

# Explaining tcp ip to grandma essay sample



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Transmission Control Protocol (TCP) and Internet Protocol (IP) are the two main protocols that the internet uses. A protocol is a rule that governs how data moves through the internet and how network connections are established and terminated. TCP/IP, as it is commonly called addresses separate issues that allow the use of the internet. They complement each other.

TCP is in control of accurate delivery of a message. How does this happen? First it controls the disassembly of the message or file into packets. This small packet of information consists of a sequence of octets. An octet consists of eight bits and is a unit of digital information that can then be transferred over the internet. Once these packets reach their destinations, TCP controls their reassembly into the original message. TCP therefore delivers a message from one program in a computer to another program in another computer. The World Wide Web uses TCP. When sending an email or transferring a file, one uses TCP protocol.

IP specifies the addressing details for each of the packets of information that the TCP has created. Just like a letter needs an address to know where it is to be sent, so to the IP creates these addresses for the disassembled packets of information. The IP labels each packet with the origination and destination addresses. These addresses have two functions, the host is identified and it provides a logical location service.

In the event that a packet becomes lost due to network congestion, traffic load balancing, or other unpredictable network behavior, TCP detects these problems, requests retransmission of lost data, rearranges out-of-order data,

and even helps minimize network congestion to reduce the occurrence of the other problems. Once the TCP receiver has reassembled the sequence of octets originally transmitted, it passes them to the application program.

In this way TCP/IP are interconnected. Simply put, TCP is responsible for breaking data down into IP packets before they are sent and then reassembling them. IP is responsible for sending and receiving data packets and takes care of communicating with other computers.