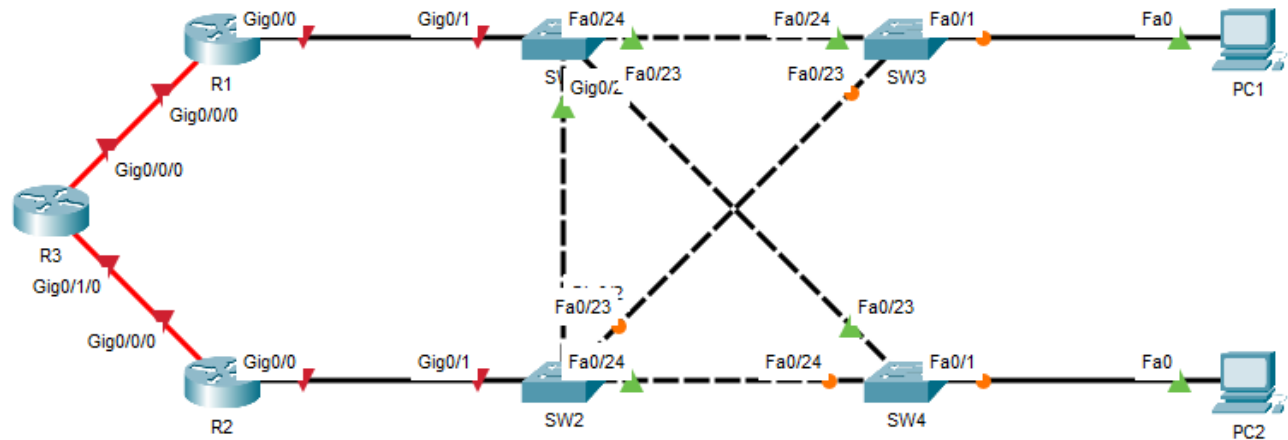


1. Base Network Topology



2. Mappings

Device	Interface	To	IP Address	Subnet Mask
Router 1 (R1)	Gig0/0/0	R3 Gig0/0/0	203.0.113.2	255.255.255.252 (/30)
	Gig0/0	SW1 Gig0/1	192.168.10.252	255.255.255.0 (/24)
Router 2 (R2)	Gig 0/0/0	R3 Gig0/1/0	203.0.113.6	255.255.255.252 (/30)
	Gig0/0	SW2 Gig0/1	192.168.10.253	255.255.255.0 (/24)
Router 3 (R3)	Gig0/0/0	R1 Gig0/0/0	203.0.113.1	255.255.255.252 (/30)
	Gig0/1/0	R2 Gig0/1/0	203.0.113.5	255.255.255.252 (/30)
PC1	Fa0	SW3 Fa0/1	192.168.10.1	255.255.255.0 (/24)
PC2	Fa0	SW4 Fa0/1	192.168.10.2	255.255.255.0 (/24)

3. Configure HSRPv2 on R1/R2. Raise R1's priority above default and R2 below default. Enable preemption.

- R1
 - ▶ R1(config)#int g0/0
 - ▶ R1(config-if)#standby version 2

- ▶ R1(config-if)#standby 1 priority 110
 - ▶ R1(config-if)#standby 1 preempt
 - ▶ R1(config-if)#standby 1 ip 192.168.10.254
 - R2
 - ▶ R2(config)#int g0/0
 - ▶ R2(config-if)#standby version 2
 - ▶ R2(config-if)#standby 1 priority 90
 - ▶ R2(config-if)#standby 1 preempt
 - ▶ R2(config-if)#standby 1 ip 192.168.10.254
2. Configure the virtual IP as the default gateway of PC1/PC2. What MAC address is mapped to the virtual IP?
- The IP address 192.168.10.254 is mapped to 0000.0c9f.f001. This is within the range of HSRPv2 virtual MAC addresses.
3. Turn off R1 and ping the virtual IP again. What is the ARP entry?
- Despite configuring HSRPv2, the MAC addresses used belongs to an HSRPv1 range – 0000.0C07.AC01. I believe this is due to an issue within Packet Tracer as the config should be fine – if not I will edit this later.
4. Turn back on R1. Is it the active router again?
- Yes, it is the active router again.