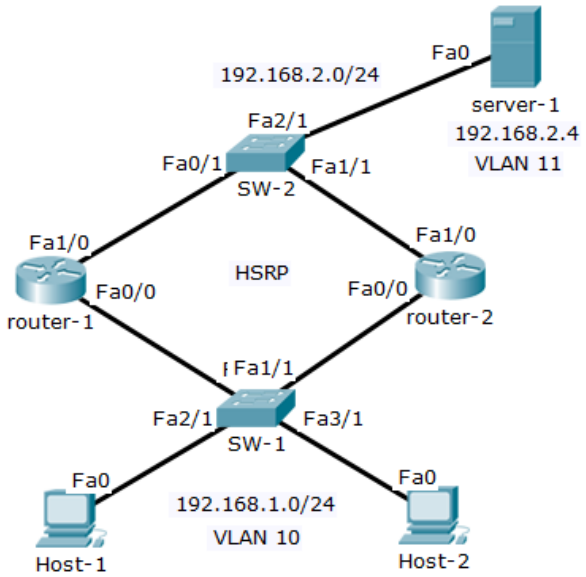
Hot Standby Router Protocol (HSRP)

Lab Summary

Configure HSRP on router-1 as primary gateway and router-2 as failover to enable default gateway redundancy for VLAN 10 and VLAN 11.

Figure 1 Lab Topology



Lab Configuration

Start Packet Tracer File: **HSRP**

Router-1

Click on *router-1* icon and select *CLI* folder. Hit <enter> for user mode prompt (>).

Step 1: Enter global configuration mode

router-1> **enable**
Password: **cisconet**
router-1# **configure terminal**

Step 2: Enable HSRP on router-1 interface FastEthernet0/0 and assign as primary gateway for VLAN 10 (subnet 192.168.1.0/24). Configure the virtual IP address as 192.168.1.1/24 for VLAN 10.

router-1(config)# **interface fastethernet0/0**
router-1(config-if)# **ip address 192.168.1.2 255.255.255.0**

router-1(config-if)# **standby version 2**
router-1(config-if)# **standby 1 ip 192.168.1.1**
router-1(config-if)# **standby 1 priority 110**
router-1(config-if)# **standby 1 preempt**
router-1(config-if)# **no shutdown**
router-1(config-if)# **exit**

Step 3: Enable HSRP on router-1 interface FastEthernet1/0 and assign it as primary gateway for server-1 assigned to VLAN 11 (192.168.2.0/24). Configure the virtual IP address as 192.168.2.1/24 for VLAN 11.

router-1(config)# **interface fastethernet1/0**
router-1(config-if)# **ip address 192.168.2.2 255.255.255.0**
router-1(config-if)# **standby version 2**
router-1(config-if)# **standby 1 ip 192.168.2.1**
router-1(config-if)# **standby 1 priority 110**
router-1(config-if)# **standby 1 preempt**
router-1(config-if)# **no shutdown**
router-1(config-if)# **end**
router-1# **copy running-config startup-config**

Router-2

Click on *router-2* icon and select *CLI* folder. Hit <enter> for user mode prompt (>).

Step 4: Enter global configuration mode

router-1> **enable**
Password: **cisconet**
router-1# **configure terminal**

Step 5: Enable HSRP on router-2 interface FastEthernet0/0 and assign it as failover gateway for VLAN 10 (subnet 192.168.1.0/24). In addition, configure the virtual IP address as 192.168.1.1/24 for VLAN 10.

router-2(config)# **interface fastethernet0/0**
router-2(config-if)# **ip address 192.168.1.3 255.255.255.0**
router-2(config-if)# **standby version 2**
router-2(config-if)# **standby 1 ip 192.168.1.1**
router-2(config-if)# **standby 1 preempt**
router-2(config-if)# **no shutdown**
router-2(config-if)# **exit**

Step 6: Enable HSRP on router-2 interface FastEthernet1/0 and assign it as failover gateway for server-1 assigned to VLAN 11 (subnet 192.168.2.0/24). In addition, configure the virtual IP address as 192.168.2.1/24 for VLAN 11.

router-2(config)# **interface fastethernet1/0**
router-2(config-if)# **ip address 192.168.2.3 255.255.255.0**
router-2(config-if)# **standby version 2**
router-2(config-if)# **standby 1 ip 192.168.2.1**
router-2(config-if)# **standby 1 preempt**
router-2(config-if)# **no shutdown**
router-2(config-if)# **end**
router-2# **copy running-config startup-config**

Step 7: Verify Lab

Verify the configuration is correct on each router and confirm router-1 is the active (primary) HSRP router. In addition confirm that router-2 is standby router.

router-1# **show running-config**

router-2# **show running-config**

router-1# **show standby**

router-2# **show standby**

host-1: c:\> **tracert 192.168.2.4**

Shut interface Fa0/0 and Fa1/0 on router-1 with the following commands.

router-1(config)# **interface fastethernet0/0**

router-1(config-if)# **shutdown**

router-1(config-if)# **interface fastethernet1/0**

router-1(config-if)# **shutdown**

Click Fast Forward button three times.

host-1: c:\> **tracert 192.168.2.4**