# <u>Aim-5</u>

## 5. Configure RIP routing protocol in Routers

## Topology:

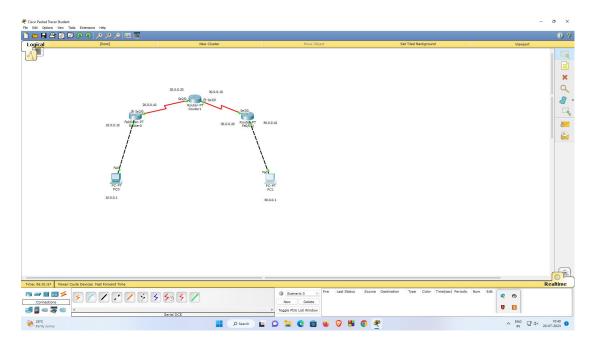


Fig 1: Topology

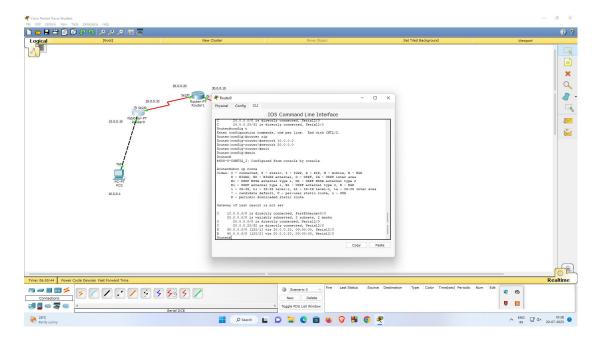


Fig 2: Router 0 networks and next hop ip addresses

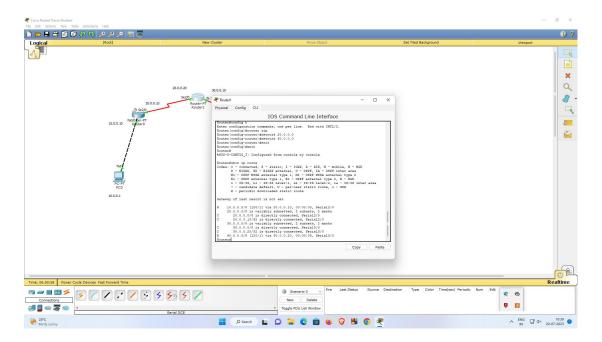


Fig 3: Router 1 networks and next hop ip addresses

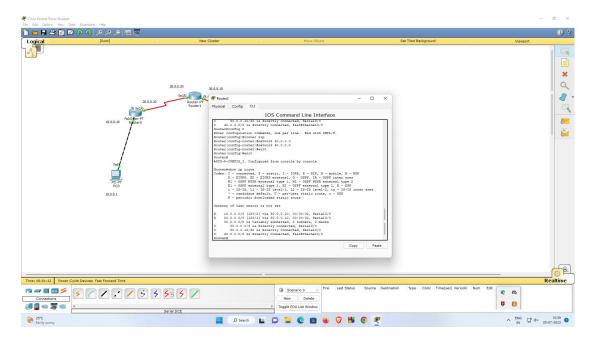


Fig 4: Router 2 networks and next hop ip addresses

### Procedure and Observation:

20/07/23	Aim-5	o whool
Configur RIP	routing Prot	ocal in Routers.
Topology		col mobile
20.0.0.10	30.0.010	o.o. Pado as de
10.0.0.10 PD	R <sub>1</sub> Seslo	Died la
falo,	( L	falp is ( is)
	obsloto	Despotation !-
PLO		Loubla giza
10.0.0.1		atom shots 1-
Procedure	pcost pers	ip addices
-> configur the i.e; pco (10.0.	o.1) & pc1 (4	.o.o.o.1)
2) Now Configu	ue the soul	Tus.
		of config t

-> Router o - Lenable 2) config t el interface fostethemet olo - ) ip address 10.0.0.10 255.0.0.0 -> no shut clast => enit ( for Suial port) - Sinderfale Sevial 260 =} ip address 20.0.0.10 255.0.0.0 => encapsulation ppp -> clock rate 64000 -> no that -> exit Routu 1 er enable 26 config t

= 4 interface Suid 20 2 1 p address 20.0.0.20 455.0.0.0 - Y encapsulation ppp . I no Shut 24 crit (for Serial 3/0 poort) => interface durial 3/0 - lip addies 30.0.0.10 255.0.0.0 exencapsulation ffp es clock late 64000 of no shut of chitarities was what I Routus 2 bailable see bodayle of crable ) 000 pd star Abolo "si et interface Suial 3/0 2/ ip address 30.0.0.20 255.0.0.0 => encopsidion PPP =) no shut specit

(for Jostethunt part)

=> infer interface fortethunt 0/0

=> ip address 40.0.0.10 255.0.0.0

-> no that

=> exit

Mote:

stas hur it is sip souting for all Social interfaces we use / include this entre command i.e; "encapsulation PPP." And for Sevial interfaces with which

has clock symbol use uselinchede this Command i.e; "clock rate 64000" (ofter

encapsulation ppp (ommand).

e adolest 30.0.0. E

of Now chile the connetted networks (Johpp) Robits p =y etit =4 Show 1 Plidute 24 Now we've to make sou themselves know the about the networks present. For that we need to use Jollowing commands Routino -1 config E e) conter sip -> retwork 10.0.0.0 =} network 20.0.0.0 ef exit Router => Configt 2/ loutu rip

-> network 20.0.00 Entwork 30.0.00 Routu 2 -> Config t -> with up network 30 0.0.0 -> network 40,0,0,0 -> crit => Now check the corrected networks and the next hops of all the conters Routus eferit -> Thow is route 10.0.0.0/8 is directly connected Fastethenet 0/0 C 20.0.0.0/8 is directly connected said 40

0920.0.0.018 is Voulabley Subnetted, 2 Subn--ets, 2 mayles c 20.0.0.201832 is directly connected Seval 2/0 R 30.0.0.0/8 [120/1] Via 20.0.0.20, 00:00:00, R40.0.0.018 [1201] Via 20.0.0.20, 00:00:00, Sevial 2/0 Routul 24 exit => Thow is route R 10.0.0.0/8 [120/1] Via 20.0.0.10,00:00:00, Sevial 210 20.0.0.018 is directly 1 conhected variably Subnetted, 2 Subnets, 2 masks c 20.0.0.0/8 is directly connected, Seval 2/0 C 20.0.0.10/32 is directly connected, Scripto 30.0.0.0/8 is Variably Subnetted, & Subn--ets, 2 mayles

c 30.0.0.18 is directly connected, Swid 3/0 c 30.0.0.20132 is directly connected, Seval 3/0 R 40.0.0.0/8 [120/1] Via 30.0.0.20, 00:00103 Seval 3/0. Route 2 2) exit of show ip route R 60.0.0.0 /8 [120/2] Via 30.0.0.10, 00:00:00 Seval 3/0 R 20.0.0.0/8[120/1] Via 30.0.0.10, 00100102, Serial 3/0 30.010.018 is Variably Subnetled, 2 Subret c 30.0.0/8 is directly connected, Swid c 30.0.010/3c is directly cornected, Swal

```
e 40.0.0.0/8 is directly connected to
          Fastethunt 0/0
  . I get the default gateways of pcs.
 i.e; pco (10.0.0.10) & pc1 (40.0.0.10).
 Output
  => Pinging from pco to pci
3) Pinging 40.0.0.1 with 32 bytes of data:
         time out
Reply from 40.0.0.1! bytes = 32 time = 6ms
TTL = 125
 Reply from 40.0.0.1: bytes = 3 L Jime= 11 ms
Reply from 40.0.0.1: byty= 32 time = 5 ms
 Ping statistics for 40.0.0.1:
    Packets Sent 24, Received = 3, Lost=1(56)
```

Approximate round trip times in milli-Minimum = 5ms, Maximum = 11 ms, Avuage 27 ms => pinging from per to peo Pinging 10.0.0.1 with 32 bytes of data: Reply from 10.0.0.1: bytes 232 time=12ms Reply from 10.0.0.1: byty = 3- time=7 ms Reply from 10.0.0.1: byts = 32 fine = 12ms Reply from 10.0.0.1! bytes = 32 time = 9 ms Ping statisties for 10.0.0.1! Parlety: Sent=41 Received 24, Logt 20

Approximate round tip times Minimum = 7 ms, Maximam = 12 ms, Avuage = 10 ms. Ob Suration 2) RIP is (Routing Information Protocol) 25 It uses distance Vector algorithm -> when you use this particular protocol the contres themselves learn about the other networks present and the next hop to be communicated ( Jevu's is addiess) of hit has

## Output:

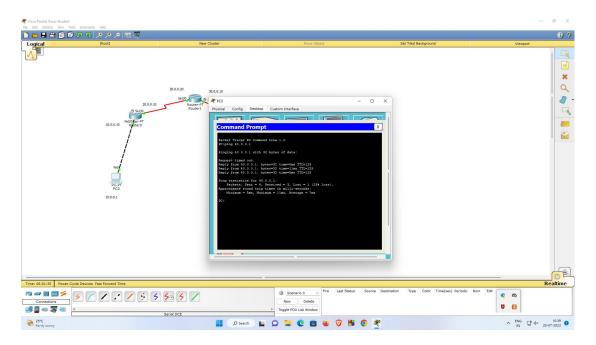


Fig 5: Pinging from pc0 to pc1

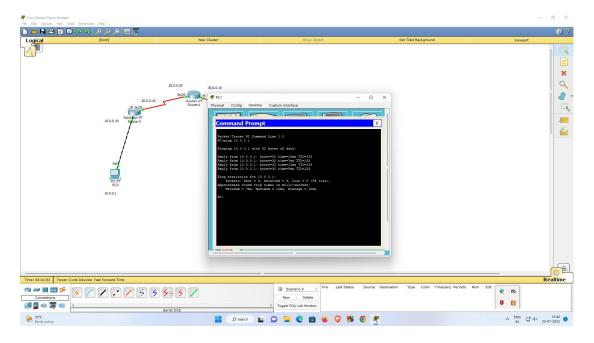


Fig 6: Pinging from pc1 to pc0