English for Informatics 1

By

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Meeting 8
UNIT 4: Networking

Topic:

a network and network hardware

Learning Objectives:

By the end of the lesson, the students are expected to be able to use appropriate English to:

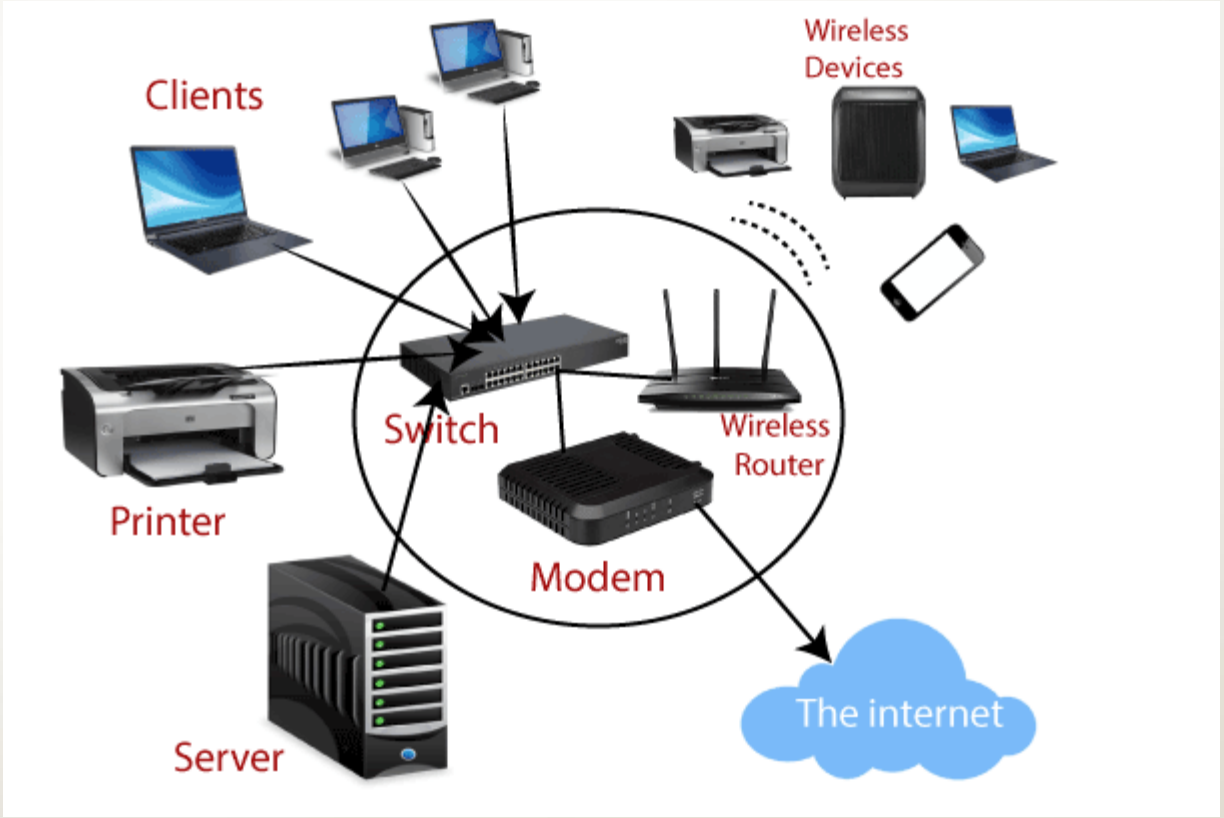
- identify and explain network and its kinds
- identify and explain kinds of network hardware and its function
- explain the definition of network and its hardware components

Material: Module Unit 4, page 37-42

Think about these:

- What is a network?
- What are its benefits?

  Give examples.



https://www.tutorialandexample.com/types-of-network/

Read the following text about LAN

Networking allows two or more computer systems to exchange information and share resources and peripherals.

LANs are usually placed in the same building. They can be built with two main types of architecture: **peer-to-peer**, where the two computers have the same capabilities, or **client-server**, where one computer acts as the **server** containing the main hard disk and controlling the other **workstations** or **nodes**, all the devices linked in the network (e.g. printers, computers, etc.).

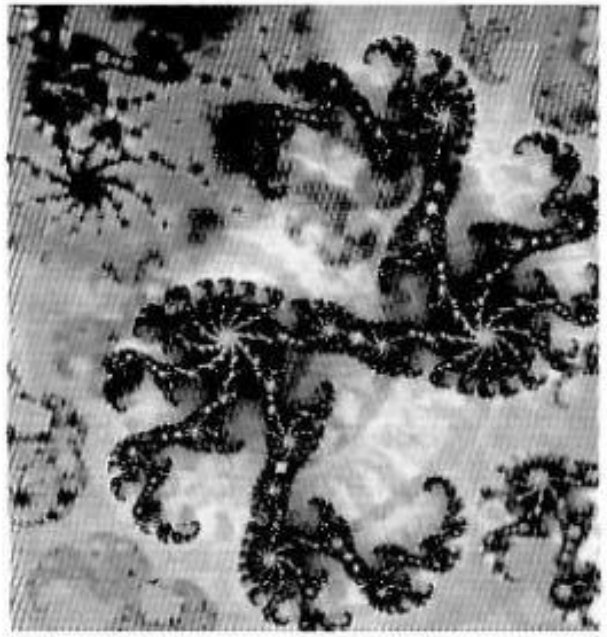
Computers in a LAN need to use the same **protocol**, or standard of communication. Ethernet is one of the most common protocols for LANs.

A **router**, a device that forwards data packets, is needed to link a LAN to another network, e.g. to the Net.

Most networks are linked with cables or wires but new **Wi-Fi**, **wireless fidelity**, technologies allow the creation of **WLANs**, where cables or wires are replaced by radio waves.

To build a WLAN you need **access points**, radio-based receiver-transmitters that are connected to the wired LAN, and **wireless adapters** installed in your computer to link it to the network.

Hotspots are WLANs available for public use in places like airports and hotels, but sometimes the service is also available outdoors (e.g. university campuses, squares, etc.).



Networks

Professional English in Use ICT, page 50

Do exercise 1 (page 38)

Exercise 1: Below are hardware components used in creating a network. Match the words 1-8 to the descriptions a-g.

1. A modem	a. is an entrance to another network
2. A repeater	b. channels incoming data but maintains the bandwidth speed.
3. A bridge	c. allows wireless devices to connect to the network
4. A router	d. modulates and demodulates the data into a digital or an analog signal
5. A gateway	e. channels incoming data but shares the bandwidth among the devices present on a network
6. A switch	f. sends the digital signal further on in the network
7. A hub	g. connects networks and sends packages of data between them
8. A wireless access point	h. connects networks that use the same protocol

Read the following text about WAN

WANs (Wide Area Networks)

WANs have no geographical limit and may connect computers or LANs on opposite sides of the world. They are usually linked through telephone lines, fibre-optic cables or satellites. The main transmission paths within a WAN are high-speed lines called **backbones**.

Wireless WANs use mobile telephone networks.

The largest WAN in existence is the Internet.

Professional English in Use ICT, page 50

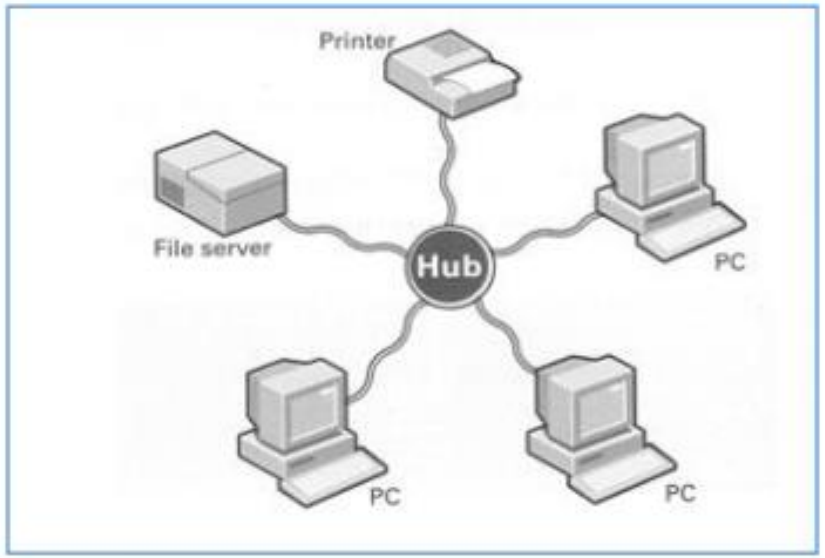
Do exercise 4 (page 41)

Read and correct the following statements.

1. LANs link computers and other devices that are placed far apart.
2. In a client-server architecture, all the workstations have the same capabilities.
3. The word protocol refers to the shape of the network.
4. Routers are used to link two computers.
5. Access points don't need to be connected to a wired LAN.
6. Wireless adapters are optional when you are using WLAN.
7. Hotspots can only be found inside a building.
8. The Internet is an example of a LAN.
9. Wireless WANs use fiber and cable as linking devices.

Do exercise 3, page 39

Exercise 3: With the help of this diagram, answer the following questions.



Picture 4.3

1. What is a *network*?
2. What are its hardware components?
3. What is the difference between a *local area network* and *wide area network*?
4. What advantages do you think networks have?