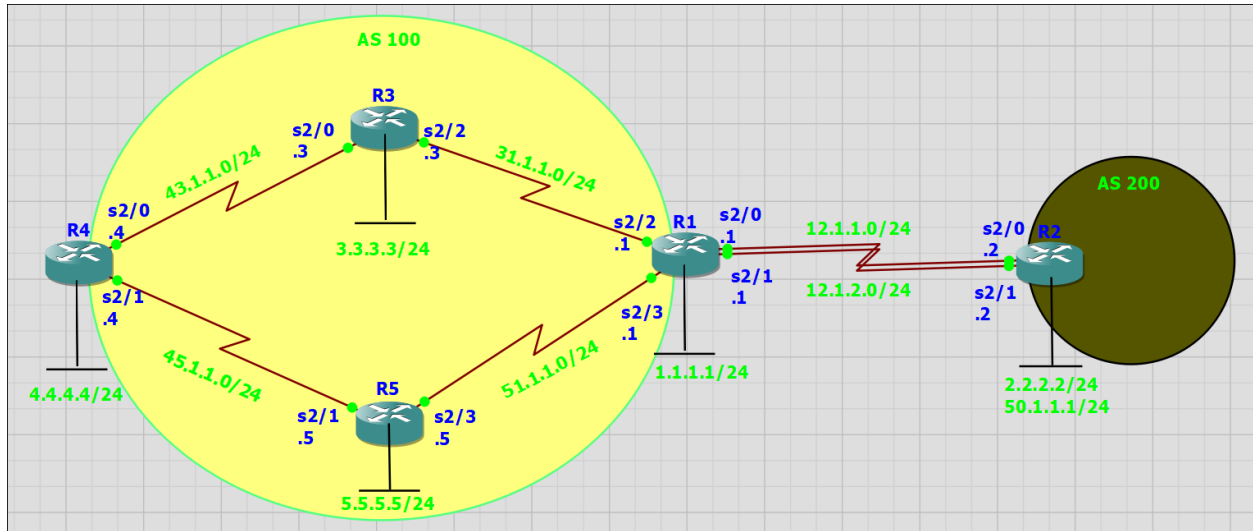


BGP Lab



```
R1(config)#interface serial 2/2
R1(config-if)#no shutdown
R1(config-if)#ip address 31.1.1.1 255.255.255.0
R1(config-if)#ex
```

```
R1(config)#interface serial 2/3
R1(config-if)#no shutdown
R1(config-if)#ip address 51.1.1.1 255.255.255.0
R1(config-if)#ex
```

```
R1(config)#interface loopback 1
R1(config-if)#no shutdown
R1(config-if)#ip address 1.1.1.1 255.255.255.0
R1(config-if)#ex
```

```
R1(config)#router ospf 1
R1(config-router)#network 0.0.0.0 255.255.255.255 area 0
R1(config-router)#passive-interface serial 2/0
R1(config-router)#passive-interface serial 2/1
R1(config-router)#ex
```

```
R1(config)#router bgp 100
R1(config-router)#no auto-summary
R1(config-router)#no synchronization
```

```
R1(config-router)#neighbor 3.3.3.3 remote-as 100
R1(config-router)#neighbor 3.3.3.3 update-source loopback 1
```

```
R1(config-router)#neighbor 4.4.4.4 remote-as 100
R1(config-router)#neighbor 4.4.4.4 update-source loopback 1
```

```
R1(config-router)#neighbor 5.5.5.5 remote-as 100
R1(config-router)#neighbor 5.5.5.5 update-source loopback 1
```

```
R1(config-router)#neighbor 3.3.3.3 next-hop-self
R1(config-router)#neighbor 4.4.4.4 next-hop-self
R1(config-router)#neighbor 5.5.5.5 next-hop-self
```

```
R1#show ip bgp summary
```

```
R1(config)#interface serial 2/0
R1(config-if)#no shutdown
R1(config-if)#ip address 12.1.1.1 255.255.255.0
R1(config-if)#ex
```

```
R1(config)#interface serial 2/1
R1(config-if)#no shutdown
R1(config-if)#ip address 12.1.2.1 255.255.255.0
R1(config-if)#ex
```

```
R1(config)#router bgp 100
R1(config-router)#neighbor 2.2.2.2 remote-as 200
R1(config-router)#neighbor 2.2.2.2 update-source loopback 1
R1(config-router)#neighbor 2.2.2.2 ebgp-multihop 2
R1(config-router)#ex
```

```
R1(config)#ip route 2.2.2.0 255.255.255.0 12.1.1.2
R1(config)#ip route 2.2.2.0 255.255.255.0 12.1.2.2
```

```
R1#write memory
```

```
R2(config)#interface serial 2/0
R2(config-if)#no shutdown
R2(config-if)#ip address 12.1.1.2 255.255.255.0
R2(config-if)#ex
```

```
R2(config)#interface serial 2/1
R2(config-if)#no shutdown
R2(config-if)#ip address 12.1.2.2 255.255.255.0
R2(config-if)#ex
```

```
R2(config)#interface loopback 2
R2(config-if)#no shutdown
R2(config-if)#ip address 2.2.2.2 255.255.255.0
```

```
R2(config)#router bgp 200
R2(config-router)#no auto-summary
R2(config-router)#neighbor 1.1.1.1 remote-as 100
R2(config-router)#neighbor 1.1.1.1 ebgp-multihop 2
R2(config-router)#neighbor 1.1.1.1 update-source loopback 2
R2(config-router)#ex
```

```
R2(config)#ip route 1.1.1.0 255.255.255.0 12.1.1.1
R2(config)#ip route 1.1.1.0 255.255.255.0 12.1.2.1
```

```
R2# write memory
```

```
R2(config)#interface loopback 50
R2(config-if)#no shutdown
R2(config-if)#ip address 50.1.1.1 255.255.255.0
R2(config-if)#ex
```

```
R2(config)#router bgp 200
R2(config-router)#network 50.1.1.0 mask 255.255.255.0
```

```
R2# write memory
```

```
R3(config)#interface serial 2/2
R3(config-if)#no shutdown
R3(config-if)#ip address 31.1.1.3 255.255.255.0
R3(config-if)#ex
```

```
R3(config)#interface serial 2/0
R3(config-if)#no shutdown
R3(config-if)#ip address 43.1.1.3 255.255.255.0
R3(config-if)#ex
```

```
R3(config)#interface loopback 3
R3(config-if)#no shutdown
R3(config-if)#ip address 3.3.3.3 255.255.255.0
R3(config-if)#ex
```

```
R3(config)#router ospf 1
R3(config-router)#network 0.0.0.0 255.255.255.255 area 0
R3(config-router)#ex
```

```
R3(config)#router bgp 100
R3(config-router)#no auto-summary
R3(config-router)#no synchronization
```

```
R3(config-router)#neighbor 1.1.1.1 remote-as 100
R3(config-router)#neighbor 1.1.1.1 update-source loopback 3
```

```
R3(config-router)#neighbor 4.4.4.4 remote-as 100
R3(config-router)#neighbor 4.4.4.4 update-source loopback 3
```

```
R3(config-router)#neighbor 5.5.5.5 remote-as 100
R3(config-router)#neighbor 5.5.5.5 update-source loopback 3
```

```
R3(config-router)#neighbor 1.1.1.1 next-hop-self
R3(config-router)#neighbor 4.4.4.4 next-hop-self
R3(config-router)#neighbor 5.5.5.5 next-hop-self
```

```
R3# write memory
```

```
R4(config)#interface serial 2/0
R4(config-if)#no shutdown
R4(config-if)#ip address 43.1.1.4 255.255.255.0
R4(config-if)#ex
```

```
R4(config)#interface serial 2/1
R4(config-if)#no shutdown
R4(config-if)#ip address 45.1.1.4 255.255.255.0
R4(config-if)#ex
```

```
R4(config)#interface loopback 4
R4(config-if)#no shutdown
R4(config-if)#ip address 4.4.4.4 255.255.255.0
R4(config-if)#ex
```

```
R4(config)#router ospf 1
R4(config-router)#network 0.0.0.0 255.255.255.255 area 0
R4(config-router)#ex
```

```
R4(config)#router bgp 100
R4(config-router)#no auto-summary
R4(config-router)#no synchronization
```

```
R4(config-router)#neighbor 1.1.1.1 remote-as 100
R4(config-router)#neighbor 1.1.1.1 update-source loopback 4
```

```
R4(config-router)#neighbor 3.3.3.3 remote-as 100
R4(config-router)#neighbor 3.3.3.3 update-source loopback 4
```

```
R4(config-router)#neighbor 5.5.5.5 remote-as 100
R4(config-router)#neighbor 5.5.5.5 update-source loopback 4
```

```
R4(config-router)#neighbor 1.1.1.1 next-hop-self
R4(config-router)#neighbor 3.3.3.3 next-hop-self
R4(config-router)#neighbor 5.5.5.5 next-hop-self
```

```
R4#write memory
```

```
R5(config)#interface serial 2/1
R5(config-if)#no shutdown
R5(config-if)#ip address 45.1.1.5 255.255.255.0
R5(config-if)#ex
```

```
R5(config)#interface serial 2/3
R5(config-if)#no shutdown
R5(config-if)#ip address 51.1.1.5 255.255.255.0
R5(config-if)#ex
```

```
R5(config)#interface loopback 5
R5(config-if)#no shutdown
R5(config-if)#ip address 5.5.5.5 255.255.255.0
R5(config-if)#ex
```

```
R5(config)#router ospf 1
R5(config-router)#network 0.0.0.0 255.255.255.255 area 0
R5(config-router)#ex
```

```
R5(config)#router bgp 100
R5(config-router)#no auto-summary
R5(config-router)#no synchronization
```

```
R5(config-router)#neighbor 1.1.1.1 remote-as 100
R5(config-router)#neighbor 1.1.1.1 update-source loopback 5
```

```
R5(config-router)#neighbor 3.3.3.3 remote-as 100
R5(config-router)#neighbor 3.3.3.3 update-source loopback 5
```

```
R5(config-router)#neighbor 4.4.4.4 remote-as 100
R5(config-router)#neighbor 4.4.4.4 update-source loopback 5
```

```
R5(config-router)#neighbor 1.1.1.1 next-hop-self
R5(config-router)#neighbor 3.3.3.3 next-hop-self
R5(config-router)#neighbor 4.4.4.4 next-hop-self
```

```
R5# write memory
```