

2.2.2 OSI Model Facts

The Open Systems Interconnection (OSI) model is a theoretical way to classify and explain the complex process of sending data on a network. The OSI model is the most widely used method for network communications. Remember that it is only a theoretical model that defines standards for programmers and network administrators. It is not a model of actual physical layers.

This lesson covers the following topics:

- OSI model benefits
- OSI model limitations
- Mnemonic device for layers

OSI Model Benefits

The OSI model:

- Provides a common language and reference point for network professionals.
- Divides networking tasks into logical layers for easier comprehension.
- Allows specialization of features at different levels.
- Aids in troubleshooting.
- Promotes standards of interoperability between networks and devices.
- Provides modularity in networking features. It allows developers to change features without changing the entire approach.

OSI Model Limitations

The OSI model has the following limitations:

- OSI layers are theoretical and do not perform real functions.

- Industry implementations rarely have a layer-to-layer correspondence with the OSI layers.
- A variety of protocols are used within the OSI model to send or receive the overall message. This can sometimes complicate the overall process.
- A particular protocol implementation may not represent every OSI layer. A protocol may be used by multiple layers.

Mnemonic Device for Layers

To help remember the layer names of the OSI model, try the using the bottom to top or top to bottom mnemonic device in the following table.

Layer	Name	Mnemonic (Bottom to Top)	Mnemonic (Top to Bottom)
Layer 7	Application	Away	All
Layer 6	Presentation	Pizza	People
Layer 5	Session	Sausage	Seem
Layer 4	Transport	Throw	To
Layer 3	Network	Not	Need
Layer 2	Data Link	Do	Data
Layer 1	Physical	Please	Processing

Have fun and come up with your own mnemonic for the OSI model, but use the same one so you don't get confused.