

AIM:-

(a) Internetworking with routers in CISCO PACKET TRACER Simulator.

Design and Configure a Simple internetwork using a router.

In this network, a router and 2 PCs are used. Computers are connected with routers using a Copper Straight-through cable. After forming the network, to check network connectivity a single PDU is transferred from PC0 to PC1.

Procedure :-

Step-1 (Configuring Router 1):

1. Select the router and Open CLI.
2. Press Enter to Start and Configuring Router 1.
3. Type 'enable' to activate the Privileged mode.

Step-2 (Configuring PCs):

1. Assign IP Addresses to every PC in the network.
2. Select the PC, Go to Desktop and Select IP configuration and assign an IP address, Default gateway Subnet Mask.

3. Assign the default gateway of PC0 as 192.168.10.1.
4. Assign the default gateway of PC1 as 192.168.10.1.

Step-3 (Connecting PCs with Router):

1. Connect FastEthernet0 port of PC0 with FastEthernet 0/0 port of Router 1 using a Copper Straight-through cable.
2. Connect FastEthernet0 port of PC1 with FastEthernet 0/1 port of Router 1 using a Copper Straight-through cable.

Router Configuration Table:

Device Name	IP address Fast Ethernet 0/0	Subnet Mask	IP Address Fast Ethernet 0/1	Subnet Mask
Router	192.168.10.1	255.255.255.0	192.168.20.1	255.255.255.0

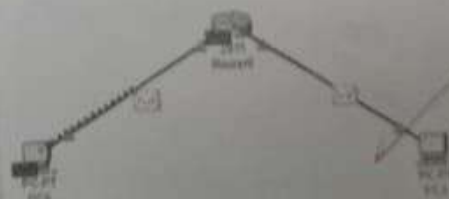
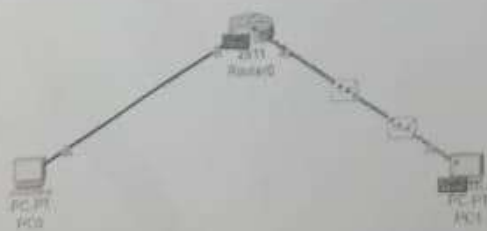
PC Configuration Table:

Device Name	IP Address	Subnet Mask	Gateway
PC0	192.168.10.2	255.255.255.0	192.168.10.1
PC1	192.168.20.2	255.255.255.0	192.168.20.1

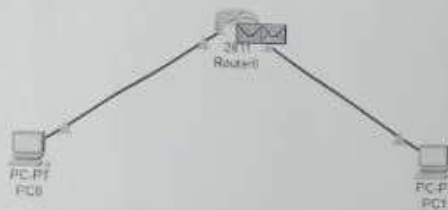
Designed Network Topology:

Simulated of Designed Network Topology

Sending a PDU from PC0 to PC1:



Acknowledgement From PC1 to PC0:



Result:-

The network was successfully interconnected by using routers in Cisco Packet Tracer, Enabling Communication between different networks.

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