

Experiment - 2

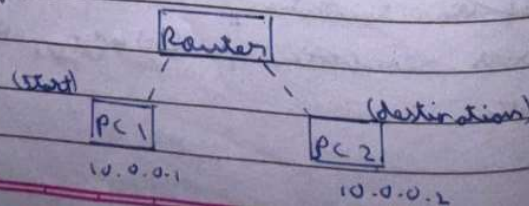
Aim of the experiment:

Using a router as a connecting device between 2 end devices.

Devices used:

Router and end devices

Topology:



Procedure:

- (i) Select a generic router R1
- (ii) Connect 2 end devices to the router using copper straight through cables
- (iii) Configure PC1 and PC2 with IP addresses 10.0.0.1 and 10.0.0.2

- (iv) Select the router and go to the CLI:

Router > enable

Router # config terminal

Router (config) # interface fastethernet 0/0

Router (config-if) # ip address 10.0.0.1 255.0.0.0

Router (config-if) # no shutdown

Router (config-if) # exit

Similarly do the same for PC2 but set the IP address as 10.0.0.2 this time in the CLI:

Router (config) # interface fastethernet 1/0

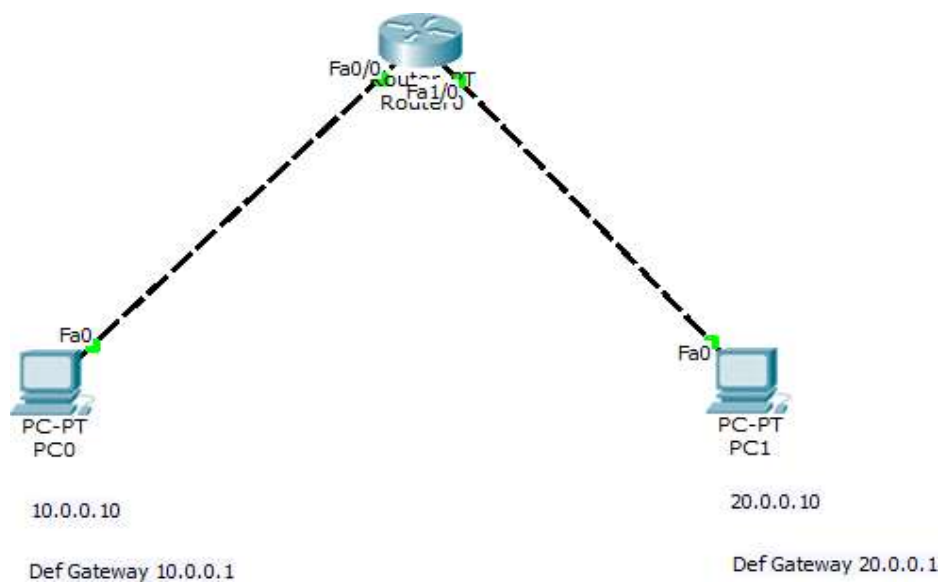
Router (config-if) # ip address 10.0.0.2 255.0.0.0

Router (config-if) # no shutdown

Hence, connection between router and PC is established

Observations:

During the simulation, the message is sent from PC1 to PC2 and acknowledgment is sent back.



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Router0
Physical Config CLI
IOS Command Line Interface
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#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, FastEthernet1/0
Router#
```

