

Difference between TCP IP and OSI Model

Although there exist various differences between OSI and TCP/IP models, there are a few similarities between the two, such as both carry defined standards as a layer, both use a simple process to troubleshoot, etc. Let us explore the differences between these in the table provided below.

TCP IP vs OSI Model

TCP IP and OSI Model	
OSI	TCP/IP
Developed by ISO.	Developed by ARPANET.
It is only a reference model and no actual implementation is done on this model.	This model is used for the development of the internet.
Stands for: Open System Interconnection.	Stands for: Transmission Control Protocol/Internet Protocol.
The transport layer confirms the delivery of the packets.	The transport layer does not confirm the delivery of the packets.
A vertical approach followed.	A horizontal approach followed.
Presentation and Session layers are different.	Both are the same and included under the application layer.
Can be used to build models like TCP/IP.	Can not be used for model building.
The network layer can provide connectionless service as well along with connection service.	The network layer can only provide connectionless service.
There exists 7 layers.	There exists 5 layers.

Used very less compared to TCP/IP.

Highly used.

TCP IP and OSI Model

The OSI model is a generic one based on the functions of each layer. TCP/IP, on the other hand, is a protocol-based model. A reference model is used for clear communication where a clearly defined and interlinked set of concepts are mentioned. OSI and TCP/IP reference models are used for standard communication functions.

What is OSI?

The OSI model is a logical and conceptual model for network communication utilized by systems capable of interconnection and communication with other systems. The Open System Interconnection (OSI) Model also defines a logical network and covers computer packet transport using several levels of protocols.

OSI reference model stands for Open System Interconnection reference model. The ISO introduced this model. This is a reference model and hence is only being used for reference and no real work or implementation is done on this model. It is used to introduce and teach the concepts related to computer networking.

The Open System Interconnection reference model is a conceptual model used to define the computer packet transfer with the help of multiple-layer protocols. The OSI model carries the following layers

- Application
- Presentation
- Session
- Transport
- Network
- Datalink
- Physical

What is TCP IP?

TCP/IP is a protocol that specifies how a computer should connect to the internet and how data should be transmitted between them. When many computer networks are connected, it creates a virtual network.

Transmission Control Protocol/Internet Protocol (TCP/IP) combines TCP and IP. It was created as a model for providing a very stable, end-to-end byte stream over an unreliable internet network. It has four layers:

- Network Access
- Internet
- Transport
- Application