

OSI MODEL



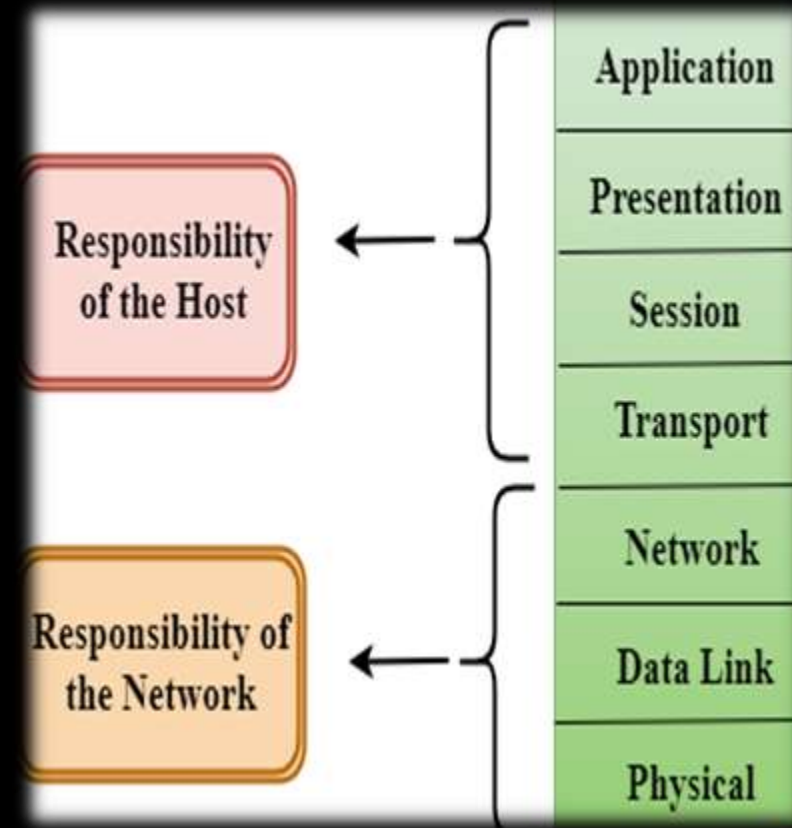
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ISO PROPOSED OSI REFERENCE MODEL

- Consist of Seven Layer
 - Physical Layer
 - Data Link Layer
 - Network Layer
 - Transport Layer
 - Session Layer
 - Presentation Layer
 - Application Layer



PHYSICAL LAYER

- Physical connection between network nodes
- Data are converted into bits
- Provides mechanical, electrical functional and procedural characteristics

DATA LINK LAYER

- Bits are converted into frame
- Data reliability
- Provides tools to establish, maintain and release
- Functions
 - Initialization
 - Information segmentation
 - Error control
 - Data synchronization
 - Flow control

DATA LINK LAYER PROTOCOL

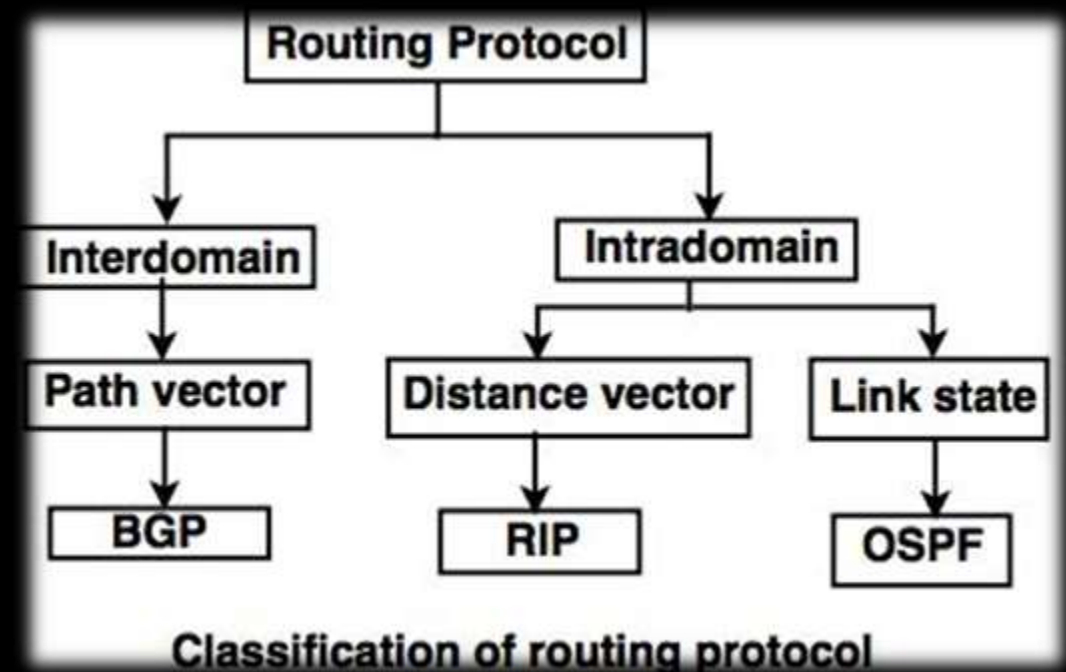
- Character oriented protocol
- Bit oriented protocol
- HDLC protocol
 - Information frame
 - Superior frame
- Slide window protocol

NETWORK LAYER

- Frames converted into packet
- Provides service to the transport layer
- Congestion control
- Connecting multiple network
- Routing packet between source and destination

ROUTING PROTOCOLS

- RIP – Routing Information Protocol
- OSPF – Open Shortest Path First
- BGP – Border Gate Way Protocol



TRANSPORT LAYER

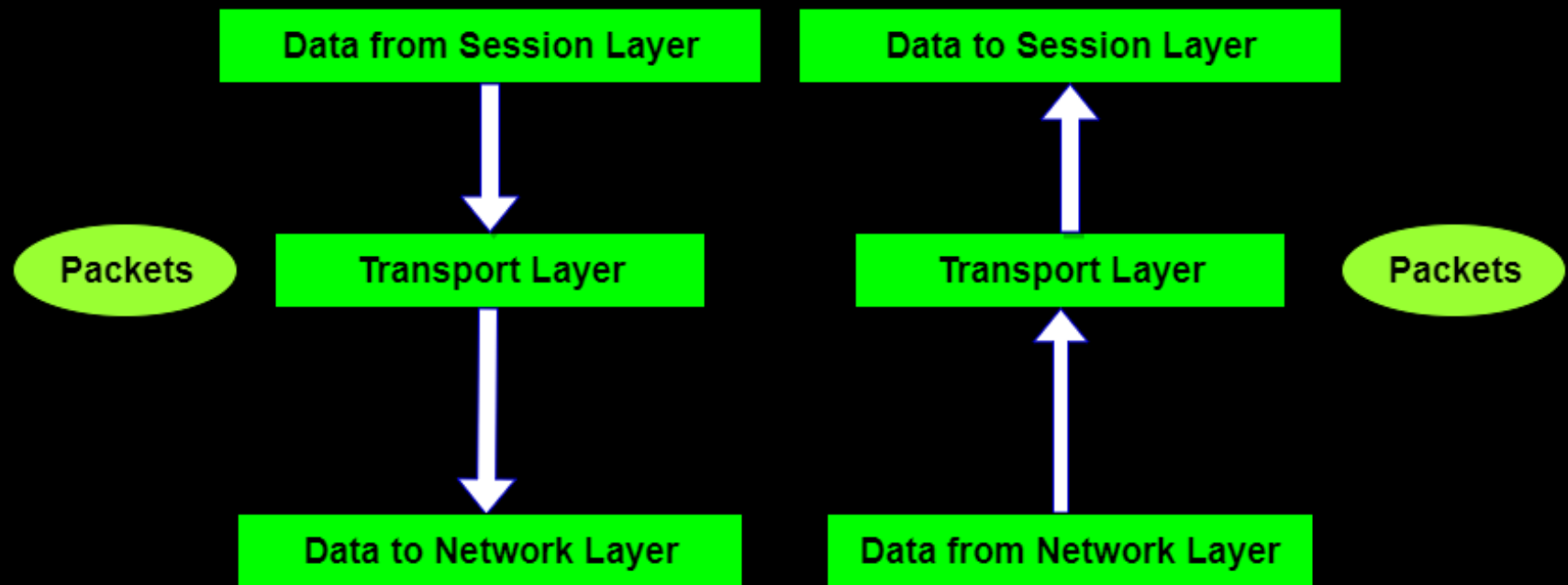
- Reliable to transmit the packet
- Efficient
- Cost effective
- End to end connection

TRANSPORT SERVICE

- Class 0: Simple class
- Class 1: Error recovering class
- Class 3: Multiplexing
- Class 4: Error recovering multiplexing class

TRANSPORT LAYER: SERVICE PRIMITIVE

- Listen
- Connection
- Send
- Receive
- Disconnect



SESSION LAYER

- Data are transmitted at time interval
- Dialog control
- Token management
- Synchronization
- Half duplex
- Activity management

PRESENTATION LAYER

- Also called as Translation Layer
- Transmit over the network
- Translation – ASCII to EBCDIC
- Encryption / Decryption
- Compression / Decompression

APPLICATION LAYER

- Also called as Desktop layer
- Produce the data to be transferred over the network
- Functions
 - Network virtual terminal
 - FTAM (File Transfer Access and Management)
 - Mail Services
 - Directory Services



THANK YOU