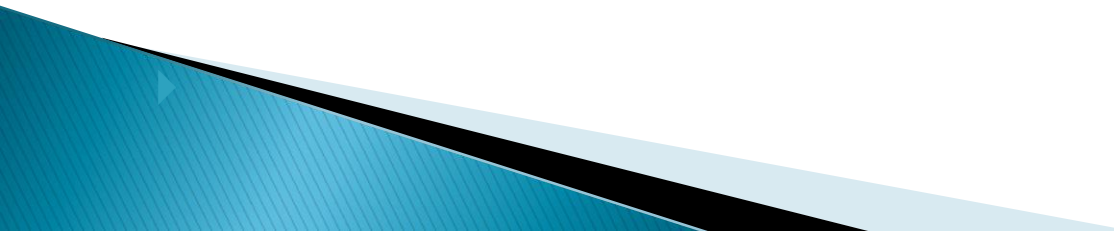


# **Introduction to Data Communication Model**

# What is Digital communication?

- ▶ It is the physical transfer of data over a point to point or point to multipoint communication channel.
  - ▶ Data communications deals with the transmission of signals in a reliable and efficient manner.
  - ▶ Networking deals with the technology and architecture of the communications networks used to interconnect communicating devices.
- 

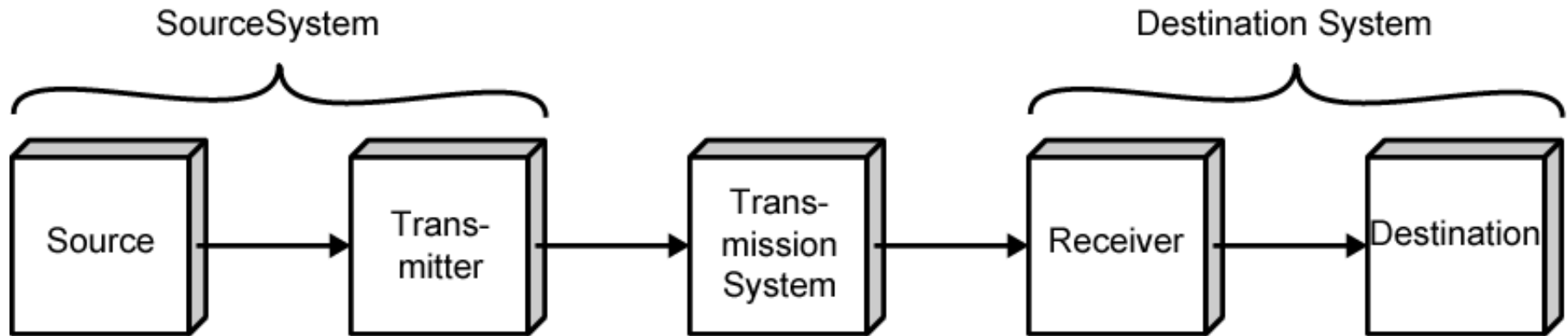
## **Architecture and evolution of data communications and networking facilities depends on :**

- ▶ Traffic growth
- ▶ Services
- ▶ Technology

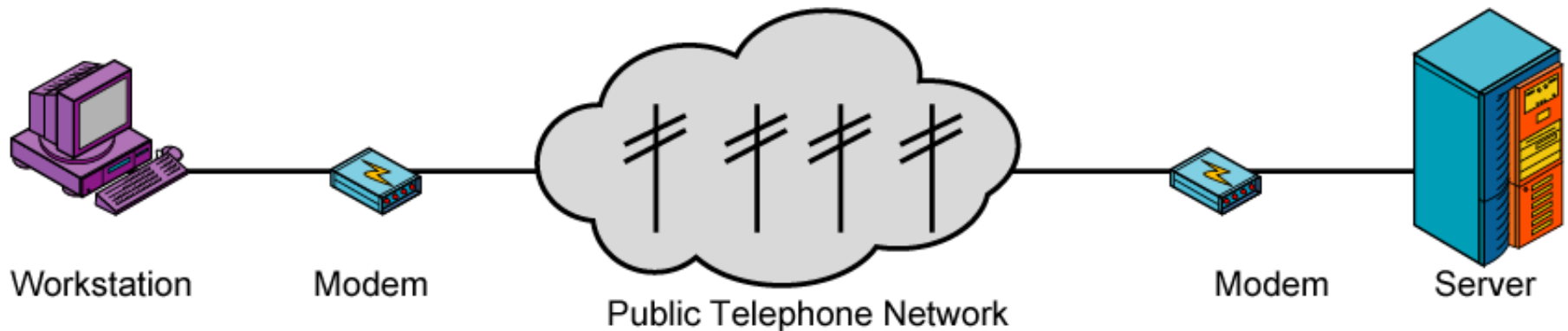
# Effective data communication:

- ▶ Delivery
- ▶ Accuracy
- ▶ Timeliness

# A Communications Model



(a) General block diagram

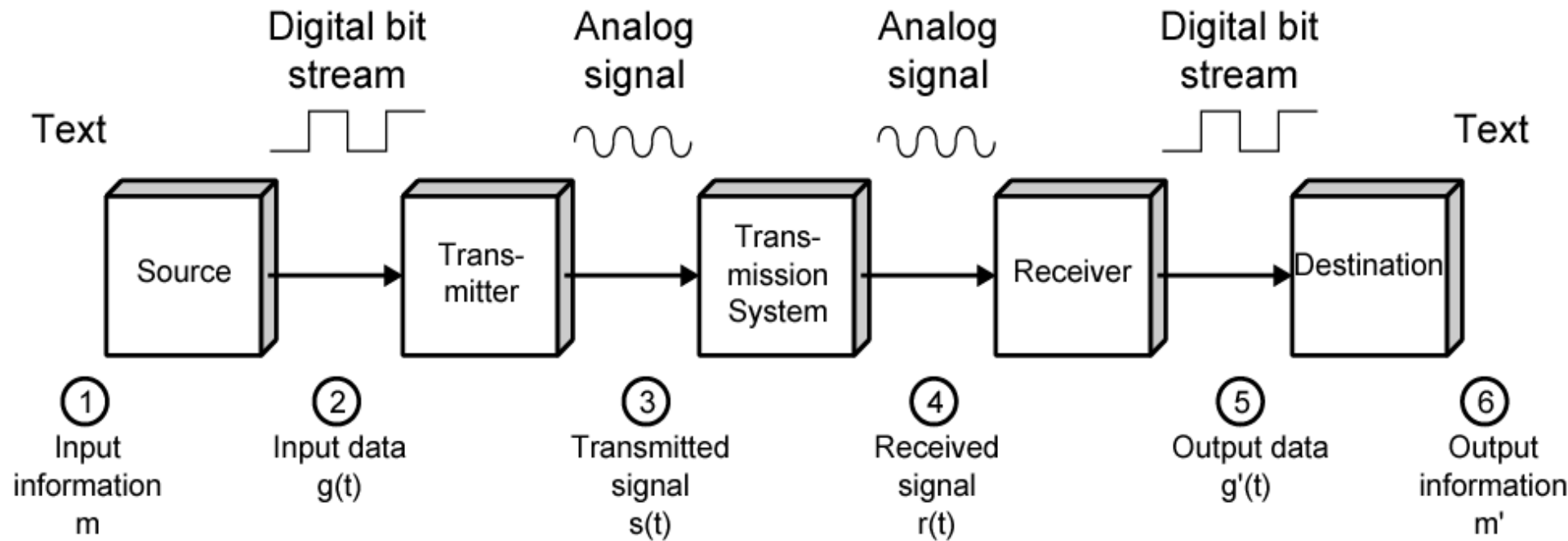


(b) Example

# Communications Tasks

Transmission system utilization	Addressing
Interfacing	Routing
Signal generation	Recovery
Synchronization	Message formatting
Exchange management	Security
Error detection and correction	Network management
Flow control	

# Data Communications Model



# Transmission Medium

- ▶ Medium used to transmit data.
- ▶ Ex. Cable, air etc.