

Where Are We?

Basics:

Network Classification

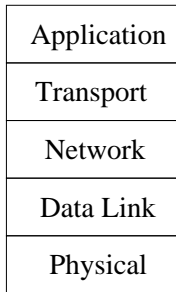
Network Architecture

Delay Models

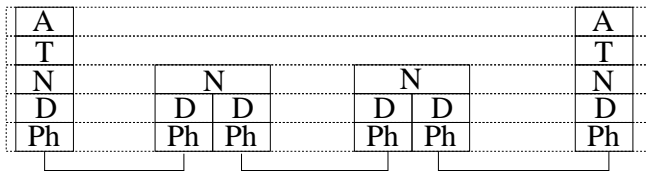
Implementation:

Protocol Design

Layered Architecture

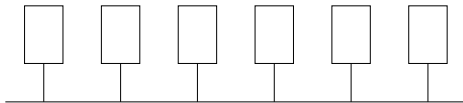


Layered Architecture



Functionality

- Reliable Delivery of Frames
- Flow Control
- Error Detection
- Error Correction



Ethernet

Wavelan

Cocktail Party

Rules

- “Don’t interrupt when someone else is speaking”
- “Raise your hand if you have a question”
- “Give everyone a chance to speak”

Rules

- “Don’t interrupt when someone else is speaking”
- “Raise your hand if you have a question”
- “Give everyone a chance to speak”

Rules

- “Don’t interrupt when someone else is speaking”
- “Raise your hand if you have a question”
- “Give everyone a chance to speak”

Rules

- “Don’t interrupt when someone else is speaking”
- “Raise your hand if you have a question”
- “Give everyone a chance to speak”

Multiaccess Protocols

- Channel Partitioning (Cellular Wireless Networks)
- Random Access (Ethernet, WiFi)
- Taking Turns (Token Ring)

Multiaccess Protocols

- Channel Partitioning (Cellular Wireless Networks)
- Random Access (Ethernet, WiFi)
- Taking Turns (Token Ring)

Multiaccess Protocols

- Channel Partitioning (Cellular Wireless Networks)
- Random Access (Ethernet, WiFi)
- Taking Turns (Token Ring)

Multiaccess Protocols

- Channel Partitioning (Cellular Wireless Networks)
- Random Access (Ethernet, WiFi)
- Taking Turns (Token Ring)

Functionality

- Path Determination (Routing)
- Switching
- Addressing

Protocols

- UDP
 - Application Multiplexing/Demultiplexing
 - Error Detection
- TCP
 - Application Multiplexing/Demultiplexing
 - Error Detection
 - Reliable Data Transfer
 - Congestion Control

Protocols

- UDP
 - Application Multiplexing/Demultiplexing
 - Error Detection
- TCP
 - Application Multiplexing/Demultiplexing
 - Error Detection
 - Reliable Data Transfer
 - Congestion Control

Protocols

- UDP
 - Application Multiplexing/Demultiplexing
 - Error Detection
- TCP
 - Application Multiplexing/Demultiplexing
 - Error Detection
 - Reliable Data Transfer
 - Congestion Control

Protocols

- UDP
 - Application Multiplexing/Demultiplexing
 - Error Detection
- TCP
 - Application Multiplexing/Demultiplexing
 - Error Detection
 - Reliable Data Transfer
 - Congestion Control

Protocols

- UDP
 - Application Multiplexing/Demultiplexing
 - Error Detection
- TCP
 - Application Multiplexing/Demultiplexing
 - Error Detection
 - Reliable Data Transfer
 - Congestion Control

Transport Layer - Network Layer

- **Network Layer Protocols:** provide a logical communication between hosts.
- **Transport Layer Protocols:** provide a logical communication between processes running on different hosts.

Transport Layer - Network Layer

- **Network Layer Protocols:** provide a logical communication between hosts.
- **Transport Layer Protocols:** provide a logical communication between processes running on different hosts.

Transport Layer - Network Layer

- **Network Layer Protocols:** provide a logical communication between hosts.
- **Transport Layer Protocols:** provide a logical communication between processes running on different hosts.

Protocols

- DNS
- P2P

Protocols

- DNS
- P2P

Protocols

- DNS
- P2P