Ex. 1149
2024/10/25

Static routing config using CISCO Packet Tracer

Procedure:

To stimulate open cisco packet tracer & config CISCO Packet tracer.

Procedure:

step-1: open cisco packet tracer, & create a new network topology using three routers & connect them.

step-2: Assign appropriate IP address to all router interface as per lab network table.

step-3:

on router 0, access the CLI and enable config mode using enable & config terminal

step 4: create static route for network not directly connected to router 0.

step 5: Similar, config 2 static route for host 30.0.0.100/32, setting route via router 2 main route ip 300.0.100.255.255.40.0.02.20.

step 6:

create two static routes for network 30.0.0.0, config route router 2 as main route & vice router 1 as backup route using

ip route 30.0.0.0 255.0.0.0 40.0.2.10

step 7: on router 1, config two static route for network as main route via router 2 as backup

step 8: on route 2, create static route for 10.0.0.0/8 & 30.0.0.0/8 network using IP of router 0 & router 1.

step 9:

verify config using the command "show ip route static" on each router.

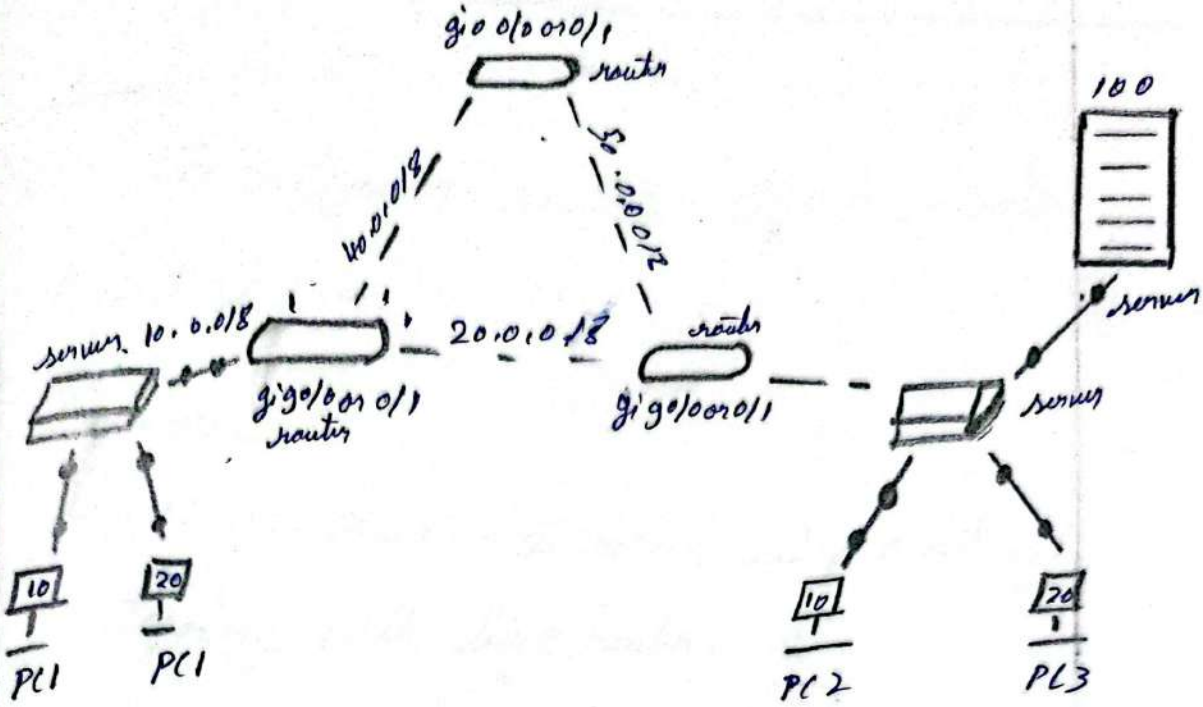
step 10: to test connectivity, use ping & tracert command from PC via one network to a host in another network.

step 11: to failover, simulate link failure or delete connection between router 0 & router 1

step 12:

to delete a static route, use command "no ip route [net work] [mask] & verify change using "show ip route static"

Diagram



Result!

static routing was successfully config & verify in cisco packet tracer.

Ex. 14
18/10/25

Simulation of RIP using CISCO Packet tracer

Aim:

To configure & simulate the RIP in Cisco Packet tracer.

Procedure:

Step 1: open cisco packet tracer & setup a network topology with three routers.

Step 2: Assign IP address to PC by selecting each PC → desktop → IP config & enter IP address as per lab table.

Step 3: on each router, assign IP address to all interface using (L). Enter config mode with enable → config terminal, then use command "Interface fast Ethernet 0/0."

Step 4: Config the serial interface of router with given IPs & ensure that PC & has clock rate 64000 bandwidth

Step 5:

Repeat IP config for all routers according to their respective interface connection

step 6: Enable RIP protocol on router 0 by entering command "router rip" " network 10.0.00 "

step 7: Enable RIP on router 1 using "router 4" network 192.168.1.244"

step 8: Enable RIP router2 using " router rip " " network 192.168.1.252.

step 9: once RIP enable, automatically exchange route info for all directly network

step 10: use tracert command from PC0 to PC1 to observe path taken by packet

step 11: stimulate a link failure by remove cable between router 0 & router2 verify RIP automatically reroute the traffic through alternate path.

output

Packet tracer PC command 1.0

PC > ip config

fast Ethernet 0 connection

Link local IPV6 add: FE80:260:70F

IP address . . . : 20.0.0.2

Subnet Mask . . . . : 255.0.0.0

Default Gateway . . : 20.0.0.1

Result:

RIP routing protocol was successful config and verified.

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