T Commands

This chapter describes the Cisco NX-OS Routing Information Protocol (RIP) commands that begin with T.

timers basic

To adjust the Routing Information Protocol (RIP) network timers, use the **timers basic** command. To restore the default timers, use the **no** form of this command.

> **timers basic** *update invalid holddown flush*

> **no timers basic**

Syntax Description

update	Rate (in seconds) at which updates are sent. The range is from 5 to 4,294,967,295. The default is 30 seconds.
invalid	Interval of time (in seconds) after which a route is declared invalid; it should be at least three times the value of the *update* argument. A route becomes invalid when no updates refresh the route. The route then enters into a *holddown* state where it is marked as inaccessible and advertised as unreachable. However, the route is still used to forward packets. The range is from 1 to 4,294,967,295. The default is 180 seconds.
holddown	Interval (in seconds) during which routing information regarding better paths is suppressed; it should be at least three times the value of the *update* argument. A route enters into a *holddown* state when an update packet is received that indicates that the route is unreachable. The route is marked as inaccessible and advertised as unreachable. However, the route is still used to forward packets. When holddown expires, routes advertised by other sources are accepted and the route is no longer inaccessible. The range is from 0 to 4,294,967,295. The default is 180 seconds.
flush	Amount of time (in seconds) that must pass before the route is removed from the routing table; the interval specified should be greater than the sum of the *invalid* argument plus the *holddown* argument. If it is less than this sum, the proper *holddown* interval cannot elapse, which results in a new route being accepted before the *holddown* interval expires. The range is from 1 to 4,294,967,295. The default is 240 seconds.

Command Default

update: 30 seconds
invalid: 180 seconds
holddown: 180 seconds
flush: 240 seconds

Command Modes

Router address-family configuration mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Usage Guidelines

You can modify the basic timing parameters for RIP. These timers must be the same for all routers and servers in the network.

✎

Note   You can view the current and default timer values by using the **show ip protocols** command.

Examples   This example shows how to set updates to broadcast every 5 seconds. If Cisco Nexus 5500 does not hear from a router in 15 seconds (the invalid time), it declares the route as unusable. Cisco Nexus 5500 suppresses further information for an additional 15 seconds (the holddown time). At the end of the suppression period, Cisco Nexus 5500 flushes the route from the routing table.

```
switch(config)# router rip Enterprise
switch(config-router)# address-family ipv4 unicast
switch(config-router-af)# timers basic 5  15  15  30
switch(config-router-af)#
```

Related Commands

Command	Description
address-family	Enters address-family configuration mode.
copy running-config startup-config	Saves the configuration to the startup configuration file.
show ip rip	Displays a summary of RIP information for all RIP instances.

■   **timers basic**