

Exp - 6

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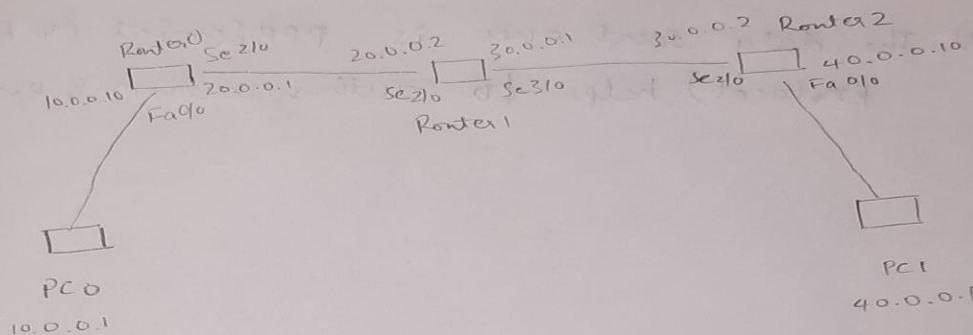
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Question : Demonstrate RIP (Routing Information Protocol)

Aim : Configuring routers with RIP & sending messages

Topology :



Procedure :

- 1) Connect the PCs to routers as shown
- 2) Configure Router 0 & Router 2's FastEthernet connection
- 3) Configure all routers & 'encapsulation PPP' command is used to encapsulate the packets.
- 4) Set clock rate for required Routers.

CLI commands :

- 1) config t
- 2) interface fastethernet 0/0
- 3) ip address 10.0.0.10 255.0.0.0
- 4) ~~encapsulation~~
- 4) no shut
- 5) encapsulation PPP

- 6) clock rate 64000
- 7) route rip
- 8) Network 10.0.0.0

Observation :

- 1) The Router Information Protocol, identifies the connected routes automatically and routing happens
- 2) The data sent over is PPP (Point to Point Protocol) helps for authentication & encryption.

Screen Shots:

IOS Command Log

	Time	Device	Prompt	Command	Resolved Command
1	Fri Nov 6 09:13:29 2020	Router1	Router>	enable	enable
2	Fri Nov 6 09:13:38 2020	Router1	Router#	config t	configure terminal
3	Fri Nov 6 09:14:01 2020	Router1	Router(config)#	interface fastethernet 0/0	interface FastEthernet0/0. 0
4	Fri Nov 6 09:14:18 2020	Router1	Router(config-if)#	ip address 10.0.0.10 255.0.0.0	ip address 10.0.0.10 255.0.0.0
5	Fri Nov 6 09:14:45 2020	Router1	Router(config-if)#	encapsulation ppp	
6	Fri Nov 6 09:15:01 2020	Router1	Router(config-if)#	encapsulation ppp	
7	Fri Nov 6 09:15:46 2020	Router1	Router(config-if)#	encapsulation ppp	
8	Fri Nov 6 09:16:08 2020	Router1	Router(config-if)#	no shut	no shutdown
9	Fri Nov 6 09:16:14 2020	Router1	Router(config-if)#	exit	exit
10	Fri Nov 6 09:16:17 2020	Router1	Router(config)#	exit	exit
11	Fri Nov 6 09:16:26 2020	Router1	Router#	enable	enable
12	Fri Nov 6 09:16:29 2020	Router1	Router#	config t	configure terminal
13	Fri Nov 6 09:16:49 2020	Router1	Router(config)#	interface serial 2/0	interface Serial2/0. 0
14	Fri Nov 6 09:17:10 2020	Router1	Router(config-if)#	ip address 20.0.0.1 255.0.0.0	ip address 20.0.0.1 255.0.0.0
15	Fri Nov 6 09:18:13 2020	Router1	Router(config-if)#	encapsulation ppp	encapsulation ppp

Update

PC0

Physical Config Desktop Programming Attributes

Command Prompt

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Packet Tracer PC Command Line 1.0
C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 10.0.0.10: Destination host unreachable.
Request timed out.
Reply from 10.0.0.10: Destination host unreachable.
Reply from 10.0.0.10: Destination host unreachable.

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.1: bytes=32 time=2ms TTL=125
Reply from 40.0.0.1: bytes=32 time=9ms TTL=125
Reply from 40.0.0.1: bytes=32 time=9ms TTL=125

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 9ms, Average = 6ms

C:\>

```

Topology:

