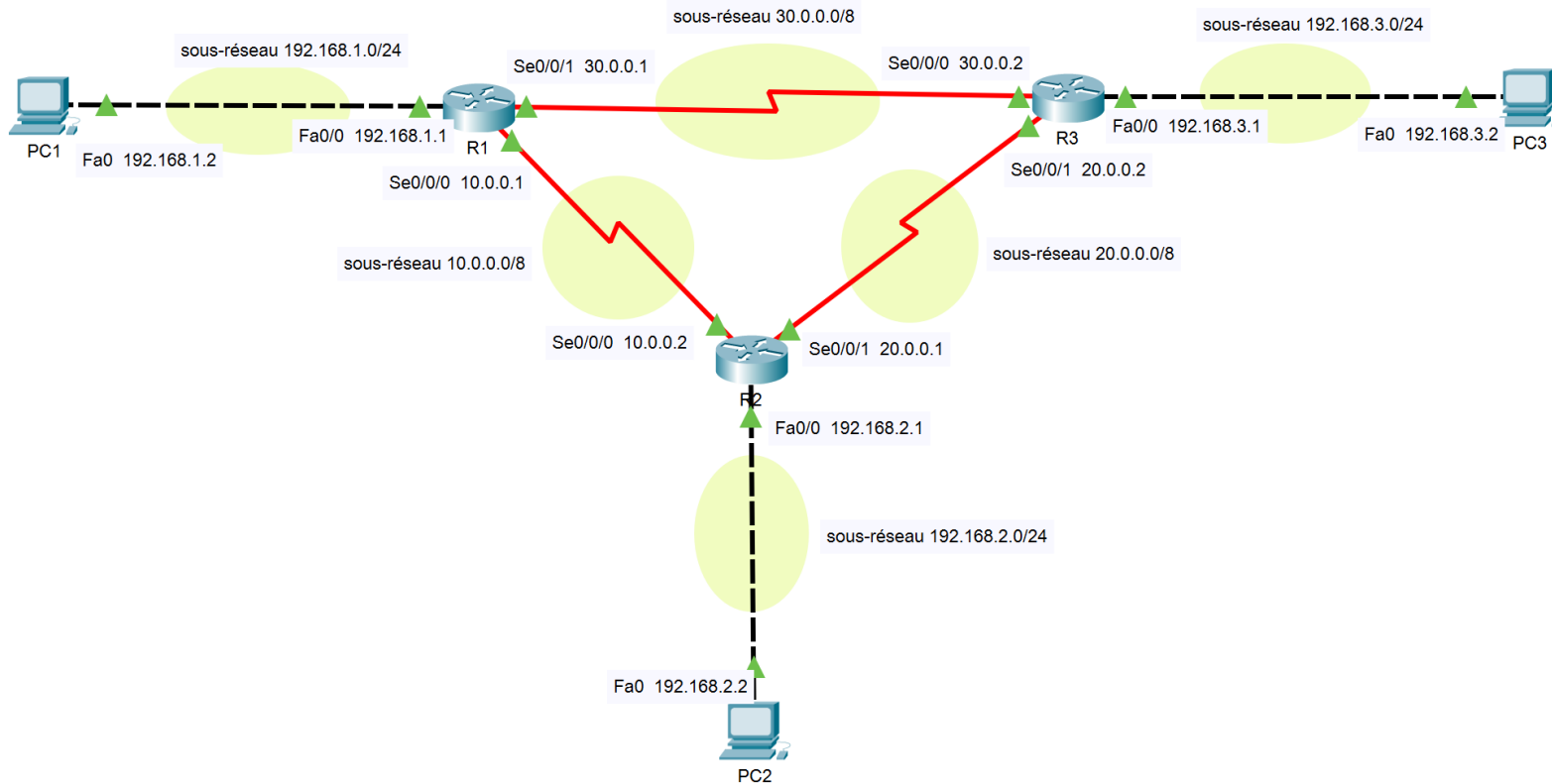


Laboratoire 5

Exemples de routage IP

Configuration Routage statique



R1#configure terminal

```
R1(config)#ip route 192.168.2.0 255.255.255.0 Se0/0/0
```

```
R1(config)#ip route 192.168.3.0 255.255.255.0 Se0/0/1
```

```
R1(config)#ip route 20.0.0.0 255.0.0.0 Se0/0/0
```

```
R1(config)#exit
```

R2#configure terminal

```
R2(config)#ip route 192.168.1.0 255.255.255.0 Se0/0/0
```

```
R2(config)#ip route 192.168.3.0 255.255.255.0 Se0/0/1
```

```
R2(config)#ip route 30.0.0.0 255.0.0.0 Se0/0/0
```

```
R2(config)#exit
```

R3#configure terminal

```
R3(config)#ip route 192.168.1.0 255.255.255.0 Se0/0/0
```

```
R3(config)#ip route 192.168.2.0 255.255.255.0 Se0/0/1
```

```
R3(config)#ip route 10.0.0.0 255.0.0.0 Se0/0/1
```

```
R3(config)#exit
```

R1#show ip route

```
C 10.0.0.0/8 is directly connected, Serial0/0/0
S 20.0.0.0/8 is directly connected, Serial0/0/0
C 30.0.0.0/8 is directly connected, Serial0/0/1
C 192.168.1.0/24 is directly connected, FastEthernet0/0
S 192.168.2.0/24 is directly connected, Serial0/0/0
S 192.168.3.0/24 is directly connected, Serial0/0/1
```

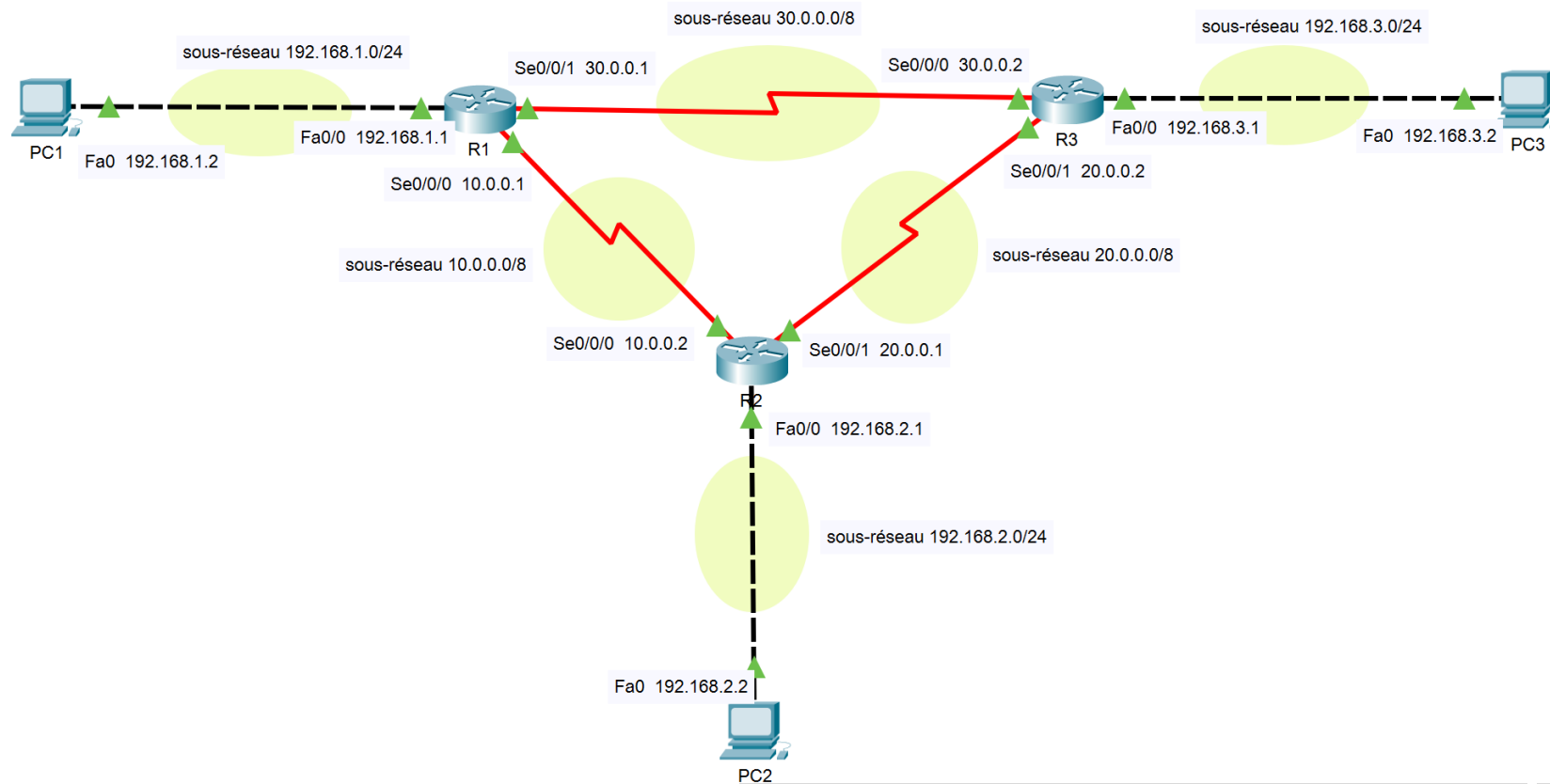
R2#show ip route

```
C 10.0.0.0/8 is directly connected, Serial0/0/0
C 20.0.0.0/8 is directly connected, Serial0/0/1
S 30.0.0.0/8 is directly connected, Serial0/0/0
S 192.168.1.0/24 is directly connected, Serial0/0/0
C 192.168.2.0/24 is directly connected, FastEthernet0/0
S 192.168.3.0/24 is directly connected, Serial0/0/1
```

R3#show ip route

```
S 10.0.0.0/8 is directly connected, Serial0/0/1
C 20.0.0.0/8 is directly connected, Serial0/0/1
C 30.0.0.0/8 is directly connected, Serial0/0/0
S 192.168.1.0/24 is directly connected, Serial0/0/0
S 192.168.2.0/24 is directly connected, Serial0/0/1
C 192.168.3.0/24 is directly connected, FastEthernet0/0
```

Configuration routage RIPv1



```
R1#configure terminal
R1(config)#router rip
R1(config-router)#network 192.168.1.0
R1(config-router)#network 10.0.0.0
R1(config-router)#network 30.0.0.0
R1(config-router)#exit
```

```
R2#configure terminal
R2(config)#router rip
R2(config-router)#network 192.168.2.0
R2(config-router)#network 10.0.0.0
R2(config-router)#network 20.0.0.0
R2(config-router)#exit
```

```
R3#configure terminal
R3(config)#router rip
R3(config-router)#network 192.168.3.0
R3(config-router)#network 20.0.0.0
R3(config-router)#network 30.0.0.0
R3(config-router)#exit
```

R1#show ip route

```
C 10.0.0.0/8 is directly connected, Serial0/0/0
R 20.0.0.0/8 [120/1] via 10.0.0.2, 00:00:27, Serial0/0/0
  [120/1] via 30.0.0.2, 00:00:20, Serial0/0/1
C 30.0.0.0/8 is directly connected, Serial0/0/1
C 192.168.1.0/24 is directly connected, FastEthernet0/0
R 192.168.2.0/24 [120/1] via 10.0.0.2, 00:00:27, Serial0/0/0
R 192.168.3.0/24 [120/1] via 30.0.0.2, 00:00:20, Serial0/0/1
```

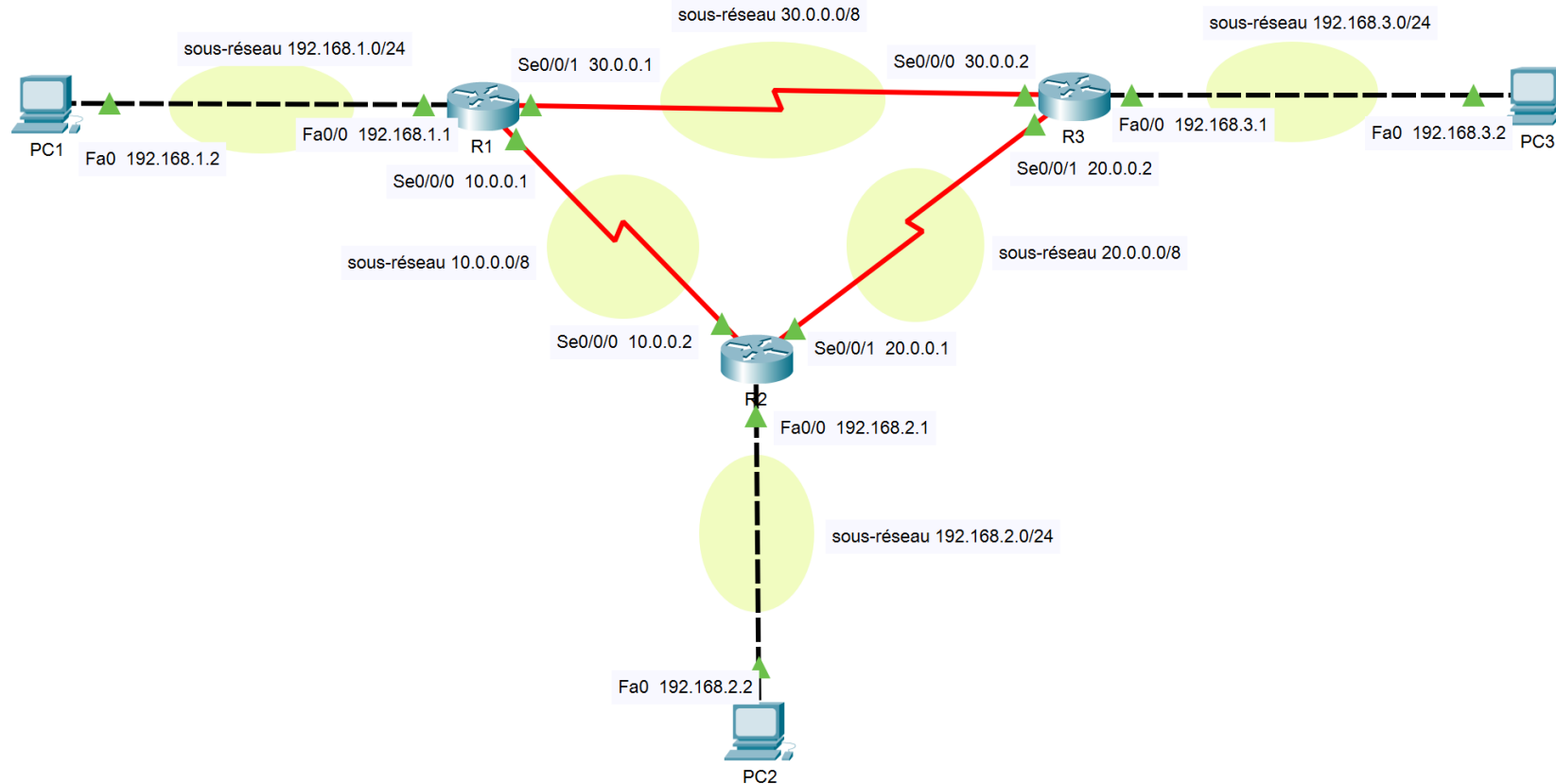
R2#show ip route

```
C 10.0.0.0/8 is directly connected, Serial0/0/0
C 20.0.0.0/8 is directly connected, Serial0/0/1
R 30.0.0.0/8 [120/1] via 10.0.0.1, 00:00:13, Serial0/0/0
  [120/1] via 20.0.0.2, 00:00:21, Serial0/0/1
R 192.168.1.0/24 [120/1] via 10.0.0.1, 00:00:13, Serial0/0/0
C 192.168.2.0/24 is directly connected, FastEthernet0/0
R 192.168.3.0/24 [120/1] via 20.0.0.2, 00:00:21, Serial0/0/1
```

R3#show ip route

```
R 10.0.0.0/8 [120/1] via 30.0.0.1, 00:00:11, Serial0/0/0
  [120/1] via 20.0.0.1, 00:00:17, Serial0/0/1
C 20.0.0.0/8 is directly connected, Serial0/0/1
C 30.0.0.0/8 is directly connected, Serial0/0/0
R 192.168.1.0/24 [120/1] via 30.0.0.1, 00:00:11, Serial0/0/0
R 192.168.2.0/24 [120/1] via 20.0.0.1, 00:00:17, Serial0/0/1
C 192.168.3.0/24 is directly connected, FastEthernet0/0
```

Configuration routage RIPv2



```
R1#configure terminal
R1(config)#router rip
R1(config-router)#version 2
R1(config-router)#no auto-summary
R1(config-router)#network 192.168.1.0
R1(config-router)#network 10.0.0.0
R1(config-router)#network 30.0.0.0
R1(config-router)#exit
```

```
R2#configure terminal
R2(config)#router rip
R2(config-router)#version 2
R2(config-router)#no auto-summary
R2(config-router)#network 192.168.2.0
R2(config-router)#network 10.0.0.0
R2(config-router)#network 20.0.0.0
R2(config-router)#exit
```

```
R3#configure terminal
R3(config)#router rip
R3(config-router)#version 2
R3(config-router)#no auto-summary
R3(config-router)#network 192.168.3.0
R3(config-router)#network 20.0.0.0
R3(config-router)#network 30.0.0.0
R3(config-router)#exit
```

R1#show ip route

```
C 10.0.0.0/8 is directly connected, Serial0/0/0
R 20.0.0.0/8 [120/1] via 10.0.0.2, 00:00:21, Serial0/0/0
  [120/1] via 30.0.0.2, 00:00:03, Serial0/0/1
C 30.0.0.0/8 is directly connected, Serial0/0/1
C 192.168.1.0/24 is directly connected, FastEthernet0/0
R 192.168.2.0/24 [120/1] via 10.0.0.2, 00:00:21, Serial0/0/0
R 192.168.3.0/24 [120/1] via 30.0.0.2, 00:00:03, Serial0/0/1
```

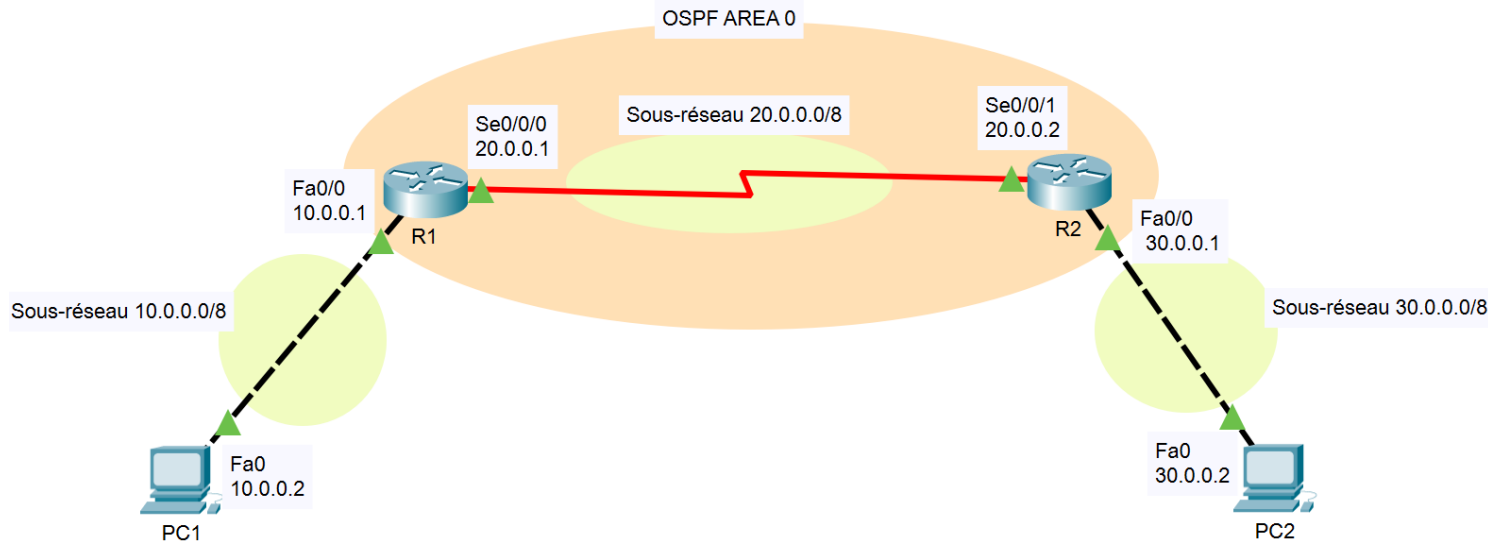
R2#show ip route

```
C 10.0.0.0/8 is directly connected, Serial0/0/0
C 20.0.0.0/8 is directly connected, Serial0/0/1
R 30.0.0.0/8 [120/1] via 10.0.0.1, 00:00:18, Serial0/0/0
  [120/1] via 20.0.0.2, 00:00:19, Serial0/0/1
R 192.168.1.0/24 [120/1] via 10.0.0.1, 00:00:18, Serial0/0/0
C 192.168.2.0/24 is directly connected, FastEthernet0/0
R 192.168.3.0/24 [120/1] via 20.0.0.2, 00:00:19, Serial0/0/1
```

R3#show ip route

```
R 10.0.0.0/8 [120/1] via 30.0.0.1, 00:00:15, Serial0/0/0
  [120/1] via 20.0.0.1, 00:00:09, Serial0/0/1
C 20.0.0.0/8 is directly connected, Serial0/0/1
C 30.0.0.0/8 is directly connected, Serial0/0/0
R 192.168.1.0/24 [120/1] via 30.0.0.1, 00:00:15, Serial0/0/0
R 192.168.2.0/24 [120/1] via 20.0.0.1, 00:00:09, Serial0/0/1
C 192.168.3.0/24 is directly connected, FastEthernet0/0
```

Configuration routage OSPF



```
R1#configure terminal
R1(config)#router ospf 1
R1(config-router)#network 10.0.0.0 0.255.255.255 area 0
R1(config-router)#network 20.0.0.0 0.255.255.255 area 0
R1(config-router)#passive-interface fa0/0
R1(config-router)#exit
```

```
R2#configure terminal
R2(config)#router ospf 1
R2(config-router)#network 20.0.0.0 0.255.255.255 area 0
R2(config-router)#network 30.0.0.0 0.255.255.255 area 0
R2(config-router)#passive-interface fa0/0
R2(config-router)#exit
```

R1#show ip route

```
C 10.0.0.0/8 is directly connected, FastEthernet0/0
C 20.0.0.0/8 is directly connected, Serial0/0/0
O 30.0.0.0/8 [110/65] via 20.0.0.2, 00:00:25, Serial0/0/0
```

Protocole de routage OSPF Réseau de destination Distance administrative Coût du lien pour atteindre la destination Adresse IP du prochain saut pour atteindre la destination

Interface de sortie du routeur pour aller vers la destination

R2#show ip route

```
O 10.0.0.0/8 [110/65] via 20.0.0.1, 00:16:26, Serial0/0/1
C 20.0.0.0/8 is directly connected, Serial0/0/0
C 30.0.0.0/8 is directly connected, FastEthernet0/0
```