

1/12/22

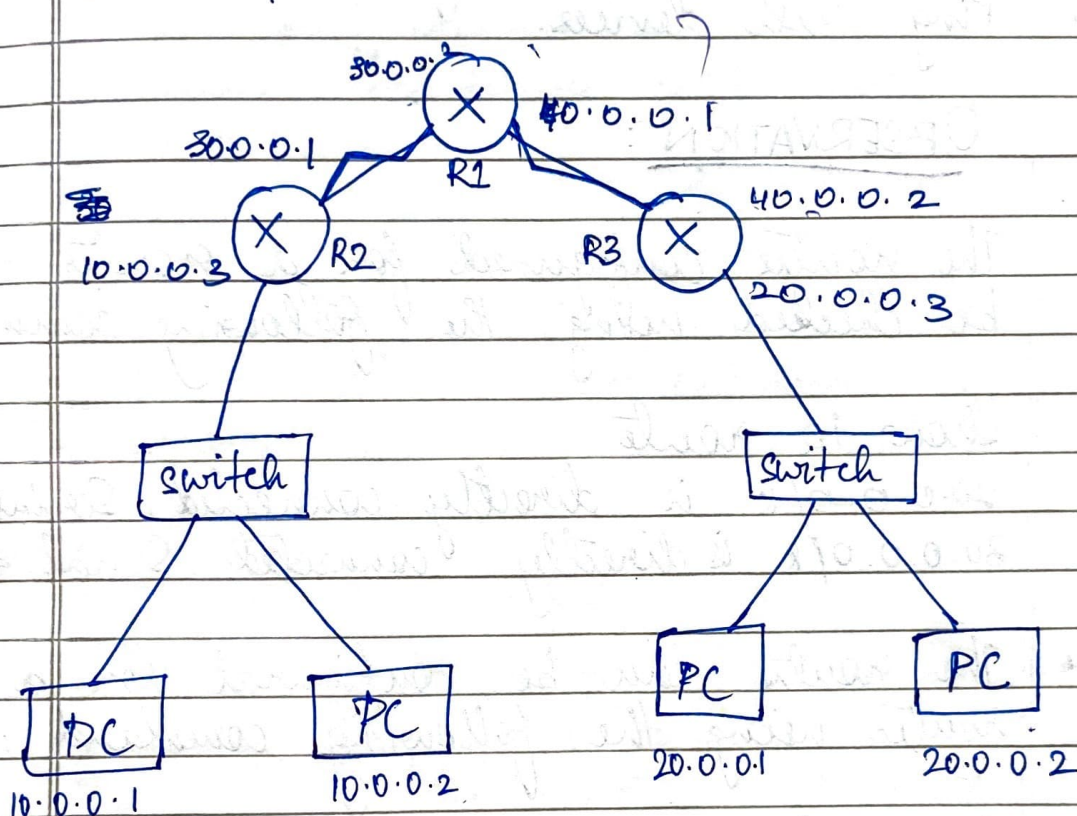
EXPERIMENT-4

PAGE NO.:

DATE:

AIM: To configure default route to the router.

TOPOLOGY:



PROCEDURE:

- * Connect 2 end devices to the 3 routers.
- * Configure all end devices
- * Configure the router
enable
config terminal
interface Fa0/0
interface Se2/0
no shutdown
exit
- * Same way configure all the routers and make the connection up.

- * Set the gateway to the end devices.
- * In routers, I set the default network

```
ip route 30.0.0.1 255.0.0.0 40.0.0.1
```

network subnet hop
- * Set default route for all the routers.
- * Ping all devices.

OBSERVATION :

- * The route configured for a router can be checked using the following commands

Show ip route

20.0.0.0/8 is directly connected, Serial 2/0
 30.0.0.0/8 is directly connected, Serial 3/0

- * The router can be configured for a router using the following command :

```
ip route 10.0.0.0 255.0.0.0 20.0.0.1
```

To configure a default route :

```
ip route 0.0.0.0 0.0.0.0 20.0.0.1
```

- * When we ping to 20.0.0.1 from 10.0.0.1 without setting gateway for 10.0.0.1 we get request timed out since the end device doesn't know which path to follow.

- * After setting gateway and before setting route, if we ping to 30.0.0.1 we get request timed out since the

router doesn't know how to reach that network.

* Before configuring the route for router 4 if we ping to 60.0.0.1 from 10.0.0.1 we get destination host unreachable because the route 3 is unaware of 60.0.0.0.

* After we configure a default route for router 3 with hop as 50.0.0.1, we are able to successfully ping to 60.0.0.1

RESULT:

Before configuring default route for router 3, ping 60.0.0.1

Pinging 60.0.0.1 with 32 bytes of data.
Reply from 30.0.0.2 : Destination host unreachable

Reply from 30.0.0.2 : Destination host unreachable

Ping statistics for 60.0.0.1 :

Packets : Sent = 4, Received = 0, Lost = 4 (100% loss)

After configuring default route:

Ping 60.0.0.1

Pinging 60.0.0.1 with 32 bytes of data
Reply from 60.0.0.1 : bytes = 32, time = 30ms
TTL = 124

Reply from 60.0.0.1 : bytes = 32, time = 9ms
TTL = 124

Ping statistics for 60.0.0.1 :
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in ms
Min = 3ms, Max = 30ms, Avg = 14ms

Before setting gateway :

Ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Request timed out

Request timed out

Request timed out

Ping statistics for 20.0.0.1

Packets: Sent = 4, Received = 0, Lost = 4
(100% loss)

~~15/12~~