



RAMA UNIVERSITY

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FACULTY OF ENGINEERING & TECHNOLOGY

BCA-302 Computer Networks

Lecture-01

Mr. Dilip Kumar J Saini

Assistant Professor

Computer Science & Engineering

OUTLINE

➤ INTRODUCTION

➤ DATA COMMUNICATION

➤ COMPONENTS OF DATA COMMUNICATION

➤ DEFINE NETWORK

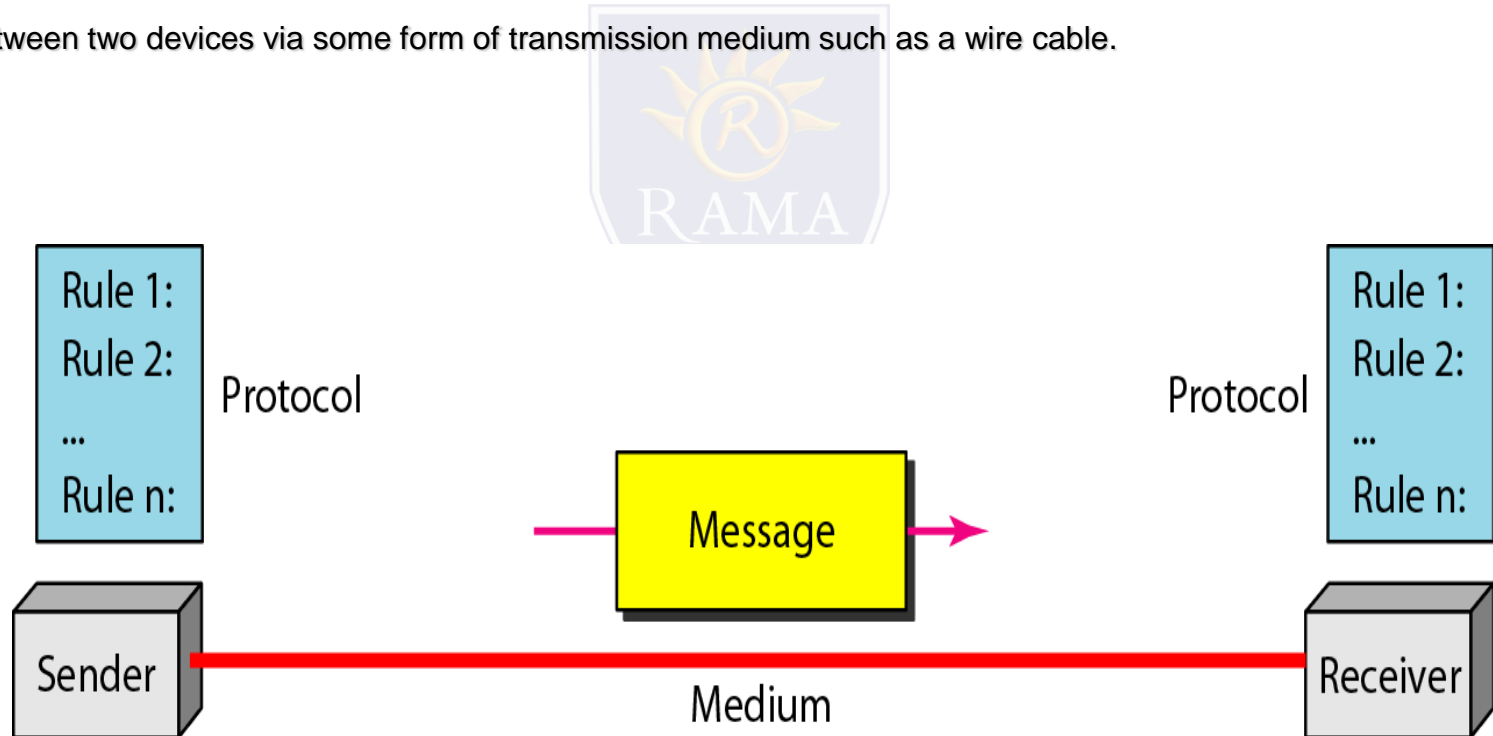
➤ PHYSICAL STRUCTURE



DATA COMMUNICATION

DATA COMMUNICATION

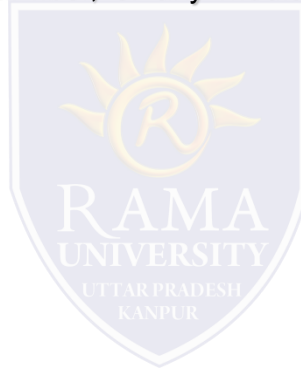
The term telecommunication means communication at a distance. The word data refers to information presented in whatever form is agreed upon by the parties creating and using the data. Data communications are the exchange of data between two devices via some form of transmission medium such as a wire cable.



INTRODUCTION

A network is a set of devices (often referred to as nodes) connected by communication links. A node can be a computer, printer, or any other device capable of sending and/or receiving data generated by other nodes on the network. A link can be a cable, air, optical fiber, or any medium which can transport a signal carrying information

- Network Criteria
- Physical Structures
- Categories of Networks



Performance

- Depends on Network Elements
- Measured in terms of Delay and Throughput

Reliability

- Failure rate of network components
- Measured in terms of availability/robustness

Security

- Data protection against corruption/loss of data due to:
- Errors
- Malicious users



PHYSICAL STRUCTURE

TYPE OF CONNECTION

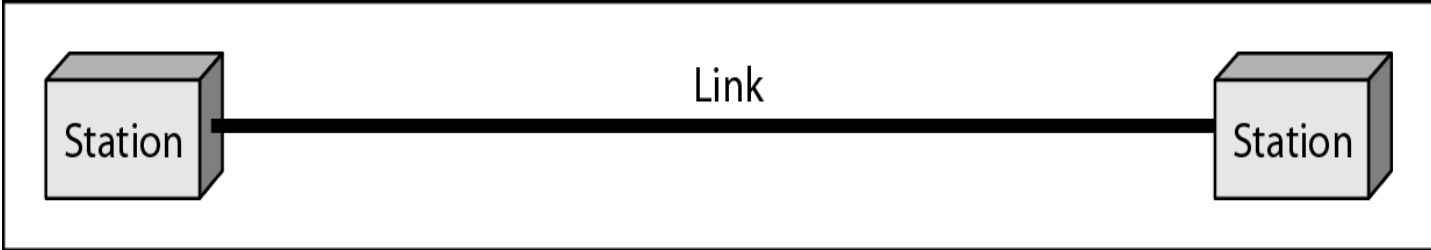
1. Point to Point - single transmitter and receiver
2. Multipoint - multiple recipients of single transmission

PHYSICAL TOPOLOGY

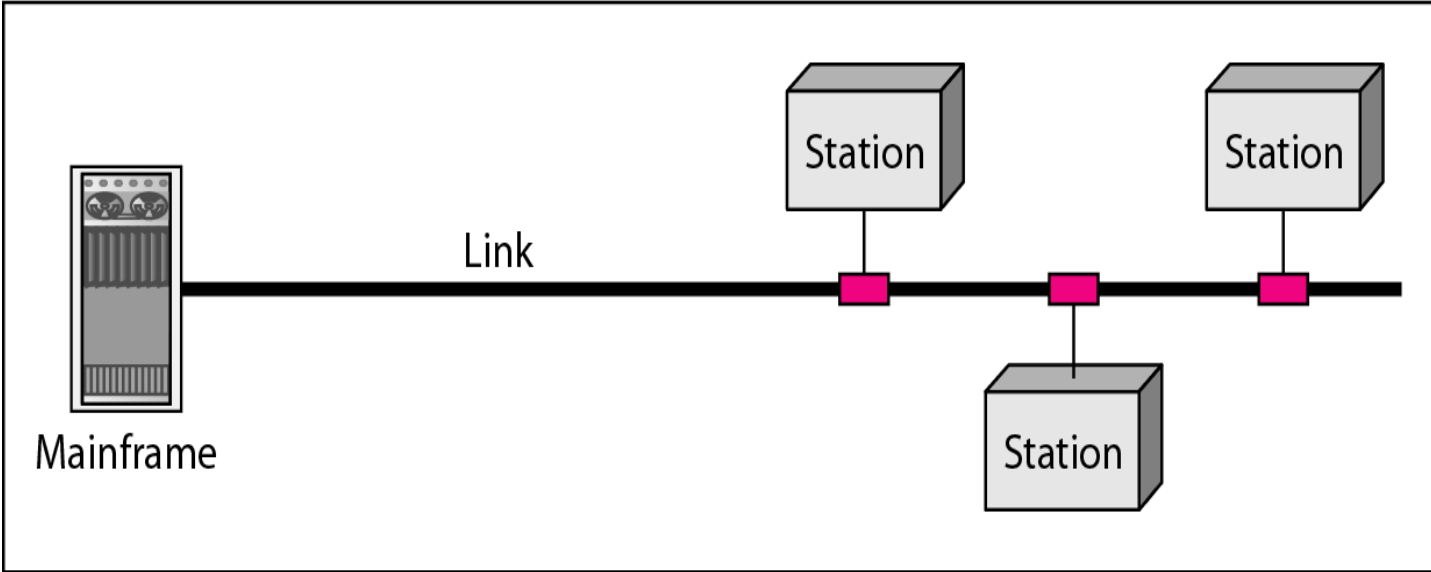
1. Connection of devices
2. Type of transmission - unicast, multicast, broadcast



TYPES OF CONNECTIONS



a. Point-to-point



b. Multipoint

Multiple Choice Question

MUTIPLE CHOICE QUESTIONS:

1. A Computer Network permits sharing of

- A) Resources B) Information C) Both a & b D) None of these

2. The First operational computer network in the world was the.....for the United State Department of Defence

- A) ARPANET B)ERNET C)SKYNET D)DARPANET

3. If single computer network is divided into segment and router are added between them if form an

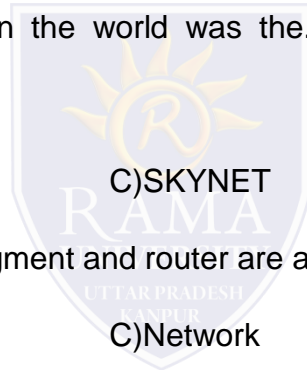
- A) Internet B) Internetwork C) Network D) Internetworking

4. Network of Networks is known as.....

- A) Intranet B) internet C) Local Area Network D) WAN

5. An Interconnection ofcomputer is called an INERNET.

- A) Distributed B) Co-Ordinated C) Autonomous D) Integrated



REFERENCES

- <http://www.engppt.com/2009/12/networking-fourzan-ppt-slides.html>

