

LAB6: Named EIGRP – IPv4

Disclaimer

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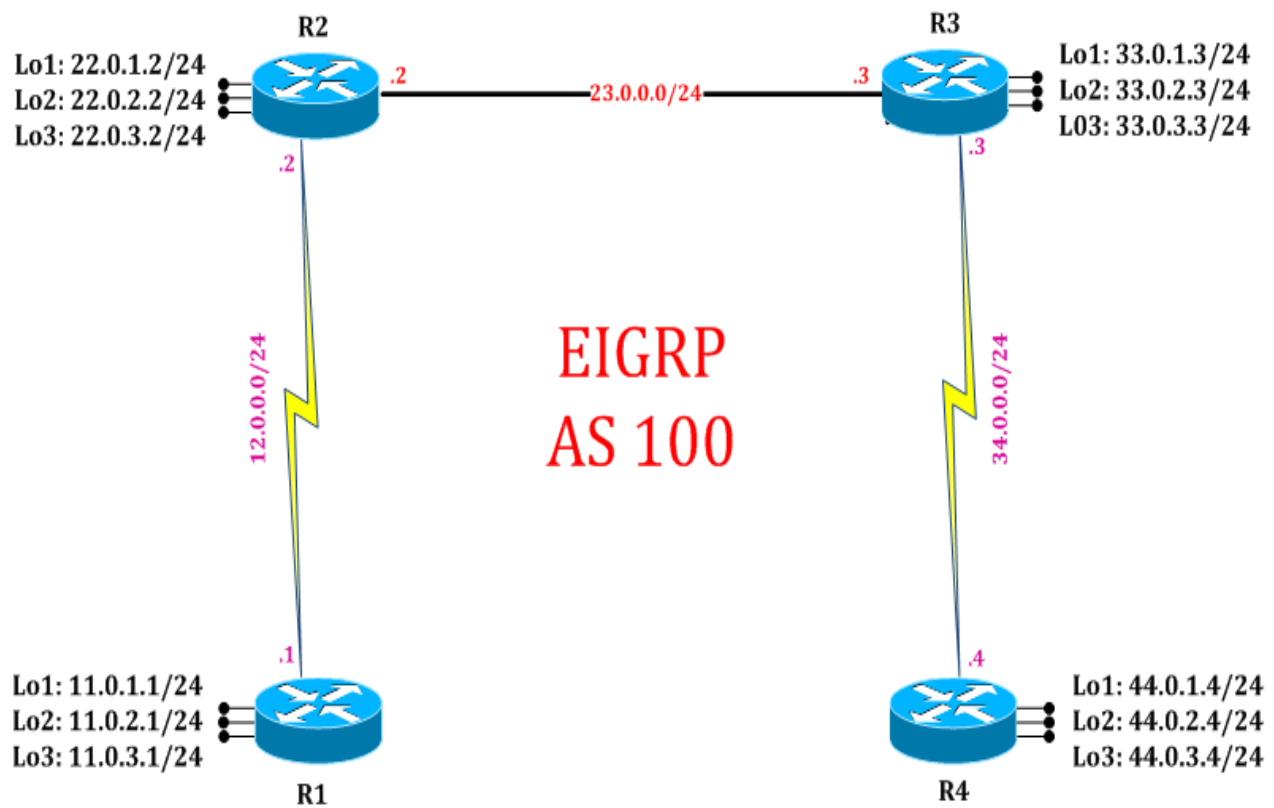
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EIGRP: Authentication

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LAB 6: Diagram

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



LAB 6: EIGRP Authentication using named configuration:

Task 1: Configure IPv4 EIGRP Authentication using named configuration

Step 1 In the configuration mode of router configure IPv4 EIGRP process with a name

```
R1:
router eigrp cisco
address-family ipv4 autonomous-system 100
net 12.0.0.1 255.255.255.0
net 11.0.1.1 255.255.255.0
net 11.0.2.1 255.255.255.0
net 11.0.3.1 255.255.255.0
exit
```

Step 2 In the configuration mode of router configure create Key chain and assign key and select encryption mode

```
R1:
key chain akbar
key 1
key-string cisco
exit
interface serial 2/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 akbar
exit
```

Step 3 Enable EIGRP authentication on both the neighbors

```
R2:
key chain birbal
key 1
key-string cisco
exit
interface serial 2/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 birbal
exit
```

Task 2: Verification:

Step 1 Verification of authentication by following command:

```
R1#show running-config
```

```
key chain akbar
key 1
key-string cisco
!
!
interface Serial2/0
ip address 12.0.0.1 255.255.255.0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 akbar
serial restart-delay 0
!
!
router eigrp cisco
!
address-family ipv4 unicast autonomous-system 100
!
topology base
exit-af-topology
network 11.0.1.1 0.0.0.0
network 11.0.2.1 0.0.0.0
network 11.0.3.1 0.0.0.0
network 12.0.0.1 0.0.0.0
exit-address-family
!
```

```
R2#show running-config
```

```
key chain birbal
key 1
key-string cisco
!
!
interface Serial2/0
ip address 12.0.0.2 255.255.255.0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 birbal
serial restart-delay 0
!
!
router eigrp cisco
!
address-family ipv4 unicast autonomous-system 100
```

```

!
topology base
network 12.0.0.2 0.0.0.0
network 22.0.1.2 0.0.0.0
network 22.0.2.2 0.0.0.0
network 22.0.3.2 0.0.0.0
network 23.0.0.2 0.0.0.0
!
exit-address-family
!

```

Step 2 Verify EIGRP neighborship by following command:

```
R1#show ip eigrp neighbors
```

! (Gives details and list of EIGRP neighbors)

```
EIGRP-IPv4 VR(cisco) Address-Family Neighbors for AS(100)
H Address Interface Hold Uptime SRTT RTO Q Seq
(sec) (ms) Cnt Num
0 12.0.0.1 Se2/0 10 00:00:19 17 102 0 6
```

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

! (Gives details and list of EIGRP neighbors)

```
EIGRP-IPv4 VR(cisco) Address-Family Neighbors for AS(100)
H Address Interface Hold Uptime SRTT RTO Q Seq
(sec) (ms) Cnt Num
0 12.0.0.1 Se2/0 11 00:00:33 11 100 0 13
1 23.0.0.3 Et0/0 12 00:13:54 1 100 0 15
```