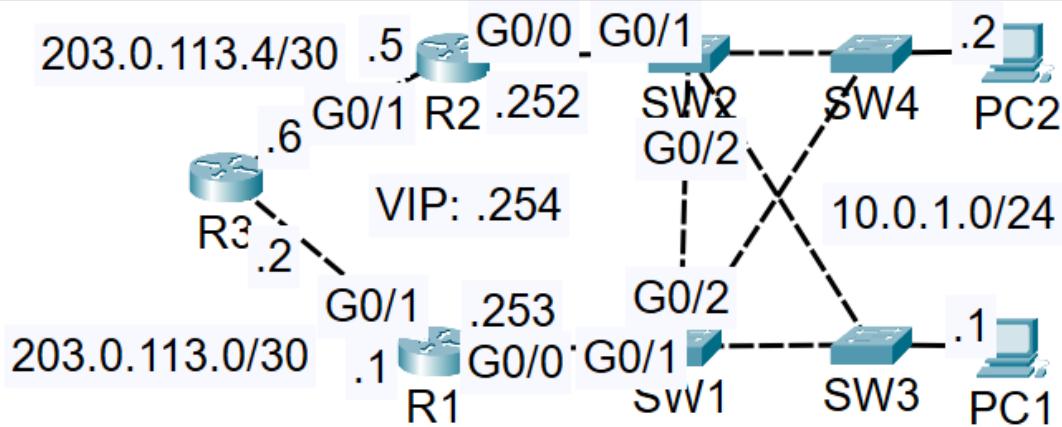


Network Topology:



R1 configuration:

```
R1>en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int g0/0
R1(config-if)#standby?
standby
R1(config-if)#standby ?
<0-4095> group number
ip      Enable HSRP and set the virtual IP address
ipv6    Enable HSRP IPv6
preempt Overthrow lower priority Active routers
priority Priority level
timers   Hello and hold timers
track    Priority Tracking
version  HSRP version
R1(config-if)#standby version ?
<1-2> Version number
R1(config-if)#standby version 2
R1(config-if)#standby 1
% Incomplete command.
R1(config-if)#standby 1 priority ?
<0-255> Priority value
R1(config-if)#standby 1 priority 200
R1(config-if)#standby 1 ip ?
A.B.C.D Virtual IP address
<cr>
R1(config-if)#standby 1 ip 10.0.1.254
R1(config-if)#standby 1 preempt
R1(config-if)#
%HSRP-6-STATECHANGE: GigabitEthernet0/0 Grp 1 state Speak -> Standby
%HSRP-6-STATECHANGE: GigabitEthernet0/0 Grp 1 state Standby -> Active
```

R2 configuration: (priority was later set to 50*)

```
R2>en
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#int g0/0
R2(config-if)#standby version 2
R2(config-if)#standby 1 priority 100
R2(config-if)#standby 1 ip 10.0.1.254
R2(config-if)#standby 1 preempt
R2(config-if)#
%HSRP-6-STATECHANGE: GigabitEthernet0/0 Grp 1 state Speak -> Standby
```

R1 CLI, before turning off:

```
| Group name is nsip-gig0/0-1 (current)
R1(config-if)#do sh standby br
                  P indicates configured to preempt.
|
Interface   Grp  Pri P State     Active          Standby          Virtual IP
Gig0/0      1    200 P Active    local           10.0.1.252       10.0.1.254
R1(config-if)#

```

R2 CLI when R1 is on:

```
| R2(config-if)#do sh standby br
                  P indicates configured to preempt.
|
Interface   Grp  Pri P State     Active          Standby          Virtual IP
Gig0/0      1    50  P Standby  10.0.1.253       local           10.0.1.254
R2(config-if)#

```

PC1:

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time<1ms TTL=254

Ping statistics for 8.8.8.8:
  Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>tracert 8.8.8.8

Tracing route to 8.8.8.8 over a maximum of 30 hops:

  1  0 ms        0 ms        0 ms      10.0.1.253
  2  6 ms        0 ms        0 ms      8.8.8.8

Trace complete.
```

PC2:

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time<1ms TTL=254
Reply from 8.8.8.8: bytes=32 time<1ms TTL=254

Ping statistics for 8.8.8.8:
  Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>tracert 8.8.8.8

Tracing route to 8.8.8.8 over a maximum of 30 hops:

  1  0 ms        0 ms        0 ms      10.0.1.253
  2  0 ms        1 ms        1 ms      8.8.8.8

Trace complete.
```

PC1 CLI, when R1 is turned off:

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Reply from 8.8.8.8: bytes=32 time<1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=10ms TTL=254

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 10ms, Average = 3ms

C:\>tracert 8.8.8.8

Tracing route to 8.8.8.8 over a maximum of 30 hops:

  1  0 ms        0 ms        0 ms      10.0.1.252
  2  1 ms        1 ms        0 ms      8.8.8.8

Trace complete.
```

PC2 CLI:

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time<1ms TTL=254
Reply from 8.8.8.8: bytes=32 time<1ms TTL=254

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>tracert 8.8.8.8

Tracing route to 8.8.8.8 over a maximum of 30 hops:

  1  0 ms        11 ms       0 ms      10.0.1.252
  2  1 ms        1 ms        0 ms      8.8.8.8

Trace complete.
```

R2 CLI:

```
R2(config-if)#do sh standby br
                  P indicates configured to preempt.
                  |
Interface   Grp  Pri  P State     Active           Standby          Virtual IP
Gig0/0      1    50   P Active    local            unknown         10.0.1.254
R2(config-if)#

```

PC1 CLI after turning on R1 again:

```
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Reply from 8.8.8.8: bytes=32 time<1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=10ms TTL=254

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 10ms, Average = 3ms

C:\>tracert 8.8.8.8

Tracing route to 8.8.8.8 over a maximum of 30 hops:

 1  0 ms        0 ms        0 ms      10.0.1.252
 2  1 ms        1 ms        0 ms      8.8.8.8

Trace complete.

C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254
Reply from 8.8.8.8: bytes=32 time=1ms TTL=254

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 1ms, Average = 1ms

C:\>tracert 8.8.8.8

Tracing route to 8.8.8.8 over a maximum of 30 hops:

 1  0 ms        1 ms        2 ms      10.0.1.253
 2  0 ms        1 ms        0 ms      8.8.8.8

Trace complete.
```