

9/10/24

Week-2(Experiment 2a)

Observation Book:

9/10/24 LAB-2 (prerequisite to exp-2)

Aim: To connect 2 PCs with 2 different routes using Router

Topology

Router-PT

PC-PT (PC0)

PC-PT (PC1)

Default Gateway: 10.0.0.10

Default Gateway: 20.0.0.10

Procedure:

- Add 2 PCs and 1 generic router
- Connect PC to router using cross-over wire
- Set up IP address, gateway, subnet mask of both the PCs (in fastEthernet & settings (gateway))
- In router set up its IP address (both-based on 0/0, 1/0)
- Open CLI of router and type:
Continue with configuration, debug?

~~Router # enable~~

Router # config terminal

Router (config) # int fa0/0

Router (config-if) # ip address 10.0.0.10 255.0.0.0

Router (config) # no shutdown

exit

do the same for the other FastEthernet 1/0

(iv) Click on PC → Desktop → Command Prompt
type ping 20.0.0.1 and (this sends packet from PC0 to PC1)

④

OBSERVATION

This sends 32 bytes of data
(sent = 4, received = 4, lost = 0)

In router CLI

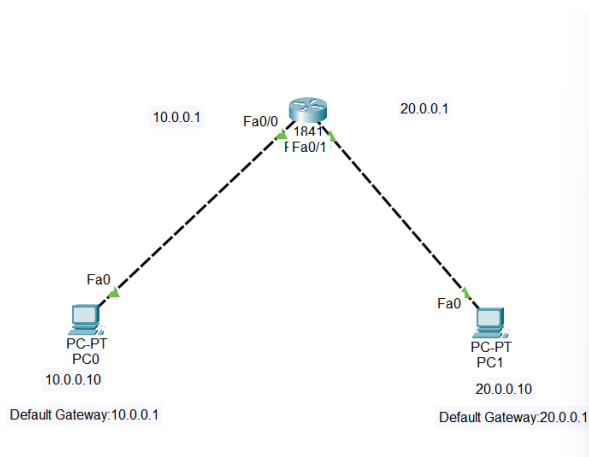
Router (config) # exit

Router # show ip route

C 10.0.0.0/24 is directly connected, FastEthernet0/0

C 20.0.0.0/24 is directly connected, FastEthernet1/0

Topology:



Output:

```
PC0
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 20.0.0.10

Pinging 20.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.10: bytes=32 time<1ms TTL=127
Reply from 20.0.0.10: bytes=32 time=11ms TTL=127
Reply from 20.0.0.10: bytes=32 time<1ms TTL=127

Ping statistics for 20.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 3ms

C:\>
```

```
Router0
Physical Config CLI Attributes
IOS Command Line Interface
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 20.0.0.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
Router(config)#
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
        i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
        * - candidate default, U - per-user static route, o - ODR
        P - periodic downloaded static route

Gateway of last resort is not set

C    10.0.0.0/8 is directly connected, FastEthernet0/0
C    20.0.0.0/8 is directly connected, FastEthernet0/1
Router#
```