

NETWORK MODELS

From a generic point of view: WHAT IS A MODEL?

- It is representation of what the something is.
 - a system or thing used as an example to follow or imitate.
 - use (a system, procedure, etc.) as an example to follow or imitate.
 - they are simplified processes to represent the form and function of the real thing

From a Networking point of view, there are two (2) models that represents how network functions:

- OSI
- TCP/IP

The purpose of the network models was to make a means of interconnectivity between devices. The first model that was create is the OSI 7 Layer Model. It has seven distinct functions that a network must do. This model is partially “deprecated” with a newer model called the TCP model.

The OSI (Open Systems Interconnection) model as said has seven layers:

OSI Model	Layer Description
7 - Application	The “smarts” in the application that makes it “Network Aware” aka API – Application Programmers Interface
6 - Presentation	Used to convert data into format that the application can read (not used now)
5 - Session	What is the actual connection between two systems (TCP to Server/Client)
4 - Transport	Assemble and disassemble data (packets) as they move to other systems
3 - Network	Deals with Logical Address or IP Addresses (Routers reside here)
2 - Data Link	Anything that works with the MAC address works at this layer (NICs, Switches)
1 - Physical	What type of cables do I use and other physical aspects.

TCP Model	Layer Description
4 - Application	Handles the old application, presentation and session layer
3 - Transport	Performs assembly and disassembly and how the data connects
2 - Internet	Handles IP Addresses (Routers) basically anything that uses IP Addresses
1 - Network Interface	Physical aspects and the MAC address info including NICs and Switches

Many discuss the models by the layer number, so it is import to memorize the number with the name.