

Open Systems Interconnection (OSI) Model

Step 01 What is the OSI Model?

The OSI model is the Open Systems Interconnection model, which is a standard that categorizes the phases/layers of sending and receiving data, there are 7 layers which are

- 01 **Application Layer** On the sending side the user interacts with the application and sends the message, while on the receiving side, the message is viewed by the user.
- 02 **Presentation Layer** This layer is responsible for decoding the message from the sender and encoding the message to the receiver.
- 03 **Session Layer** This layer is responsible for establishing, maintaining, and terminating connections between applications.
- O4 Transport Layer This layer adds the header/box in which protocol is used to send the message e.g. TCP or UDP.
- 05 **Network layer** This layer adds the header/box which contains the IP address of the sender and the receiver.
- **O6 Data Link Layer** This layer adds the header/box which contains the MAC address of the sender and the receiver.
- 07 **Physical Layer** is responsible for the transmission and reception of raw bitstreams over a physical medium.



NOTE

Think of the layers as phases that the message passes through. Since computers operate using binary numbers, the data must be converted into a numerical format for transmission.