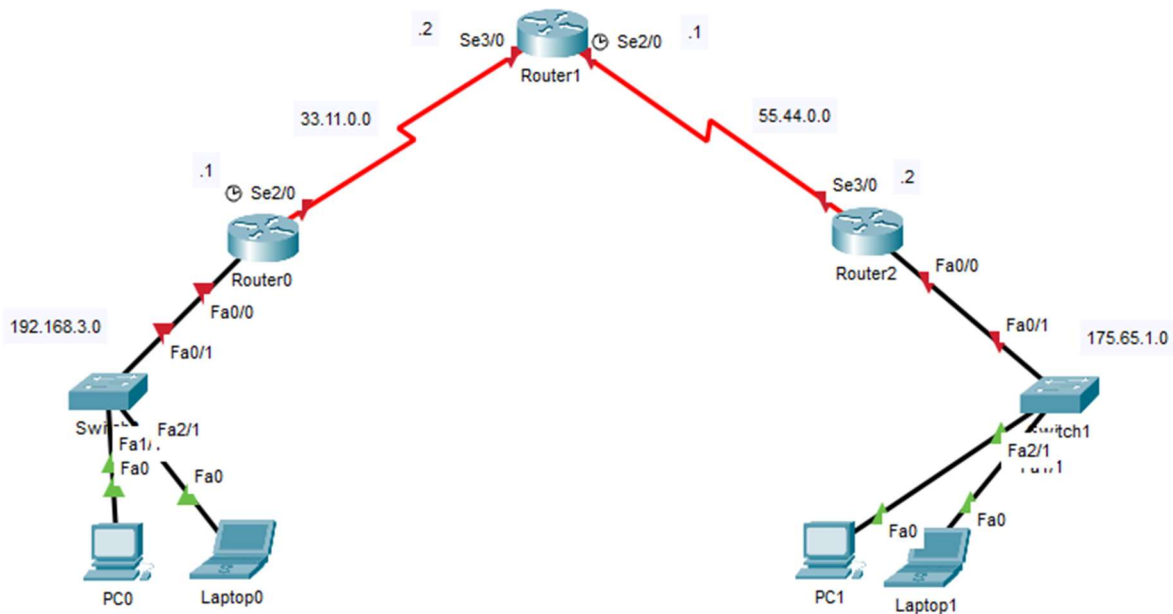


**LAB2: OSPF Configuration Lab****Topology**

Advanced OSPF (Open Shortest Path First) configuration lab scenario that involves multiple routers and areas. This lab assumes a basic understanding of OSPF concepts and Cisco router configuration.

**Instructions**

- Configure OSPF on all routers. Use IP addresses provided on the topology.
- **PCs:** assign IP addresses manually with the next available addresses.
- Configure OSPF area 0 between R0 and R1, and area 1 between R1 and R2.
- Clock rate 64000
- Ensure that all routers have full connectivity.

## Sample Configuration

### R0:

```
interface Serial2/0
  clock rate 64000
  ip address 33.11.0.1 255.0.0.0

interface FastEthernet0/0
  ip address 192.168.3.1 255.255.255.0

router ospf 1
  network 192.168.3.0 0.0.0.255 area 0
  network 33.11.0.0 0.255.255.255 area 0
```

### R1:

```
interface Serial3/0
  ip address 33.11.0.2 255.0.0.0

interface Serial2/0
  clock rate 64000
  ip address 55.44.0.1 255.0.0.0

router ospf 1
  network 33.11.0.0 0.255.255.255 area 0
  network 55.44.0.0 0.255.255.255 area 1
```

### R2:

```
interface Serial3/0
  ip address 55.44.0.2 255.0.0.0

interface FastEthernet0/0
  ip address 175.65.1.1 255.255.0.0

router ospf 1
  network 175.65.1.0 0.0.255.255 area 1
  network 55.44.0.0 0.255.255.255 area 1
```

## Verification

- Use the **show ip ospf neighbor** command on each router to verify OSPF neighbor adjacencies.
- Use the **show ip route** command on each router to verify OSPF routing table entries.
- Test connectivity between PCs using **ping** commands.