

Outcome 1: IP addressing

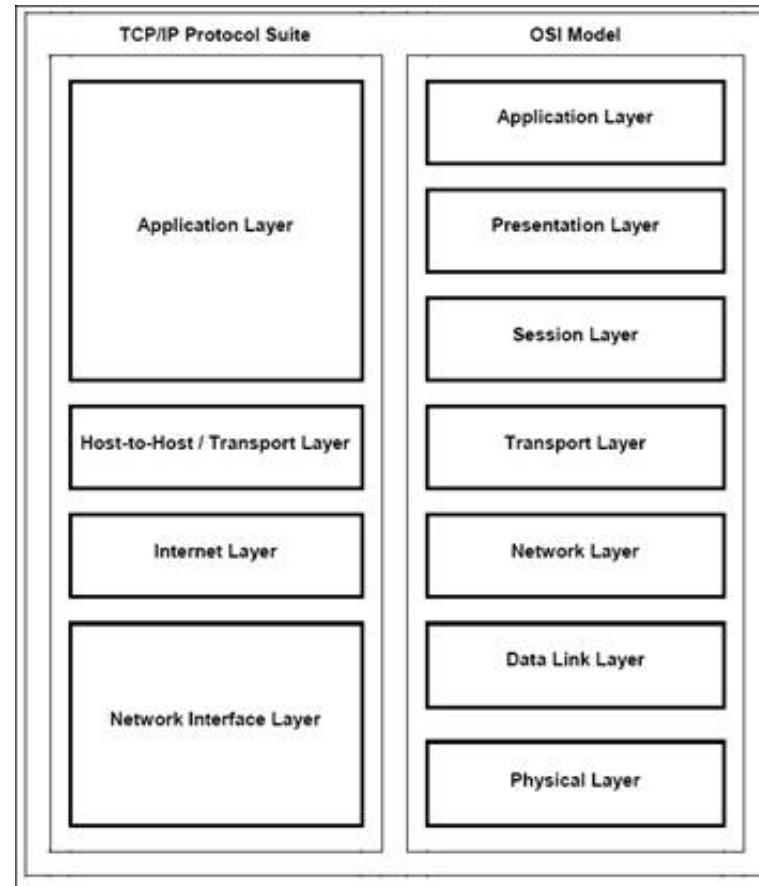


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The TCP/IP Protocol Suite

TCP/IP is based on the US Department of Defense (DoD) network model, which has four layers rather than OSI's seven. However, there is a direct correlation between the OSI and TCP/IP models, as shown below:



- The **Network Interface** layer in the TCP/IP model performs the same functions as Layers 1 and 2 of the OSI model, the **Physical** and **Data Link** layers.
- The TCP/IP **Internet** layer is equivalent to the **Network** layer in the OSI model.

- The **Transport** layer is the next layer up in both models. In the DoD model it was originally referred to as the **Host-to-Host** layer.
- The **Application** layer in the DoD model is equivalent to the top three layers of the OSI model, the **Session**, **Presentation** and **Application** layers.

TCP/IP was designed to work independently of network architecture or design and is independent of the access method, frame format or medium (cable, wireless etc). TCP/IP specifies the details of networking activities at Layers 3 and above. It is used in many different types of networks, including Ethernet, Token Ring, X.25, Frame Relay and Asynchronous Transfer Mode (ATM).

Next: [Layer 1: Network Interface](#)



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