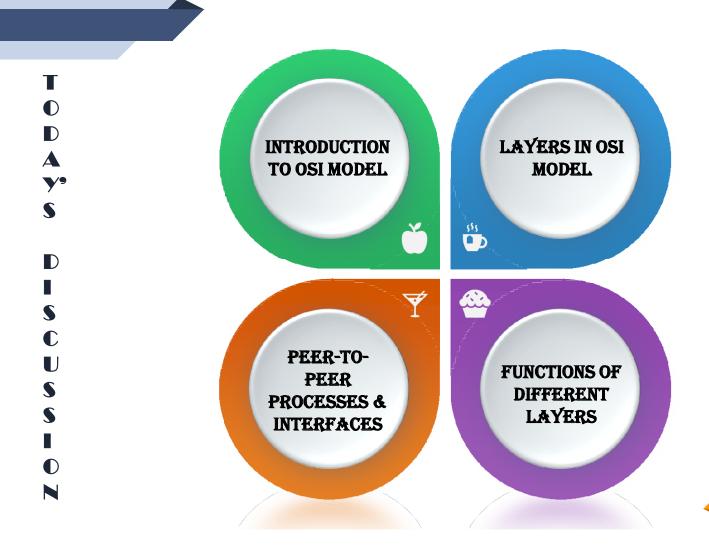
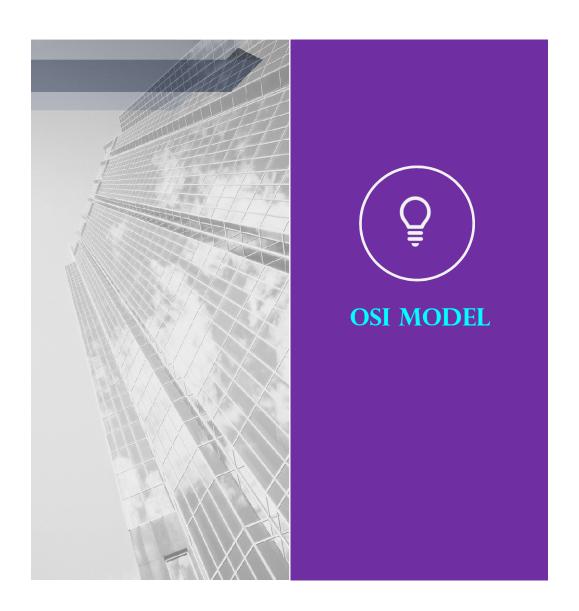


OSI Reference Model

Monalisa Mishra
Assistant Professor, CSE
C.V Raman Global University, Bhubaneswar





Objective:

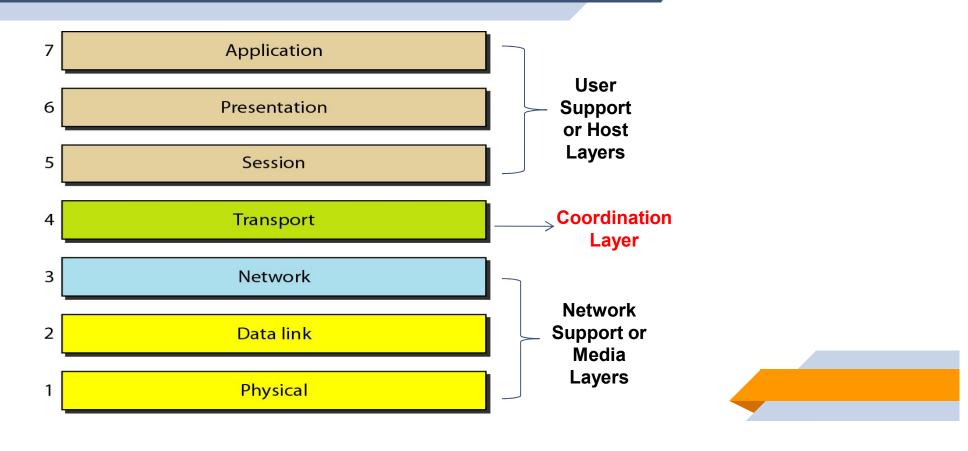
This topic will introduce the students to the OSI Reference Model. They will have a good knowledge on the functions of the different layers present in the OSI Model.



Introduction to OSI Model

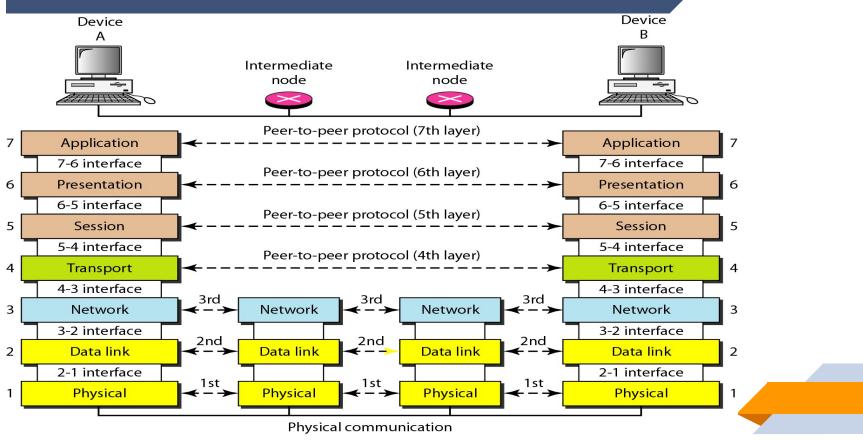
- Open System Interconnection, first introduced in the year 1970's
- An ISO Standard covering all aspects of network communication
- Model for understanding and designing a network architecture which is flexible,
 robust and interoperable

Layers in OSI Model





Communication among layers





Peer-to-Peer Processes & Interfaces

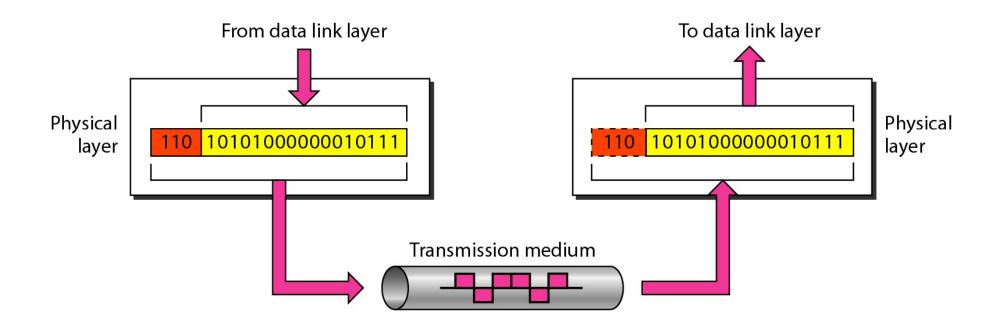
*Peer-to-Peer Processes:

Horizontal Communications between similar layers on different nodes

*****Interfaces:

Vertical Communications between different layers on the same node

Physical Layer



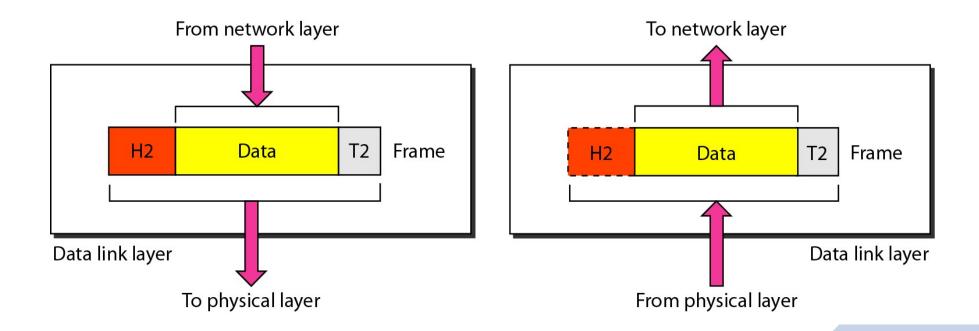


Functions of Physical Layer

- Movement of individual bits from one hop (node) to next
- > Physical characteristics of interfaces and medium
- **▶** Bit representation
- > Data rate/ Transmission rate
- **▶** Bit synchronization
- >Line configuration
- >Physical topology
- >Mode of transmission



Datalink Layer



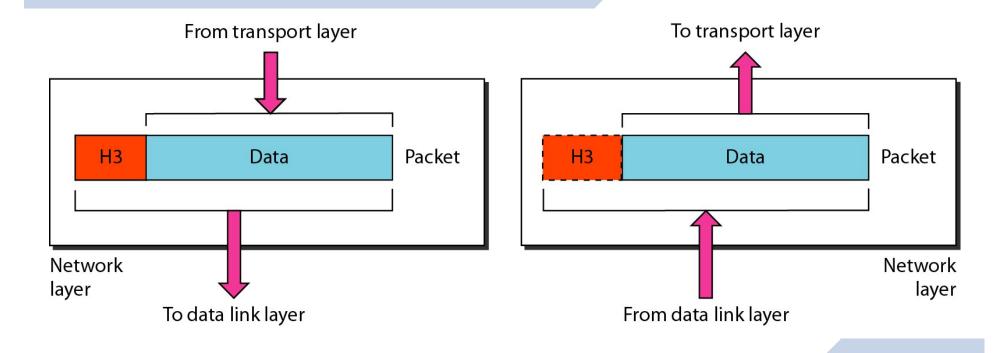


Functions of Datalink Layer

- >Moving frames from one hop to next
- >Framing
- >Physical addressing
- >Flow control
- >Error control
- >Access control



Network Layer



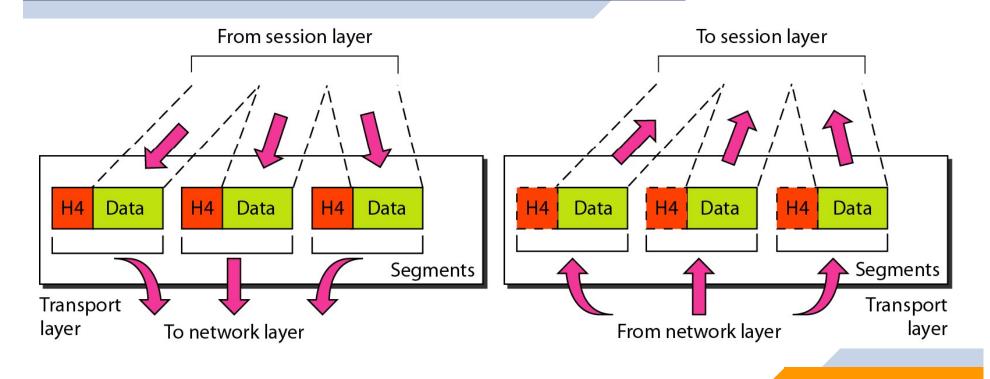


Functions of Network Layer

- Source to destination delivery of packet across multiple networks
- >Logical addressing
- >Routing



Transport Layer



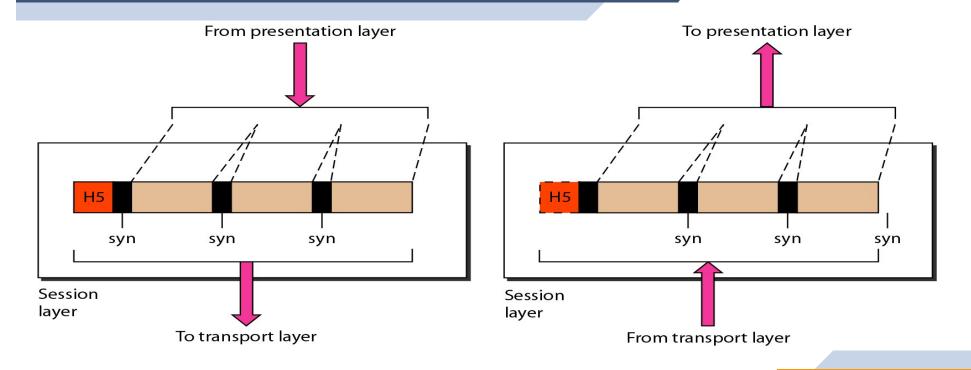


Functions of Transport Layer

- > Service point addressing
- >Segmentation and reassembly
- > Connection control
- > Flow control and error control



Session Layer



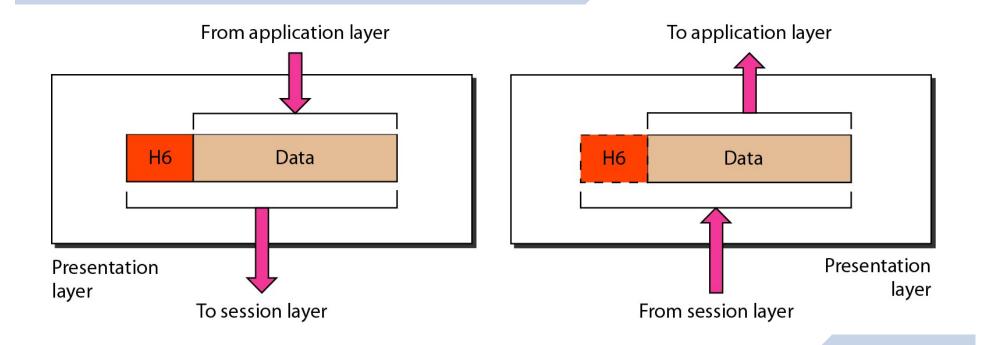


Functions of Session Layer

- >Allows users on different machines to set up sessions between them
- **➤**Dialog control
- >Synchronization



Presentation Layer



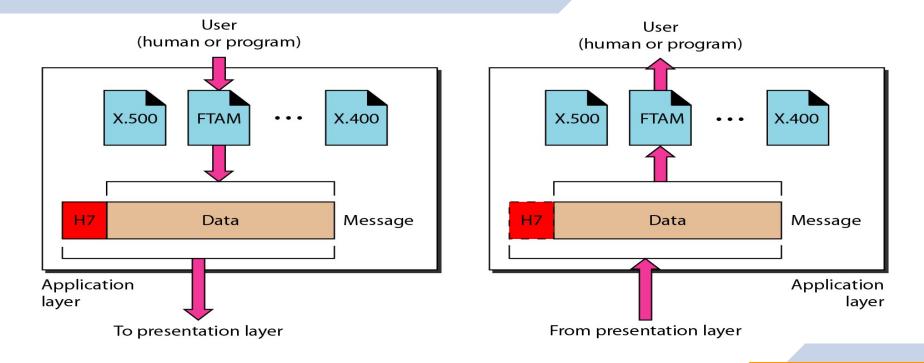


Functions of Presentation Layer

- > Concerned with the syntax and semantics of information exchanged between systems
- > Translation
- > Encryption
- **≻**Compression



Application Layer





Functions of Application Layer

- >Providing services to users
- >Network virtual terminal
- > File transfer, access, management
- > Mail services
- >Directory services



Direct Poll Vote link for the audience



http://etc.ch/DSE8

Thank You Any questions?

