P Commands

This chapter describes the Cisco NX-OS Hot Standby Router Protocol (HSRP) commands that begin with P.

preempt (HSRP)

To configure a preemption delay, use the **preempt** command. To disable this feature, use the **no** form of this command.

preempt [**delay** {**minimum** *min-delay* | **reload** *rel-delay* | **sync** *sync-delay*}]

no preempt [**delay** {**minimum** *min-delay* | **reload** *rel-delay* | **sync** *sync-delay*}]

Syntax Description

delay minimum *min-delay*	(Optional) Specifies the minimum number of seconds that preemption is delayed to allow routing tables to be updated before a router becomes active. The default value is 0.
reload *rel-delay*	(Optional) Specifies the time delay after the router has reloaded. This period applies only to the first interface-up event after the router has reloaded. The default value is 0.
sync *sync-delay*	(Optional) Specifies the maximum number of seconds to allow IP redundancy clients to prevent preemption. When this period expires, preemption occurs regardless of the state of the IP redundancy clients. The default value is 0.

Command Default

The default delay time for all options is 0 seconds.

Command Modes

Interface configuration or HSRP template mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

Specifying a minimum delay allows routing tables to be updated before a router becomes active. When a router first comes up, it does not have a complete routing table. A high-priority router will only delay preemption if it first receives a hello packet from a low-priority active router. If the high-priority router does not receive a hello packet from the low-priority active router when it is starting up, it assumes there is no active router for the group and becomes active as soon as possible.

Examples

This example shows how to configure a delay when a router becomes active when its priority is 110:

```
switch# configure terminal
switch(config)# interface ethernet 0/1
switch(config-if)# no switchport
switch(config-if)# ip address 10.0.0.1 255.255.255.0
switch(config-if)# hsrp 4
switch(config-if-hsrp)# priority 110
switch(config-if-hsrp)# preempt
switch(config-if-hsrp)# authentication text sanjose
switch(config-if-hsrp)# ip 10.0.0.3
switch(config-if-hsrp)# end
```

Related Commands

Command	Description
feature hsrp	Enables the HSRP configuration.
show hsrp	Displays HSRP information.

priority (HSRP)

To set the priority level within a Hot Standby Router Protocol (HSRP) group, use the **priority** command. To remove the priority level, use the **no** form of this command.

priority *level* [**forwarding-threshold lower** *lower-value* **upper** *upper-value*]

no priority *level* [**forwarding-threshold lower** *lower-value* **upper** *upper-value*]

Syntax Description

level	Interface priority for a virtual router. The range of values is from 1 to 255. If this router is the owner of the IP addresses, then the value is automatically set to 255. The default is 100.
forwarding-threshold	(Optional) Sets the threshold used by a virtual port channel (vPC) to determine when to fail over to the vPC trunk.
lower *lower-value*	(Optional) Sets the low threshold value. The range is from 1 to 255. The default is 1.
upper *upper-value*	(Optional) Sets the upper threshold value. The range is from 1 to 255. The default is 255.

Command Default

level: 100
lower-value: 1
upper-value: 255

Command Modes

HSRP configuration or HSRP template mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

Use the **priority** command to control which virtual router becomes the active router. HSRP compares the priorities of all virtual routers in the HSRP group and selects the router with the numerically highest priority. If two virtual routers have equal priority, HSRP selects the router with the highest IP address.

Examples

This example shows how to configure a virtual router with a priority of 254:

```
switch# configure terminal
switch(config)# interface ethernet 0/1
switch(config-if)# no switchport
switch(config-if)# ip address 10.0.0.1 255.255.255.0
switch(config-if)# hsrp 4
switch(config-if-hsrp)# priority 254
```

Related Commands

Command	Description
feature hsrp	Enables the HSRP configuration.
show hsrp	Displays HSRP information.