Experiment No. 2

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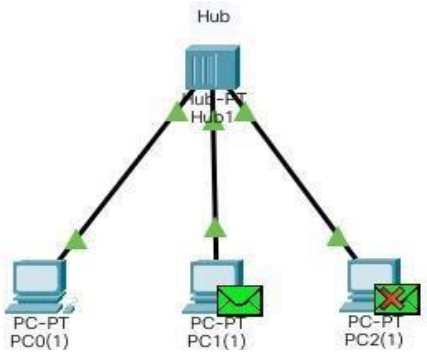
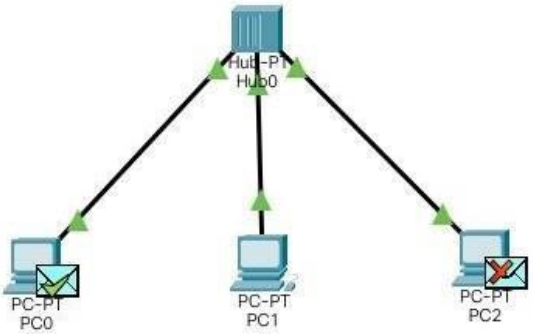
Hub:

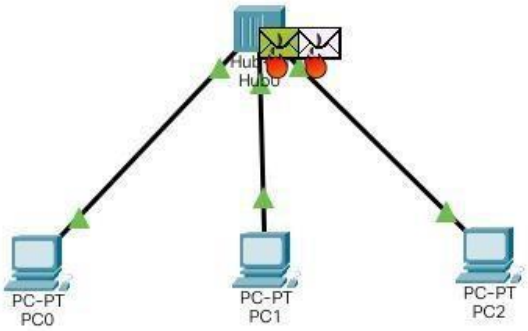
Hub is a networking device used as an intermediate between devices and it is also called as Interconnecting device). It broadcasts the data to every user and the user which is requesting it, accepts the data and other users (the one who are not requesting) rejects to it. The drawback of hub is it cannot transmit the data of multiple users at a time.



Hub with Single message received.



Hub with Single message and Acknowledgement

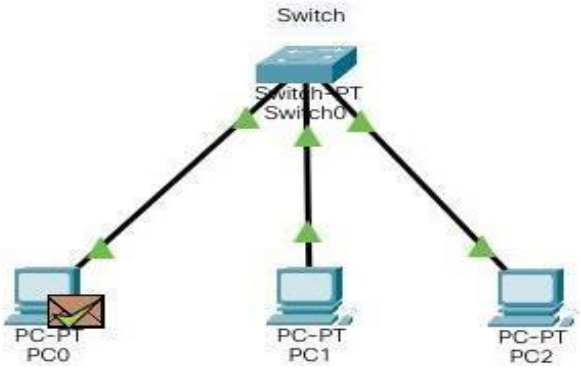


Hub with multiple message and conflict

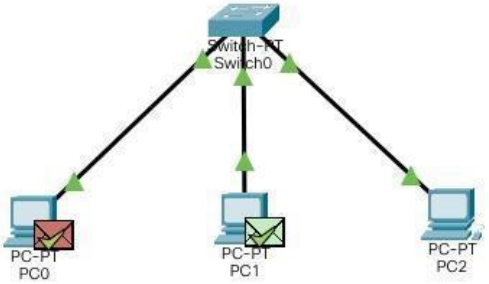
Switch:

A switch is also an Interconnecting device. It resolved issues of hub such as:

- **Broadcasting of data unnecessarily**: In switch the user which is asking the data gets it.
- **Conflict of data:** Switches can send multiple data or can respond to multiple requests at time.



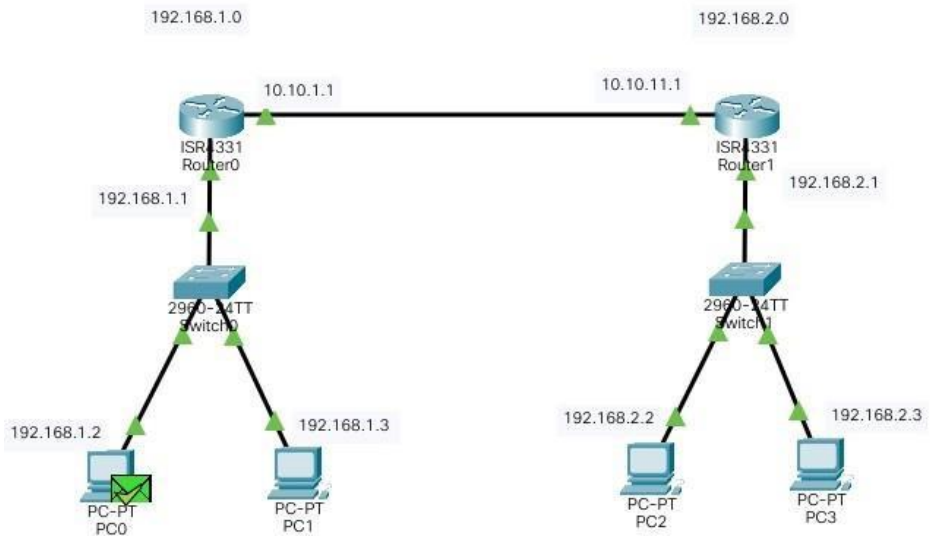
switch with acknowledgement of single message



switch with acknowledgement of multiple message

Router:

Router is a networking device which is used to connect multiple networks. It finds the shortest route possible for a packet to travel from source to destination.



Two networks with static routing.