

1.3 – SRWE – Training - PacketKnows Configuring OSPFv2 in a Single Area

Addressing Table

Device	Interface	IPv4 Address	Subnet Mask	Default Gateway
R1	Fa0/0	172.16.1.1	255.255.255.0	N/A
	S0/0	172.16.3.1	255.255.255.252	N/A
	S0/1	192.168.10.5	255.255.255.252	N/A
R2	Fa0/0	172.16.2.1	255.255.255.0	N/A
	S0/0	172.16.3.2	255.255.255.252	N/A
	S0/1	192.168.10.9	255.255.255.252	N/A
R3	Fa0/0	192.168.1.1	255.255.255.0	N/A
	S0/0	192.168.10.6	255.255.255.252	N/A
	S0/1	192.168.10.10	255.255.255.252	N/A
PC1	E0	172.16.1.2	255.255.255.0	172.16.1.1
PC2	E0	172.16.2.2	255.255.255.0	172.16.2.1
PC3	E0	192.168.1.2	255.255.255.0	192.168.1.1

NOTE

- Power all the devices first by clicking the triangle button on the upper navbar.
- Right click the device then click the web console first to configure on the device
- Always type “save” when configuring IP addresses of PC’s

Objectives

Part 1: Configure OSPFv2 Routing

Part 2: Verify the Configurations

Background

In this activity, the IP addressing is already configured. You are responsible for configuring the three router topology with basic single area OSPFv2 and then verifying connectivity between end devices.

Note: The topology is the same one used in the chapter examples. In addition, the student practiced the configuration of this topology in the Syntax Checker activities. Therefore, the student should be able to complete this activity with minimal assistance.

Part 1: Configure OSPFv2 Routing

Step 1: Configure OSPF on the R1, R2 and R3.

Use the following requirements to configure OSPF routing on all three routers:

- Process ID 10
- Router ID for each router: R1 = 1.1.1.1; R2 = 2.2.2.2; R3 = 3.3.3.3
- Network address for each interface
- LAN interface set to passive (do not use the **default** keyword)

Step 2: Verify OSPF routing is operational.

On each router, the routing table should now have a route to every network in the topology.

Part 2: Verify the Configurations

Each PC should be able to ping the other two PCs. If not, check your configurations.

```
conf t
router ospf 10
  router-id 1.1.1.1
  network 172.16.1.0 0.0.0.255 area 0
  network 172.16.3.0 0.0.0.3 area 0
  network 192.168.10.4 0.0.0.3 area 0
  passive-interface fa0/0
```

R2

```
conf t
router ospf 10
  router-id 2.2.2.2
  network 172.16.2.0 0.0.0.255 area 0
  network 172.16.3.0 0.0.0.3 area 0
  network 192.168.10.8 0.0.0.3 area 0
  passive-interface fa0/0
```

R3

```
conf t
router ospf 10
  router-id 3.3.3.3
  network 192.168.1.0 0.0.0.255 area 0
  network 192.168.10.4 0.0.0.3 area 0
  network 192.168.10.8 0.0.0.3 area 0
  passive-interface fa0/0
```