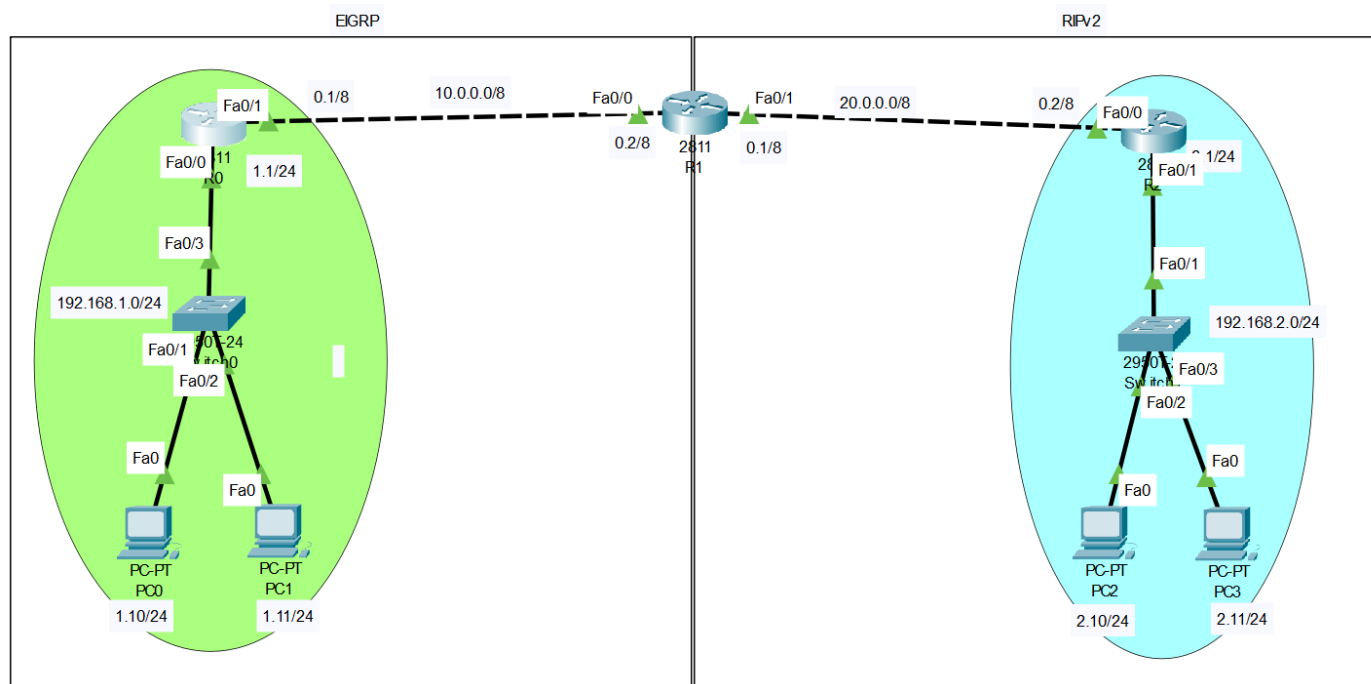


Redistribution on EIGRP & RIP



Router R0:

```
R0#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R0(config)#
R0(config)#router eigrp 13
R0(config-router)#network 192.168.1.0
R0(config-router)#network 10.0.0.0
R0(config-router)#no auto-su
R0(config-router)#no auto-summary
R0(config-router)#exit
```

Verify:

```
R0#show ip protocols

Routing Protocol is "eigrp 13"
  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
  Redistributing: eigrp 13
    EIGRP-IPv4 Protocol for AS(13)
      Metric weight K1=1, K2=0, K3=1, K4=0, K5=0
      NSF-aware route hold timer is 240
      Router-ID: 10.0.0.1
      Topology: 0 (base)
        Active Timer: 3 min
        Distance: internal 90 external 170
        Maximum path: 4
        Maximum hopcount 100
        Maximum metric variance 1

  Automatic Summarization: disabled
  Automatic address summarization:
  Maximum path: 4
  Routing for Networks:
    192.168.1.0
    10.0.0.0
  Routing Information Sources:
    Gateway Distance Last Update
  Distance: internal 90 external 170
```

Configuring EIGRP on R1:

Router R1:

```
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#
R1(config)#router ei
R1(config)#router eigrp 13
R1(config-router)#network 10.0.0.0
R1(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 13: Neighbor 10.0.0.1 (FastEthernet0/0) is up: new adjacency

R1(config-router)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#show ip eigrp nei
R1#show ip eigrp neighbors
IP-EIGRP neighbors for process 13
H   Address           Interface      Hold Uptime      SRTT   RTO   Q   Seq
                               (sec)          (ms)          Cnt   Num
0   10.0.0.1           Fa0/0         13   00:00:26   40    1000   0    1

R1#
```

Configuring RIP on R1

Router R1:

```
R1#conf t
R1#conf terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#
R1(config)#router rip
R1(config-router)#version 2
R1(config-router)#no auto-sum
R1(config-router)#no auto-summary
R1(config-router)#network 20.0.0.0
R1(config-router)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#
```

Configuring RIP on R2

Router R2:

```
R2>en
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#
R2(config)#router rip
R2(config-router)#version 2
R2(config-router)#no auto-summary
R2(config-router)#network 20.0.0.0
R2(config-router)#network 192.168.2.0
R2(config-router)#end
R2#
%SYS-5-CONFIG_I: Configured from console by console

R2#
```

Now go to "Router R1":

```
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#
R1(config)#router eigrp 13
R1(config-router)#res
R1(config-router)#red
R1(config-router)#redistribute rip ?
    metric Metric for redistributed routes
    <cr>
R1(config-router)#redistribute rip met
R1(config-router)#redistribute rip metric ?
    <1-4294967295> Bandwidth metric in Kbits per second
R1(config-router)#redistribute rip metric 1 ?
    <0-4294967295> EIGRP delay metric, in 10 microsecond units
R1(config-router)#redistribute rip metric 1 1 ?
    <0-255> EIGRP reliability metric where 255 is 100% reliable
R1(config-router)#redistribute rip metric 1 1 255 ?
    <1-255> EIGRP Effective bandwidth metric (Loading) where 255 is 100% loaded
R1(config-router)#redistribute rip metric 1 1 255 255 ?
    <1-65535> EIGRP MTU of the path
R1(config-router)#redistribute rip metric 1 1 255 255 1
R1(config-router)#exit
R1(config)#
```

Now go to "Router R0": Validating

```
R0#show ip route
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, E - EGP
       i - IS-IS, 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

Gateway of last resort is not set

    10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.0.0.0/8 is directly connected, FastEthernet0/1
L       10.0.0.1/32 is directly connected, FastEthernet0/1
D EX    20.0.0.0/8 [170/25600002816] via 10.0.0.2, 00:03:00, FastEthernet0/1
        192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, FastEthernet0/0
L       192.168.1.1/32 is directly connected, FastEthernet0/0
D EX    192.168.2.0/24 [170/25600002816] via 10.0.0.2, 00:03:00, FastEthernet0/1
```

Configuring EIGRP under RIP on R1:

```
R1(config)#
R1(config)#router rip
R1(config-router)#red
R1(config-router)#redistribute ei
R1(config-router)#redistribute eigrp 13 me
R1(config-router)#redistribute eigrp 13 metric ?
<0-16>      Default metric
transparent Transparently redistribute metric
R1(config-router)#redistribute eigrp 13 metric 1
R1(config-router)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#sho
R1#show ip rou
R1#show ip route
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, E - EGP
       i - IS-IS, 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

Gateway of last resort is not set

    10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.0.0.0/8 is directly connected, FastEthernet0/0
L       10.0.0.2/32 is directly connected, FastEthernet0/0
    20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       20.0.0.0/8 is directly connected, FastEthernet0/1
L       20.0.0.1/32 is directly connected, FastEthernet0/1
D       192.168.1.0/24 [90/30720] via 10.0.0.1, 00:13:59, FastEthernet0/0
R       192.168.2.0/24 [120/1] via 20.0.0.2, 00:00:19, FastEthernet0/1
```

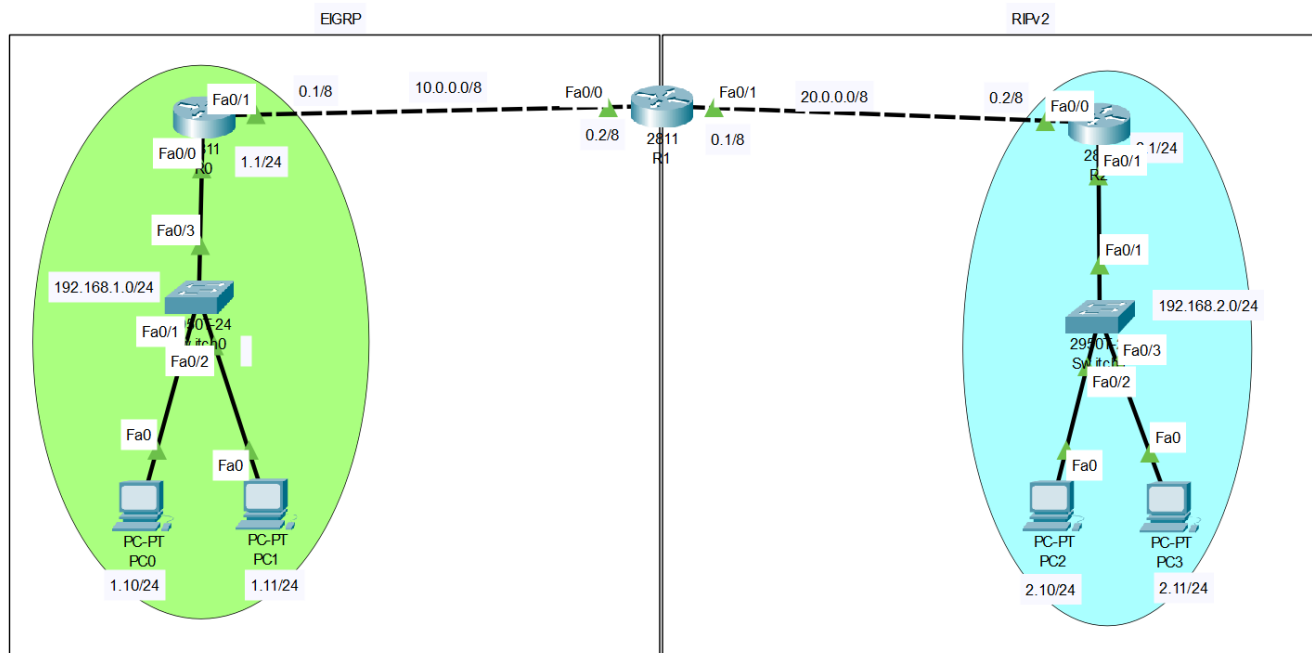
Validating on Router R2:

```
R2#show ip route
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, E - EGP
       i - IS-IS, 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

Gateway of last resort is not set

R       10.0.0.0/8 [120/1] via 20.0.0.1, 00:00:19, FastEthernet0/0
    20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       20.0.0.0/8 is directly connected, FastEthernet0/0
L       20.0.0.2/32 is directly connected, FastEthernet0/0
R       192.168.1.0/24 [120/1] via 20.0.0.1, 00:00:19, FastEthernet0/0
    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, FastEthernet0/1
L       192.168.2.1/32 is directly connected, FastEthernet0/1
```

Pinging PC0 to PC2:



Scenario 0

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC2	ICMP		0.000	N	0	(edit)	

(delete)