

Practical - 3

Aim:

To study the packet tracer tool installation and user interface overview.

CISCO PACKET TRACER simulator

1. From the network component box, click and drag and drop the below components.

- a. 4 generic PC's and one hub
- b. 4 generic PC's and one switch

2. Click on connections

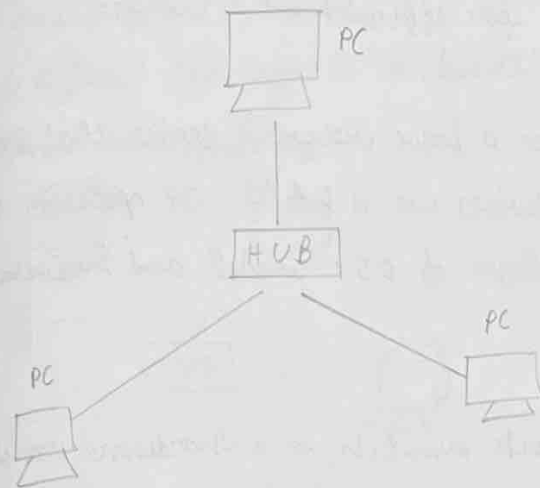
- a. Click on copper straight-through cable,
- b. Select one of the PC and connect it to the HUB using cable. The link LED should glow in green, indicating that the link is up.

c. Similarly connect 4 PC's to the switch using copper straight-through cable.

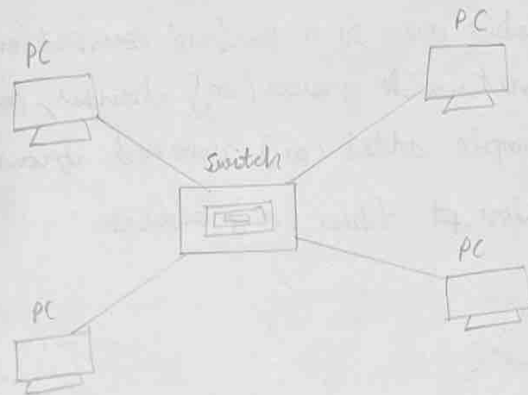
3. Click and PC's connected to hub, go to desktop tab check IP configuration and enter IP address.

4. Repeat step 3 to 5 PC's connected to switch.

5. observe the flow of PDV from sender to receiver by selecting real-time mode of simulation.



Hub:



observation:

- a) Behaviour of switch and Hub in terms of forwarding the packets received by them.

Switch:

A Network switch is a device that connects multiple devices within a LAN and routes data between them using MAC addresses. It operates at the data link layer, directing packets of the correct destination and supporting

full duplex for efficient data transfer.

Hub:

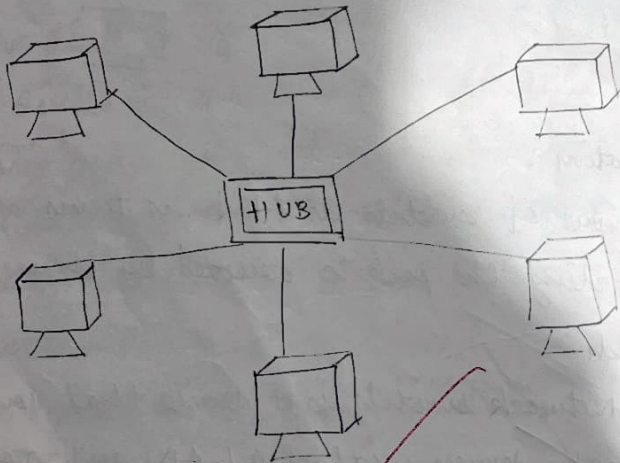
A hub is a basic network device that connects multiple devices in a LAN. It operates at the physical layer of OSI model and broadcasts.

Switch:

A network switch is a hardware connection.

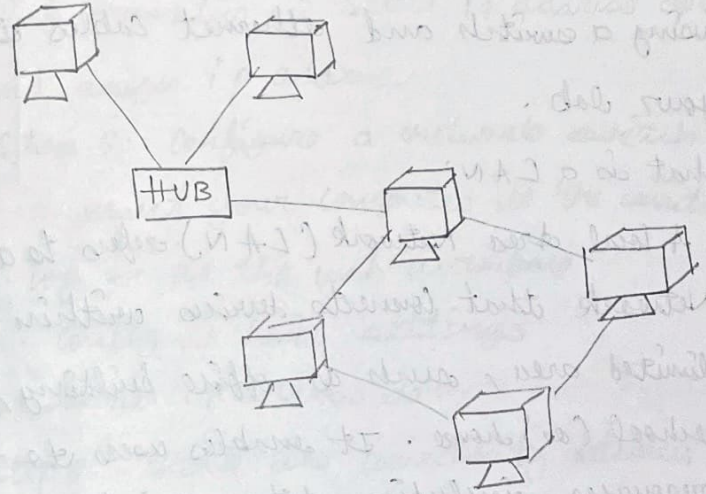
Characteristics of star:

- all cables run to a central connection point
- as network grows (or) changes, computers are simply added (or) removed from central connection pt. thus (or) switch.



Characteristics of Hybrid:

→ Hybrid topology is combination of more than one topology.



Result:

26/04/2024 I have successfully studied the packet tracer tool and analysed the behaviour of network.