

# LAB9: EIGRP – IPv4

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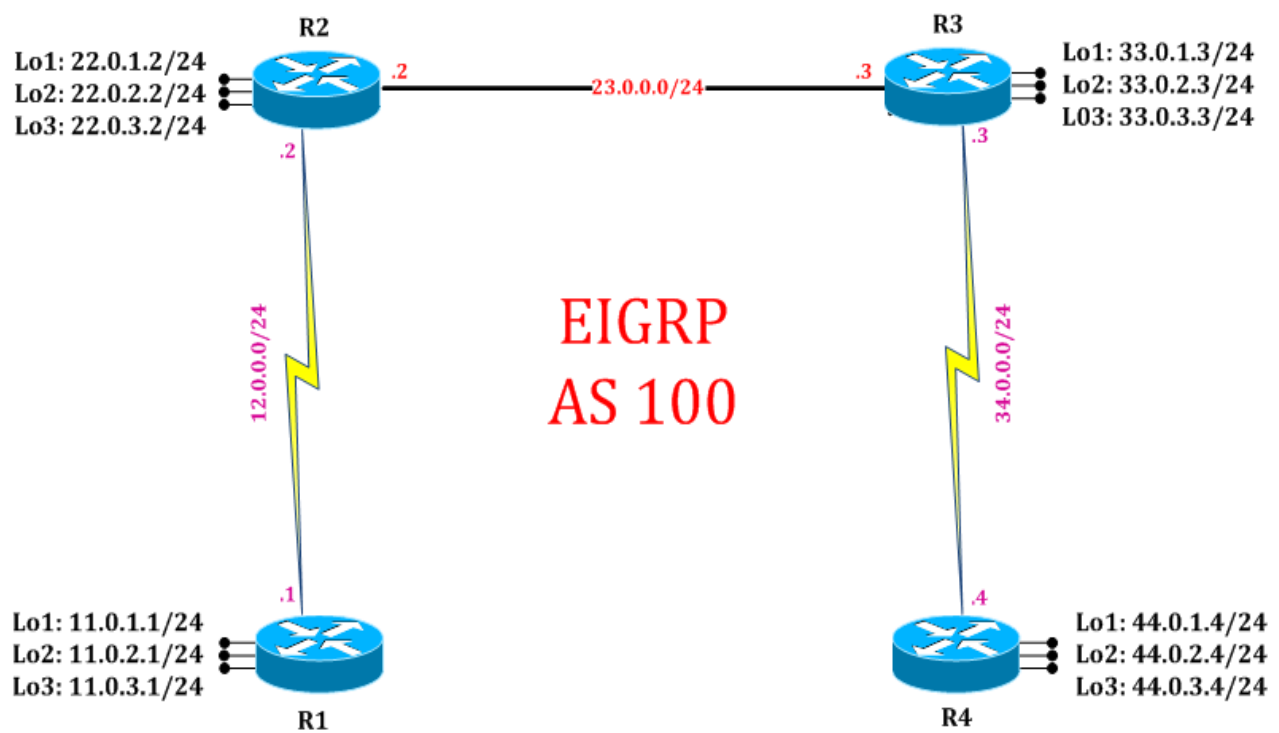
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**EIGRP: Redistribution**

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# LAB 9: Diagram

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



# LAB 9: EIGRP Redistribution

## Task 1: Configure IPv4 EIGRP Redistribution

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

```
R1:
interface loopback 101
ip address 101.101.101.101 255.255.255.0
exit
interface loopback 102
ip address 102.102.102.102 255.255.255.0
exit
interface loopback 103
ip address 103.103.103.103 255.255.255.0
exit
interface loopback 104
ip address 104.104.104.104 255.255.255.0
exit
```

Step 2 Redistribute these connected network in EIGRP process

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

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

## Task 2: Verification:

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

```
R2#show 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  
i - IS-IS, su - IS-IS summary, 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, H - NHRP, l - LISP  
+ - replicated route, % - next hop override  
Gateway of last resort is not set

```

11.0.0.0/24 is subnetted, 3 subnets
D   11.0.1.0 [90/2297856] via 12.0.0.1, 00:13:20, Serial2/0
D   11.0.2.0 [90/2297856] via 12.0.0.1, 00:13:20, Serial2/0
D   11.0.3.0 [90/2297856] via 12.0.0.1, 00:13:20, Serial2/0
12.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C   12.0.0.0/24 is directly connected, Serial2/0
L   12.0.0.2/32 is directly connected, Serial2/0
22.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C   22.0.1.0/24 is directly connected, Loopback1
L   22.0.1.2/32 is directly connected, Loopback1
C   22.0.2.0/24 is directly connected, Loopback2
L   22.0.2.2/32 is directly connected, Loopback2
C   22.0.3.0/24 is directly connected, Loopback3
L   22.0.3.2/32 is directly connected, Loopback3
23.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C   23.0.0.0/24 is directly connected, Ethernet0/0
L   23.0.0.2/32 is directly connected, Ethernet0/0
33.0.0.0/24 is subnetted, 3 subnets
D   33.0.1.0 [90/409600] via 23.0.0.3, 00:13:19, Ethernet0/0
D   33.0.2.0 [90/409600] via 23.0.0.3, 00:13:19, Ethernet0/0
D   33.0.3.0 [90/409600] via 23.0.0.3, 00:13:19, Ethernet0/0
34.0.0.0/24 is subnetted, 1 subnets
D   34.0.0.0 [90/2195456] via 23.0.0.3, 00:13:16, Ethernet0/0
44.0.0.0/24 is subnetted, 3 subnets
D   44.0.1.0 [90/2323456] via 23.0.0.3, 00:13:19, Ethernet0/0
D   44.0.2.0 [90/2323456] via 23.0.0.3, 00:13:19, Ethernet0/0
D   44.0.3.0 [90/2323456] via 23.0.0.3, 00:13:19, Ethernet0/0
101.0.0.0/24 is subnetted, 1 subnets
D EX 101.101.101.0 [170/2297856] via 12.0.0.1, 00:00:09, Serial2/0
102.0.0.0/24 is subnetted, 1 subnets
D EX 102.102.102.0 [170/2297856] via 12.0.0.1, 00:00:09, Serial2/0
103.0.0.0/24 is subnetted, 1 subnets
D EX 103.103.103.0 [170/2297856] via 12.0.0.1, 00:00:09, Serial2/0
104.0.0.0/24 is subnetted, 1 subnets
D EX 104.104.104.0 [170/2297856] via 12.0.0.1, 00:00:09, Serial2/0

```

Step 2 Analyze administrative distance of redistribution route in neighbor router

```
D EX 101.101.101.0 [170/2297856] via 12.0.0.1, 00:08:37, Serial2/0
```

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

```
D EX 101.101.101.0 [170/2297856] via 12.0.0.1, 00:08:37, Serial2/0
```

(D EX means EIGRP External routes redistributed by the neighbor router & EIGRP external routes AD value is 170.)