TCP in a Nutshell

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TCP (Transmission Control Protocol)

- Connection-oriented, reliable protocol
- Provides:
 - 1. flow control by providing sliding windows,
 - 2. reliability by providing sequence numbers and acknowledgments.
- TCP resends anything that is not received and supplies a virtual circuit between end-user applications.
- The advantage of TCP is that it provides guaranteed delivery of the segments.

Connection-oriented

• Three-way handshake

Flow Control

• Sliding Windows (Send and Receive Window)

Reliability

• Sequence Numbers and Acknowledgements (Expectational Acknowledgement)

Some of the protocols that use TCP are:

- HTTP
- Telnet
- FTP

Note: See *Port Numbers in a Nutshell* for this topic.

Three-way Handshake



Sliding Windows

