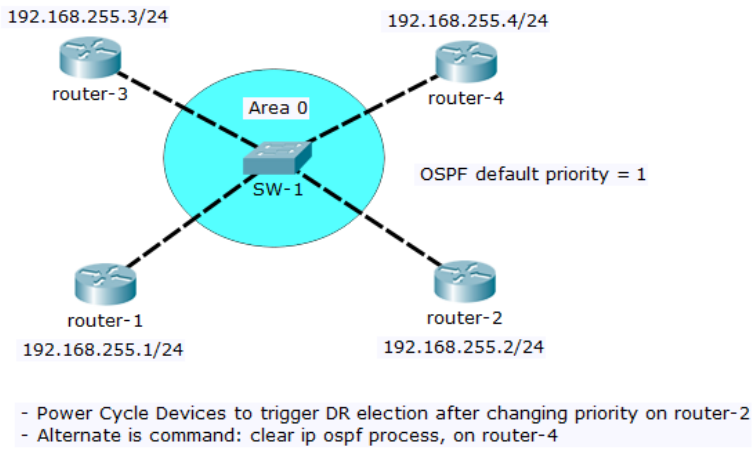
OSPF DR Election

Lab Summary

Change the OSPF priority on router-2 to elect it as Designated Router (DR).

Figure 1 Lab Topology



Lab Configuration

Start Packet Tracer File: **OSPF DR**

Router-1

Click on *router-2* icon and select the *CLI* folder. Hit <enter> key for user prompt (>).

Step 1: Enter global configuration mode

router-1> **enable**
Password: **cisconet**
router-1#

Step 2: Verify that router-4 is the currently elected Designated Router (DR) with the following command from router-1 (or any other router).

router-1# **show ip ospf neighbor**

Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.255.4	1	**FULL/DR**	00:00:31	192.168.1.4	FastEthernet0/0
192.168.255.3	1	FULL/BDR	00:00:31	192.168.1.3	FastEthernet0/0
192.168.255.2	1	2WAY/DROTHER	00:00:31	192.168.1.2	FastEthernet0/0

Router-2

Click on the *router-2* icon and select the *CLI* folder. Hit the <enter> key for user mode prompt (>).

Step 1: Enter global configuration mode

router-2> **enable**
Password: **cisconet**
router-2# **configure terminal**

Step 2: Change OSPF priority on router-2 interface Fa0/0 from the default 1 to 100.

router-2(config)# **interface fastethernet0/0**
router-2(config-router)# **ip ospf priority 100**
router-2(config-router)# **end**
router-2# **copy running-config startup-config**

Verify Lab

Restart or power cycle all network devices starting with router-2, to simulate new DR election from Packet Tracer. As an alternative, you could issue **clear ip ospf process** command from router-4.

Verify router-2 is now the elected Designated Router (DR) for all routers connected to area 0. Go to router-4 and confirm it is no longer the Designated Router.

router-1# **show ip ospf neighbor**

Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.255.3	1	2WAY/DROTHER	00:00:33	192.168.1.3	FastEthernet0/0
192.168.255.2	**100**	**FULL/DR**	00:00:33	192.168.1.2	FastEthernet0/0
192.168.255.4	1	FULL/BDR	00:00:33	192.168.1.4	FastEthernet0/0

router-2# **show ip ospf interface Fa0/0**

FastEthernet0/0 is up, line protocol is up
Internet address is **192.168.1.2/24**, Area 0
Process ID 1, Router ID 192.168.255.2, Network Type BROADCAST, Cost: 1
Transmit Delay is 1 sec, **State DR, Priority 100**
Designated Router (ID) 192.168.255.2, Interface address 192.168.1.2
Backup Designated Router (ID) 192.168.255.4, Interface address 192.168.1.4
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5