

DATA COMMUNICATION AND NETWORKING

SWITCHES

Data Communication is defined as a process in which more than one computer transfers information instructions to each other. It can be a computer mobile telephone laptop video camera workstation etc. It is also known as a transmission medium or channel is a link that carries messages between two or more devices. Data communication is divided into three types:

Simplex Communication:

It is one-way communication or we can say that it is a bidirectional communication in which both the devices can send and receive data at the same time. Full-duplex communication:

It's a two-way communication in which one device only receives and another device only sends data and devices use their entire capacity in transmission. Transmission mediums are the medium that carry messages between 2 or more workstations. Interference mediums can be either wired media or wireless media; Transmission medium:

It can be one-time communication or one-day communication. Workstations can be connected by either wired and wireless media or wired media. The transmission medium is a communication medium that can be divided into 3 types:

- Message:

A message is a piece of information that is to be transmitted from one person to another. It could be a text file an audio file a video file etc and it can be any device that sends data messages. Sender is simply a device that receives data messages; it can also be a phone mobile phone laptop or video camera or workstation. Protocols are followed by every computer connected to the internet and they are:

- TCP(Transmission Control Protocol):

It is responsible for dividing messages into packets on source computer and reassembling the received packet at the destination or recipient computer. IP(Internet Protocol):

When someone sends the data (The sender it should be understandable to the receiver also otherwise it is meaningless. For example Sonali sends a message to Chetan and Chetan cannot understand Hindi. TCP(Interference Control Protocol) makes sure that the packets have the information about the source and recipient computer and checks if the message data has been sent correctly to the specific destination. Internet Protocol:

It makes sure the message you sent to your friend is received by your father? Scary Right. Well! IP is responsible to handling the address of the destination computer so that each packet is sent to its proper destination. Type of data communication As we know that data communication is communication is divided into three Types:

- Simplex Communications:

It is one orway communication.