

## Written Exercise – Chapter 2

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ltwp2600 2/16/2025

### Exercise 9

Question: "Briefly describe what the TCP/IP protocol does for the Internet."

A Brief description of TCP/IP protocols and what it does for the Internet. As the Internet was being developed there was a need for standardized protocols, which led to the creation of the Transmission Control Protocol (TCP) and the Internet Protocol (IP). To understand this more we need to first investigate what these protocols are and why they are necessary. Protocols are rules that govern how data is handled through the internet and how the network connections are processed, executed, and terminated. The Transmission Control Protocol or TCP for short takes care of the disassembly of data before it is transmitted over the internet. Once the data has reached its destination after being passed through different networks and devices, TCP will reassemble the data back to its original form (displaying whatever you were searching for). The Internet Protocol deals with addressing details for each packet and identifying the starting location and destination for each piece of data. If we didn't have IP it would be impossible for the devices to find each other and communicate effectively.

In conclusion, TCP and IP are needed for the reliable and efficient operation of the Internet. They help to ensure that data is broken down, transmitted, and put back together in its original form. IP also helps the data reach its destination in the most efficient way possible. But without these protocols, our internet would not be able to function properly.

Question: "Explain how top-level Web domain names are proposed and approved"

Top-level Web domain names are proposed and approved by the Internet Corporation assigned names and numbers (ICANN). The ICANN is responsible for some very key components that keep the internet running at tip-top shape. They are responsible for domain names, number resources, and protocol assignments and are one of the oldest internet institutions founded in the 1970s. A domain name is a set of words that are assigned to a specific IP address. The right section of the domain name is general information also called top-level domain. For example, (Macomb.edu) the Edu section just tells you that it is an education institution computer, then the Macomb specifies Macomb Community College. This would also be considered a sponsored top-level domain because it is managed by a private organization. The main top-level domain named end with .com,

.net, .edu, .gov and a few more. ICANN goes through an approval process when applying to new TLDs.

In conclusion, top-level Web domain names are proposed and approved by ICANN. They manage the assignment of IP addresses to domain names while also managing different types of TLDS such as generic and sponsored domains. They keep the internet running monthly by managing everything so smoothly.

#### Sources:

Book: **Electronic Commerce** by Gary Schneider

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