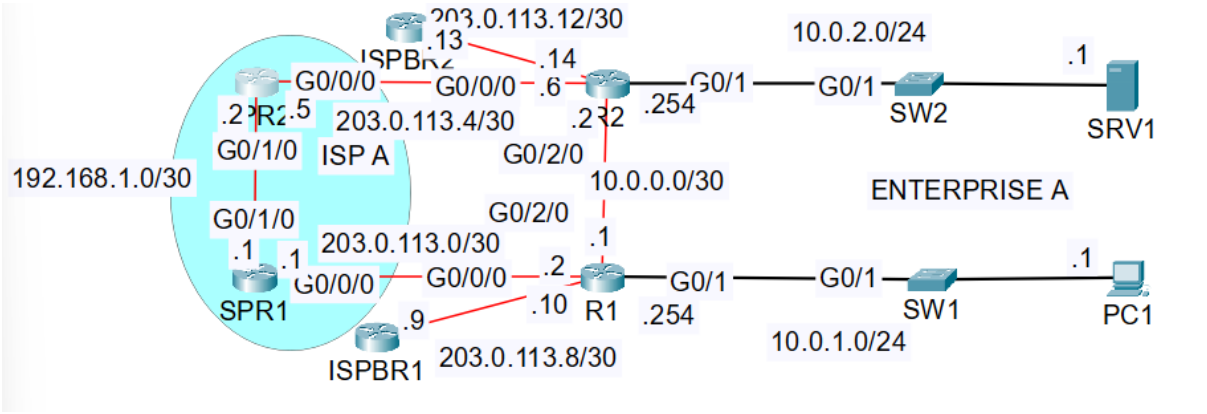
Network Topology:



R1 CLI:

R1

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
Gateway of last resort is 203.0.113.9 to network 0.0.0.0

     10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.0.1.0/24 is directly connected, GigabitEthernet0/1
L       10.0.1.254/32 is directly connected, GigabitEthernet0/1
     203.0.113.0/24 is variably subnetted, 4 subnets, 2 masks
C       203.0.113.0/30 is directly connected, GigabitEthernet0/0/0
L       203.0.113.2/32 is directly connected, GigabitEthernet0/0/0
C       203.0.113.8/30 is directly connected, GigabitEthernet0/1/0
L       203.0.113.10/32 is directly connected, GigabitEthernet0/1/0
S*   0.0.0.0/0 [1/0] via 203.0.113.9

R1(config)#ip route 10.0.2.0 255.255.255.0 203.0.113.1 100
R1(config)#do sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 203.0.113.9 to network 0.0.0.0

     10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
C       10.0.1.0/24 is directly connected, GigabitEthernet0/1
L       10.0.1.254/32 is directly connected, GigabitEthernet0/1
S       10.0.2.0/24 [100/0] via 203.0.113.1
     203.0.113.0/24 is variably subnetted, 4 subnets, 2 masks
C       203.0.113.0/30 is directly connected, GigabitEthernet0/0/0
L       203.0.113.2/32 is directly connected, GigabitEthernet0/0/0
C       203.0.113.8/30 is directly connected, GigabitEthernet0/1/0
L       203.0.113.10/32 is directly connected, GigabitEthernet0/1/0
S*   0.0.0.0/0 [1/0] via 203.0.113.9

R1(config)#int g0/2/0
```

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Top

R1

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
Gateway of last resort is 203.0.113.9 to network 0.0.0.0

     10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
C       10.0.1.0/24 is directly connected, GigabitEthernet0/1
L       10.0.1.254/32 is directly connected, GigabitEthernet0/1
S       10.0.2.0/24 [100/0] via 203.0.113.1
     203.0.113.0/24 is variably subnetted, 4 subnets, 2 masks
C       203.0.113.0/30 is directly connected, GigabitEthernet0/0/0
L       203.0.113.2/32 is directly connected, GigabitEthernet0/0/0
C       203.0.113.8/30 is directly connected, GigabitEthernet0/1/0
L       203.0.113.10/32 is directly connected, GigabitEthernet0/1/0
S*   0.0.0.0/0 [1/0] via 203.0.113.9

R1(config)#int g0/2/0
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2/0, changed
state to up

R1(config-if)#do sh ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     unassigned      YES manual down                  down
GigabitEthernet0/1     10.0.1.254      YES NVRAM  up                    up
GigabitEthernet0/2     unassigned      YES NVRAM  administratively down down
GigabitEthernet0/0/0   203.0.113.2     YES NVRAM  up                    up
GigabitEthernet0/1/0   203.0.113.10    YES NVRAM  up                    up
GigabitEthernet0/2/0   10.0.0.1        YES manual up                    up
Vlan1                  unassigned      YES unset  administratively down down
R1(config-if)#
22:25:21: %OSPF-5-ADJCHG: Process 1, Nbr 203.0.113.14 on GigabitEthernet0/2/0
from LOADING to FULL, Loading Done
```

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R2 CLI:

R2

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
R2>en
R2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#ip route 10.0.1.0 255.255.255.0 203.0.113.5 100
R2(config)#do sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 203.0.113.13 to network 0.0.0.0

     10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
S       10.0.1.0/24 [100/0] via 203.0.113.5
C       10.0.2.0/24 is directly connected, GigabitEthernet0/1
L       10.0.2.254/32 is directly connected, GigabitEthernet0/1
     203.0.113.0/24 is variably subnetted, 4 subnets, 2 masks
C       203.0.113.4/30 is directly connected, GigabitEthernet0/0/0
L       203.0.113.6/32 is directly connected, GigabitEthernet0/0/0
C       203.0.113.12/30 is directly connected, GigabitEthernet0/1/0
L       203.0.113.14/32 is directly connected, GigabitEthernet0/1/0
S*   0.0.0.0/0 [1/0] via 203.0.113.13

R2(config)#int g0/2/0
R2(config-if)#no shutdown

%LINK-5-CHANGED: Interface GigabitEthernet0/2/0, changed state to down
```

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R2

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
C        203.0.113.12/30 is directly connected, GigabitEthernet0/1/0
L        203.0.113.14/32 is directly connected, GigabitEthernet0/1/0
S*    0.0.0.0/0 [1/0] via 203.0.113.13

R2(config)#int g0/2/0
R2(config-if)#no shutdown

%LINK-5-CHANGED: Interface GigabitEthernet0/2/0, changed state to down
R2(config-if)#do sh ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     unassigned      YES manual down                  down
GigabitEthernet0/1     10.0.2.254      YES NVRAM  up                    up
GigabitEthernet0/2     unassigned      YES NVRAM  administratively down down
GigabitEthernet0/0/0   203.0.113.6     YES NVRAM  up                    up
GigabitEthernet0/1/0   203.0.113.14    YES NVRAM  up                    up
GigabitEthernet0/2/0   10.0.0.2        YES manual down                  down
Vlan1                  unassigned      YES unset  administratively down down
R2(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2/0, changed
state to up

R2(config-if)#do sh ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     unassigned      YES manual down                  down
GigabitEthernet0/1     10.0.2.254      YES NVRAM  up                    up
GigabitEthernet0/2     unassigned      YES NVRAM  administratively down down
GigabitEthernet0/0/0   203.0.113.6     YES NVRAM  up                    up
GigabitEthernet0/1/0   203.0.113.14    YES NVRAM  up                    up
GigabitEthernet0/2/0   10.0.0.2        YES manual up                    up
Vlan1                  unassigned      YES unset  administratively down down
R2(config-if)#
22:25:21: %OSPF-5-ADJCHG: Process 1, Nbr 203.0.113.10 on GigabitEthernet0/2/0
from LOADING to FULL, Loading Done
```

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SPR1 CLI:

SPR1

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/30 is directly connected, GigabitEthernet0/1/0
L       192.168.1.1/32 is directly connected, GigabitEthernet0/1/0
     203.0.113.0/24 is variably subnetted, 2 subnets, 2 masks
C       203.0.113.0/30 is directly connected, GigabitEthernet0/0/0
L       203.0.113.1/32 is directly connected, GigabitEthernet0/0/0
S*   0.0.0.0/0 [1/0] via 192.168.1.2

SPR1(config)#ip route 10.0.2.0 255.255.255.0 192.168.1.2 100
SPR1(config)#do sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 192.168.1.2 to network 0.0.0.0

     10.0.0.0/24 is subnetted, 2 subnets
S       10.0.1.0/24 [1/0] via 203.0.113.2
S       10.0.2.0/24 [100/0] via 192.168.1.2
     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/30 is directly connected, GigabitEthernet0/1/0
L       192.168.1.1/32 is directly connected, GigabitEthernet0/1/0
     203.0.113.0/24 is variably subnetted, 2 subnets, 2 masks
C       203.0.113.0/30 is directly connected, GigabitEthernet0/0/0
L       203.0.113.1/32 is directly connected, GigabitEthernet0/0/0
S*   0.0.0.0/0 [1/0] via 192.168.1.2

SPR1(config)#
```

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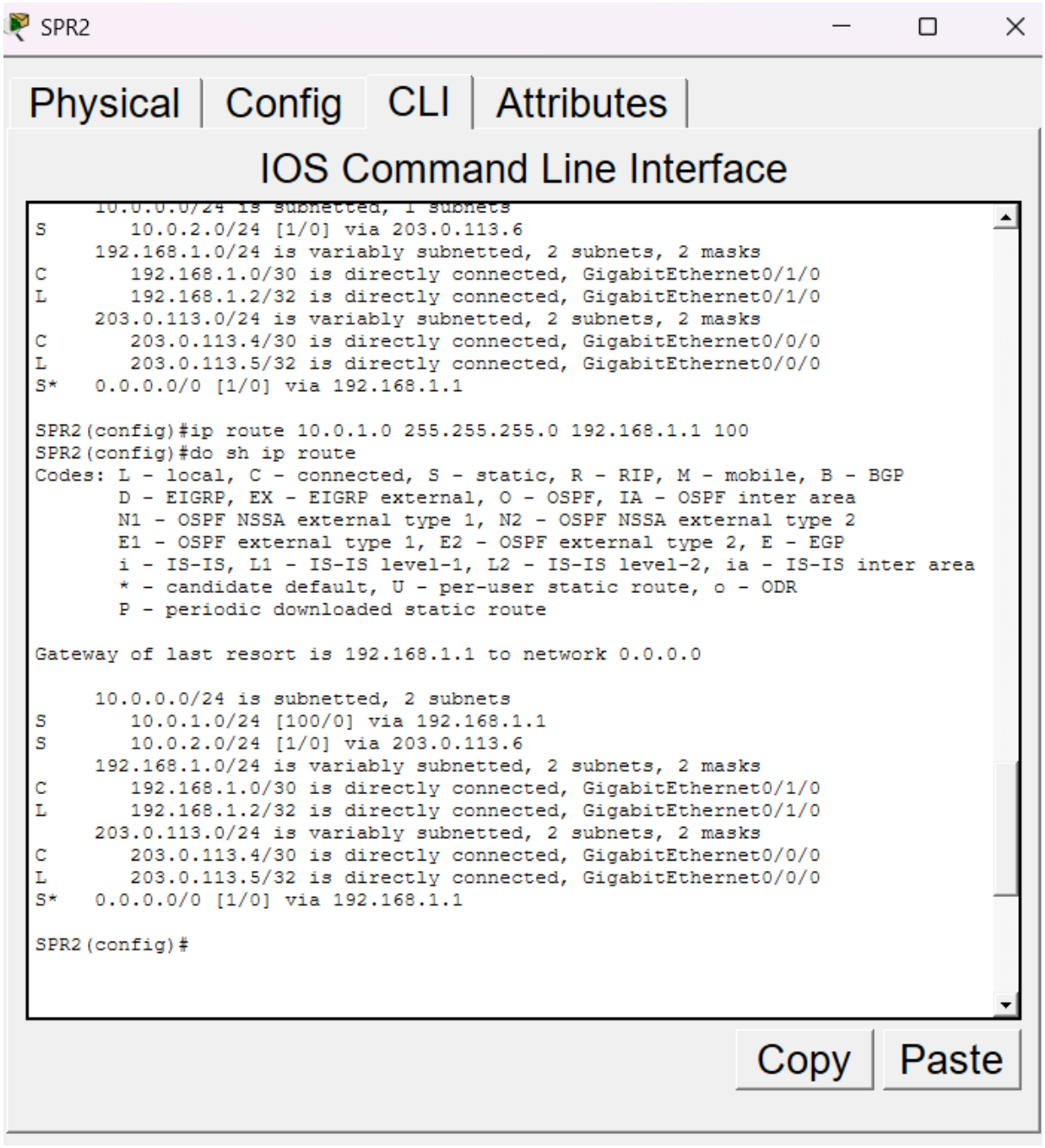
Top

SPR2 CLI:


SPR2
Physical
Config
CLI
Attributes
IOS Command Line Interface
10.0.0.0/24 is subnetted, 1 subnets
S 10.0.2.0/24 [1/0] via 203.0.113.6
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/30 is directly connected, GigabitEthernet0/1/0
L 192.168.1.2/32 is directly connected, GigabitEthernet0/1/0
203.0.113.0/24 is variably subnetted, 2 subnets, 2 masks
C 203.0.113.4/30 is directly connected, GigabitEthernet0/0/0
L 203.0.113.5/32 is directly connected, GigabitEthernet0/0/0
S* 0.0.0.0/0 [1/0] via 192.168.1.1
SPR2(config)#ip route 10.0.1.0 255.255.255.0 192.168.1.1 100
SPR2(config)#do sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is 192.168.1.1 to network 0.0.0.0
10.0.0.0/24 is subnetted, 2 subnets
S 10.0.1.0/24 [100/0] via 192.168.1.1
S 10.0.2.0/24 [1/0] via 203.0.113.6
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/30 is directly connected, GigabitEthernet0/1/0
L 192.168.1.2/32 is directly connected, GigabitEthernet0/1/0
203.0.113.0/24 is variably subnetted, 2 subnets, 2 masks
C 203.0.113.4/30 is directly connected, GigabitEthernet0/0/0
L 203.0.113.5/32 is directly connected, GigabitEthernet0/0/0
S* 0.0.0.0/0 [1/0] via 192.168.1.1
SPR2(config)#
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