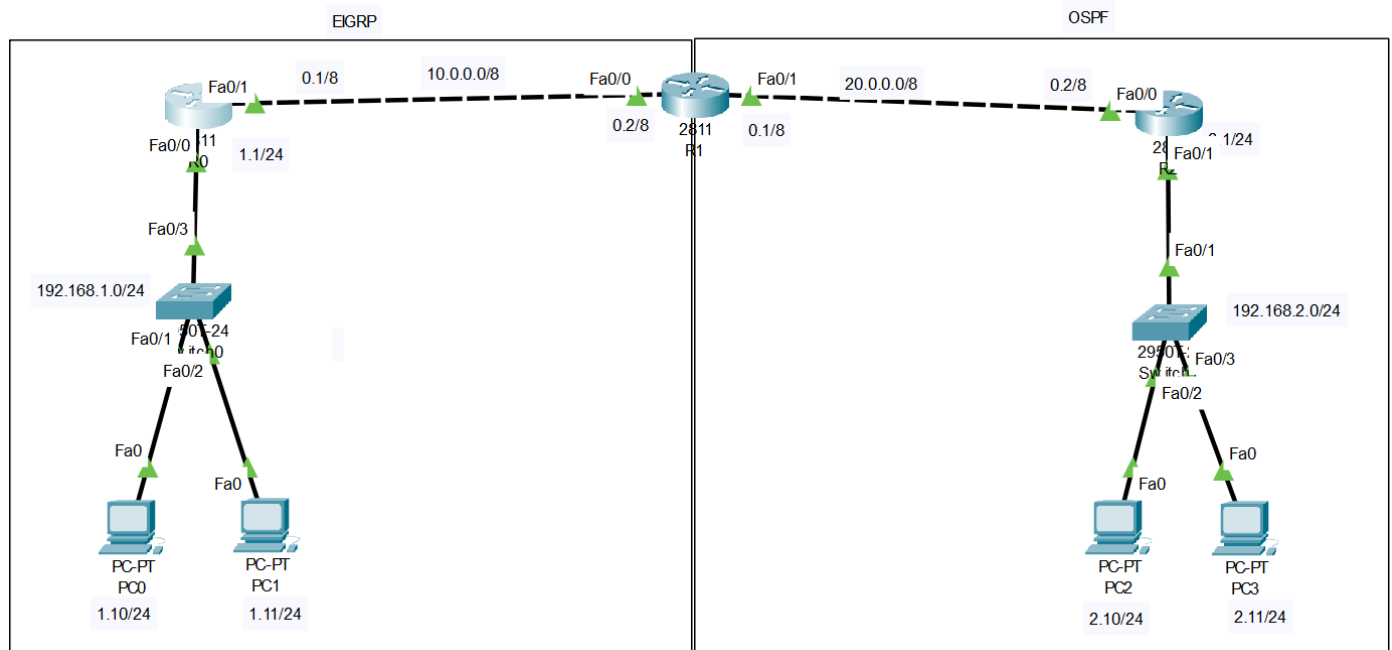


## Redistribution on EIGRP & OSPF



### On Router R0:

```
R0>en
R0#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R0(config)#router eigrp 14
R0(config-router)#network 192.168.1.0
R0(config-router)#network 10.0.0.0
R0(config-router)#no auto-sum
R0(config-router)#no auto-summary
R0(config-router)#exit
```

### On Router R1:

```
R1>en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#router eigrp 14
R1(config-router)#network 10.0.0.0
R1(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 14: Neighbor 10.0.0.1 (FastEthernet0/0) is up: new adjacency
R1(config-router)#end
R1#
%SYS-5-CONFIG_I: Configured from console by console
```

### Listing neighbours on R1:

```
R1#
R1#sh
R1#show ip ei
R1#show ip eigrp ne
R1#show ip eigrp neighbors
IP-EIGRP neighbors for process 14
H   Address          Interface      Hold Uptime    SRTT    RTO    Q    Seq
   (sec)              (ms)          (sec)           (ms)    Cnt    Num
0   10.0.0.1           Fa0/0         11  00:00:41    40      1000    0    1
```

### Configuring OSPF on Router R1:

```
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#router ospf 1
R1(config-router)#network 20.0.0.0 0.255.255.255 area 0
R1(config-router)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console
```

### Configuring OSPF on Router R2:

```
R2>en
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#router ospf 1
R2(config-router)#network 20.0.0.0 0.255.255.255 area 0
R2(config-router)#network 192.168.2.0 0.0
00:09:00: %OSPF-5-ADJCHG: Process 1, Nbr 20.0.0.1 on FastEthernet0/0 from LOADING
R2(config-router)#netwo
R2(config-router)#network 192.168.2.0 0.0.0.255 area 1
R2(config-router)#end
R2#
%SYS-5-CONFIG_I: Configured from console by console
```

### Listing OSPF external entry on Router R1:

```
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, 00:07:47, FastEthernet0/0
O IA    192.168.2.0/24 [110/2] via 20.0.0.2, 00:01:14, FastEthernet0/1
```

### On Router R1, redistributing OSPF, under EIGRP:

```
R1#
R1#router ei
R1#con
R1#conf t
R1#conf terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#
R1(config)#router ei
R1(config)#router eigrp 14
R1(config-router)#re
R1(config-router)#redistribute ospf 1 met
R1(config-router)#redistribute ospf 1 metric 1 1 255 255 1
R1(config-router)#exit
R1(config)#
```

### On Router R1, redistributing EIGRP, under OSPF:

```
R1(config)#router ospf 1
R1(config-router)#red
R1(config-router)#redistribute eigrp 14 subnets
R1(config-router)#exit
R1(config)#^Z
R1#
%SYS-5-CONFIG_I: Configured from console by console
```

### Details of protocols on Router R1:

```
R1#show ip protocols
```

Routing Protocol is "eigrp 14 "

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 14, ospf 1  
EIGRP-IPv4 Protocol for AS(14)  
Metric weight K1=1, K2=0, K3=1, K4=0, K5=0  
NSF-aware route hold timer is 240  
Router-ID: 10.0.0.2  
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:

10.0.0.0

Routing Information Sources:

Gateway	Distance	Last Update
10.0.0.1	90	199057

Distance: internal 90 external 170

Routing Protocol is "ospf 1"

Outgoing update filter list for all interfaces is not set  
Incoming update filter list for all interfaces is not set  
Router ID 20.0.0.1

It is an autonomous system boundary router

Redistributing External Routes from,  
eigrp 14

Number of areas in this router is 1. 1 normal 0 stub 0 nssa

Maximum path: 4

Routing for Networks:

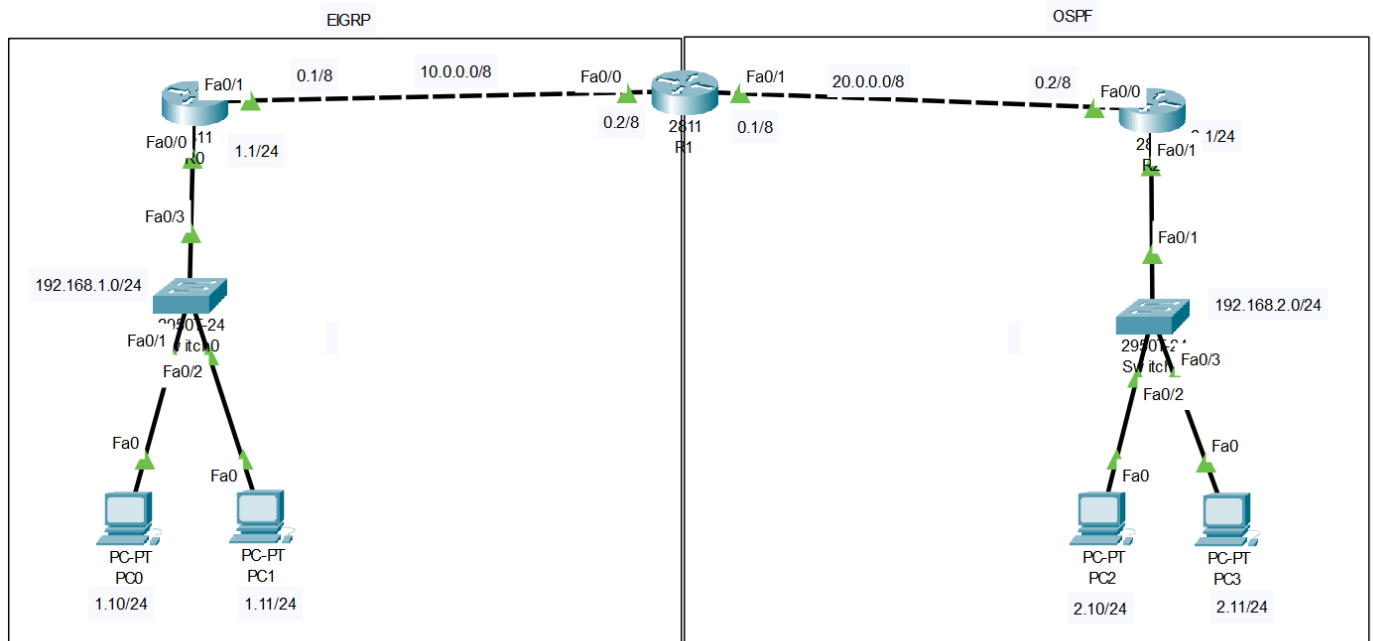
20.0.0.0 0.255.255.255 area 0

Routing Information Sources:

Gateway	Distance	Last Update
20.0.0.1	110	00:00:13
192.168.2.1	110	00:06:17

Distance: (default is 110)

Pinging PC0 to PC2:



1941	2901	2911	81910X	81910H	829	1240	PIRouter	PIEmpty	1841	2626
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Scenario 0	Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
		Failed	PC0	PC2	ICMP		0.000	N	0	(edit)	(delete)
		Successful	PC0	PC2	ICMP		0.000	N	1	(edit)	(delete)