

Data and Computer Communication

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With the advance in cheap electronics technology and regularly falling prices of computer and communication hardware, Computer communication has become an urgent necessity. Old Telecommunication lines are being used for digital data transfer. From local Area Network to cellular networks, expansion of faster , reliable and flexible networks is very rapid.

Data Communication: Transmission of data through some reliable medium.

Networking: Methodology and architecture of networks.

Differences over last two decades

- No fundamental difference between data processing and communication
- No difference for types of data used to send
- Personal computer definition changing

Communication Model:

The source of data sends data to transmitter which in turn transmit data to network with proper encapsulation. The data is received at addressed destination through a receiver which strips off all the layers which encapsulated data during transmission.

Issues related to Communication Model:

- Transmission Synchronization, System utilization, multiplexing and congestion control.
- Interfacing
- Signal Generation
- Exchange Management //Protocol
- Error detection and correction
- Flow Control
- Addressing and Routing

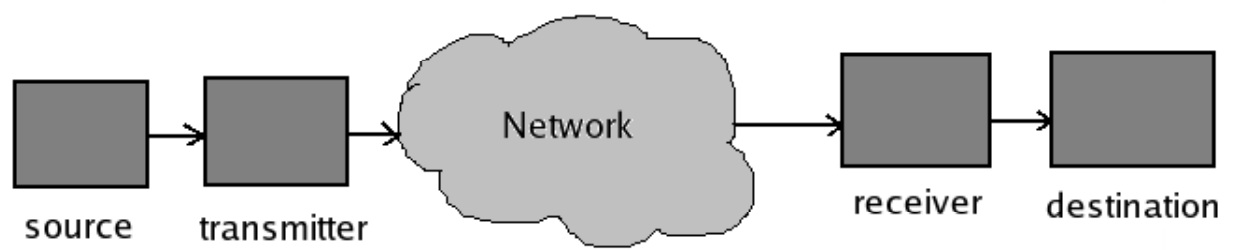


Figure 1: Communication model