**Difference between client/server and peer to peer model**

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| Client/server | Peer to peer |
| * Server has the control ability while clients do not. | * All computers have equal ability. |
| * Higher cabling cost. | * Cheaper cabling cost. |
| * It is used in small as well as large networks. | * It is used in small networks. |
| * Easy to manage. | * Hard to manage. |
| * One powerful computer acting as server. | * No need of server. |
| * Install software only in the server while the clients share the software. | * Install software to every computer. |

**Difference between OSI and TCP/IP model**

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| Osi | tcp/ip |
| * It is reference model. | * It is implementation model. |
| * This is a theoretical model. | * Model around which internet is developed. |
| * It has 7 layers. | * It has only 4 layers. |
| * It is considered as a reference tool. | * It is considered more reliable. |
| * It has separate session and presentation layer. | * Combines the session and presentation layers in presentation layer. |
| * Model was developed before the development of protocols. | * Protocols were developed first and then the model was developed. |
| * It is protocol independent standard. | * It is protocol dependent standard. |

**7 layers of OSI model**

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| --- | --- |
| layers | functions |
| * Application (7) | * Services that are used with end user application. |
| * Presentation (6) | * Formats the data so that it can be viewed by the users. * Encrypt and decrypt. |
| * Session (5) | * Establishes end connection between two hosts. |
| * Transport (4) | * Responsible for transport protocol and error handling. |
| * Network (3) | * Reads the IP from the packet. |
| * Data link (2) | * Reads the MAC address from the data packet. |
| * Physical (1) | * Sends data on the physical wire. |

**Principles of OSI model**

* A layer should be created where a different abstraction is needed.
* Each layer should perform a well-defined function.
* The function of each layer should be chosen with an eye towards defining internationally standardized protocols.
* The layer boundaries should be chosen to minimize the information flow across the interfaces.
* The number of layers should be large enough that distinct functions should not be thrown together in the same layer and small enough that architecture does not become unwieldy.