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CN LAB 2

AIM: TO DEMONSTRATE THE CONFIGURATION TO THE ROUTERS AND EXPLORE PING COMMAND

Lab-2 -> Router Configuration

Aim :- To demonstrate Config. of IP addresses to the router's and explore ping command.

Router Configuration Commands in CLI

```

Router> enable
Router# config t
Router(Config)# interface fast ethernet 0/0 [interface -iname-]
(in config mode)
Router(Config-if)# ip address 10.0.0.2 255.0.0.0
Router(Config-if)# no shutdown
  
```

To exit from one network and to get to another network we need gateway.

Topology

Steps

- Step 1: Setting up devices - 2 end devices and 1 router
- Step 2: Select two generic end devices and one generic router
- Step 3: Connect end devices to the router using copper cross-over cable.
- Step 4: Configuration of end devices
 - Select PC0, go to config enter IP address as 10.0.0.1
 - Select PC1, go to config enter IP address as 20.0.0.1.

Now PCs are all configured.

→ To send msg from one device to other -

- from right side panel select simple message PDU,
- select source device then select destination device now msgs are being sent to
- See the working of how it is working go to click on simulation mode.

Likewise, can connect multiple devices with a hub.

→ Observation :-

- HUB: hardware device in physical layer
 - connects multiple devices in network.
 - it broadcasts or sends msg to each port without filtering data

Working

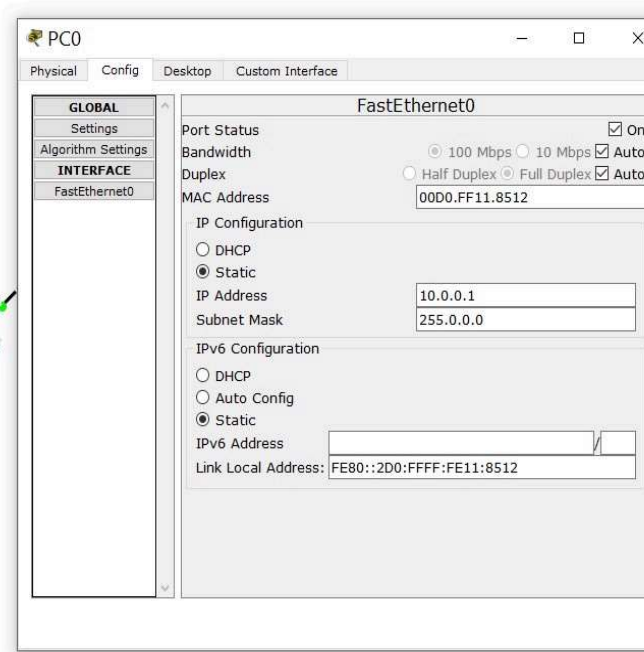
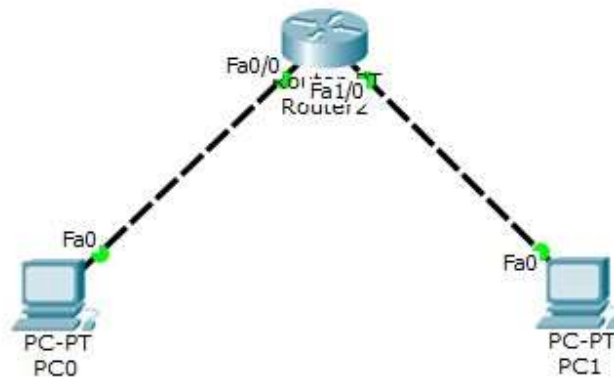
PC0 was sending data/msg to PC1 and PC2 but at a one time, any one of PC1 and PC2 is receiving data to avoid collision.

→ PDU :: (Protocol Data Unit)

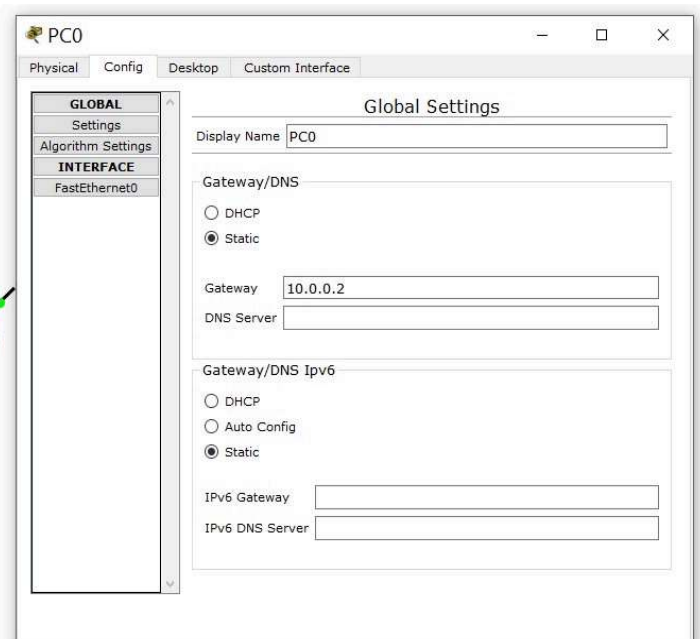
Along with data it contains protocol-specific control information.

- It is block of infor. that is transferred b/w network end systems.

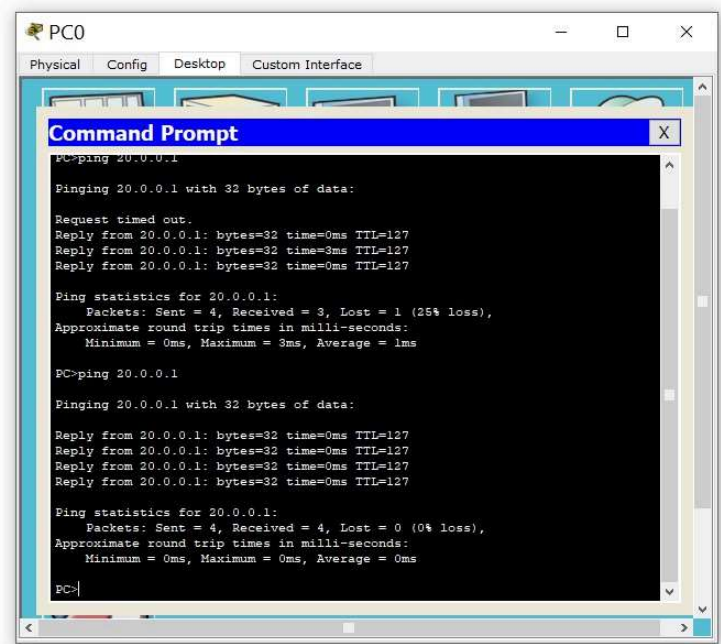
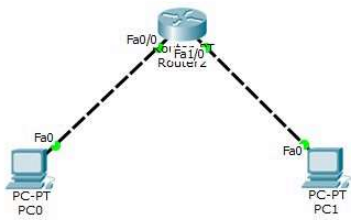
REALTIME TOPOLOGY :



a) PC0 CONFIGURATION :



b) PC0 GATE



:

c) PC0 PING