



Application Layer
7 Responsible for interaction with the operating system and providing interface to the system (e.g., FTP, TELNET, SMTP). Serving as a window for applications to access network services, it handles general network access, flow control, error recovery and file transfers.

Presentation Layer
6 Responsible for meaningful exchange of data. Performing generally useful transformations on data to provide a standardized application interface and common communications services, it also provides services such as encryption, text compression and reformatting.

Session Layer
5 Responsible for support of connections between sessions, administrative tasks and security. Providing the control structure for communication between applications, it establishes, manages and terminates connections (sessions) between cooperating applications.

Transport Layer
4 Responsible for reliable, transparent transfer of data between end points. Providing end-to-end error recovery and flow control, it deals with packet handling, repackaging of messages, dividing messages into smaller packets and error handling.

Network Layer
3 Responsible for addressing and control functions (e.g. routing) necessary to move data through the network. This covers establishing, maintaining and terminating connections including packet switching, routing, data congestion, reassembly of data and translation of logical addresses to physical addresses.

Data Link Layer
2 Responsible for error-free transmission and establishing logical connections between stations. This is achieved by packaging raw bits from the physical layer into blocks of data (frames) and sending these frames with the necessary synchronization, error control and flow control.

Physical Layer
1 Responsible for the transmission of unstructured bit streams over a physical medium. This covers the mechanical, electrical and procedural characteristics required to establish, maintain and deactivate physical links.

