EIGRP Lab
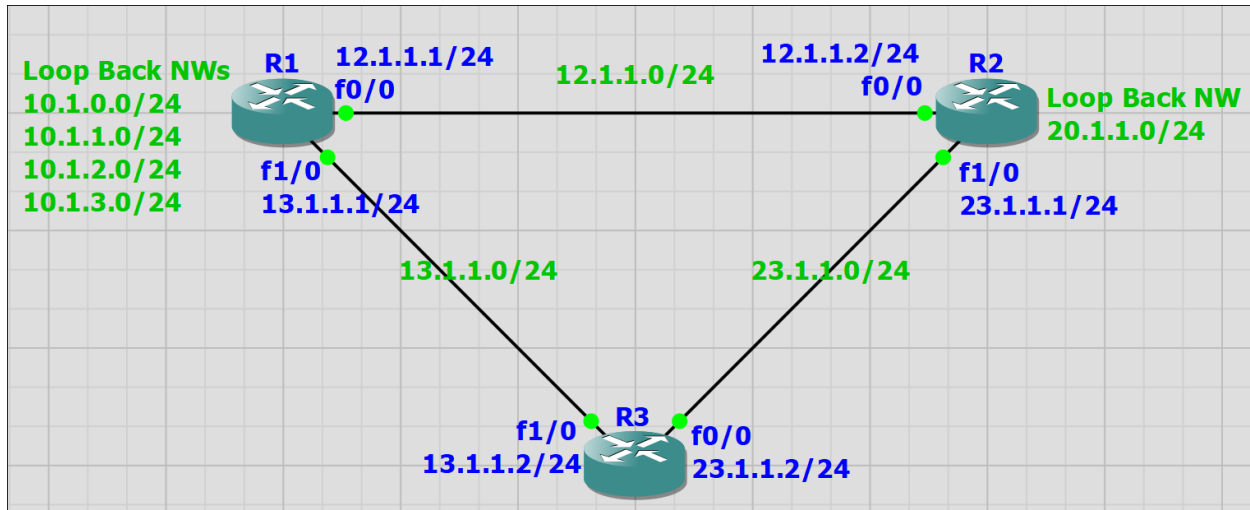

R1

R1(config)#interface fastEthernet 0/0
R1(config-if)#no shutdown
R1(config-if)#ip address 12.1.1.1 255.255.255.0
R1(config-if)#ex

R1(config)#interface fastEthernet 1/0
R1(config-if)#no shutdown
R1(config-if)#ip address 13.1.1.1 255.255.255.0
R1(config-if)#ex

R1 (config)#interface loopback 0
R1 (config-if)#no shutdown
R1 (config-if)#ip address 10.1.0.1 255.255.255.0
R1 (config-if)#ex

R1 (config)#interface loopback 1
R1 (config-if)#no shutdown
R1 (config-if)#ip address 10.1.1.1 255.255.255.0
R1 (config-if)#ex

R1 (config)#interface loopback 2
R1 (config-if)#no shutdown
R1 (config-if)#ip address 10.1.2.1 255.255.255.0
R1 (config-if)#ex

R1 (config)#interface loopback 3
R1 (config-if)#no shutdown

```
R1 (config-if)#ip address 10.1.3.1 255.255.255.0
R1 (config-if)#ex

R1#show ip interface brief

R1#show ip route

R1(config)#router eigrp 100
R1(config-router)#no auto-summary
R1(config-router)#network 0.0.0.0 255.255.255.255

R1#show ip eigrp neighbors
R1#show ip eigrp topology

R1(config-router)#passive-interface loopback 0
R1(config-router)#passive-interface loopback 1
R1(config-router)#passive-interface loopback 2
R1(config-router)#passive-interface loopback 3

        Or it is better

R1(config-router)#passive-interface default
R1(config-router)#no passive-interface fa 0/0
R1(config-router)#no passive-interface fa 1/0

R1(config)#interface fastEthernet 0/0
R1(config-if)#ip summary-address eigrp 100 10.1.0.0 255.255.252.0

R1(config-if)#interface fastEthernet 1/0
R1(config-if)#ip summary-address eigrp 100 10.1.0.0 255.255.252.0

R1(config)#key chain Transistor
R1(config-keychain)#key 10
R1(config-keychain-key)#key-string epic
R1(config-keychain-key)#ex
R1(config-keychain)#ex

R1(config)#interface fastEthernet 0/0
R1(config-if)#ip authentication mode eigrp 100 md5
R1(config-if)#ip authentication key-chain eigrp 100 Transistor

R1(config-if)#interface fastEthernet 1/0
R1(config-if)#ip authentication mode eigrp 100 md5
R1(config-if)#ip authentication key-chain eigrp 100 Transistor
```

R2

R2(config)#interface fastEthernet 0/0
R2(config-if)#no shutdown
R2(config-if)#ip address 12.1.1.2 255.255.255.0
R2(config-if)#ex

R2(config)#interface fastEthernet 1/0
R2(config-if)#no shutdown
R2(config-if)#ip address 23.1.1.1 255.255.255.0
R2(config-if)#ex

R2(config)#interface loopback 0
R2(config-if)#ip address 20.1.1.1 255.255.255.0

R2(config)#router eigrp 100
R2(config-router)#no auto-summary
R2(config-router)#network 0.0.0.0 255.255.255.255

R2(config)#key chain Transistor
R2(config-keychain)#key 10
R2(config-keychain-key)#key-string epic
R2(config-keychain-key)#ex
R2(config-keychain)#ex

R2(config)#interface fastEthernet 0/0
R2(config-if)#ip authentication mode eigrp 100 md5
R2(config-if)#ip authentication key-chain eigrp 100 Transistor

R2(config-if)#interface fastEthernet 1/0
R2(config-if)#ip authentication mode eigrp 100 md5
R2(config-if)#ip authentication key-chain eigrp 100 Transistor

R3

R3(config)#interface fastEthernet 0/0
R3(config-if)#no shutdown
R3(config-if)#ip address 23.1.1.2 255.255.255.0
R3(config-if)#ex

R3(config)#interface fastEthernet 1/0
R3(config-if)#no shutdown
R3(config-if)#ip address 13.1.1.2 255.255.255.0
R3(config-if)#ex

R3(config)#router eigrp 100
R3(config-router)#no auto-summary
R3(config-router)#network 0.0.0.0 255.255.255.255

R3(config-if)#key chain Transistor
R3(config-keychain)#key 10
R3(config-keychain-key)#key-string epic
R3(config-keychain-key)#ex
R3(config-keychain)#ex

R3(config)#interface fastEthernet 0/0
R3(config-if)#ip authentication mode eigrp 100 md5
R3(config-if)#ip authentication key-chain eigrp 100 Transistor

R3(config-if)#interface fastEthernet 1/0
R3(config-if)#ip authentication mode eigrp 100 md5
R3(config-if)#ip authentication key-chain eigrp 100 Transistor

The full configuration as script

```
========================================================================
===========================          R1          ==============================
========================================================================
```

config t

interface fastEthernet 0/0
no shutdown
ip address 12.1.1.1 255.255.255.0
ex

interface fastEthernet 1/0
no shutdown
ip address 13.1.1.1 255.255.255.0
ex

interface loopback 0
no shutdown
ip address 10.1.0.1 255.255.255.0
ex

interface loopback 1
no shutdown
ip address 10.1.1.1 255.255.255.0
ex

interface loopback 2
no shutdown
ip address 10.1.2.1 255.255.255.0
ex

interface loopback 3
no shutdown
ip address 10.1.3.1 255.255.255.0
ex

router eigrp 100
no auto-summary
network 0.0.0.0 255.255.255.255

```
passive-interface default
no passive-interface fa 0/0
no passive-interface fa 1/0
ex

interface fastEthernet 0/0
ip summary-address eigrp 100 10.1.0.0 255.255.252.0
ex

interface fastEthernet 1/0
ip summary-address eigrp 100 10.1.0.0 255.255.252.0
ex

key chain Transistor
key 10
key-string epic
ex
ex

interface fastEthernet 0/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 Transistor
ex

interface fastEthernet 1/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 Transistor
ex
```

```
================================================================
========================== R2 ===============================
================================================================

config t

interface fastEthernet 0/0
no shutdown
ip address 12.1.1.2 255.255.255.0
ex

interface fastEthernet 1/0
no shutdown
ip address 23.1.1.1 255.255.255.0
ex

interface loopback 0
ip address 20.1.1.1 255.255.255.0
ex

router eigrp 100
no auto-summary
network 0.0.0.0 255.255.255.255
ex

key chain Transistor
key 10
key-string epic
ex
ex

interface fastEthernet 0/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 Transistor

interface fastEthernet 1/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 Transistor
```

```
================================================================
========================      R3       =========================
================================================================
```

config t

interface fastEthernet 0/0
no shutdown
ip address 23.1.1.2 255.255.255.0
ex

interface fastEthernet 1/0
no shutdown
ip address 13.1.1.2 255.255.255.0
ex

router eigrp 100
no auto-summary
network 0.0.0.0 255.255.255.255
ex

key chain Transistor
key 10
key-string epic
ex
ex

interface fastEthernet 0/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 Transistor

interface fastEthernet 1/0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 Transistor