



Unit 14 What Are Networks Like?

* Glossary

(to) agree: to have the same opinion about something

(to) lack: to be without

**Communication protocols**

Effective communication between two individuals requires that both sides know the language with which they want to communicate. Similarly, in the world of computer networks, whenever two computers try to communicate, they must **agree** in advance which communication protocol they want to utilize. Today's operating systems support more than one communication protocol known as protocol suites. Some of the most well-known protocol suites in the history of computer networks are IPX/SPX, the X.25, AppleTalk and TCP/IP. The TCP/IP is the most commonly used protocol suite among the ones mentioned.

- Internet Protocol (IP) is a protocol tasked to carry packages from the source computer to the destination computer.
- Transmission Control Protocol (TCP) is the connection-oriented protocol that provides reliable, orderly, and error checking data transport.
- User Datagram Protocol (UDP) is a protocol that **lacks** the TCP's transmission features.
- Internet Control Message Protocol (ICMP) is the protocol used by the active devices in the network to send error messages in order to determine the availability of the service or destination device.
- Hypertext Transfer Protocol (HTTP) is the protocol used by the browser that operates on principle of hypertext markup language (HTML). It utilizes the request-response to access the websites.
- Post Office Protocol (POP) is the protocol used by email app used to retrieve emails from the mail server.
- File transfer Protocol (FTP) is the protocol which transfers files from the source computer (server) to the destination computer (client-server).
- Internet Message Access Protocol (IMAP): like POP, IMAP is used by email app to retrieve email for the server leaving copies of emails in the server.

(Adapted from Bekim Dauti, *Computer Networks: An Introduction*, Bekim Dauti, 2016)





Understanding the text

1. Find verbs in the text that are associated with the following terms and expressions.
 1. packages
 2. data transport
 3. error messages
 4. websites
 5. files
 6. emails

2. Provide opposites for each of the following adjectives and adverbs from the text.
 1. effective
 2. similarly
 3. well-known
 4. reliable
 5. orderly

3. Complete the following sentences. Your answers must be related to the concepts contained in the text.
 1. The main function of protocols is to
 2. IP stands for, which provides a standard set of rules for sending and receiving over the Internet.
 3. is a fundamental protocol within the Internet protocol suite – a collection of standards that allow systems to communicate over the Internet. It complements the IP protocol.
 4. is the protocol used to transfer data over the web.
 5. HTTP is the used to create webpages.
 6. is a type of computer networking and Internet standard protocol that extracts and retrieves email from a remote mail server for access by the host machine.