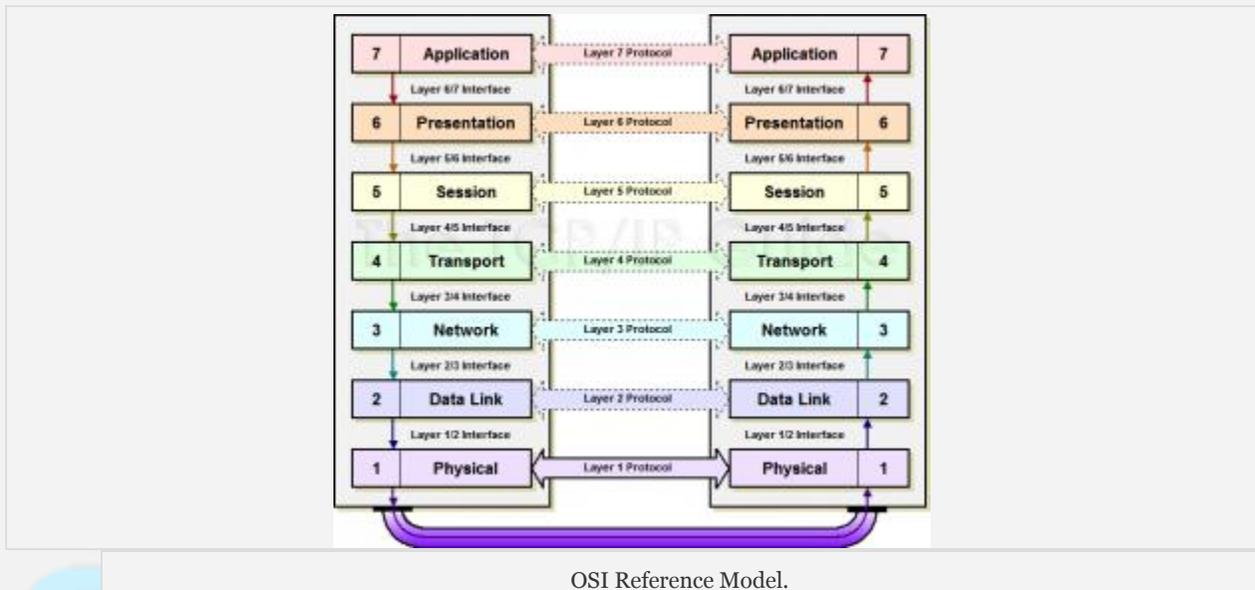


OSI Reference Model

OSI Model is a set of protocols that allows any two system to communication regardless of architecture. The purpose of OSI Model is to show how to communicate between different without requiring changes to the hardware and software. it is a model for understanding and designing framework for the design of network system that allow to communicate between all types of computer systems. It consists of Seven related layers, each of which defines part of the process of moving in formation across a network.



OSI Reference Model.

The Open Systems Interconnect model has seven layers.

1. Physical Layer
2. [Data Link Layer](#)
3. Network Layer
4. Transport Layer
5. Session Layer
6. Presentation Layer
7. Application Layer

Functions of above mentioned Different Layers of OSI Reference Model are given as follows:

PHYSICAL LAYER

- Physical Layer is used to transmit bit over a medium to provide mechanical and electrical specification.
- It provide the transfer medium such as cable
- Used to define the voltage and data rates need to complete the process of transmission.
- This layer is used to convert digital bits into required electrical signals.

DATA LINK LAYER

- The main function of data link layer is synchronization and error control for the information which are required to transmit over the physical layer.
- It is used to organise bits into frames in order to provide hop to hop delivery.
- Construct data frames using appropriate format as per accordance of given network.
- Examine device address and acknowledge receipt of the frame.

NETWORK LAYER

- To move the packet of data from source to destination in order to provide inter networking.
- Route the signals through various channels to the other end for the resequencing of packet transmission when needed.
- Determine the network path on which to route the given packet.

TRANSPORT LAYER

- The work of Transport layer is to ensure that data is sent and received in the same order.
- Ensure reliability of packet transmission from node to node.
- It monitors the packet transmission errors and resent the damaged form of packets.

SESSION LAYER

- Session layer initiates the communication link for the transmission.
- It controls logging on and off, user identification, billing and along with this the session management.
- Determine which node transmits any point at that time.

PRESENTATION LAYER

- Presentation Layer performs the function of data encryption.
- Perform the function of Data compression.
- Transmission data to a format the receiving node understand.

APPLICATION LAYER

- Application layer allows access to network resource present.
- Enable sharing of remote drives and printers.
- Provide files transfer services and file management services.