

8/9/25

- simulate RIP using Cisco packet  
Router

d) RIP simulation Just write in detail

Attributes of step 2 To simulate RIP (Routing Information Protocol),  
Cisco packet tracer and verify dynamic routing  
between routers. all required steps goes to  
simulation

Initial IP configuration

- \* PCs and routes assigned IP addresses on fast Ethernet and serial interface as per topology.
- \* Serial interface on DCE side configured with clock rate and bandwidth.
- \* Interfaces brought up using no shutdown command.

RIP configuration.

- \* Enable RIP on each route using router rip command
- \* Advertise directly connected networks using network <network-address> command.

Network connectivity verification.

- \* use ping from PC0 to PC1 to verify end-to-end connectivity
- \* Two routes exist between PC0 and PC1 ; RIP selects the route with least hop count by default.
- \* use traceroute to verify the path taken by packets.

Dynamic Route Failover

- \* simulated link failure by disconnecting Router0 Serial 0/0/0 to Router2 Serial 0/0/1
- \* RIP automatically re-routed traffic via alternate path (through Router1) without manual intervention.

• C:\Lokesh\9  
input happens to sub-interface has a link

all out goes  
to specific

Link Index	Link Type	Link Status	Link Address	Link Mask	Link MTU	Link Cost	Link Description
1	Static	Up	192.168.1.1	255.255.255.0	1500	0	Primary
2	Static	Up	192.168.1.2	255.255.255.0	1500	0	Secondary
3	Dynamic	Up	192.168.1.3	255.255.255.0	1500	0	Backup
4	Dynamic	Up	192.168.1.4	255.255.255.0	1500	0	Alternate

Top 10 via 1 Router

1. Aditya -> Suresh -> Venkatesh

2. Aditya -> Suresh -> Venkatesh

3. Aditya -> Suresh -> Venkatesh

4. Aditya -> Suresh -> Venkatesh

5. Aditya -> Suresh -> Venkatesh

6. Aditya -> Suresh -> Venkatesh

7. Aditya -> Suresh -> Venkatesh

8. Aditya -> Suresh -> Venkatesh

9. Aditya -> Suresh -> Venkatesh

10. Aditya -> Suresh -> Venkatesh

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4	Dynamic	Up	192.168.1.4	255.255.255.0	1500	0	Alternate
5	Dynamic	Up	192.168.1.5	255.255.255.0	1500	0	Primary
6	Dynamic	Up	192.168.1.6	255.255.255.0	1500	0	Secondary
7	Dynamic	Up	192.168.1.7	255.255.255.0	1500	0	Backup
8	Dynamic	Up	192.168.1.8	255.255.255.0	1500	0	Alternate
9	Dynamic	Up	192.168.1.9	255.255.255.0	1500	0	Primary
10	Dynamic	Up	192.168.1.10	255.255.255.0	1500	0	Secondary
11	Dynamic	Up	192.168.1.11	255.255.255.0	1500	0	Backup
12	Dynamic	Up	192.168.1.12	255.255.255.0	1500	0	Alternate
13	Dynamic	Up	192.168.1.13	255.255.255.0	1500	0	Primary
14	Dynamic	Up	192.168.1.14	255.255.255.0	1500	0	Secondary
15	Dynamic	Up	192.168.1.15	255.255.255.0	1500	0	Backup
16	Dynamic	Up	192.168.1.16	255.255.255.0	1500	0	Alternate
17	Dynamic	Up	192.168.1.17	255.255.255.0	1500	0	Primary
18	Dynamic	Up	192.168.1.18	255.255.255.0	1500	0	Secondary
19	Dynamic	Up	192.168.1.19	255.255.255.0	1500	0	Backup
20	Dynamic	Up	192.168.1.20	255.255.255.0	1500	0	Alternate
21	Dynamic	Up	192.168.1.21	255.255.255.0	1500	0	Primary
22	Dynamic	Up	192.168.1.22	255.255.255.0	1500	0	Secondary
23	Dynamic	Up	192.168.1.23	255.255.255.0	1500	0	Backup
24	Dynamic	Up	192.168.1.25	255.255.255.0	1500	0	Alternate
25	Dynamic	Up	192.168.1.26	255.255.255.0	1500	0	Primary
26	Dynamic	Up	192.168.1.27	255.255.255.0	1500	0	Secondary
27	Dynamic	Up	192.168.1.28	255.255.255.0	1500	0	Backup
28	Dynamic	Up	192.168.1.29	255.255.255.0	1500	0	Alternate
29	Dynamic	Up	192.168.1.30	255.255.255.0	1500	0	Primary
30	Dynamic	Up	192.168.1.31	255.255.255.0	1500	0	Secondary
31	Dynamic	Up	192.168.1.32	255.255.255.0	1500	0	Backup
32	Dynamic	Up	192.168.1.33	255.255.255.0	1500	0	Alternate
33	Dynamic	Up	192.168.1.34	255.255.255.0	1500	0	Primary
34	Dynamic	Up	192.168.1.35	255.255.255.0	1500	0	Secondary
35	Dynamic	Up	192.168.1.36	255.255.255.0	1500	0	Backup
36	Dynamic	Up	192.168.1.37	255.255.255.0	1500	0	Alternate
37	Dynamic	Up	192.168.1.38	255.255.255.0	1500	0	Primary
38	Dynamic	Up	192.168.1.39	255.255.255.0	1500	0	Secondary
39	Dynamic	Up	192.168.1.40	255.255.255.0	1500	0	Backup
40	Dynamic	Up	192.168.1.41	255.255.255.0	1500	0	Alternate
41	Dynamic	Up	192.168.1.42	255.255.255.0	1500	0	Primary
42	Dynamic	Up	192.168.1.43	255.255.255.0	1500	0	Secondary
43	Dynamic	Up	192.168.1.44	255.255.255.0	1500	0	Backup
44	Dynamic	Up	192.168.1.45	255.255.255.0	1500	0	Alternate

Result:

static routing and RIP were successfully configured in cisco routers. connectivity between PCs was verified and backup/alternate routes worked correctly during link failure.

Writen by  
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