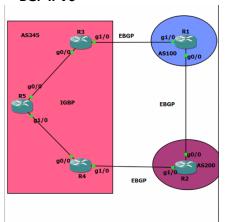
Advance Class-4

**BGP IPV6



** config the basic IPV6 ips for all routers

```
#R1
Rl#sh ipv6 route

IPv6 Routing Table - default - 6 entries

Codes: C - Connected, L - Local, S - Static, U - Per-user Static route

B - BGP, R - RIP, H - NNRP, 11 - ISIS l1

12 - ISIS L2, IA - ISIS interace, IS - ISIS summary, D - EIGRP

EX - EIGRP external, ND - ND Default, NDP - ND Prefix, DCE - Destination

NDP - Redirect, O - OSPF Intra, OI - OSPF Intre, OEI - OSPF ext 1

OE2 - OSPF ext 2, ONI - OSPF NSA ext 1, ONZ - OSPF NSA ext 2, 1 - LISP

via loopbackl, receive

C 2001;172:16:12:1/218 [9/0]

via Gigabitethernet/8, directly connected

L 2001;172:16:12:1/218 [9/0]

via Gigabitethernet/8, receive

C 2001;172:16:13:1/28 [9/0]

via Gigabitethernet/8, receive

L 2001;172:16:13:1/28 [9/0]

via Gigabitethernet/8, receive

L 2001;172:16:13:1/28 [9/0]

via Gigabitethernet/8, receive

L FF00:1/28 [9/0]

Via Gi
```

#R2

```
R2#config t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#
R2(config)#router bgp 200
R2(config-router)#address-family ipv6 unicast
R2(config-router-af)#nei 2001:172:16:12::1 remote-as 100
R2(config-router-af)#nei 2001:172:16:12::1 activate
R2(config-router-af)#
*Sep 20 20:13:48.979: %BGP-5-ADJCHANGE: neighbor 2001:172:16:12::1 Up
R2(config-router-af)#nei 2001:172:16:24::4 remote-as 345
R2(config-router-af)#nei 2001:172:16:24::4 activate
R2(config-router-af)#nei 2001:172:16:24::4 activate
R2(config-router-af)#net 2001:172:16:12::0/24
% BGP: Incorrect network or mask/prefix-length configured
R2(config-router-af)#net 2001:172:16:12::0/64
R2(config-router-af)#net 2001:172:16:24::0/64
R2(config-router-af)#net 2001:10:2::2/128
R2(config-router-af)#net 2001:10:2::2/128
R2(config-router-af)#^Z
R2#
```

#R1

```
R1#
R1#sh bpp ipv6 unicast summary
BGP router identifier 10.1.1.1, local AS number 100
BGP table version is 6, main routing table version 6
5 network entries using 840 bytes of memory
6 path entries using 624 bytes of memory
2/2 BGP path/bestpath attribute entries using 272 bytes of memory
1 BGP AS-PATH entries using 24 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP using 1760 total bytes of memory
BGP activity 5/0 prefixes, 6/0 paths, scan interval 60 secs

Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd
2001:172:16:12::2
4 200 6 6 6 0 0 00:01:38 3
2001:172:16:13::3
4 345 0 0 1 0 0 never Idle
R1#
```

#R3

```
#R3

R3#config t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#
R3(config)#R8(config)#R9 345
R3(config-router)#add ipv6 uni
R3(config-router-af)#nei 2001:172:16:13::1 remote-as 100
R3(config-router-af)# sei 2001:172:16:13::1 activate
R3(config-router-af)#
Sep 20 20:16:32.279: %B6P-5-ADJCHANGE: neighbor 2001:172:16:13::1 Up
R3(config-router-af)#nei 2001:172:16:35:5 remote-as 345
% Create the peer-group first
R3(config-router-af)#nei 2001:172:16:35::5 remote-as 345
R3(config-router-af)#nei 2001:172:16:35::5 activate
R3(config-router-af)#nei 2001:172:16:35::5 next-hop-self
R3(config-router-af)#net 2001:172:16:35::0/64
R3(config-router-af)#net 2001:172:16:35::0/64
R3(config-router-af)#net 2001:10:3::3/128
R3(config-router-af)#net 2001:10:3::3/128
R3(config-router-af)#^2
R3#
```

#R5

```
router bgp 345
add ipv6 uni
nei 2001:172:16:35::3 remote-as 345
nei 2001:172:16:35::3 activate
nei 2001:172:16:35::3 route-reflector-client
nei 2001:172:16:45::4 remote-as 345
nei 2001:172:16:45::4 activate
nei 2001:172:16:45::4 route-reflector-client
net 2001:172:16:35::0/64
net 2001:172:16:45::0/64
net 2001:10:5::5/128
exit
```

#R4

```
R4#clear bgp ipv6 uni
R4#clear bgp ipv6 unicast ?

* Clear all peers

<1-4294967295> Clear peers with the AS number

<1.0-XX.YY> Clear peers with the AS number

A.B.C.D BGP neighbor address to clear

X:X:X:X:X:X BGP neighbor address to clear

dampening Clear route flap dampening information
external Clear all external peers

flap statistics Clear route flap statistics
        flap-statistics

internal Clear BGP internal statistics counters

peer-group Clear all members of peer-group

table-map Update BGP table-map configuration

update-group Clear all members of update-group
     4#clear bgp ipv6 unicast * ?
       in Soft reconfig inbound updates
out Soft reconfig outbound updates
slow Forcefully clear slow-peer status and move it to original update group
soft Soft reconfig inbound and outbound updates
  R4#clear bgp ipv6 unicast * soft
R4#
```