The 7 Layer OSI Model

OSI Model				
Layer		**Data unit**	**Function**	**Examples**
Host layers	**7. Application**	Data	High-level APIs, including resource sharing, remote file access, directory services and virtual terminals	HTTP, FTP, SMTP
	6. Presentation		Translation of data between a networking service and an application; including character encoding, data compression and encryption/decryption	ASCII, EBCDIC, JPEG
	5. Session		Managing communication sessions, i.e. continuous exchange of information in the form of multiple back-and-forth transmissions between two nodes	RPC, PAP
	4. Transport	Segments	Reliable transmission of data segments between points on a network, including segmentation, acknowledgement and multiplexing	TCP, UDP
Media layers	**3. Network**	Packet/ Datagram	Structuring and managing a multi-node network, including addressing, routing and traffic control	IPv4, IPv6, IPsec, AppleTalk
	2. Data link	Bit/Frame	Reliable transmission of data frames between two nodes connected by a physical layer	PPP, IEEE 802.2, L2TP
	1. Physical	Bit	Transmission and reception of raw bit streams over a physical medium	DSL, USB

TCP/IP stack	
Layer Name	**Description**
Application	Encodes the data being sent
Transport	Splits the data into manageable chunks, adds port number information
Internet	Adds IP addresses stating where the data is from and where it is going
Link	Adds MAC address information to specify which hardware device the message came from, and which hardware device the message is going to