

Routing
Switching
Tigers
Forum



EIGRP

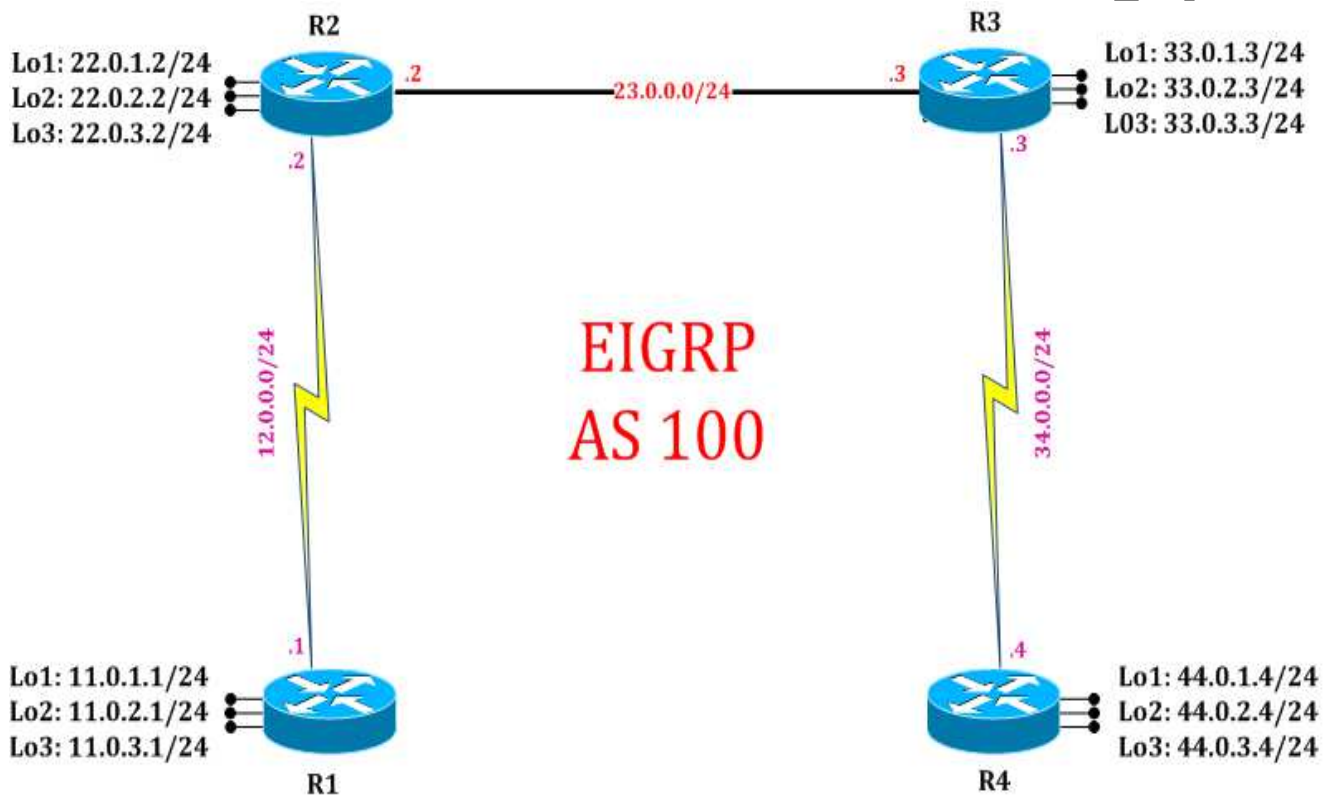


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Cisco IOS Software, Linux Software (I86BI_LINUX-ADVENTERPRISEK9-M), Version 15.2(4)M1, DEVELOPMENT TEST SOFTWARE



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LAB 5: EIGRP Authentication

Task 1: Configure IPv4 EIGRP Authentication

Step 1 In the configuration mode of router configure create Key chain and assign key

```
R1:  
key chain akbar //creating a key chain with name akbar  
key 1 //selecting a key 1  
key-string cisco //assigning a key-string by which it will authenticate with  
exit neighbor, which should be same on both the side
```

Step 2 Enter the interface where authentication is required and select the encryption mode

```
R1:  
interface serial 2/0  
ip authentication mode eigrp 100 md5 //selecting encryption mode MD5  
ip authentication key-chain eigrp 100 akbar //selecting key-chain in which key 1  
exit is selected by which it will authenticate
```

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
```

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Task 2: Verification:

Step 1 Verification of authentication by following command:

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

// to display the contents of the currently running configuration file or the configuration for a specific class map, interface, map class, policy map, or virtual circuit (VC) class, use the show running-config command in privileged EXEC mode.

```
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
!
```

```
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
```

Step 2 Verify EIGRP neighborship by following command:

```
R1#clear ip eigrp neighbors
```

```
R2#clear ip eigrp neighbors
```

//will flush current OSPF process and initiate fresh OSPF process.

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

```
EIGRP-IPv4 Neighbors for AS(100)
H Address      Interface    Hold  Uptime  SRTT  RTO  Q  Seq
              (sec)              (ms)  Cnt  Num
0 12.0.0.2      Se2/0        14   00:00:17  14   100  0  16
```

```
R2#show ip 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   00:00:57  9    100  0  9
0 12.0.0.1      Se2/0        12   00:00:43  17   102  0  13
```

EIGRP neighbors will authenticate with key and if key matches, EIGRP neighborship will be formed. Fresh EIGRP neighborship can be verified in EIGRP neighbor table