ĐẠI HỌC ĐÀ NẴNG
TRƯỜNG ĐẠI HỌC CÔNG NGHỆ THÔNG TIN VÀ TRUYỀN THÔNG VIỆT - HÀN
Vietnam - Korea University of Information and Communication Technology

UNIT 11

NETWORKS

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I. Starter

II. Reading

III. Language work

IV. Problem-solving

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I. Starter

Components of a typical LAN

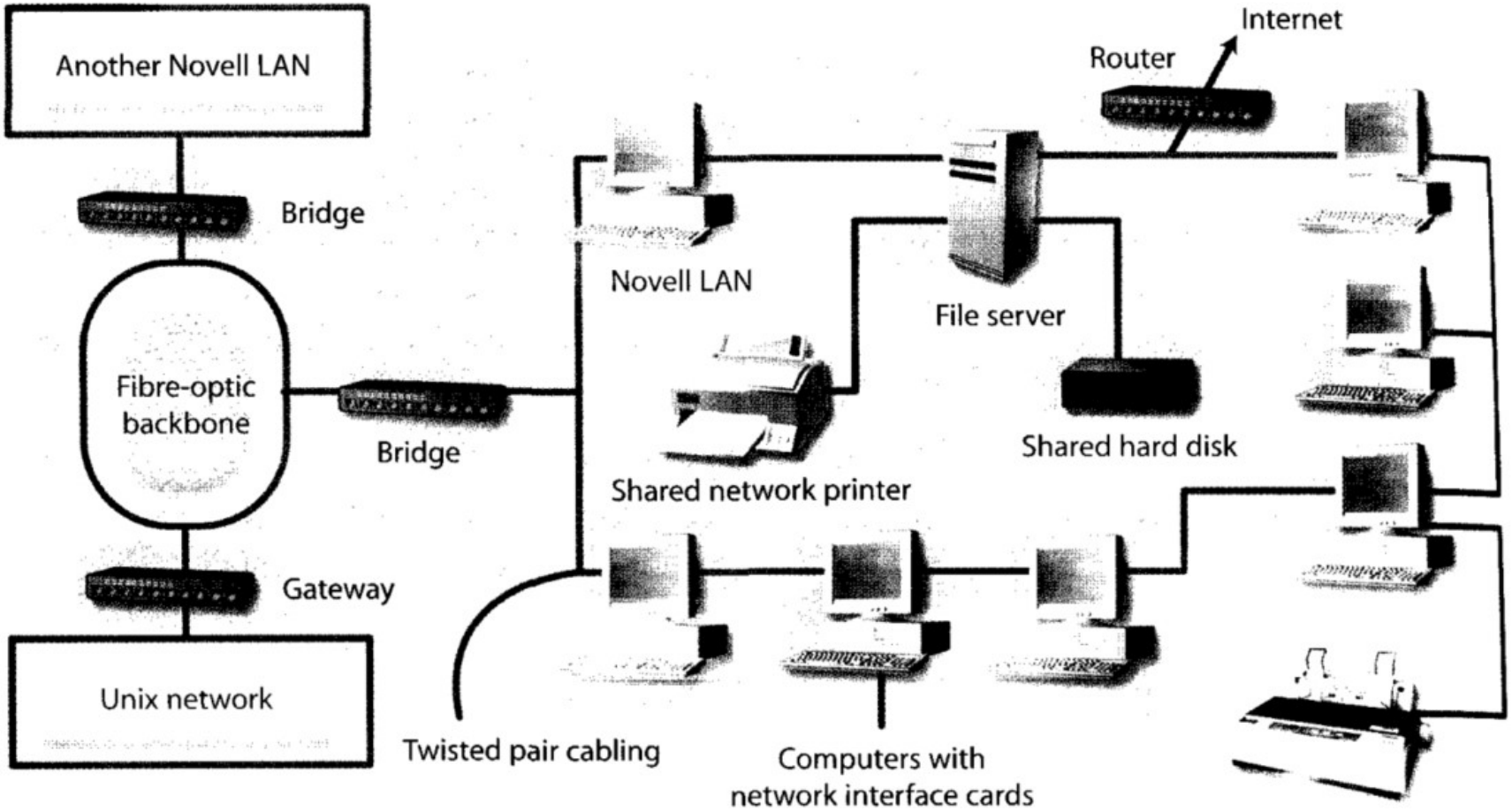


Fig 1
Components of a typical LAN

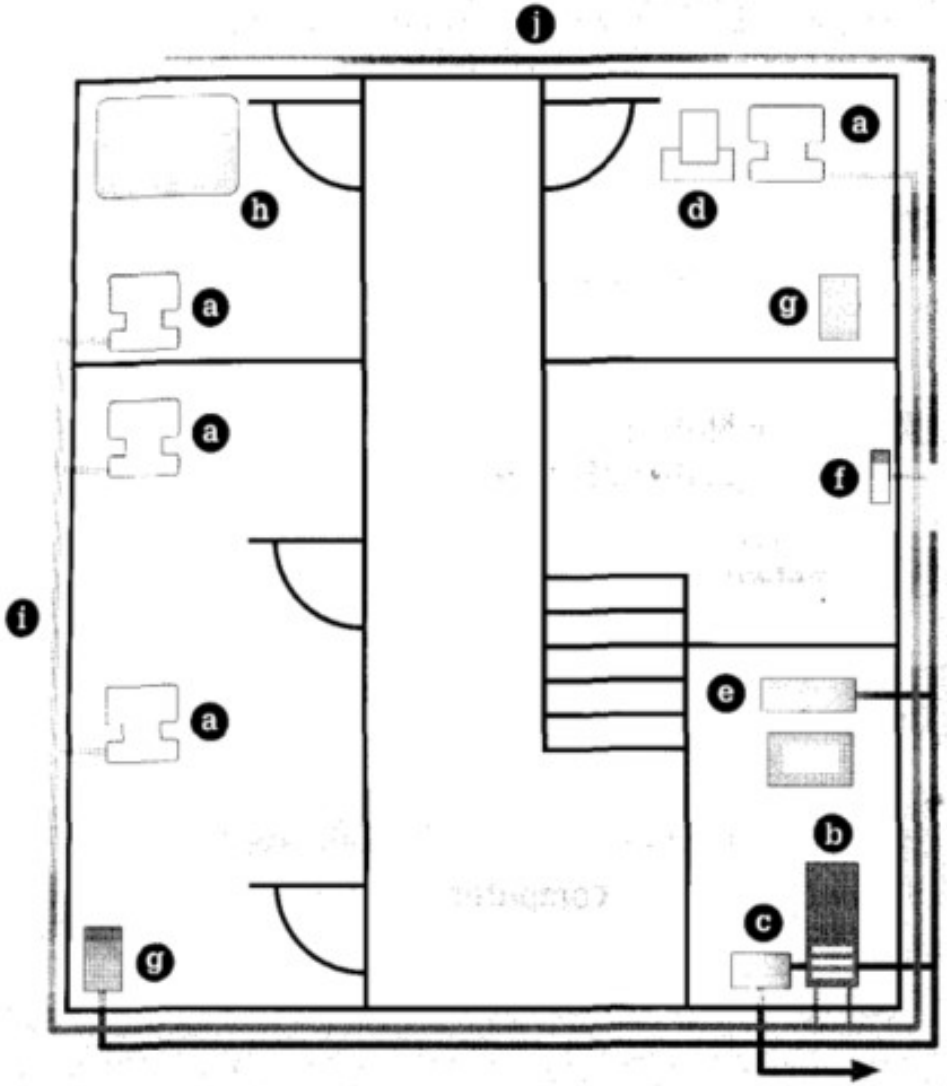
I. Starter (1)

1 With the help of this diagram, try to describe the function of these components of a typical network system:

1 a file server
2 a bridge
3 a router
4 a backbone
5 a LAN
6 a gateway
7 a modem

II. Reading

Match the diagram key to the components of the network



KEY TO THE DIAGRAM

1 Line receiver delivering home entertainment audio to speakers within the room.

2 TV set relaying digital TV broadcasts relayed from the receiver by the home entertainment system.

3 Network modem allowing clients to access the Internet simultanously. Ideally this would be replaced by an ISDN adapter or DSL modem fitted inside the server.

4 Thin client comprising a display, keyboard, mouse, floppy and CD-ROM drive. If the client is NetPC-based, it will have its own processor and memory. A dumb terminal will simply act as an interface to the real computer, the server.

5 Network printer connected to any client.

6 Line driver connected to the home entertainment system: the cable TV player, DVD player, etc.

7 Home server. It contains roughly 5Gb of storage per terminal and one or more processors, depending on whether it is connected to network computers or to cheaper dumb terminals.

8 Entertainment system delivery network. This also hooks up to the server to control the system and receive digital audio and video from it.

9 Entertainment network control pad. While the system can be controlled by a PC, there would be one of these per connected room to ensure that the client does not need to be activated to use the system.

10 Data line linking clients to server.

III. Language work

❖Relative clauses with a participle

Relative clauses with a participle are often used in technical descriptions. They allow you to provide a lot of information about a noun using as few words as possible.

Study these examples from the Task 3 text.

1 The technology *needed to set up a home network*
2 PCs *equipped with Ethernet adapters*
3 Network modem *allowing clients to access the Internet simultaneously*
4 Data line *linking client to server*

We can use the passive participle as in examples 1 and 2.

1 The technology needed to set up a home network.
= technology *which is needed*
2 PCs equipped with Ethernet adapters
= PCs *which are equipped*

We can use an active participle as in examples 3 and 4.

3 Network modem allowing clients to access the Internet simultaneously
= modem *which allows clients to access the Internet simultaneously*
4 Data line linking client to server
= data line *which links client to server*

III. Language work (1)

4 Complete these definitions with the correct participle of the verb given in brackets.

1 A *gateway* is an interface (enable) dissimilar networks to communicate.
2 A *bridge* is a hardware and software combination (use) to connect the same type of networks.
3 A *backbone* is a network transmission path (handle) major data traffic.
4 A *router* is a special computer (direct) messages when several networks are linked.
5 A *network* is a number of computers and peripherals (link) together.
6 A *LAN* is a network (connect) computers over a small distance such as within a company.
7 A *server* is a powerful computer (store) many programs (share) by all the clients in the network.
8 A *client* is a network computer (use) for accessing a service on a server.
9 A *thin client* is a simple computer (comprise) a processor and memory, display, keyboard, mouse and hard drives only.
10 A *hub* is an electronic device (connect) all the data cabling in a network.

III. Language work (2)

5 Link these statements using a relative clause with a participle.

1	a	The technology is here today.
	b	It is needed to set up a home network.
2	a	You only need one network printer.
	b	It is connected to the server.
3	a	Her house has a network.
	b	It allows basic file-sharing and multi-player gaming.
4	a	There is a line receiver in the living room.
	b	It delivers home entertainment audio to speakers.
5	a	Eve has designed a site.
	b	It is dedicated to dance.
6	a	She has built in links.
	b	They connect her site to other dance sites.
7	a	She created the site using a program called Netscape Composer.
	b	It is contained in Netscape Communicator.
8	a	At the centre of France Telecom's home of tomorrow is a network.
	b	It is accessed through a Palm Pilot-style control pad.
9	a	The network can simulate the owner's presence.
	b	This makes sure vital tasks are carried out in her absence.
10	a	The house has an electronic door-keeper.
	b	It is programmed to recognise you.
	c	This gives access to family only.

IV. Problem-solving

Work in two groups, A and B.

- Group A, list all the advantages of a network.
- Group B, list all the disadvantages.
- Then together consider how the disadvantages can be minimised.

Group A: Advantages of a network	Group B: Disadvantages of a network

V. SPEAKING

7 **Transmission modes** Work in pairs, A and B. Explain to your partner how one mode of transmission between computers operates with the help of the text provided. Your explanation should allow your partner to label his/her diagram.

V. SPEAKING (1)

Student A

Your text is on page 186. Your explanation should allow your partner to label this diagram.

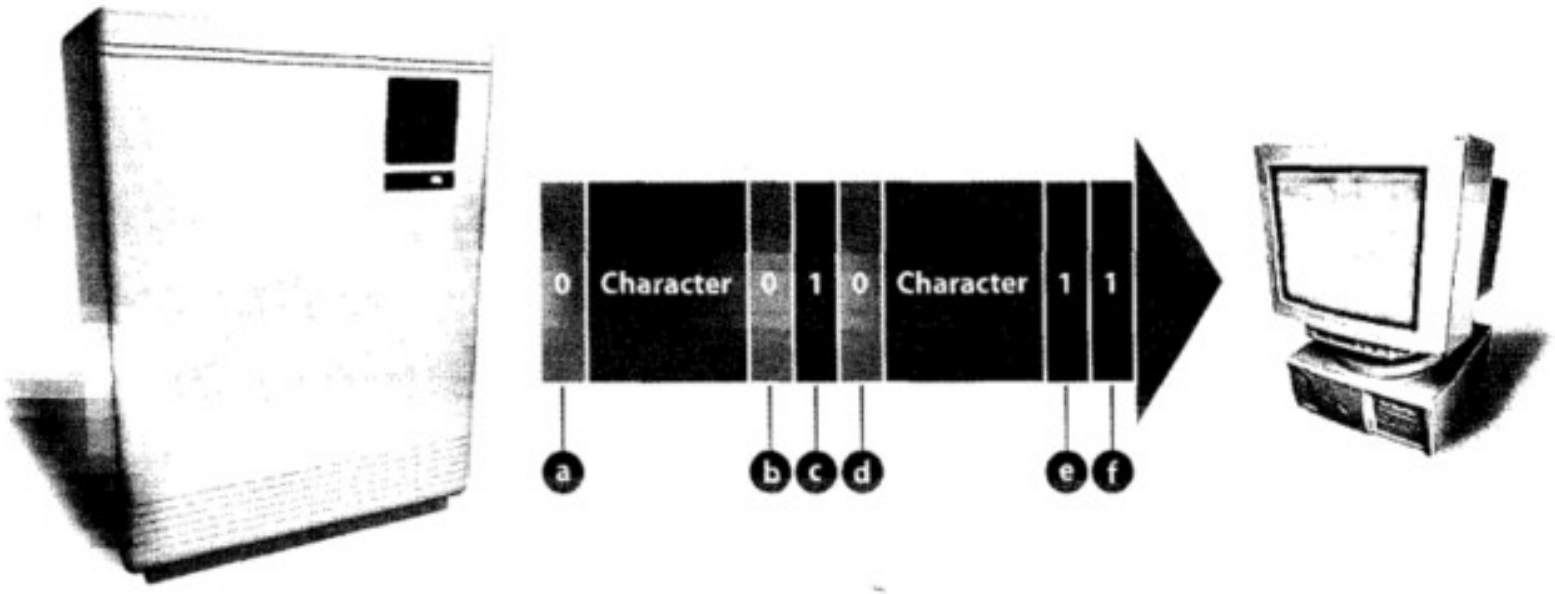


Fig 3
Asynchronous transmission

V. SPEAKING (2)

Student B

Your text is on page 192. Your explanation should allow your partner to label this diagram.

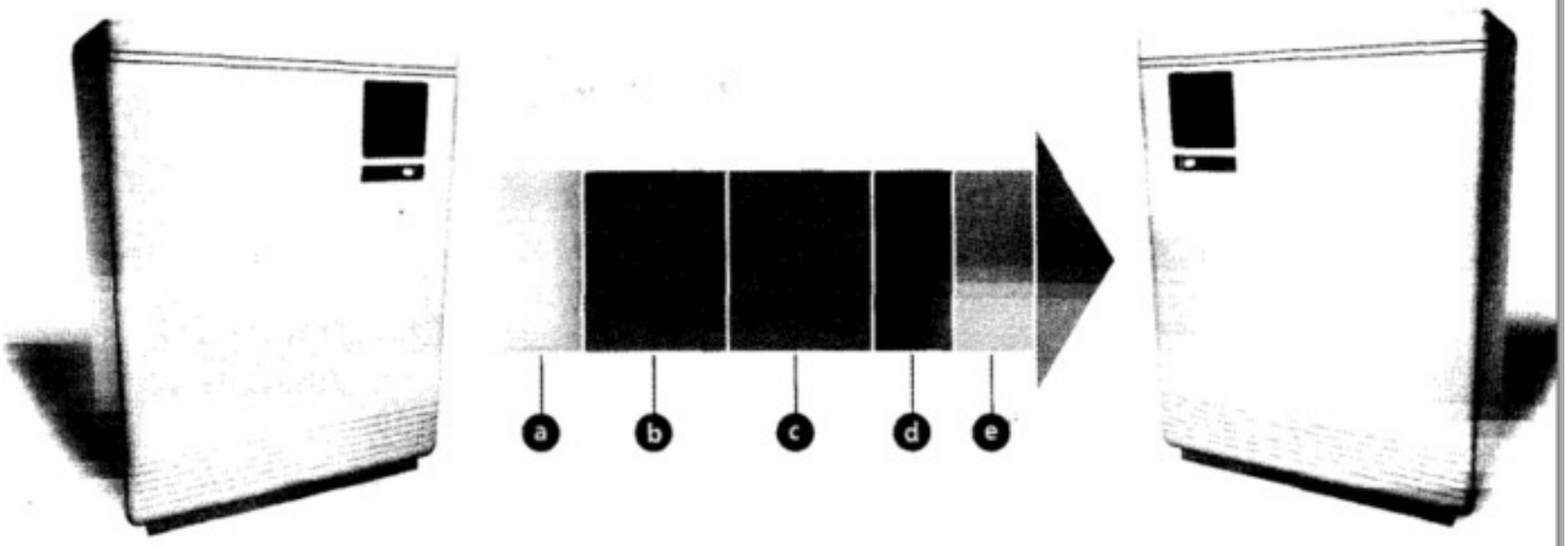


Fig 4
Synchronous transmission

VI. Writing

8 Using the lists you compiled in Task 6, describe the advantages and disadvantages of networks. Try to link some of the advantages and disadvantages as in these examples.

Advantages	Disadvantages
Allow data to be shared.	Permit viruses to spread quickly.
Users can share software on the server.	Server failure means no one can work.

1 Although networks allow data to be shared, they permit viruses to spread quickly.

2 Users can share software on the server; however server failure means that no one can work.

VII. References

1. What is a network?

https://www.youtube.com/watch?v=GqRwpFKBbPM

2. Network Fundamentals

https://www.youtube.com/watch?v=cNwEVYkx2Kk

3. Network Architecture

https://www.youtube.com/watch?v=AwS6JyWFLtA