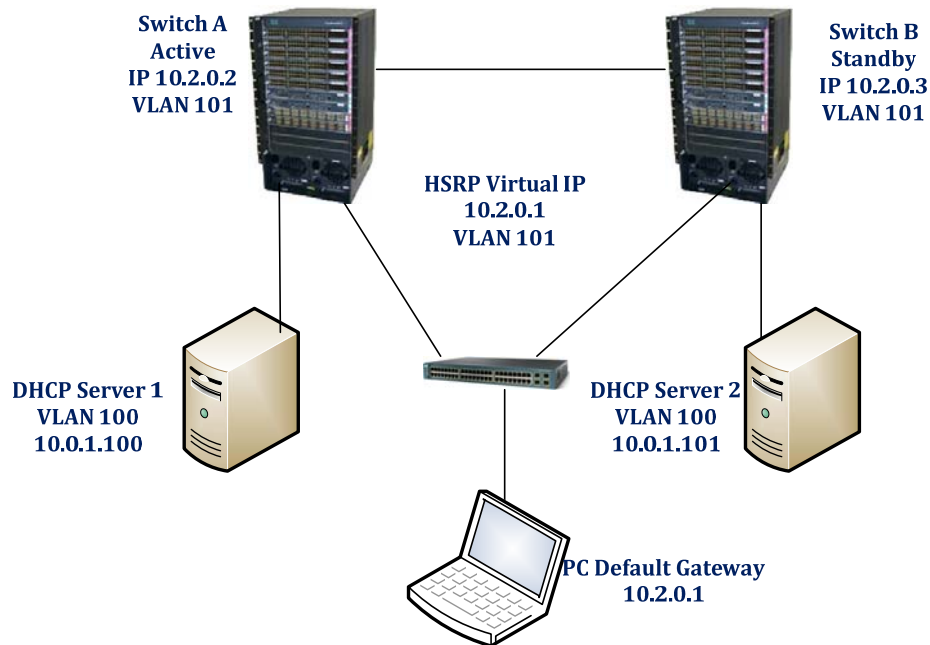


Configuring HSRP in Cisco 6500 Switches



This document provides a sample configuration for HSRP in Cisco 6500 Series switches for high availability and for VLAN redundancy.

In the above example we have two Cisco 6513 Switches with SUP 720 with IOS 12.2.17d-SXB11. Switch A is active state of HSRP and Switch B is in standby state. A VLAN created VLAN 101. The group IP address is 10.2.0.1, 10.2.0.2 is assigned to Switch A & 10.2.0.3 Switch B. There are two DHCP servers which are part of Server VLANs with IP address 10.0.1.100 & 10.0.1.101.

For Switch 1

- 1) Create VLAN 100 & assign the IP address
- 2) Configure the standby IP address.
- 3) Configure standby preempt. (With preempt, Switch 1 will be active switch as long as it's available.
- 4) Configure standby timer for HSRP update
- 5) Configure IP helper address to get an IP from the DHCP server for the clients.

For Switch 2

- 1) Create VLAN 100 & assign the IP address
- 2) Configure the standby IP address.
- 3) Configure standby priority less than 100. (In this case 50)
- 4) Configure standby timer for HSRP update
- 5) Configure IP helper address to get an IP from the DHCP server for the clients.

Now let's look at the configuration

```
Switch01#sho run interface vlan 101
Building configuration...
```

```
Current configuration : 255 bytes
!
interface Vlan101
 ip address 10.2.0.2 255.255.254.0
 ip helper-address 10.0.1.100
 ip helper-address 10.0.1.101
 standby 2 ip 10.2.0.1
 standby 2 timers 5 15
 standby 2 preempt
end
```

```
Switch01#
```

```
Switch02#sho run interface vlan 101
Building configuration...
```

```
Current configuration : 278 bytes
!
interface Vlan101
 ip address 10.2.0.3 255.255.254.0
 ip helper-address 10.0.1.100
 ip helper-address 10.0.1.101
 standby 2 ip 10.2.0.1
 standby 2 timers 5 15
 standby 2 priority 50
 standby 2 preempt
end
```

```
Switch02#
```

You can use the *show standby* command when in Privileged Mode to check the status of HSRP. This command tells you which Switch is active and which is standby, as well as a number of other statistics.

```
Switch01#sho standby vlan 101
Vlan101 - Group 2
 Local state is Active, priority 100, may preempt
 Hellotime 5 sec, holdtime 15 sec
 Next hello sent in 0.908
 Virtual IP address is 10.2.0.1 configured
 Active router is local
 Standby router is 10.2.0.3 expires in 12.676
 Virtual mac address is 0000.0c07.ac02
 2 state changes, last state change 22w0d
 IP redundancy name is "hsrp-Vl101-2" (default)
```

Switch01#

```
Swieth2#sho standby vlan 101
Vlan101 - Group 2
Local state is Standby, priority 50, may preempt
Hellotime 5 sec, holdtime 15 sec
Next hello sent in 4.185
Virtual IP address is 10.2.0.1 configured
Active router is 10.2.0.2, priority 100 expires in 12.296
Standby router is local
1 state changes, last state change 12w2d
IP redundancy name is "hsrp-VI101-2" (default)
Swieth2#
```

Switch01#show standby brief

```
      P indicates configured to preempt.
      |
Interface  Grp Prio P State  Active addr  Standby addr  Group addr
VI100      1  100 P Active local        10.0.0.55     10.0.0.10
VI101      2  100 P Active local        10.2.0.3      10.2.0.1
```

Switch01#

Switch02#sho standby brief

```
      P indicates configured to preempt.
      |
Interface  Grp Prio P State  Active addr  Standby addr  Group addr
VI100      1  50  P Standby 10.0.0.54    local         10.4.0.1
VI101      2  50  P Standby 10.2.0.2     local         10.2.0.1
```

Switch02#

On the PC, the default IP address should point to 10.2.0.1 —not either of the Switches. This way, if one of the switches goes down, the other will take over.

HSRP is a valuable tool for ensuring high availability and router redundancy. Of course, there are also several HSRP options that I didn't address in this article. For more information, check out the [Cisco HSRP FAQ](#).