routes held down by RIPng.</p> <p>rqsts dropped—Number of received request packets that were dropped.</p> <p>resps dropped—Number of received response packets that were dropped.</p>

curr memory— Amount of memory currently used.

max memory—Highwater mark of memory used by RIPng.

Logical interface—Name of the logical interface.

routes learned—Number of routes learned on the logical interface.

routes advertised—Number of RIPng routes advertised.

Updates Sent—Number of update messages sent.

Triggered Updates Sent—Number of triggered update messages sent.

Responses Sent—Number of response messages sent.

Bad Messages—Number of bad messages received.

Updates Received—Number of RIPng update messages received.

Bad Route Entries—Number of RIPng bad route entry messages received.

Updates Ignored—Number of RIPng update messages ignored.

Authentication Failures—Number of received update messages that failed authentication.

RIPng Requests Received—Number of RIPng request messages received.

RIPng Requests Ignored—Number of RIPng request messages ignored.

Sample Output

```
user@host> show ripng statistics
RIPng info: port 521; update interval 30s; holddown 180s; timeout 120s.
restart in progress; restart time 60s; restart will complete in 55s.
```

```

rts learned  rts held down  rqsts dropped  resps dropped
    4110         8           0       1646289
```

```
so-1/3/0.99: 0 routes learned; 4110 routes advertised
Counter          Total  Last 5 min  Last minute
-----
Updates Sent          28370    840    168
Triggered Updates Sent    42     1     0
Responses Sent         0     0     0
Bad Messages          0     0     0
Updates Received      3544    30     4
Bad Route Entries      0     0     0
Updates Ignored        0     0     0
RIPng Requests Received  0     0     0
RIPng Requests Ignored  0     0     0
```

show route protocol ripng table inet6

Syntax show route protocol ripng table inet6

Description Display the IPV6 entries in the RIPng routing tables.

Required Privilege Level view

Sample Output user@host> **show route protocol ripng table inet6**

```
inet6.0: 4215 destinations, 4215 routes (4214 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both
```

```
1111::1/128    *[RIPng/100] 02:13:33, metric 2
               > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::2/128    *[RIPng/100] 02:13:33, metric 2
               > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::3/128    *[RIPng/100] 02:13:33, metric 2
               > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::4/128    *[RIPng/100] 02:13:33, metric 2
               > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::5/128    *[RIPng/100] 02:13:33, metric 2
               > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::6/128    *[RIPng/100] 02:13:33, metric 2
               > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
```