

LAB21: EIGRP – IPv6

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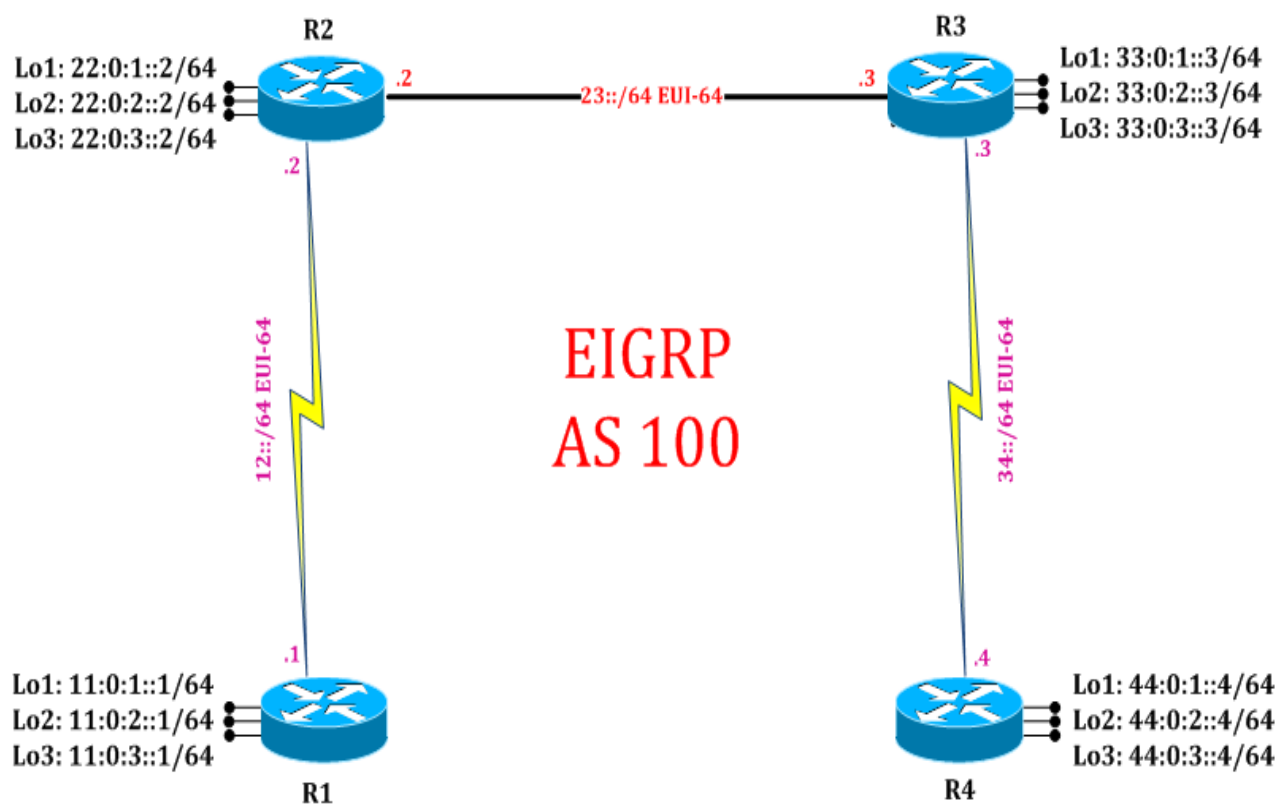
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EIGRP: Redistribution

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LAB 21: Diagram

Note: This Lab was developed on Cisco IOS Version 15.2(4) M1 ADVENTERPRISEK9-M.



LAB 21: IPv6 EIGRP Redistribution

Task 1: Configure IPv6 EIGRP Redistribution

Step 1 In the configuration mode of router configure 4 loopbacks with IPv6 network address in sequence

```
R1:
interface loopback 101
ipv6 address 101:101:101:: 101/64
exit
interface loopback 102
ipv6 address 102:102:102:: 102/64
exit
interface loopback 103
ipv6 address 103:103:103:: 103/64
exit
interface loopback 104
ipv6 address 104:104:104:: 104/64
exit
```

Step 2 Redistribute these connected network in IPv6 EIGRP process

```
R1:
ipv6 router eigrp 100
redistribute connected
exit
```

(It will redistribute connected network on which IPv6 EIGRP is not sending updates)

Task 2: Verification:

Step 1 Verify route in neighbors router routing table by following command:

```
R2#show ipv6 route
```

```
IPv6 Routing Table - default - 22 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
       B - BGP, HA - Home Agent, MR - Mobile Router,
       H - NHRP, I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea
       IS - ISIS summary, D - EIGRP, EX - EIGRP external, NM - NEMO
       ND - ND Default, NDp - ND Prefix, DCE - Destination, NDr - Redirect
       O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2, l - LISP
```

D 11:0:1::/64 [90/2297856]
via FE80::A8BB:CCFF:FE00:100, Serial2/0
D 11:0:2::/64 [90/2297856]
via FE80::A8BB:CCFF:FE00:100, Serial2/0
D 11:0:3::/64 [90/2297856]
via FE80::A8BB:CCFF:FE00:100, Serial2/0
C 12::/64 [0/0]
via Serial2/0, directly connected
L 12::A8BB:CCFF:FE00:200/128 [0/0]
via Serial2/0, receive
C 22:0:1::/64 [0/0]
via Loopback1, directly connected
L 22:0:1::2/128 [0/0]
via Loopback1, receive
C 22:0:2::/64 [0/0]
via Loopback2, directly connected
L 22:0:2::2/128 [0/0]
via Loopback2, receive
C 22:0:3::/64 [0/0]
via Loopback3, directly connected
L 22:0:3::2/128 [0/0]
via Loopback3, receive
C 23::/64 [0/0]
via Ethernet0/0, directly connected
L 23::A8BB:CCFF:FE00:200/128 [0/0]
via Ethernet0/0, receive
D 33:0:1::/64 [90/409600]
via FE80::A8BB:CCFF:FE00:300, Ethernet0/0
D 33:0:2::/64 [90/409600]
via FE80::A8BB:CCFF:FE00:300, Ethernet0/0
D 33:0:3::/64 [90/409600]
via FE80::A8BB:CCFF:FE00:300, Ethernet0/0
D 34::/64 [90/2195456]
via FE80::A8BB:CCFF:FE00:300, Ethernet0/0
D 44:0:1::/64 [90/2323456]
via FE80::A8BB:CCFF:FE00:300, Ethernet0/0
D 44:0:2::/64 [90/2323456]
via FE80::A8BB:CCFF:FE00:300, Ethernet0/0
D 44:0:3::/64 [90/2323456]
via FE80::A8BB:CCFF:FE00:300, Ethernet0/0
DEX 101:101:101::/64 [170/2297856]
via FE80::A8BB:CCFF:FE00:100, Serial2/0
L FF00::/8 [0/0]
via Null0, receive

Step 2 Analyze administrative distance of redistribution route in neighbor router

```
DEX 101:101:101::/64 [170/2297856]
  via FE80::A8BB:CCFF:FE00:100, Serial2/0
```

Step 3 Analyze network type as “Dex” in neighbor router routing table.

```
DEX 101:101:101::/64 [170/2297856]
  via FE80::A8BB:CCFF:FE00:100, Serial2/0
```

(DEX means EIGRP External routes redistributed by the neighbor router & IPv6 EIGRP external routes AD value is 170)