

Lecture 03

TCP/IP Stack Mapping to OSI Model

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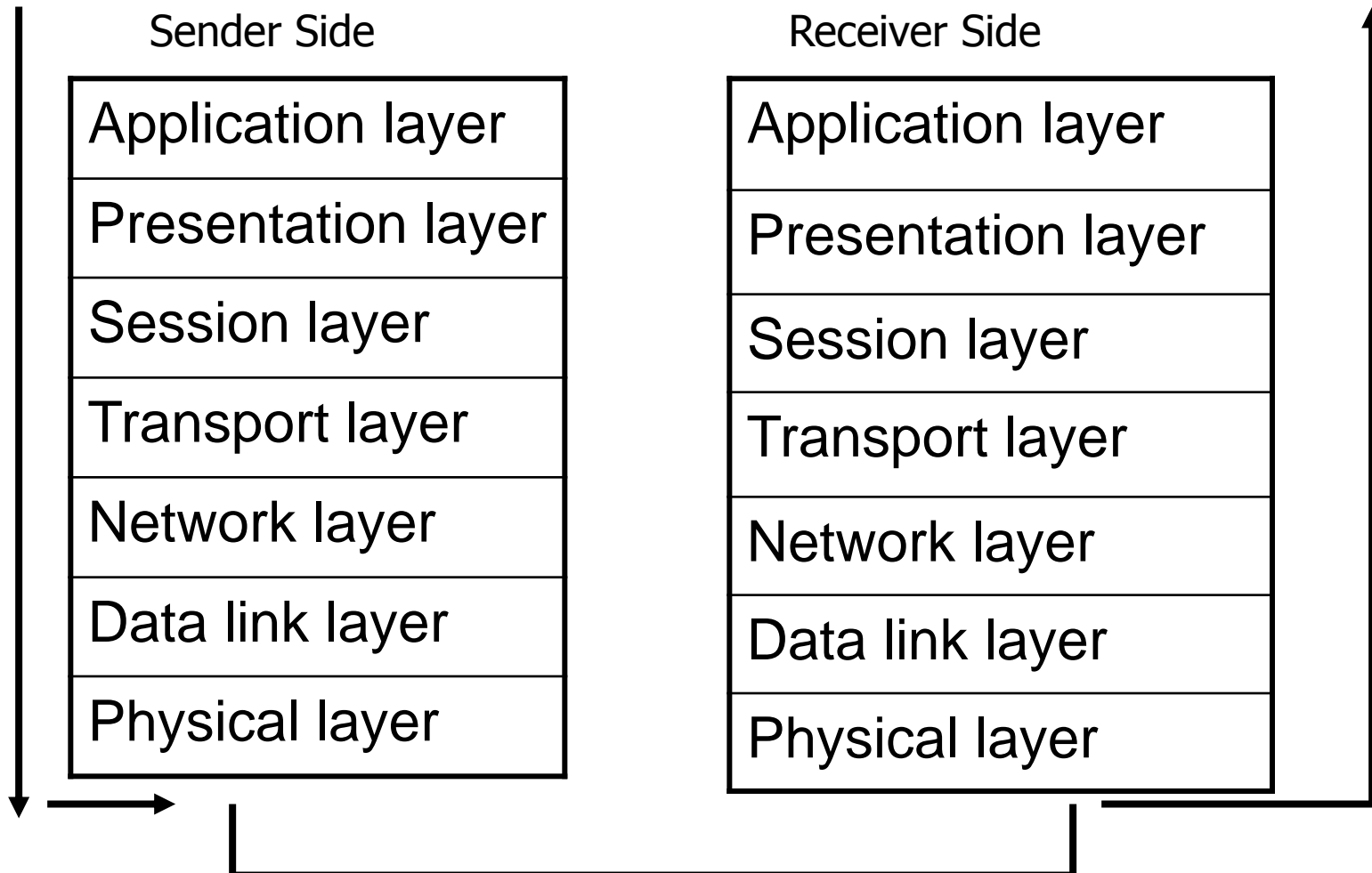
Outline

- 1. OSI Network Model**
- 2. TCP/IP Stack Mapping to OSI Model**
- 3. TCP/IP Protocol Stack Members**

1. OSI Network Model

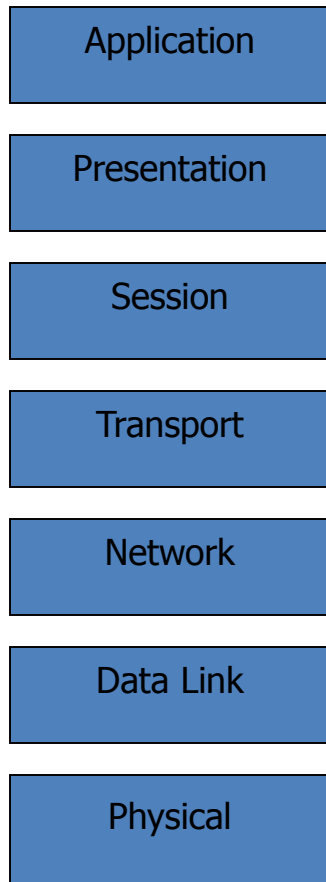
1. International Organization for Standards (ISO)
2. In 1970's came ISO's OSI model – a conceptual model for network communications
3. OSI - Open System Interconnection Reference Model
4. 7 layer architecture

1.1 ISO OSI Model

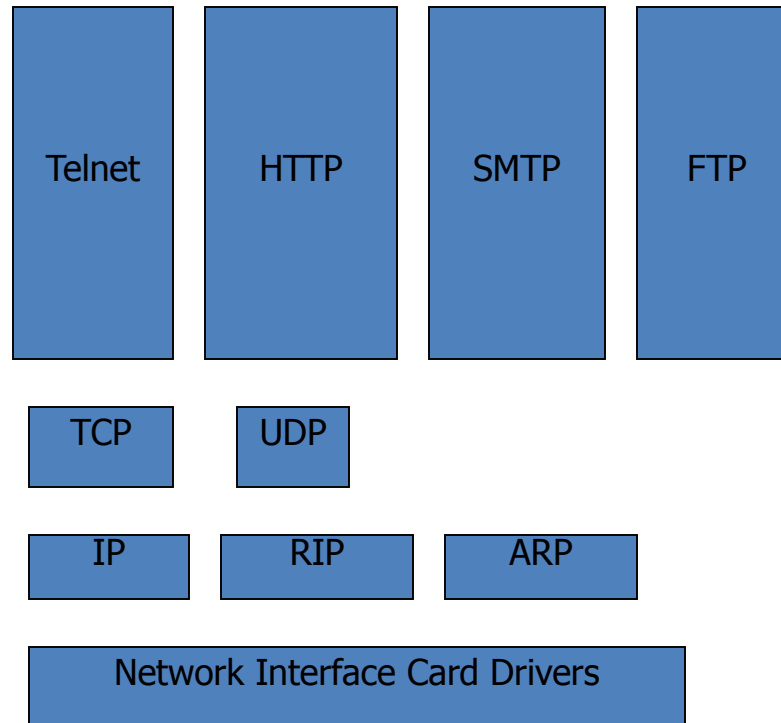


2. TCP/IP Stack Mapped to OSI Model

OSI Model



TCP/IP Stack



3. TCP/IP Protocol Stack Members

HTTP	Used for web page requests
Telnet	Terminal Emulation Protocol – connects a local computer with a remote computer
FTP	File Transfer Protocol - provides an interface and services for file transfer over the network – upload from local to remote & vice versa
SMTP	Simple Mail Transport Protocol – provides e-mail services on the internet
TCP	Transmission Control Protocol – connection-oriented transport protocol
UDP	User Datagram Protocol – connectionless transport protocol
IP	Internet Protocol – provides basis for IP addressing on the network
ARP	Address Resolution Protocol – maps IP address to MAC hardware address
RIP	Routing Information Protocol – Routing protocol used by routers to determine the best path for packets on the network

Summary

- ✓ **OSI Network Model**
- ✓ **TCP/IP Stack Mapping to OSI Model**
- ✓ **TCP/IP Protocol Stack Members**