OSI Model

#CiscoCert Shortcuts

LAYER	APPLICATION/ EXAMPLE		CENTRAL DEVICE PROTOCOLS		DOD4 MODEL
APPLICATION (7) Serves as the window for users and application processes to access the network services.	End User Layer: Program that opens what was sent or creates what is to be sent		**User Applications** SMTP	GATEWAY	Process
PRESENTATION (6) Formats the data to be presented to the Application layer. It can be viewed as the “Translator” for the network.	Syntax Layer: Encrypt & decrypt (if needed)		JPEG/ASCII/EBDIC/ TIFF/GIF/PICT		
SESSION (5) Allow session establishment between processes running on different stations.	Synch & send to ports (logical ports)		**Logical Ports** RPC/SQL/NFS/ NetBIOS names		
TRANSPORT (4) Ensures that messages are delivered error-free, in sequence, and with no losses or duplications.	TCP: Host to Host, Flow Control	PACKET FILTERING	TCP/SPX/UDP		Host to Host
NETWORK (3) Controls the operations of the subnet, deciding which physical path the data takes.	Packets: “letter”, contains IP address		**Routers** IP/IPX/ICMP		Internet
DATA LINK (2) Provides error-free transfer of data frames from one node to another over the Physical layer.	Frames: “envelopes”, contains layer 2 address (ex MAC address)		**Switch Bridge WAP** PPP/SLIP	LAN Based Layers	Network
PHYSICAL (1) Concerned with the transmission and reception of the unstructured raw bit stream over the physical medium.	Physical structure: Cables, hubs, etc.		**Hub**		