

Q.no: 1
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Static Routing

Aim:

- a) Simulate Static Routing Configuration using CISCO packet Tracer.
- b) Simulate RIP using CISCO packet Tracer.

a) Adding Static Routes: each router knows only the networks directly connected to it - add static route to reach a network not directly connected.

Eg: router 0, networks 10.0.0.0/8, 20.0.0.0/8, 40.0.0.0/8 are directly connected but 30.0.0.0/8 & 50.0.0.0/8

b) Creating main and backup routes.

Administrative Distance decides preference of routes. The lower the AD, the higher the preference.

3) Router Configuration:

Configure static routes on each router for networks not directly connected.

4) Verifying Router:

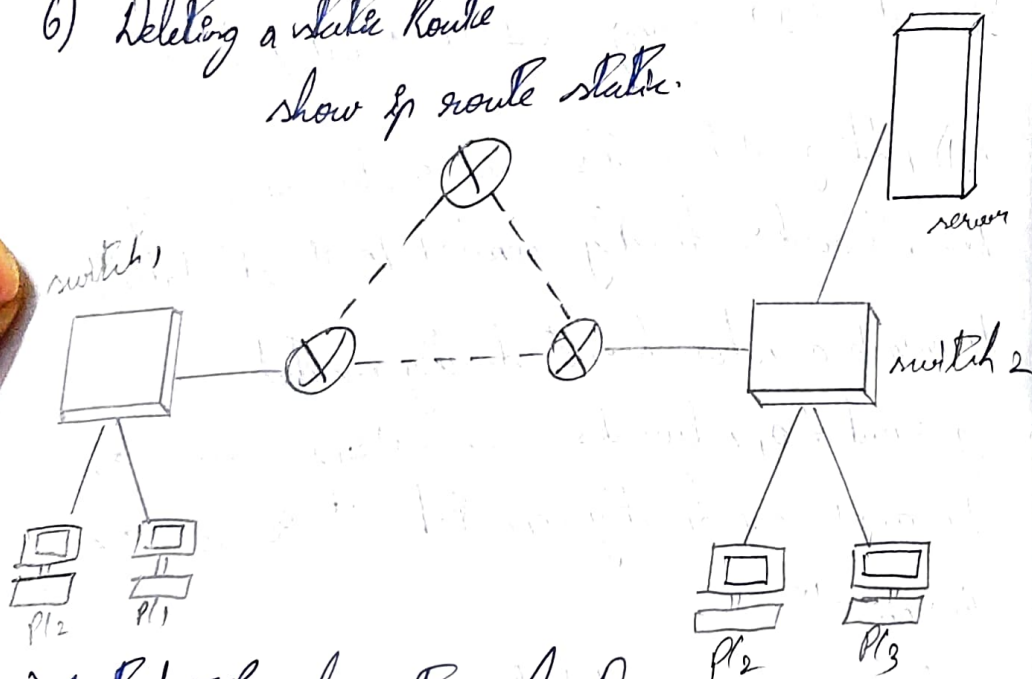
Verify routes by using command `show IP route` static.

5) Testing Route Failover:

→ Test connectivity using Tracer or Ping from a device on a connected network.

→ Disconnect or "break" the link on the main route.

6) Deleting a Static Route show ip route static.



1) Initial IP configuration for Devices.

2) Assign IP addresses to Devices for PCs and Routers.

3) Enable & configure interfaces on Routers.

4) Configure RIP on Routers.

5) Verify and Test Redundancy.

- Use Ping Command on PC.

- Use Tracer to see RIP redirection

Traffic on alternate route

Output:

Thus the program is executed and verified successfully