

OSI Model – Open Source InterConnection Model

Layers Of OSI Model:

- Application Layer – Manages data from the actual application
- Persentation Layer – Encode and decode data as per requirement
- Session Layer – Attaches session information to data
- Transport Layer – Breaks the data into segments and adds dest and source port
- Network Layer – Attaches source and destination IP address to each packet
- Data Layer – Breaks the packets into frames and add MAC address to each frame
- Physical Layer – Transmit the data as bits over network

PDU (Protocol Data Unit)

- The unit of data at different layer of OSI(Open Standard Interconnection) model is reffered as PDU.
- At different layers of OSI the PDU is reffered as following:
 - Transport Layer -> Segment
 - Network Layer -> Packet
 - Data-Link Layer -> Frame
- All of three Segment, Packet and Frame is unit of data at given layer.

Layers and commonly used protocols

Layer #	OSI NAME	SNA Name	COMMON PROTOCOL OR USE	PDU NAME
Layer 1	Physical	Physical	Transceiver	bits, or a physical signal
Layer 2	Datalink	Datalink	Ethernet	frame
Layer 3	Network	Path Control	IP	packet
Layer 4	Transport	Transmission	TCP, UDP	segment, datagram
Layer 5	Session	Data Flow	SIP	data, request, or response
Layer 6	Presentation	Presentation	Encryption/ compression	data, request, or response
Layer 7	Application	Application	HTTP	data, request, or response

Notes:

- SNA: System Network Architecture, A data communitaion Architecture established by IBM.

References:

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- <https://superuser.com/questions/298087/whats-the-difference-between-a-tcp-segment-and-a-tcp-packet>
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