Network systems

- · describe networks
- · make recommendations and suggestions
- · talk about the past
- · talk about network range and speeds

Types of network

Speaking

1 What computer networks do you use in your work or studies? What do you use the networks for? How do you access the networks?

Listening

2 34 Agatha is the owner of a small flower shop. Katharina is a network architect. Agatha needs some advice from Katharina about a network solution

for her company. Listen and answer these questions.

- 1 What does Agatha think she should do?
- 2 What does Katharina recommend?
- 3 What does Katharina say she will do?
- 4 When does Agatha want the network to be ready?



Reading

3 Read Katharina's email to Agatha. Complete this email with the words in the box.

equipment Internet LAN recommend remote should VPN WAN

Dear Agatha	soos find my roos	mmandations for	and the single second
Following our meeting last week, ple I think you (1) set up a L	A CONTRACTOR OF THE CONTRACTOR		•
Area Network, for your needs. A (2) for example your apartment and the (3), such as the printer, you can then share these devices be	shop. In addition scanner and fax	ects devices over , you should conn	a small area, ect office
'd recommend that we connect the I			
Internet and sell your products. In ac		A THE RESERVE AND A SECOND	AND THE PARTY OF T
Private Network so that you have a (when you travel.	6) ac	ccess to your com	pany's LAN,
(7) is a private network t	hat uses a public	network, usually	the
(8), to connect remote s	ites or users toge	ether.	
Let's meet on Friday to discuss these	e recommendation	ons.	
Best regards			Speaking

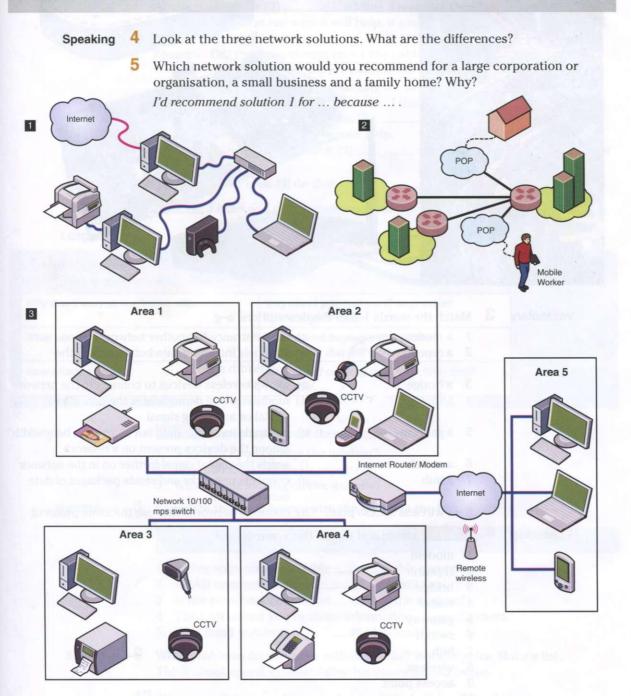
Giving reasons

We use **because** to say something was the reason for an action or situation. (We can start a sentence with **because**.) You should connect office equipment to the LAN because you can then share devices between users.

I'd recommend a Dell computer because it is cheaper.

Why do you use encryption?

Because it's safer.



Writing 6 Write a description of the network solution you use at work or at home. Which of the three solutions in 4 is it most like? Why?

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Networking hardware

Speaking

- 1 Which of the items below do you know? What are they? What do they do?
- Work in pairs. Make a list of all the networking hardware you can think of. Compare your list with another pair.



Vocabulary

- Match the words 1–8 to the descriptions a–g.
 - 1 a modem
 - 2 a repeater
 - 3 a bridge
 - 4 a router
 - 5 a gateway
 - 6 a switch
 - 7 a hub

- a) is an entrance to another network
- b) channels incoming data but maintains the bandwidth speed
- c) allows wireless devices to connect to the network
- d) modulates and demodulates the data into a digital or an analog signal
- e) channels incoming data but shares the bandwidth among the devices present on a network
- f) sends the digital signal further on in the network
- g) connects networks and sends packages of data between them
- 8 a wireless access point h)

35 Listen and repeat these words.

h) connects networks that use the same protocol

Listening

- 1 modem
 - 2 repeater
 - 3 bridge
 - 4 router
 - 5 gateway
 - 6 switch
 - 7 hub
 - 8 wireless
 - 9 access point
 - 10 network connectors
 - 11 network interface card

Reading 5 Complete this dialogue with the words in the box.

about	change devices necessary problem
speed	should user What
Boris:	I have a problem with the network download (1) What can you suggest?
Ahsan:	Why don't you (2) the hub?
Boris:	I don't think that will work. The hub is fine.
Ahsan:	OK. How (3) adding a repeater then?
Boris:	Hmm, I'm not sure it will help. It's not a (4) with the signal strength.
Ahsan:	OK, then you should check the cables and network (5) to make sure that they are compatible with your network.
Boris:	(6) about changing the modem?
Ahsan:	I don't think it's (7) I think it's a problem with the bridge, switch or the router. You (8) look at the specifications.
Boris:	OK, I will. Thanks for your help.
Ahsan:	Why don't you check (9) recommendations on the Internet as well?
Boris:	Good idea. I'll do that.
3 6	Listen and check your answers.

Language

Listening

Making suggestions

We can make suggestions with:

Why don't we/you + infinitive without to.	Why don't you call the IT help desk? That's a good idea.	
What about + -ing	What about buying a new router? I don't think that will work.	
How about + -ing	How about reading the instructions first? I'll do that.	

- 7 Listen and repeat these suggestions.
 - 1 Why don't you change the modem?
 - 2 How about connecting a repeater?
 - 3 What about looking on the website?
- **Vocabulary** 8 Complete these sentences with the words in the box.

b	petween on over to with	
1	Is this software compatible this computer?	
2	A LAN connects devices a small area.	
3	Is the computer connected the modem?	
4	The LAN allows you to share information users.	
5	Why don't you look the Internet?	

- **Speaking**
- What problems do you have with networks? Work in pairs. Make a list. Think about speed, compatibility, hardware and software.
- 10 Show your list to another pair. Ask for help and suggest solutions. *Example:*
 - A: This software doesn't work with this
 - B: Why don't you ...?

Talking about the past

Reading

- How much do you know about the history of networking? Can you match these events 1–4 to the dates a–d?
 - 1 The creation of the World Wide Web
 - 2 The start of Facebook
 - 3 The launch of Twitter
 - 4 The beginning of MySpace
 - a) 2006
 - b) 1990
 - c) 2003
 - d) 2004



Speaking 2 What social networks do you use? How much time do you spend on them? Example: I use I spend about

Reading

Read this text about Karl's IT career up until now and answer these questions.

'I left school in Cambridge in the UK at the age of 18 and went straight to the University of Bristol to study computing in 2000. I graduated in 2004 and decided to travel around the world for a year.

In 2006 I got a job back in Cambridge with the software company Arm. I stayed with Arm for two years and then went to work for Microsoft in Seattle in the USA. This is where I am now and I love it!'



- 1 When did Karl go to university?
 - 2 When did he leave university?
 - 3 What did he do after university?
 - 4 Where did Karl go in 2006?
 - 5 When did he go to Seattle?

Language

Past simple (1)

We use the past simple tense to talk about finished actions in the past.	When did I/she/he/we/they create the network? She created the network in December 2008. I started the network last year.		
Time expressions	I looked at that yesterday. I had broadband connected three days/a month/two years ago. I used that system last week/year/month. I started that user group on Monday/in June/in 2001.		

Listening

- 4 Listen and repeat these sentences.
 - 1 When did they start work?
 - 2 They installed the computers yesterday.
 - 3 We didn't work last week.
 - 4 She went to the office on Sunday.
 - 5 Did you finish the report?

Speaking

5 Practise asking and answering questions about what you did yesterday or last week in your work or studies.

Example:

- A: What did you do last week?
- B: I worked on the new network.
- 6 Talk about what you did on your last day off.

Example:

- A: What did you do on your day off?
- B: I went to the gym.

Language

Past simple (2)

Regular past tense endings	look	looked
	use	used
	install	installed
	connect	connected
	work	worked
Irregular past tense endings	set up	set up
	go	went
	see	saw
	do	did
	buy	bought
	be	was

- Writing 7 Write three or four sentences about your own computing education and/or work up until now. Use the text in 3 to help you.
- **Speaking** 8 Work in pairs. Ask and answer questions about your education and/or work.

Network range and speed

Listening	1	239 Listen and complete this dialogue between Karo	line and Sam.
Agent Rivery Copyl	States States	In bits, kilobits, megabits and gigabits. They des speed. For example, dial-up connections allow (per second and DSL from (2) kilobits (3) megabits per second. aroline: OK. I've got that. What about the range? Range is the distance of network coverage, so di represent network range. Most countries use me feet as units of measurement. Metres or feet usu range of a network. Home networking routers su (4) feet or (5) metres indoor feet or (7) metres outdoors.	scribe network 1) kilobit per second to istance units etric but some use hally describe the happort a range up to
	_	aroline: Thanks.	
	2	Listen and repeat these speeds and ranges.	
		77 kilobits per second 5 megabits a second 2 gigabits per minute 250 metres 40 feet	
Speaking	3	ay these speeds and ranges.	
		156 feet 4 7,000 metres 12 kbit/s 5 95 Mbit/s 4 Gbit/m 6 65 Mbit/s	
	4	rite down four speeds and ranges and dictate them to ye	our partner.
Reading	5	ead these texts and answer these questions.	

Range

Wireless networks have limited range. Network range depends on the type of 802.11 protocol, strength of the device transmitter and the architecture of the surrounding area. Some structures, such as walls and metal frames, reduce the range of a WLAN by 25%. However, users can extend the range of a WLAN. Repeaters forward the wireless signal to access points or routers and increase the range of a network.

Speed

Bandwidth and latency are the measures of computer network speed, or data transfer rate. Bandwidth is the maximum throughput of data in bits per second.

Some modems support 100 Gbit/s but speed depends on the hardware and software used. Latency is the delay that network creates during the transfer data. Users have no, or very little, control over bandwidth and latency.

- 1 How many things does network range depend on?
- 2 What can reduce network range?
- 3 What can improve network range?
- 4 What two things affect speed?

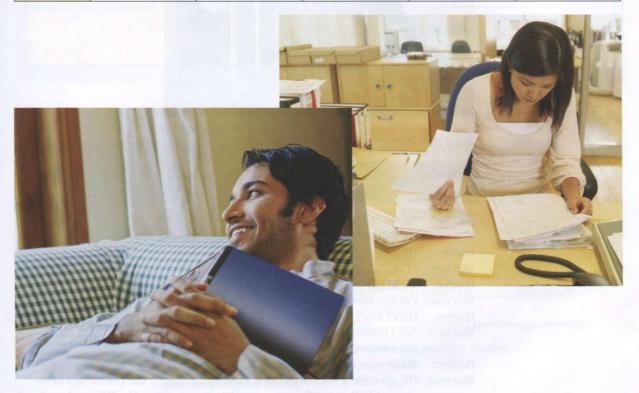
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Business matters

Reading

Karam and Natasha work for the ComHelp company. The company provides IT services to customers. Karam and Natasha work in different areas of the city. Every week they write a report for their boss. Read their notes.

	Monday	Tuesday	Wednesday	Thursday	Friday
Natasha	called CISCO about a training do paperwork	went to British Council to install new software	attended the training on network cabling	day off	had a meeting with the team
Karam	went to TESCO to fix Cat6 cables	set up LAN in a paper factory	day off	installed an audio/ video server in Welcare hospital	is sonnessen?
You					



Writing Complete the table in 1 with notes about what you did last week at work or college.

> Write a report about what you did last week. Example: Last week I ... On Monday I ... and

Speaking Roleplay the following situation. Explain to your boss why you were not in the office.

> Student A: Turn to page 68 Student B: Turn to page 78

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