What is the TCP protocol?

The TCP (Transmission Control Protocol) is a widely used communication protocol in computer networking. It facilitates reliable and ordered transmission of data between devices over a network. It ensures data integrity through acknowledgment and retransmission mechanisms, managing connection establishment, maintenance, and termination. TCP is a fundamental part of the Internet Protocol Suite (TCP/IP) and underpins various applications, including web browsing and file transfer, that require robust and error-checked data exchange.