

Examining HSRP

In this exercise, you will examine **HSRP** as it functions in real time and you will get a feel for how quickly the network is restored if there is a failure in one of the default gateways.

Alert: During this Exercise, **NYCORE1#** and **NYCORE2#** may be displayed in the lab as **Switch#** during certain tasks. The steps do not include this change for the sake of clarity.

Learning Outcomes

This is a summary exercise. There are no learning outcomes in this exercise.

Your Devices

You will be using the following devices in this lab. Please make sure these are powered on before proceeding.

- **NYCORE1** (Cisco 3750v2-24PS Switch)
- **NYCORE2** (Cisco 3750v2-24PS Switch)
- **NYACCESS1** (Cisco 2960-24 Switch)



Task 1 - HSRP in Action

Step 1

You will prepare a ping command on the **NYACCESS1** switch that will ping the virtual IP address of the **HSRP** group. Implement the command but do not press **Enter** yet:

```
NYACCESS1#ping 192.168.16.20 repeat 10000
```

Step 2

Prepare another command, this time on the **NYCORE1** device, again without pressing **Enter**. This command will shut down the **VLAN 1** interface:

```
NYCORE1#configure terminal
Enter configuration commands, one per line. End with
CNTL/Z.
NYCORE1(config)#interface VLAN 1
NYCORE1(config-if)#shutdown
```

Step 3

Now, do the following:

Before you initiate the following list of tasks, read through them all first as you will be required to implement them in quick succession.

- Go to the **NYACCESS1** console and press **Enter** to initiate the pings
- Go to the **NYCORE1** console and press **Enter** to shut down the interface
- Immediately bring the interface back up by implementing the following command:

```
NYCORE1(config-if)#no shutdown
NYCORE1(config-if)#
```

Step 4

Review the pings on **NYACCESS1**. As you scroll through you should see some missed pings when the HSRP change occurred:

```
NYACCESS1#ping 192.168.16.20 repeat 10000
Type escape sequence to abort.
Sending 10000, 100-byte ICMP Echos to 192.168.16.20,
timeout is 2 seconds:
!
!<-- Output Omitted -->
!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!
!
!<-- Output Omitted -->
!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!
!
!<-- Output Omitted -->
!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!
Success rate is 99 percent (9997/10000), round-trip
min/avg/max = 1/3/33 ms
NYACCESS1#
```

In the above output, you can see that a total of three pings were lost, one when the interface went down and two when the interface went back up and the **priority** and **preempt** functionality kicked in.

Keep all devices that you have powered on in their current state and proceed to the next exercise.