

## (Credit Kieran Smith, Abertay University)

We're not going to go into exactly *how* this works on a step-to-step level -- not in this room at any rate. It is sufficient to know that the three-way handshake must be carried out before a connection can be established using TCP.

## History:

It's important to understand exactly *why* the TCP/IP and OSI models were originally created. To begin with there was no standardisation -different manufacturers followed their own methodologies, and consequently systems made by different manufacturers were completely incompatible when it came to networking. The TCP/IP model was introduced by the American DoD in 1982 to provide a standard -something for all of the different manufacturers to follow. This sorted out the inconsistency problems. Later the OSI model was also introduced by the International Organisation for Standardisation (<u>ISO</u>); however, it's mainly used as a more comprehensive guide for learning, as the TCP/IP model is still the standard upon which modern networking is based.

Which model was introduced first, OSI or TCP/IP?			
TCP/IP	Correct Answer		
Which layer of the TCP/IP model covers the functionality of the Transport layer of the OSI model (Full Name)?			
Transport	Correct Answer		
Which layer of the TCP/IP model covers the functionality of the Session layer of the OSI model (Full Name)?			
Application	Correct Answer		
The Network Interface layer of the TCP/IP model covers the functionality of two layers in the <b>(Full Name)</b> ?	OSI model. These la		
Physical	Correct Answer		
Which layer of the TCP/IP model handles the functionality of the OSI network layer?			
Internet	Correct Answer		
What kind of protocol is TCP?			
connection-based	Correct Answer		

synchronise	Correct Answer	𝖓 Hint
What is the second step of the three way handshake?		
syn/ack	Correct Answer	
What is the short name for the "Acknowledgement" segment in the three	-way handshake?	

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