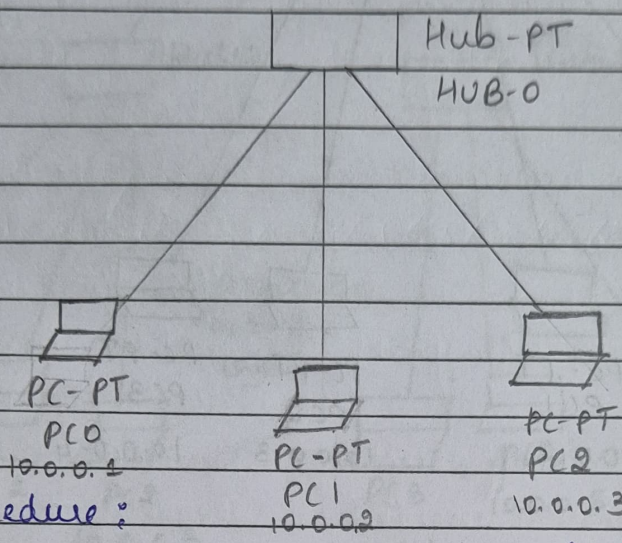
Date __/__/__
Page _____

Experiment - 1

AIM

Simulate the transmission of simple PDU using hub and switch as connecting devices.



Procedure:

I Select 3 end devices and a hub.

II Connect all the devices to the hub with a straight through cable.

III For each device do the configuration ie set IP address for fast Ethernet.

IV Add simple PDU, select source and destination and simulate the experiment.

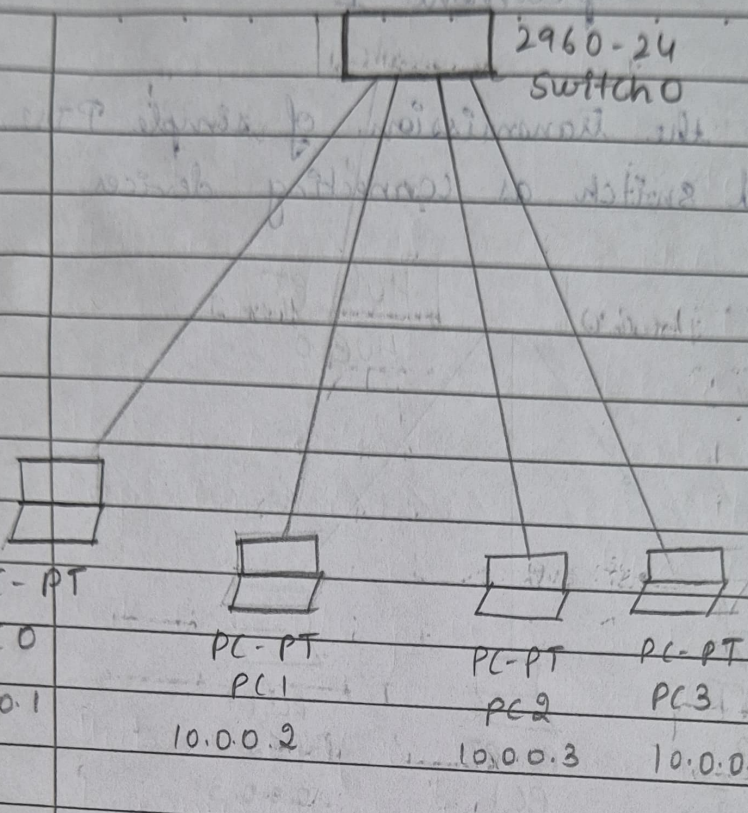
Observation:

Source - PC0, Destination - PC2

Message is sent from PC0 to Hub.

The Hub sends the message to both PC1 and PC2 devices. PC1 rejects while PC2 accepts the message.

PC2 sends feedback to the hub, hub sends it to PC0 to PC1. PC0 accepts while PC1 rejects the message.



Procedure:

I Select 4 end devices and a switch.

II Connect all the devices to the switch with straight through cable.

III For each device do the configuration ie Set IP address for fastethernet.

IV Add simple PDU, select source and destination and simulate the experiment.

Observation:

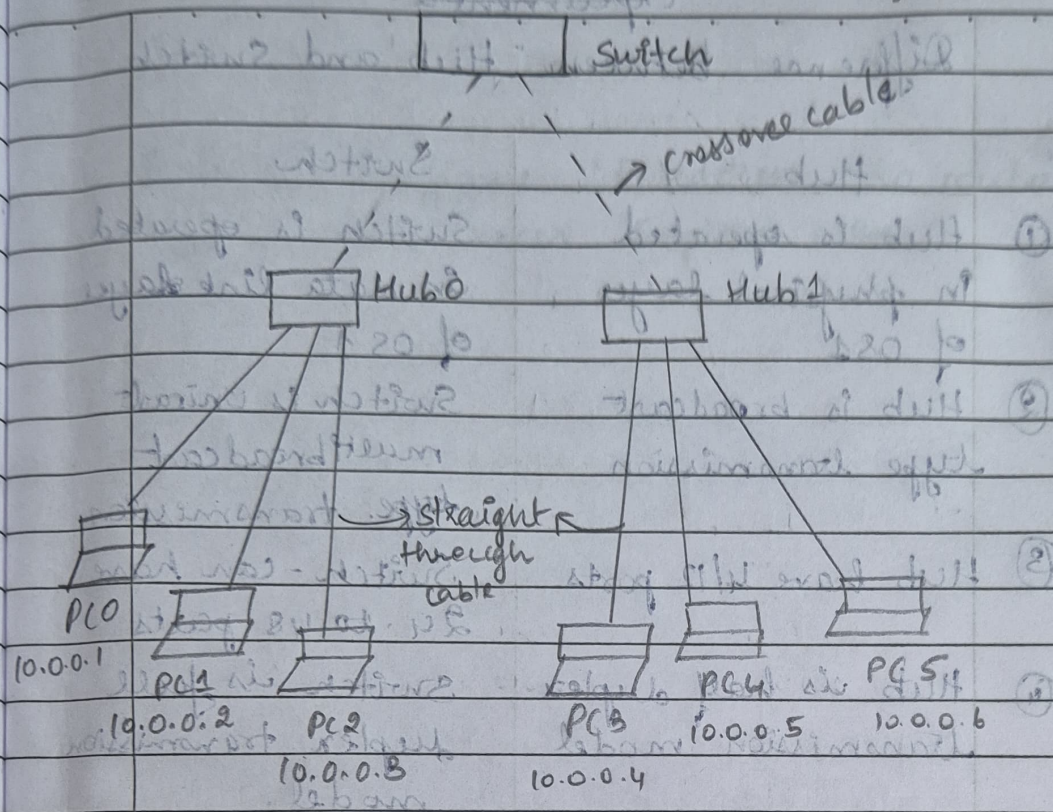
Source: PC0 Destination: PC2

Message is sent from PC0 to switch.

Switch sends the message to PC2.

Feedback is sent from to switch which then sends it to PC0.

Date __/__/__
Page _____



Procedure :

I Select 1 switch, 2 hubs and 6 end devices.

II Connect first 3 devices to Hub 0 and other 3 devices to Hub 1, connect the two hubs to the switch.

III Do the configuration (set IP addresses) for each device.

IV Add simple PDU, select source and destination and simulate the experiment.

Observation :

Source : PC0 Destination : PC4

Message is sent from PC0 to Hub 0.

Hub 0 sends message to PC1, PC2 and switch.

Switch sends to Hub 1, Hub 1 sends to PC3, PC4 and PC5. PC4 accepts while others reject.

Similarly feedback is sent by PC4 to the PC0.

Date __/__/__
Page

Experiment 2.

Difference between Hub and Switch

	Hub	Switch
①	Hub is operated in physical layer of OSI	Switch is operated in data link layer of OSI
②	Hub is broadcast type transmission	Switch is unicast multibroadcast type transmission
③	Hub have 4/12 ports	Switch - can have 24 to 48 ports
④	Hub is half duplex transmission model	Switch is full duplex transmission model.
⑤	Hub is simple, old not generally used	Switch is so sophisticated and widely used.

16/10/24