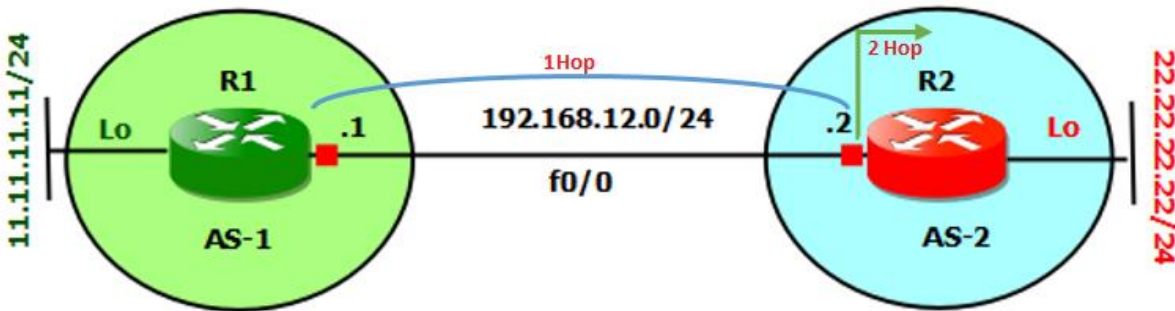


BGP Multihop & Update-Source:

- o EBGP Routers use a TTL value of one for their BGP packets to send peer.
- o BGP neighbor away more than one hop TTL decrement to 0 & discarded.
- o The solution is to use to Multihop command Border Gateway Protocol.
- o Use the **ebgp-multihop** command to increase the TTL value in BGP.
- o Multihop command does not apply to Internal Border Gateway Protocol.
- o If source EBGP from the loopback interfaces, then require the Multihop.
- o If source EBGP from loopback interfaces also require update-source loopback.
- o Using a loopback interface as update source, BGP session will not go down.
- o The update source can be configured per neighbor or per peer-group.
- o Static route is required to ensure that the loopback is reachable from both ends.
- o Multihop enables peers to pass through other routers to form peer relationships.



R1 Basic Configuration

```
R1(config)#interface f0/0
R1(config-if)#ip add 192.168.12.1 255.255.255.0
R1(config-if)#no shut
R1(config-if)#exit
R1(config)#interface loopback 1
R1(config-if)#ip add 11.11.11.11 255.255.255.0
```

R2 Basic Configuration

```
R2(config)#interface f0/0
R2(config-if)#ip add 192.168.12.2 255.255.255.0
R2(config-if)#no shut
R2(config-if)#exit
R2(config)#interface loopback 2
R2(config-if)#ip add 22.22.22.22 255.255.255.0
```

R1 BGP Configuration
R1(config)#router bgp 1 R1(config-router)#neighbor 22.22.22.22 remote-as 2 R1(config-router)#network 11.11.11.0 mask 255.255.255.0
R2 BGP Configuration
R2(config)#router bgp 2 R2(config-router)#neighbor 11.11.11.11 remote-as 1 R2(config-router)#network 22.22.22.0 mask 255.255.255.0
Static Route to reach Loopback of R2
R1(config)# ip route 22.22.22.0 255.255.255.0 192.168.12.2
R1 BGP Update-Source & Multihop
R1(config)#router bgp 1 R1(config-router)# neighbor 22.22.22.22 update-source loopback 1 R1(config-router)# neighbor 22.22.22.22 ebgp-multihop 2
Static Route to reach Loopback of R1
R2(config)# ip route 11.11.11.0 255.255.255.0 192.168.12.1
R2 BGP Update-Source & Multihop
R2(config)#router bgp 1 R2(config-router)# neighbor 11.11.11.11 update-source loopback 1 R2(config-router)# neighbor 11.11.11.11 ebgp-multihop 2
Verification Command
R1#show ip bgp summary
R2#show ip bgp summary
R1#show ip bgp neighbors include External
R2#show ip bgp neighbors include External