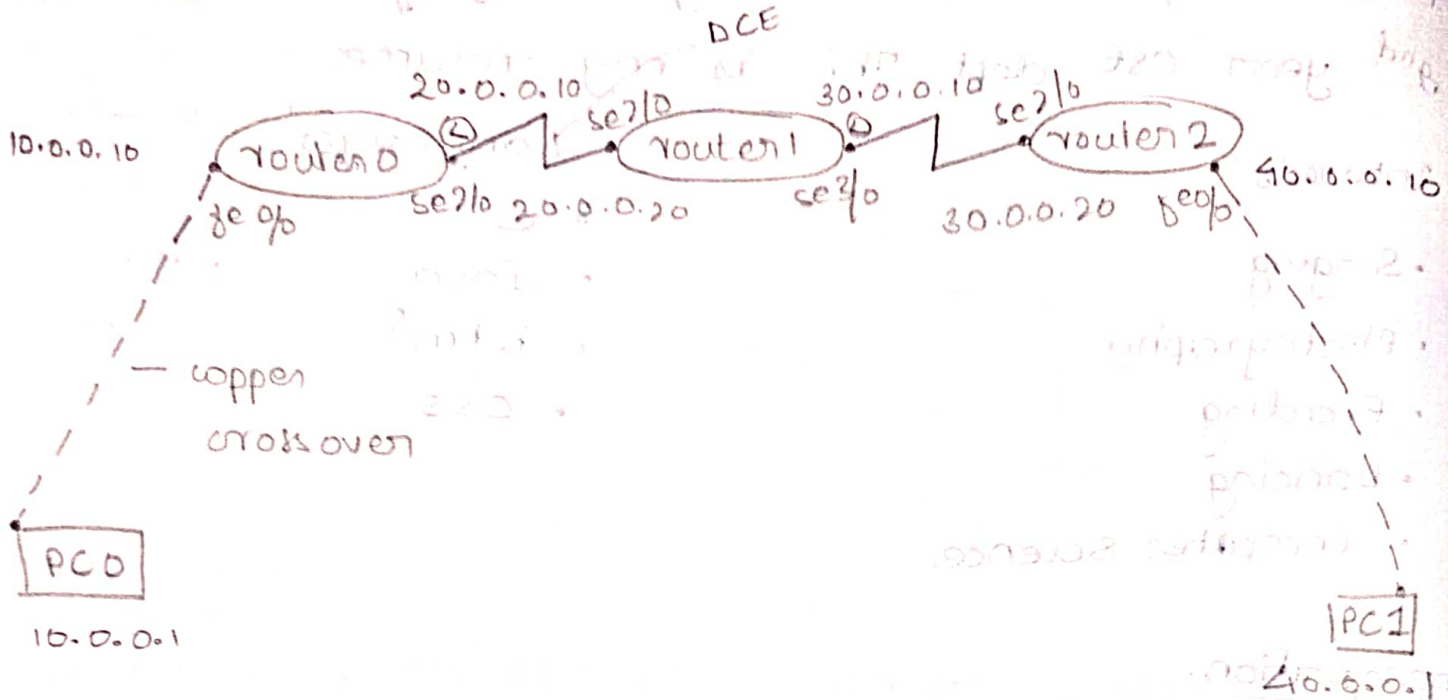


Experiment 4b6

Aim : To understand working of RIP.

Topology



Procedure

1. Connect 3 routers using DCE and connect two PCs (end devices) using copper crossover.
2. Set IPs and gateways for PCs.
3. Configure IPs for routers. For fastethernet port —
for router → 0
router > enable
router# config t
router(config)# interface fastethernet 0/0
router(config-if)# ip address 10.0.0.10 255.0.0.0
router(config-if)# no shut
router(config-if)# exit

4. For router to router configuration

follow same steps till ip address

router(config-if)# encapsulation PPP

router(config-if)# clock rate 64000

router(config-if)# no shut

router(config-if)# exit.

this step for every router to router configuration

This step for every interface with clock on it

(router 0 se 2/0 & router 1 se 3/0)

5. For RIP →

router 0 :

(router)# config t

router(config)# router RIP

router(config-router)# network 10.0.0.0

router(config-router)# network 20.0.0.0

router(config-router)# exit

repeat the same steps for all routers.

6. Ping PC 1. from PC 0.

output:

PC > ping 40.0.0.1

pinging 40.0.0.1 with 32 bytes of data:

Request timed out

Reply from 40.0.0.0.1 : ~~bytes~~ bytes = 32 time = 9 ms TTL = 125

Reply from 40.0.0.0.1 : bytes 32 time = 15 ms TTL = 125

Reply from 40.0.0.1 : bytes 32 time = 9 ms TTL = 125

ping status for 40.0.0.1

Packets: sent = 4, received = 3, loss = 1 (25% loss)

Approximate round trip times in millie-seconds:
minimum = 9 ms, Maximum = 15 ms, Average = 11 ms

Observation:

- Routing information protocol (rip) is a dynamic routing protocol that uses hop count as a routing metric to find the ~~pe~~ best path between source and destination. It is a distance vector routing protocol.
- Hop count is the no. of routers coming in between source and destination. The path with least hop count is selected.
- updates of the network are exchanged periodically.
- updates of routing information are always broadcast
- Full routing tables are sent in updates.
- Router always trust routing information received from neighbor routers.

FileEditOptionsViewToolsExtensionsHelp

Logical[Root]New ClusterMove ObjectSet Tiled BackgroundViewport

PC0

PhysicalConfigDesktopCustom Interface

Command Prompt

Packet Tracer PC Command Line 1.0
PC>ping 40.0.0.1

Finging 40.0.0.1 with 32 bytes of data:

Reply from 40.0.0.1: bytes=32 time=10ms TTL=125
Reply from 40.0.0.1: bytes=32 time=10ms TTL=125
Reply from 40.0.0.1: bytes=32 time=8ms TTL=125
Reply from 40.0.0.1: bytes=32 time=15ms TTL=125

Ping statistics for 40.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 8ms, Maximum = 15ms, Average = 10ms

pc>

Time: 00:41:54Power Cycle DevicesFast Forward Time

Connections

Toggle PDU List Window

Automatically Choose Connection Type

Realtime

Destination	Type	Color	Time(sec)	Periodic	Num
PC0	ICMP		0.000	N	0

04:3813-07-2023

