# The differnces between The 7 layer OSI Reference model and the TCP/IP model.

One of the key differences between the 7 layer-OSI reference model and the TCP/IP model is the number of layers in each.  
OSI model has 7 layers while TCP/IP consists of 4 layers.

**OSI MODEL LAYERS:** Application, presentation, Session, Transport, Network, Data Link and Physical layer.

**TCP/IP MODEL LAYERS:** Application, Transport, Internet and link layer

One of the primary distinctions between these models is that the OSI model leans towards theoretical and universal applicability, providing a reference point for understanding networking principles and protocols. In contrast, the TCP/IP model offers a more real-world perspective, tightly aligned with the practical demands of the Internet.

The OSI model also has modular approach to its layers which allows for a comprehensive and theoretical understanding of network communication, making it a valuable reference model. However, in practice, the OSI model is seldom strictly adhered to.

On the other hand, the TCP/IP model is a more streamlined four-layer model, directly designed for the development and operation of the Internet.The TCP/IP model is closely aligned with the practical requirements of real-world networking, making it a more applicable framework for modern internet-based communication.

The layers of each model also map to each other as shown:

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| **TCP/IP LAYERS** | **OSI MODEL LAYERS** |
| Application | Application, Presentation, Session |
| Transport | Transport |
| Internet | Network |
| Link | Data link, Physical |