OSI Model

#CiscoCert Shortcuts

CISCO

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		**G A T E W A Y**	**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			**Process**
SESSION (5) Allow session embellshment between processes running on different stations.	Synch & send to ports (logical ports)	**Logical Ports** RPC/SQL/NFS/ NetBIOS names			**Process**
TRANSPORT (4) Ensures that messages are delivered error-free, in sequence, and with no losses or duplications.	TCP: Host to Host, Flow Control	TCP/SPX/UDP	**PACKET FILTERING**		**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	**PACKET FILTERING**		**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		**Land 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**		**Land Based Layers**	**Network**