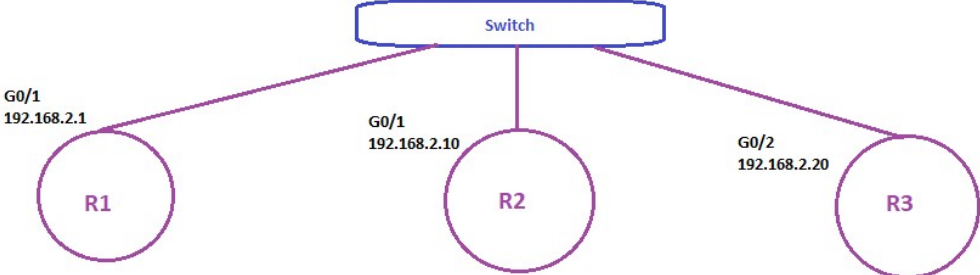


OSPF DR-BDR Elect

Purpose	Change OSPF interface priority to force manipulate DR election.
Test setup	 <pre> graph TD Switch[Switch] --- R1((R1)) Switch --- R2((R2)) Switch --- R3((R3)) R1 --- I1[G0/1 192.168.2.1] R2 --- I2[G0/1 192.168.2.10] R3 --- I3[G0/2 192.168.2.20] </pre>
Test configuration	<pre> Router 1 ! interface GigEthernet0/1 ip address 192.168.2.1 255.255.255.0 ip ospf priority 200 no ip directed-broadcast ip http firewalltype 0 ! router ospf 1 network 1.1.1.1 255.255.255.255 area 0 network 192.168.2.0 255.255.255.0 area 0 network 50.1.1.1 255.255.255.255 area 0 Router 2 ! interface GigEthernet0/2 ip address 192.168.1.1 255.255.255.0 no ip directed-broadcast ip http firewalltype 0 ! router ospf 1 network 100.1.1.1 255.255.255.255 area 0 network 192.168.1.0 255.255.255.0 area 0 Router 3 ! interface GigEthernet0/2 ip address 192.168.2.20 255.255.255.0 no ip directed-broadcast ip http firewalltype 0 ! router ospf 1 network 5.5.5.5 255.255.255.255 area 0 network 192.168.1.0 255.255.255.0 area 0 </pre>

Procedure Connect All OSPF participating routers in same network segment.
Ideally all are connected to same switch.

Test result Default priority on OSPF interface is 1

Router 1
Interface priority - 1
State - DrOther

Router 2
Interface priority - 1
State - DR

Router 3
Interface priority - 1
State - Backup DR

Before changing priority on Router 1,
It is DrOTHER in the network segment.

Router_1_10#
Router_1_10#
Router_1_10#
Router_1_10#
Router_1_10#sh ip ospf neigh

Neighbor ID	Pri	State	DeadTime	Neighbor Addr	Interface
100.1.1.1	1	FULL/DR	34	192.168.2.10	GigaEthernet0/1
200.1.1.1	1	FULL/BDR	33	192.168.2.20	GigaEthernet0/1

Router_1_10#
Router_1_10#
Router_1_10#

Router_2_20#
Router_2_20#
Router_2_20#
Router_2_20#
Router_2_20#sh ip ospf neigh

Neighbor ID	Pri	State	DeadTime	Neighbor Addr	Interface
50.1.1.1	1	FULL/DROTHER	33	192.168.2.1	GigaEthernet0/1
200.1.1.1	1	FULL/BDR	37	192.168.2.20	GigaEthernet0/1

Router_2_20#
Router_2_20#

Router_3_62#
Router_3_62#
Router_3_62#
Router_3_62#
Router_3_62#sh ip ospf neigh

Neighbor ID	Pri	State	DeadTime	Neighbor Addr	Interface
50.1.1.1	1	FULL/DROTHER	34	192.168.2.1	GigaEthernet0/2
100.1.1.1	1	FULL/DR	39	192.168.2.10	GigaEthernet0/2

Router_3_62#
Router_3_62#

After changing priority on Router 1 , G0/1 interface, and clearing ospf process, it becomes DR in the segment.

	<p>The image shows three terminal windows from a PuTTY session. The top-left window shows Router 1_10's OSPF neighbor table. The top-right window shows Router 2_20's OSPF neighbor table. The bottom window shows Router 3_62's OSPF neighbor table. In all three, the state of the neighbor is 'FULL/DR'.</p> <pre> Router 1_10# Router 1_10# Router 1_10#sh ip ospf neighbor ----- OSPF process: 1 AREA: 0 Neighbor ID Pri State DeadTime Neighbor Addr Interface ----- 192.1.1.1 1 FULL/DROTHER 33 192.168.2.10 GigaEthernet0/1 200.1.1.1 1 FULL/DR 34 192.168.2.20 GigaEthernet0/1 ----- Router 1_10# Router 1_10# Router 1_10# Router 1_10# Router 2_20# Router 2_20# Router 2_20#sh ip ospf neighbor ----- OSPF process: 1 AREA: 0 Neighbor ID Pri State DeadTime Neighbor Addr Interface ----- 192.1.1.1 200 FULL/DR 34 192.168.2.1 GigaEthernet0/1 200.1.1.1 1 FULL/BDR 32 192.168.2.20 GigaEthernet0/1 ----- Router 2_20# Router 2_20# Router 2_20# Router 2_20# Router 3_62# Router 3_62# Router 3_62#sh ip ospf neighbor ----- OSPF process: 1 AREA: 0 Neighbor ID Pri State DeadTime Neighbor Addr Interface ----- 192.1.1.1 200 FULL/DR 35 192.168.2.1 GigaEthernet0/2 100.1.1.1 1 FULL/DROTHER 32 192.168.2.10 GigaEthernet0/2 ----- Router 3_62# Router 3_62# Router 3_62# Router 3_62# </pre>
Status	<p>After changing interface priority for OSPF interface i.e G0/2 on router 1 to 200, and clearing OSPF process, router 1 is elected as DR on that segment.</p>