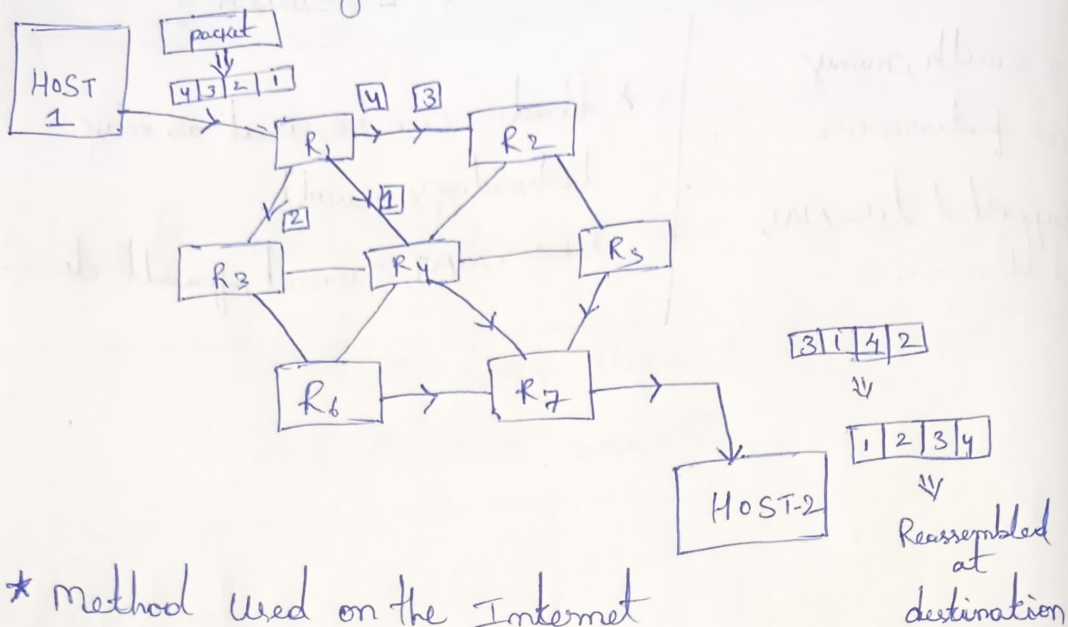
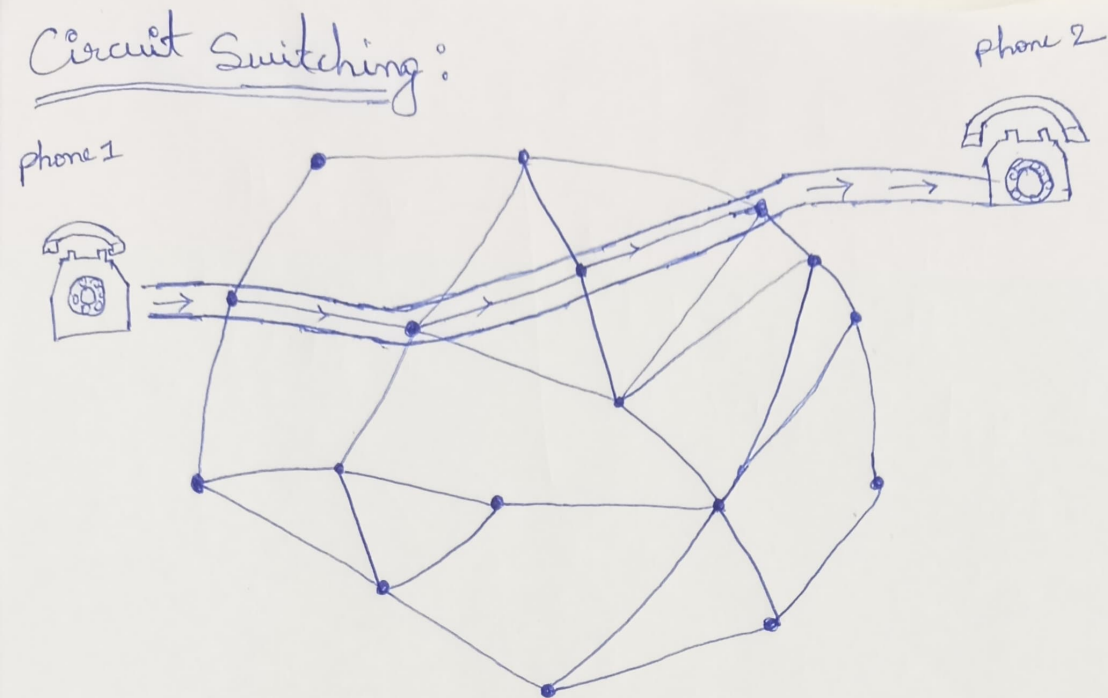


Packet Switching



- * Method used on the Internet
- * Router are used, unlike circuit switching packet switching is not connection oriented packet switching is connection less.
- * When device A sends the data, the data is broken down into individual packets and the packets individually & independently make their way to the destination by using multiple paths. that mean, they will take different routes to reach the destination.
- * they may not arrive the destination in the correct order, but once the data packets are arrived, the destination reassembles the packets in the correct order and reads it.

Circuit Switching:



* Circuit Switching method, is where the Communication happens through a dedicated Circuit or a Channel that is Created between two devices

* Circuit Switching is Connection oriented.

Mean,

- Connection will be established before the Communication takes place.
- Once the Channel is established, the Channel remains dedicated to that particular session.
- No other devices are able to use that Channel until the existing session is terminated.
- Once, the session is over, the Channel is made available to other devices to use.

* as it is using dedicated path, data will be travel in the correct order, No reassembly is required.

Circuit Switching

→ Better quality & stability of voice calls.

→ only voice calls will be carried

→ Low Latency, because bandwidth is fixed a certain amount is allocated for each session.

→ As Bandwidth is fixed, bandwidth is not used effectively.

→ data arrives in the same order

→ reassembly is not required

→ Circuit or channel is unavailable for anyone else while it is already in use

Packet Switching

→ Can also do voice calls such as VoIP, but it is not as stable that of Circuit Switching.

→ In addition to voice it can carry data like Video, web data, email etc...

→ higher latency, because bandwidth is not fixed and the bandwidth changes dynamically depending on the demand. Could result higher bandwidth.

But, packet switching is more efficient in using bandwidth

→ data will not arrive in the same order

→ reassembly is required.

→ There is no dedicated channel, so

There is no waiting for the channel to open.