


LAB3: EIGRP – IPv4

Disclaimer

This Configuration Guide is designed to assist members to enhance their skills in respective technology area. While every effort has been made to ensure that all material is as complete and accurate as possible, the enclosed material is presented on an “as is” basis. Neither the authors nor Forum assume any liability or responsibility to any person or entity with respect to loss or damages incurred from the information contained in this guide. This Lab Guide was developed by RSTForum. Any similarities between material presented in this configuration guide and any other material is completely coincidental.



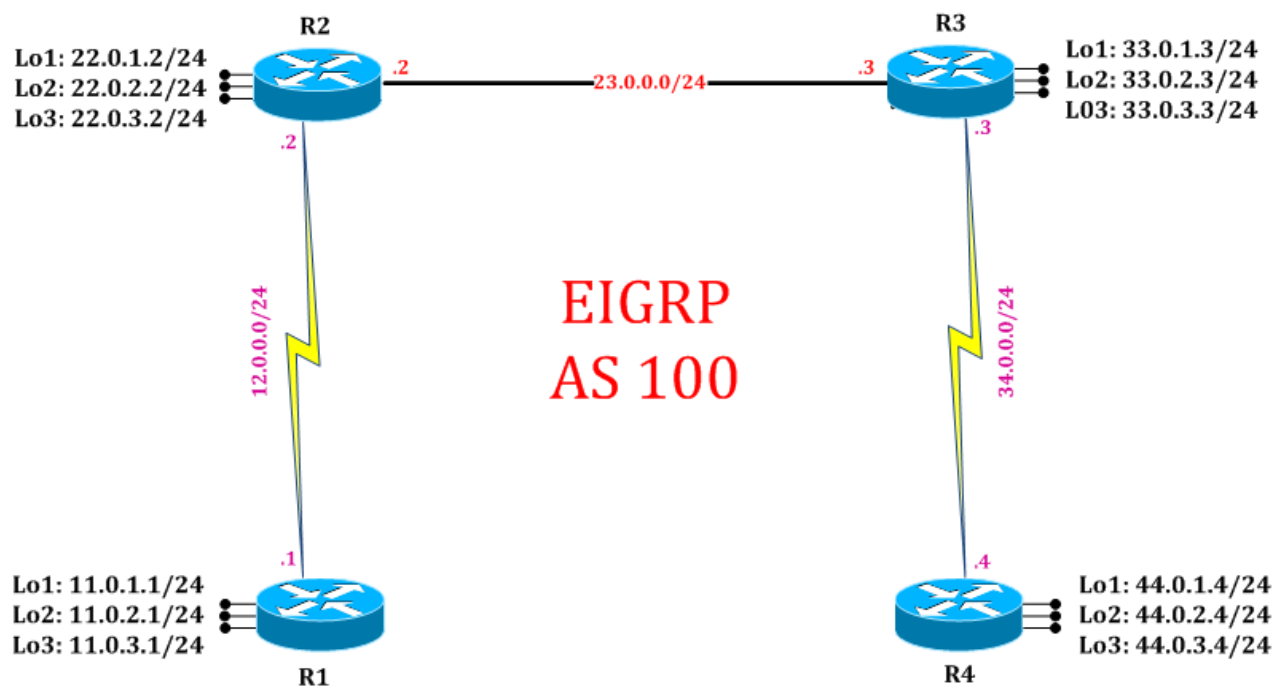
Routing
Switching
Tigers
Forum

EIGRP: Passive-interface

||| www.rstforum.net

LAB 3: Diagram

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



LAB 3: EIGRP Passive-interface

Task 1: Configure IPv4 EIGRP process with Passive interface

Step 1 In the configuration mode of router configure EIGRP process using network 0.0.0.0 by following command

R2:

```
router eigrp 100
network 0.0.0.0
exit
```

(Send updates on all the interfaces.)

Step 2 Suppress EIGRP updates using “passive-interface” command and “passive-interface default” command

R2:

```
router eigrp 100
passive-interface loop3
exit
```

(After suppressing EIGRP updates on Loopback 3 by using passive-interface command, Lo3 is suppressed and not been seen.)

R2#show ip eigrp interface

! (Gives detailed list of interfaces on which EIGRP is sending updates)

EIGRP-IPv4 Interfaces for AS(100)

Interface	Peers	Xmit Queue Un/Reliable	PeerQ Un/Reliable	Mean SRTT	Pacing Time Un/Reliable	Multicast Flow Timer	Pending Routes
Lo1	0	0/0	0/0	0	0/0	0	0
Lo2	0	0/0	0/0	0	0/0	0	0
Se2/0	1	0/0	0/0	16	0/16	92	0
Et0/0	1	0/0	0/0	6	0/2	50	0

R2:

```
router eigrp 100
passive-interface default
exit
```

(After suppressing EIGRP updates by using passive-interface default command, all interface is suppressed and not been seen.)

```
R2# show ip eigrp interfaces
```

! (Gives detailed list of interfaces on which EIGRP is sending updates)

```
EIGRP-IPv4 Interfaces for AS(100)
      Xmit Queue  PeerQ   Mean Pacing Time  Multicast Pending
Interface Peers Un/Reliable Un/Reliable SRTT  Un/Reliable Flow Timer Routes
```

Step 3 Un-suppress EIGRP updates using “no passive-interface” command

```
R2:
```

```
router eigrp 100
no passive-interface default
exit
```

(After un-suppressing EIGRP updates using no passive-interface default command, all interfaces are un-suppress and are seen in eigrp interface table.)

```
R2# show ip eigrp interfaces
```

! (Gives detailed list of interfaces on which EIGRP is sending updates)

```
EIGRP-IPv4 Interfaces for AS(100)
      Xmit Queue  PeerQ   Mean Pacing Time  Multicast Pending
Interface Peers Un/Reliable Un/Reliable SRTT  Un/Reliable Flow Timer Routes
Se2/0     1     0/0       0/0       17    0/16       100      0
Et0/0     1     0/0       0/0        9     0/2        50       0
Lo1       0     0/0       0/0        0     0/0        0        0
Lo2       0     0/0       0/0        0     0/0        0        0
Lo3       0     0/0       0/0        0     0/0        0        0
```

Task 2: Verification:

Step 1 Verify EIGRP neighborship by following command:

```
R2#show ip eigrp neighbors
```

! (Gives details and list of EIGRP neighbors)

```
EIGRP-IPv4 Neighbors for AS(100)
H Address          Interface    Hold  Uptime  SRTT  RTO  Q  Seq
                (sec)          (ms)          Cnt  Num
1 23.0.0.3         Et0/0       12   00:16:57  9    100  0   7
0 12.0.0.1         Se2/0       12   00:17:43 17    102  0   5
```

Step 2 Verify routing table and EIGRP routes by following command:

```
R2#show ip route
```

! (Shows router's routing table and IPv4 entries)

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, 00:21:10, Serial2/0
D    11.0.2.0 [90/2297856] via 12.0.0.1, 00:21:10, Serial2/0
D    11.0.3.0 [90/2297856] via 12.0.0.1, 00:21:10, 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, 00:20:19, Ethernet0/0
D    33.0.2.0 [90/409600] via 23.0.0.3, 00:20:19, Ethernet0/0
D    33.0.3.0 [90/409600] via 23.0.0.3, 00:20:19, Ethernet0/0
34.0.0.0/24 is subnetted, 1 subnets
D    34.0.0.0 [90/2195456] via 23.0.0.3, 00:20:19, Ethernet0/0
44.0.0.0/24 is subnetted, 3 subnets
D    44.0.1.0 [90/2323456] via 23.0.0.3, 00:19:39, Ethernet0/0
D    44.0.2.0 [90/2323456] via 23.0.0.3, 00:19:39, Ethernet0/0
D    44.0.3.0 [90/2323456] via 23.0.0.3, 00:19:39, Ethernet0/0
```