Experiment - 6 - Computer Communications

Name: Rahul Goel

Reg No: RA1911630010094

Batch: CSE-02-TP304.

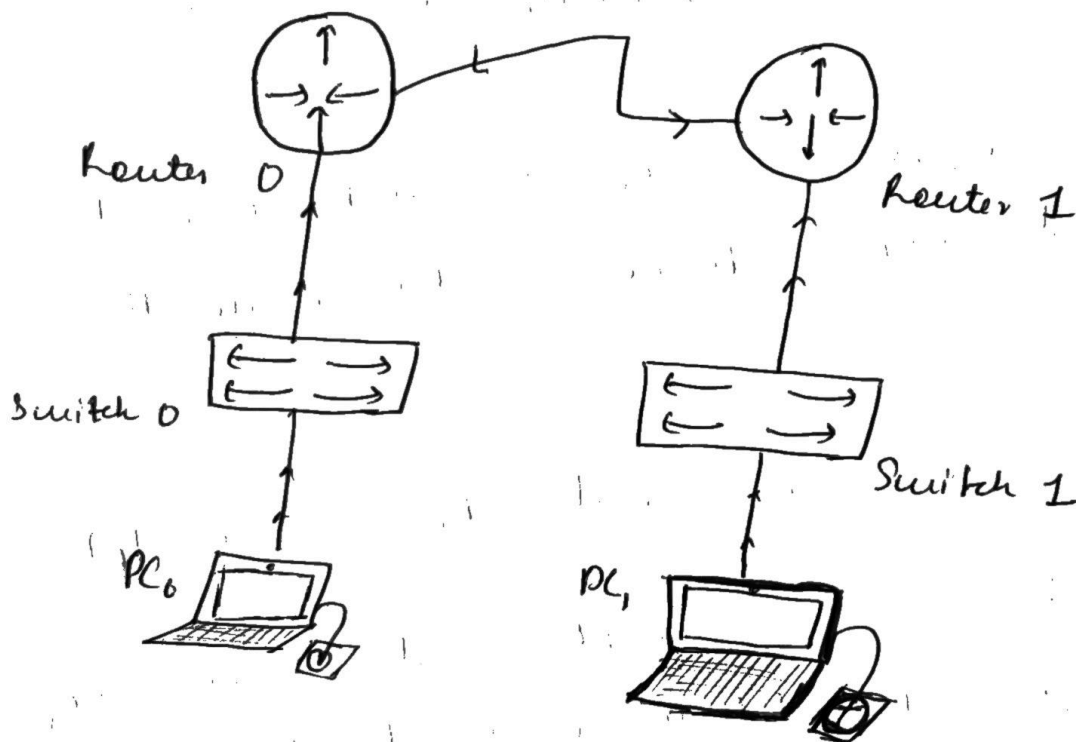**AIM :-** ROUTING INFORMATION PROTOCOL (version 1).

To configure RIP V, routing between two routers.

PROCEDURE:-

① Take 2 H-routers, 2. 2950-24 switches and 2 PC's and connect them as shown in the screenshot.

② Connect routers using serial cable (serial 2/0).

③ Now click on each router and go the config and assign IP address in serial 2/0 and fast ethernet 0/0 and turn them on.

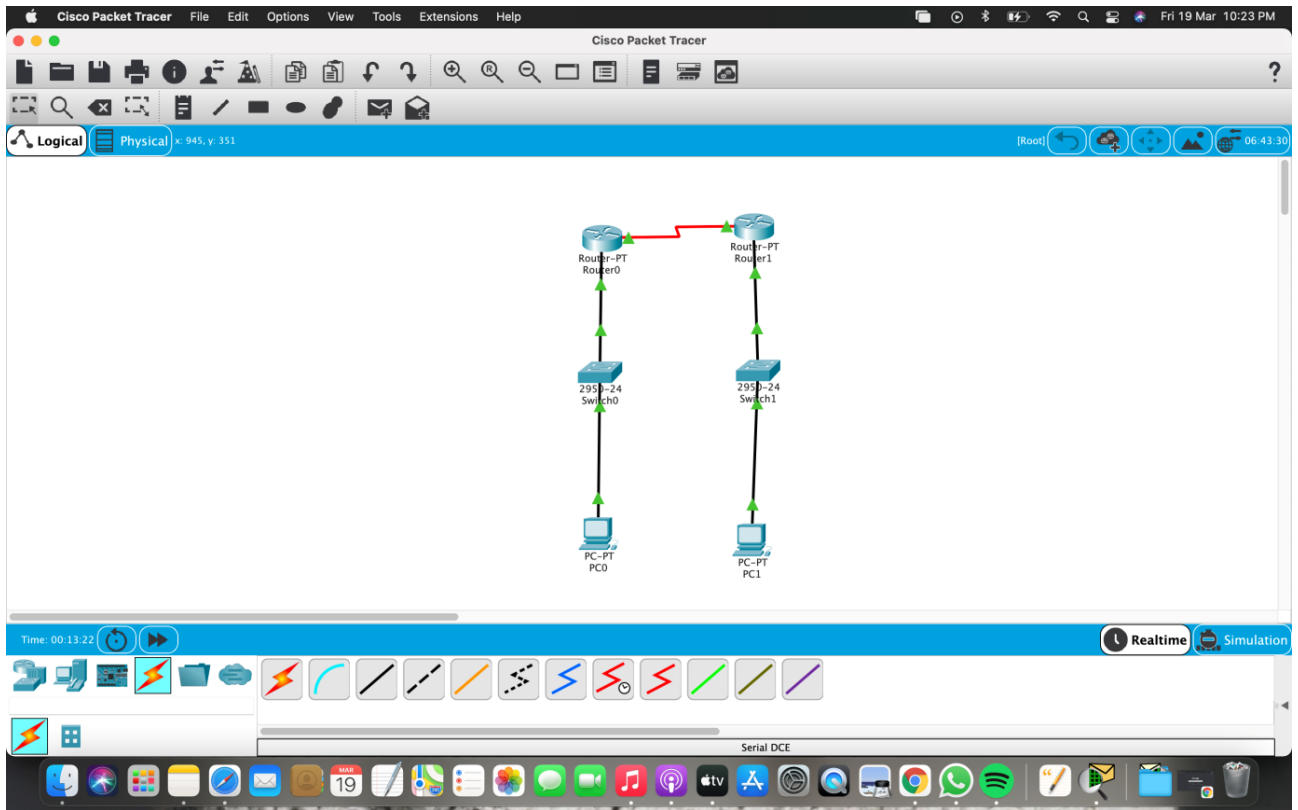④ Assign unsigning IP addresses, click on each router → go the config and give network addresses and add them in RIP.

⑤ Now Assign IP addresses to pin with respective gateway addresses.

⑥ After all then ping using Network address and IP address in command prompts at PC's.

Diagram:-

Router 0

Router 1

Switch 0

Switch 1

PC₀

PC₁

Result:-

RIP V₁ routing between two routers have been established.

Screenshot 1 — PC1 IP Configuration

Cisco Packet Tracer   File   Edit   Options   View   Tools   Extensions   Help   Fri 19 Mar 10:24 PM

Cisco Packet Tracer

Logical   Physical   x: 225, y: 200   [Root]   07:18:00

PC1

Physical   Config   Desktop   Programming   Attributes

IP Configuration

Interface   FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   192.168.2.2
Subnet Mask   255.255.255.0
Default Gateway   192.168.2.1
DNS Server   0.0.0.0

IPv6 Configuration

○ Automatic   ● Static

IPv6 Address   /
Link Local Address   FE80::2E0:F9FF:FEBE:8617
Default Gateway
DNS Server

802.1X

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Time: 00:14:31   Realtime   Simulation

Serial DCE

Screenshot 2 — PC0 Command Prompt

Cisco Packet Tracer   File   Edit   Options   View   Tools   Extensions   Help   Fri 19 Mar 10:25 PM

Cisco Packet Tracer

Logical   Physical   x: 660, y: 419   [Root]   07:24:30

PC0

Physical   Config   Desktop   Programming   Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.0

Pinging 192.168.2.0 with 32 bytes of data:

Reply from 10.0.0.3: bytes=32 time=2ms TTL=254
Reply from 10.0.0.3: bytes=32 time=1ms TTL=254
Reply from 10.0.0.3: bytes=32 time=1ms TTL=254
Reply from 10.0.0.3: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.2.0:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>ping 192.168.0.0

Pinging 192.168.0.0 with 32 bytes of data:

Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.

Ping statistics for 192.168.0.0:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=11ms TTL=126

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 11ms, Average = 4ms

C:\>ping 192.168.2.2
```

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Time: 00:14:44   Realtime   Simulation

Serial DCE