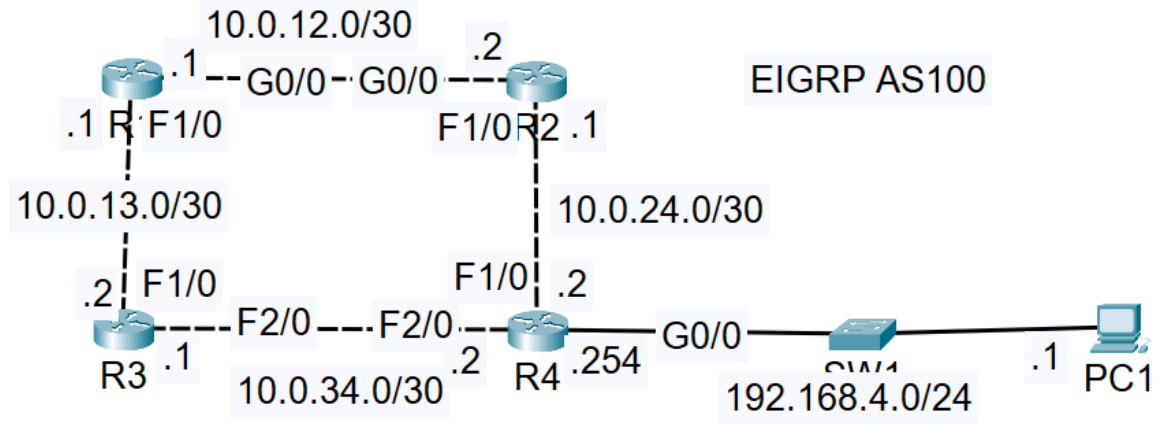
Network Topology:



R4 CLI:

R4

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname R4
R4(config)#int g0/0
R4(config-if)#ip address 192.168.4.254 255.255.255.0
R4(config-if)#no shutdown

R4(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed
state to up

R4(config-if)#int f1/0
R4(config-if)#ip address 10.0.24.2 255.255.255.252
R4(config-if)#no shutdown

R4(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

R4(config-if)#int f2/0
R4(config-if)#ip address 10.0.34.2 255.255.255.252
R4(config-if)#no shutdown

R4(config-if)#
%LINK-5-CHANGED: Interface FastEthernet2/0, changed state to up

R4(config-if)#do sh ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.4.254   YES manual up                    up
FastEthernet1/0        10.0.24.2       YES manual up                    down
FastEthernet2/0        10.0.34.2       YES manual up                    down
R4(config-if)#router eigrp 100
R4(config-router)#no auto summary
R4(config-router)#network 0.0.0.0 255.255.255.255
```

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R4

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
R4(config-if)#router eigrp 100
R4(config-router)#no auto summary
R4(config-router)#network 0.0.0.0 255.255.255.255
R4(config-router)#int l0

R4(config-if)#
%LINK-3-UPDOWN: Interface Loopback0, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up

R4(config-if)#ip address 4.4.4.4 255.255.255.255
R4(config-if)#no auto summary
                ^
% Invalid input detected at '^' marker.

R4(config-if)#do sh ip protocols

Routing Protocol is "eigrp  100 "
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  EIGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
  EIGRP maximum hopcount 100
  EIGRP maximum metric variance 1
Redistributing: eigrp 100
  Automatic network summarization is not in effect
  Maximum path: 4
  Routing for Networks:
    0.0.0.0
  Routing Information Sources:
    Gateway         Distance      Last Update
  Distance: internal 90 external 170

R4(config-if)#exit
R4(config)#router eigrp 100
```

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R4

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
  EIGRP maximum metric variance 1
Redistributing: eigrp 100
  Automatic network summarization is not in effect
  Maximum path: 4
  Routing for Networks:
    0.0.0.0
  Passive Interface(s):
    GigabitEthernet0/0
  Routing Information Sources:
    Gateway         Distance      Last Update
  Distance: internal 90 external 170

R4(config-router)#passive-int l0
R4(config-router)#do sh ip protocols

Routing Protocol is "eigrp  100 "
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  EIGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
  EIGRP maximum hopcount 100
  EIGRP maximum metric variance 1
Redistributing: eigrp 100
  Automatic network summarization is not in effect
  Maximum path: 4
  Routing for Networks:
    0.0.0.0
  Passive Interface(s):
    GigabitEthernet0/0
    Loopback0
  Routing Information Sources:
    Gateway         Distance      Last Update
  Distance: internal 90 external 170

R4(config-router)#
```

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R2 CLI:

R2

Physical | Config | CLI | Attributes

IOS Command Line Interface

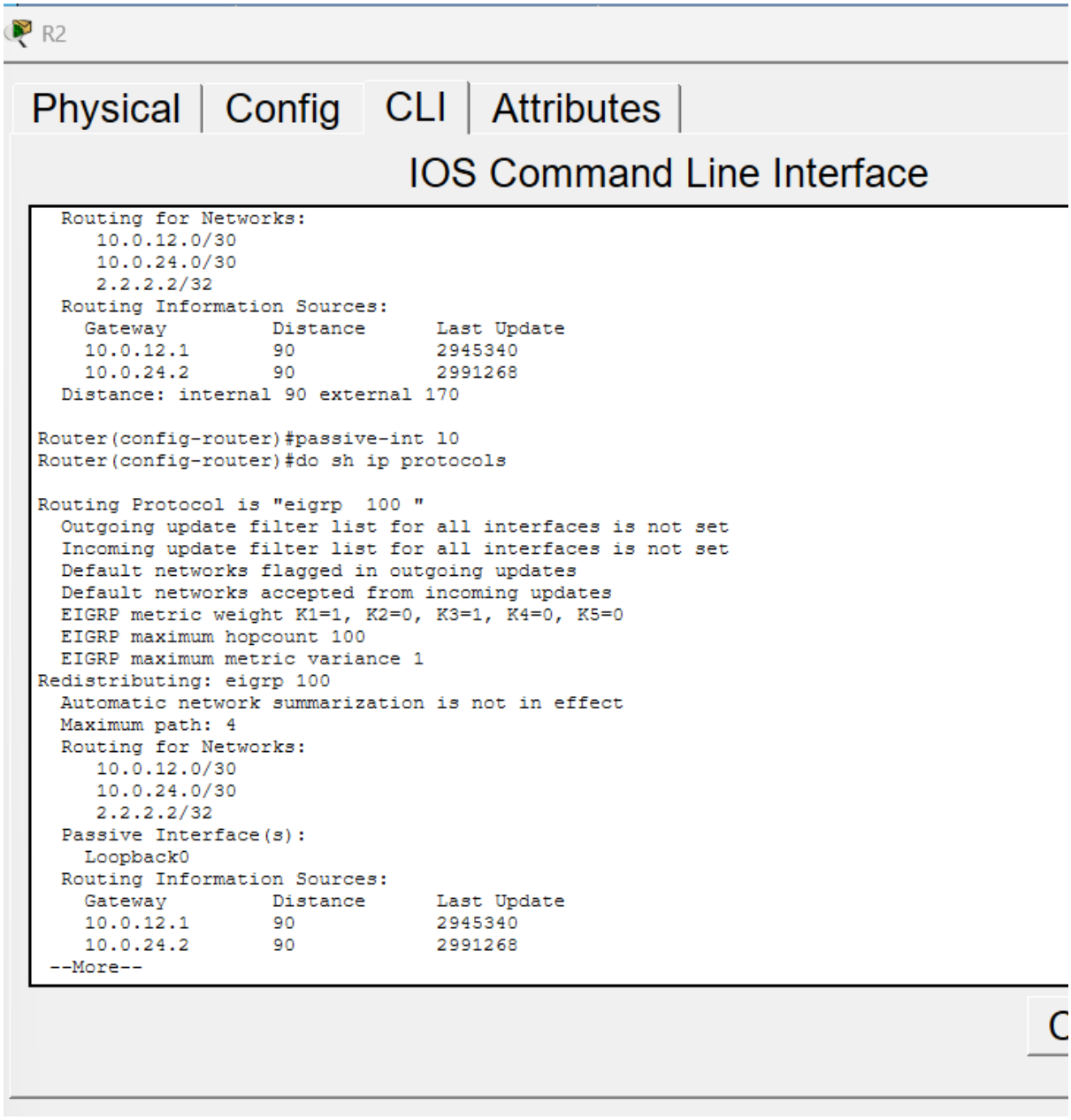
```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int g0/0
Router(config-if)#ip address 10.0.12.2 255.255.255.252
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router(config-if)#int f1/0
Router(config-if)#ip address 10.0.24.1 255.255.255.252
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

Router(config-if)#int l0

Router(config-if)#
%LINK-3-UPDOWN: Interface Loopback0, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up

Router(config-if)#ip address 2.2.2.2 255.255.255.255
Router(config-if)#do sh ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     10.0.12.2       YES manual up                    up
FastEthernet1/0        10.0.24.1       YES manual up                    up
FastEthernet2/0        unassigned      YES unset  administratively down down
Loopback0              2.2.2.2         YES manual up                    up
```

R2

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
Loopback0              2.2.2.2         YES manual up                    up
Router(config-if)#router eigrp 100
Router(config-router)#network 10.0.12.0 0.0.0.3
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 10.0.12.1 (GigabitEthernet0/0) is up: new adjacency

Router(config-router)#network 10.0.34.0 0.0.0.3
Router(config-router)#no network 10.0.34.0 0.0.0.3
Router(config-router)#network 10.0.24.0 0.0.0.3
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 10.0.24.2 (FastEthernet1/0) is up: new adjacency

Router(config-router)#network 2.2.2.2 0.0.0.0
Router(config-router)#no auto summary
Router(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 10.0.12.1 (GigabitEthernet0/0) resync: summary configured

%DUAL-5-NBRCHANGE: IP-EIGRP 100: Neighbor 10.0.24.2 (FastEthernet1/0) resync: summary configured

Router(config-router)#do sh ip protocols

Routing Protocol is "eigrp  100 "
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  EIGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
  EIGRP maximum hopcount 100
  EIGRP maximum metric variance 1
Redistributing: eigrp 100
  Automatic network summarization is not in effect
  Maximum path: 4
  Routing for Networks:
     10.0.12.0/30
     10.0.24.0/30
```



Same configurations for R1 & R3

Configure R1 to perform unequal-cost load-balancing when sending network traffic to 192.168.4.0/24

For this, in the R1 CLI:

(config-router)#variance 2