

















# INDEX

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Completed

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Aim

a) Simulate static routing configuration using CISCO packet tracer

b) Simulate RIP using CISCO packet tracer.

(a)

1. 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

2. Creating main Backup routes

Administrative distance decides preference of routes, the lower the AD, the higher the preference.

3. Router configurations

Configure static routes on each router for networks not directly connected

4. Verifying Router:

Verify routes by using command `show ip route static`

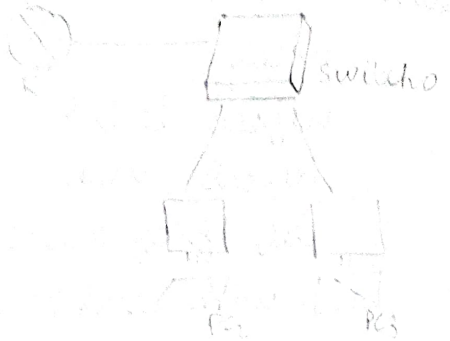
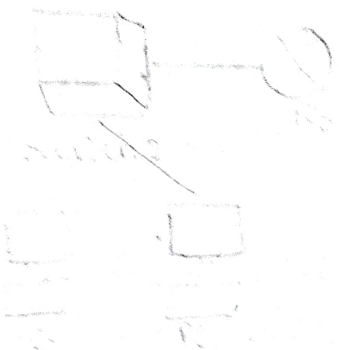
5. Testing route fail over:

→ Test connectivity using `tracert` or `ping` from a device on a connected network

6. Disconnect or break the link on the main route

7. Deleting a static route

`show ip route static`



b) 1) Initial IP configuration for devices

2) Assign IP addresses to devices - for PCs and Router

3) Enable, configure interfaces on Router

4) configure RIP on routers

5) verify and test redundancy

- use ping command on PC1

- use tracer to see RIP redundancy <sup>directing</sup> traffic through an alternate route.

Result

Thus the output is successfully verified.