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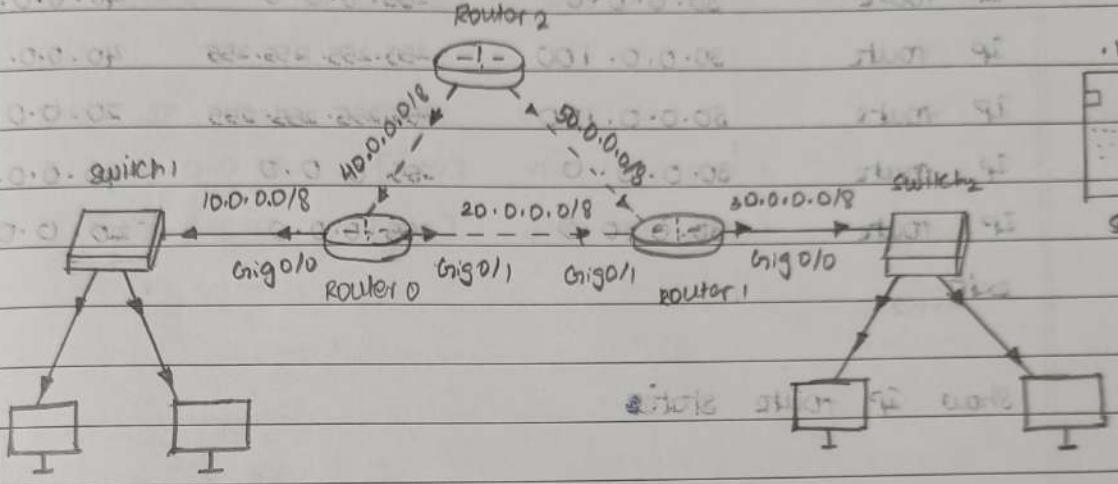
# PRACTICAL - 11 (a)

AIM:

Simulate static Routing configuration using cisco packet tracer.




ADDING ROUTES:

# IP route 30.0.0.0 255.0.0.0 20.0.0.210

# IP route 30.0.0.0 255.0.0.0 40.0.0.220

| ROUTER | AVAILABLE LOCAL | NETWORK - ON OTHER ROUTES |
|---|---|---|
| Router 0 | 10.0.0.0/8, | 30.0.0.0/8 |
| | 20.0.0.0/8, | 50.0.0.0/8 |
| | 40.0.0.0/8 | |
| Router 1 | 20.0.0.0/8 | 10.0.0.0/8 |
| | 30.0.0.0/8 | 40.0.0.0/8 |
| | 50.0.0.0/8 | |
| Router 2 | 40.0.0.0/8 | 10.0.0.0/8 |
| | 50.0.0.0/8 | 20.0.0.0/8 |
| | | 30.0.0.0/8. |

ROUTER 0 :

enable

configure terminal

| | | | |
|---|---|---|---|
| IP route | 30.0.0.0 | 255.0.0.0 | 20.0.0.2.10 |
| IP route | 30.0.0.0 | 255.0.0.0 | 40.0.0.2.20 |
| IP route | 30.0.0.100 | 255.255.255.255 | 40.0.0.2/0 |
| IP route | 30.0.0.100 | 255.255.255.255 | 20.0.0.2.20 |
| IP route | 30.0.0.0 | 255.0.0.0 | 40.0.0.2/0 |
| IP route | 30.0.0.0 | 255.0.0.0 | 20.0.0.220 |

exit

show ip route static

30.0.0.0/8 is variable subnetted, 2 subnet, 2 masks.

| | | | |
|---|---|---|---|
| S | 30.0.0.0/8 | [10/0] | via 20.0.02 |
| S | 30.0.0/00/32 | [10/0] | via 40.0.02 |
| S | 50.0.0.0/8 | [10/0] | via 40.0.02 |

ROUTER 1 :

enable

configure terminal

| | | | | |
|---|---|---|---|---|
| IP route | 10.0.0.0 | 255.0.0.0 | 20.0.0.1 | 10 |
| IP route | 10.0.0.0 | 255.0.0.0 | 50.0.0.1 | 20 |
| IP route | 40.0.0.0 | 255.0.0.0 | 20.0.0.1 | 10 |
| IP route | 40.0.0.0 | 255.0.0.0 | 50.0.0.1 | 20 |

exit

show ip route static

| | | | |
|---|---|---|---|
| S | 10.0.0.0/8 | [10/0] | via 20.0.01 |
| S | 40.0.0.0/8 | [10/0] | via 20.0.01 |

ROUTER 2:

enable

configure terminal

ip route 10.0.0.0 255.0.0.0 40.0.0.1

ip route 30.0.0.0 255.0.0.0 50.0.0.2

exit

show ip route static

S 10.0.0.0/8 [1/0] via 40.0.0.1

S 30.0.0.0/8 [1/0] via 50.0.0.2.

RESULT:

Thus static routing configuration is executed and the output is verified successfully.

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# PRACTICAL - 11 (b)

AIM:

simulate RIP using CISCO packet tracer.

| DEVICE | INTERFACE | IP CONFIG | CONNECTED WITH |
|---|---|---|---|
| PC0 | Fast Ethernet | 10.0.2.10 | R0 Fa0/1 |
| Router0 | Fa 0/1 | 10.0.0.1/8 | PC0 Fa E |
| Router0 | S0/0/1 | 192.168.1.254/30 | R2 S0/0/1 |
| Router0 | S0/0/0 | 192.168.1.249/30 | R1 S0/0/0 |
| Router1 | S0/0/0 | 192.168.1.250/30 | R0 S0/0/0 |
| Router1 | S0/0/1 | 192.168.1.245/30 | R2 S0/0/0 |
| Router 2 | S/0 0 | 192.168.1.253/30 | R1 S0/0/1 |
| Router 2 | S0/0/1 | 192.168.1.246/30 ~~20.0.0.1/30~~ | R2 S0/0/1 ~~PC1 FAE~~ |
| Router 2 | Fa 0/1 | 20.0.0.1/30 | PC1 FAE |
| PC1 | Fast Ethernet | 20.0.0.2/30 | R2 FA 0/1 |

ROUTER 0:

configure terminal

interface serial 0/0/0

IP address 192.168.1.299 255.255.255.254

clock rate 64000

band width

no shutdown

exit

interface 192.168.1.254 255.255.255.254

bandwidth 64

no shutdown

exit

ROUTER 1:

```
enable
configure terminal
interface 0/0/0
ip address 192.168.125.0 255.255.255.256
no shutdown
exit
interface serial 0/0/1
ip address 192.168.1.245 255.255.255.252
clock rate 64000
bandwidth
no shutdown
exit
```

ROUTER 2:

```
enable
configure terminal
interface fast ethernet 0/0
ip address 20.0.0.1 255.0.0.0
no shutdown
exit
interface serial 0/0/0
ip address 192.168.6.45 255.255.255.252
no shutdown
exit
interface serial 0/0/1
ip address 192.168.1.255
no shutdown
exit
```

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ROUTER 0:

router rip

network 10.0.0.0

network 192.168.1.252

network 192.168.1.268

ROUTER 1:

router rip

network 192.168.1.244

network 192.168.1.248

ROUTER 2:

router rip

network 20.0.0.0

network 192.168.1.252

network 192.168.1.244

RESULT:

Thus RIP using cisco packet tracer is successfully executed and output is verified.