PRACTICAE - 11

AIM :-

(a)

Simulate Static Routing configuring using cisco Packet Tracer

Static routes are the routes you manually add to the router's routing table. The process of adding static routes to the routing table is known as static routing.

Setting up a practice lab :-

Create a packet tracer lab as shown or download the following pre-created lab and load it on Packet Tracer.

The IP addressing for the network shown in the topology can be as follows:

- Router R1:
- GigabitEthernet0/0: 192.168.1.1
- GigabitEthernet0/1: 192.168.2.1
- Switch S1:
- FastEthernet0/1: 192.168.1.0/27
- PC1: 192.168.1.11
- PC2: 192.168.1.12
- PC3: 192.168.1.13
- PC4: 192.168.1.14
- PC5: 192.168.1.15
- FastEthernet0/2: 192.168.2.0/27
- PC1: 192.168.2.11
- PC2: 192.168.2.12
- PC3: 192.168.2.13
- PC4: 192.168.2.14
- PC5: 192.168.2.15
- Router R2:
- FastEthernet0/0: 192.168.3.1
- FastEthernet0/1: 192.168.4.1
- Switch S2:
- FastEthernet0/1: 192.168.3.0/27
- PC1: 192.168.3.11
- PC2: 192.168.3.12
- PC3: 192.168.3.13
- PC4: 192.168.3.14
- PC5: 192.168.3.15
- FastEthernet0/2: 192.168.4.0/27
- PC1: 192.168.4.11
- PC2: 192.168.4.12
- PC3: 192.168.4.13
- PC4: 192.168.4.14
- PC5: 192.168.4.15

Creating, adding, verify

Routers automatically learn their connected networks. We only need add routes for the networks that are not available on the router's interfaces

Verifying static routing:-

On Router 0, we configured 2 routes for network 30.0.0.0/8. These routes are via Router 1 & via Router 2. We set the first route as the main route & the second route is the backup route.

- The following link provides the configure packet tracer lab of the above example
Packet Tracer Lab with static Routing configuration

Deleting a static route.

→ Use the 'show ip route static' command to print all static routes

→ Note down the route you want to delete.

Result :-

Thus the above experiment is ~~experiment~~ executed successfully.

9/10/18

AIM :-

Simulate RIP using cisco Packet Tracer.

Assign IP address to PCs.

Double click PCs and click Desktop menu item and click IP configuration

Assign IP address to interface of routers

Double click Router0 and click CLI & press Enter key to access the command prompt of Router0.

We need to configure IP address and other parameters on interfaces before we could actually use them for routing. Interface mode is used to assign IP address and other parameters.

Interface mode can be accessed from global configuration mode.

Router > enable

Router # configure terminal

Enter configuration commands, one per line.

End with CNTL/Z.

Router (config) #

From global configuration mode we can enter in interface mode from there we can configure the interface.

interface fastEthernet 0/0 command is used to enter in interface mode.

ip address 10.0.1 255.0.0.0 command will assign IP address to interface.

no shutdown command will bring the interface up.

exit command is used to return in global configuration mode.

Router # show controllers serial 0/0/0.

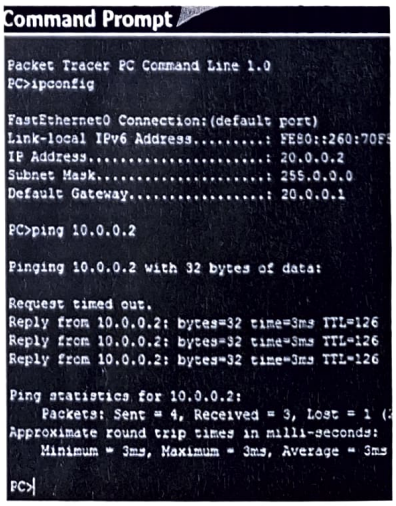
Interface Serial 0/0/0.

Hardware is PowerQUICC MPC860

DCE V.35, clock rate 2000000

Initial IP configuration

Device	Interface	IP Configuration	Connected with
PC0	Fast Ethernet	10.0.0.2/8	Router0's Fa0/1
Router0	Fa0/1	10.0.0.1/8	PC0's Fast Ethernet
Router0	S0/0/1	192.168.1.254/30	Router2's S0/0/1
Router0	S0/0/0	192.168.1.249/30	Router1's S0/0/0
Router1	S0/0/0	192.168.1.250/30	Router0's S0/0/0
Router1	S0/0/1	192.168.1.246/30	Router2's S0/0/0
Router2	S0/0/0	192.168.1.245/30	Router1's S0/0/1
Router2	S0/0/1	192.168.1.253/30	Router0's S0/0/1
Router2	Fa0/1	20.0.0.1/30	PC1's Fast Ethernet
PC1	Fast Ethernet	20.0.0.2/30	Router2's Fa0/1



Result :-

Thus the above experiment is executed successfully.