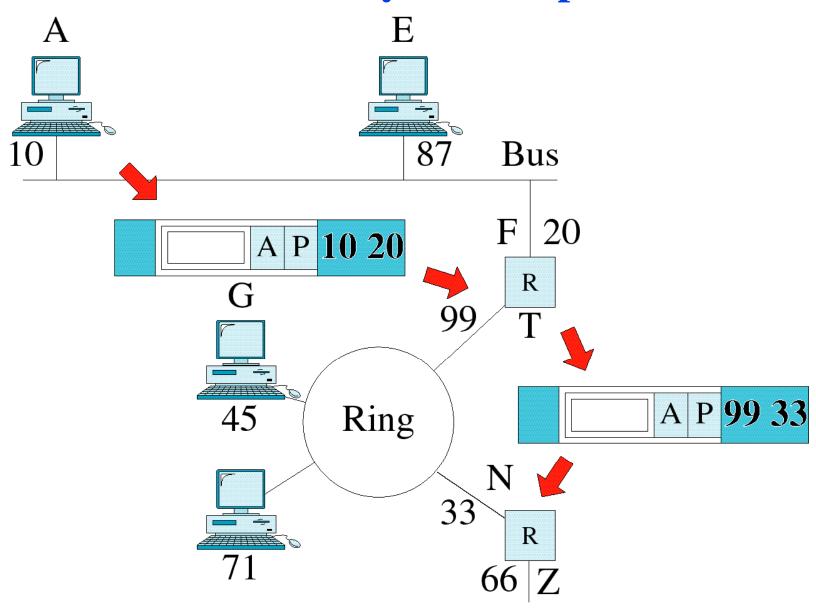
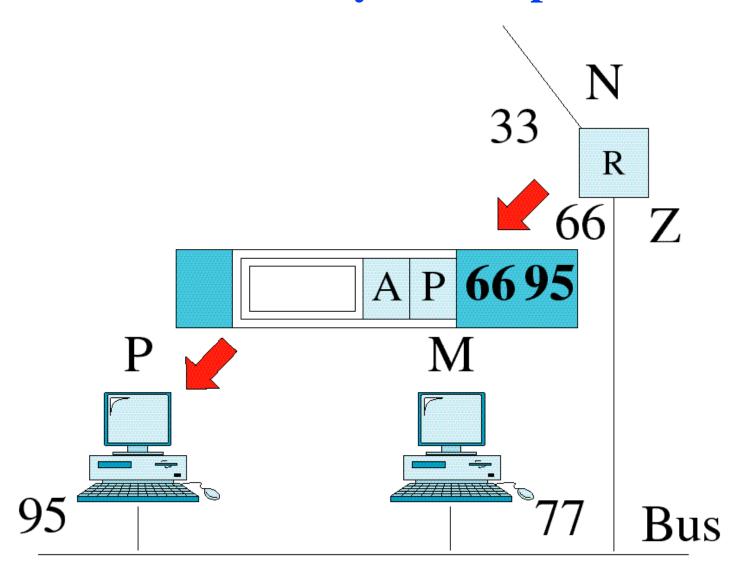
Network Layer Example

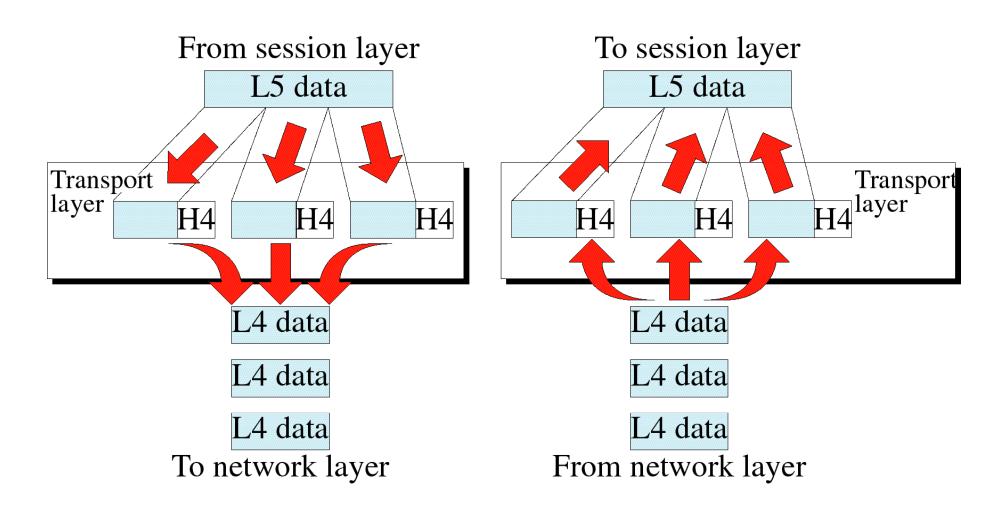


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Network Layer Example



Transport Layer

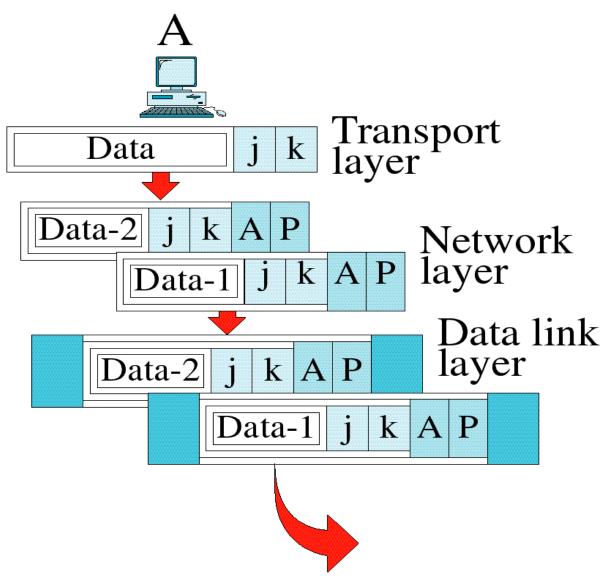


Transport Layer

Responsibility of transport layer

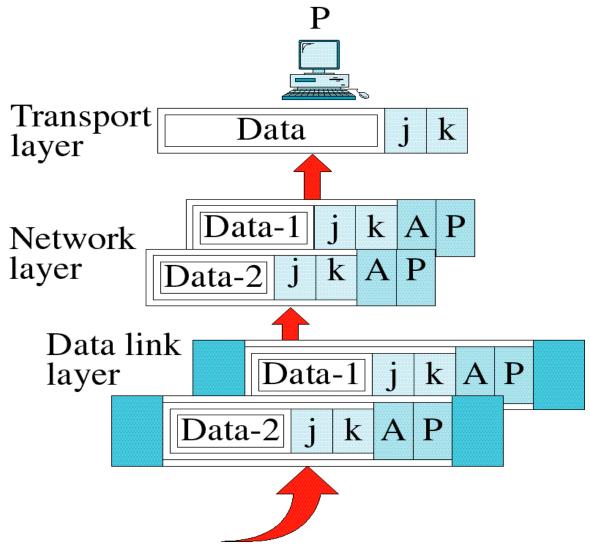
- **■**Purpose of this layer is to provide a reliable mechanism for the exchange of data between two processes in different computers.
- Segmentation and Reassembly
- **Ensures** that the data units are delivered error free.
- Ensures that data units are delivered in sequence.
- Ensures that there is no loss or duplication of data units.
- **Provides connectionless or connection oriented service.**

Transport Layer Example



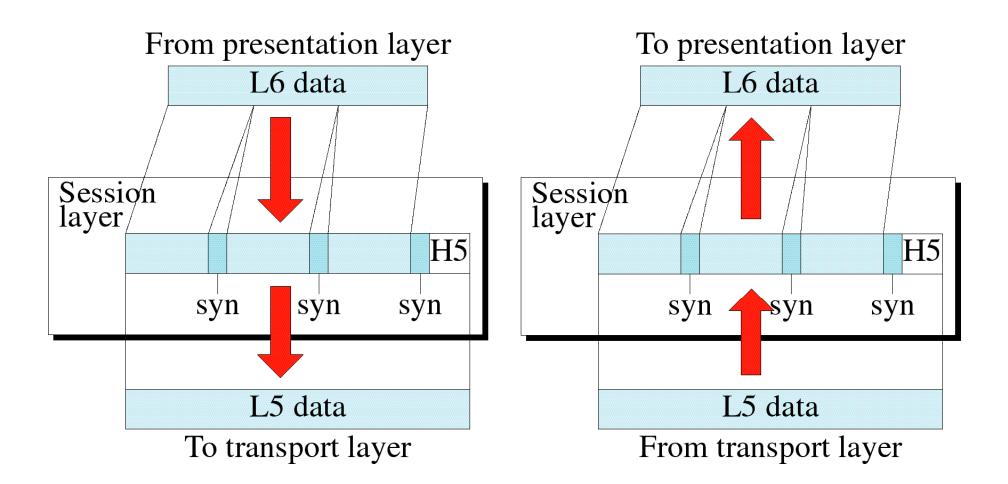
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Transport Layer Example



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Session Layer

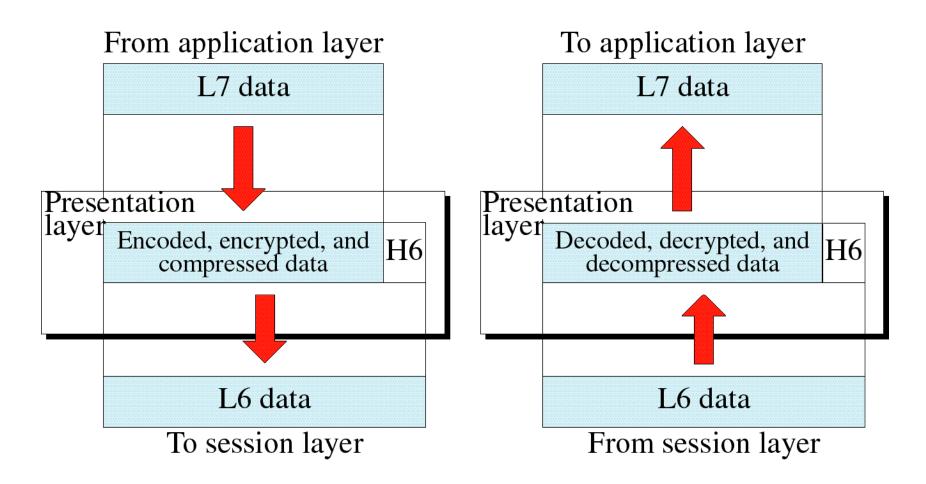


Session Layer

Responsibility of Session layer

- Session layer provides mechanism for controlling the dialogue between the two end systems. It defines how to start, control and end conversations (called sessions) between applications.
- This layer requests for a logical connection to be established on an end-user's request.
- Any necessary log-on or password validation is also handled by this layer.
- **Session** layer is also responsible for terminating the connection.
- This layer provides services like dialogue discipline which can be full duplex or half duplex.
- Session layer can also provide check-pointing mechanism such that if a failure of some sort occurs between checkpoints, all data can be retransmitted from the last checkpoint.

Presentation Layer

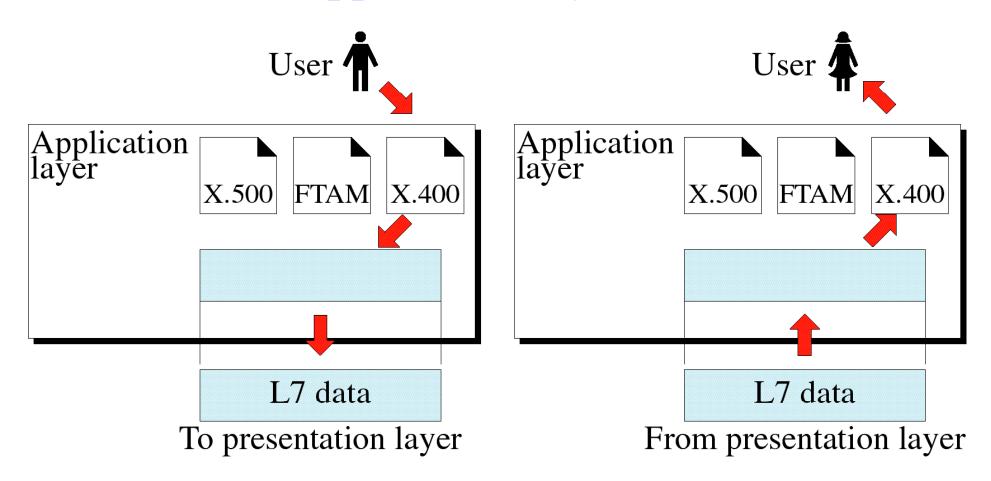


Presentation Layer

Responsibility of Presentation layer

- **■** Presentation layer defines the format in which the data is to be exchanged between the two communicating entities.
- Also handles data compression and data encryption (cryptography).

Application Layer



Application Layer

Responsibility of Application layer

- Application layer interacts with application programs and is the highest level of OSI model.
- Application layer contains management functions to support distributed applications.
- Examples of application layer are applications such as file transfer, electronic mail, remote login etc.

Summary of Layer Functions

To translate, encrypt, and compress data

To provide end-to-end message delivery and error recovery

To organize bits into frames; to provide node-to-node delivery

Application

Presentation

Session

Transport

Network

Data link

Physical

To allow access to network resources

To establish, manage, and terminate sessions

To move packets from source to destination; to provide internetworking

To transmit bits; to provide mechanical and electrical specifications