Packet Switching

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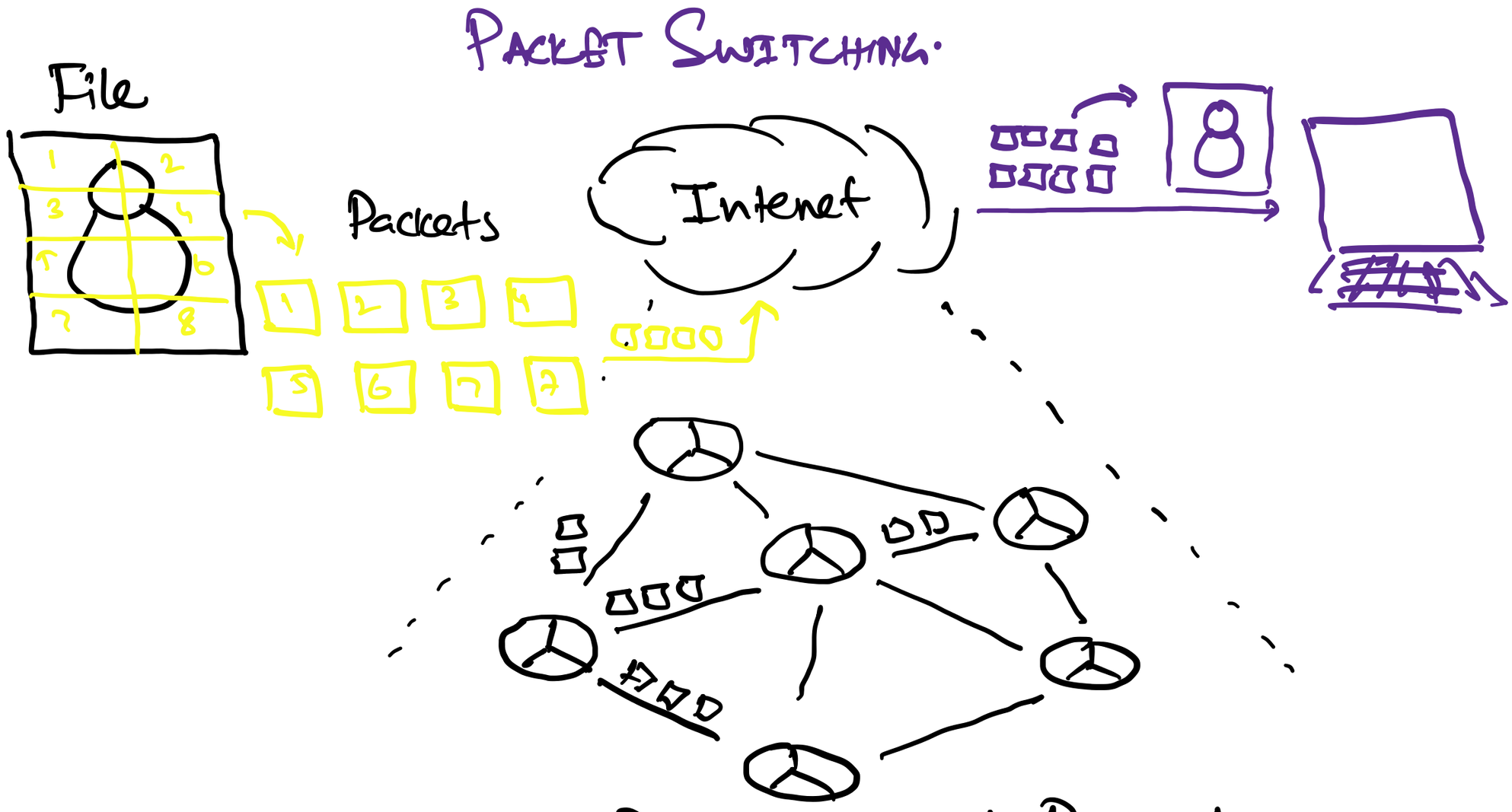

Router Internet Protocol.

It is a method of transferring the data to a network in form of packets. In order to transfer file fast and in efficient manner, the data is broken into small pieces of variable length, called packet.
At the destination, all these packets have to be reassembled, belonging to the same file.
A packet composes of payload and several control information.

Packet switching uses store & forward technique, while switching the packets; while forwarding the packet, each hop first stores that packet then forward. Using this technique helps routers to chose best path or multiple paths and to discard packets when required. In other words packets belong to same file may take different routes/paths possible.

Packet-switched networks were designed to overcome the weakness of other techniques like circuit-switching that are not very effective for small messages.

In packet switching because packets take different routes over the network to reach the destination. Their route might introduce delay because of traffic over the network on different paths. Because of this at destination packets may arrive in unordered manner. So, at destination packets are re-assembled in order to form the file back.