

Topic 2: Communication

EAL keyword sheet - Cambridge International AS & A Level Computer Science 9618. Write the word in your own language in the last column.

Keyword	Meaning	Example sentence	In my language
network	Computers and devices connected so they can share data.	<i>A school network connects all the computers.</i>	
LAN (local area network)	A network in a small area, e.g. one building.	<i>The classroom computers are on a LAN.</i>	
WAN (wide area network)	A network that covers a large area, e.g. the internet.	<i>A WAN connects offices in different countries.</i>	
client-server	A network where clients ask a central server for services.	<i>In a client-server network, the server stores the files.</i>	
peer-to-peer (P2P)	A network where each computer can share files with the others, with no main server.	<i>BitTorrent uses a peer-to-peer model.</i>	
topology	The layout of a network: how devices are connected.	<i>A star topology has a central switch.</i>	
bus topology	All devices share a single cable.	<i>In a bus topology, one broken cable can stop the network.</i>	
star topology	Every device connects to a central switch or hub.	<i>A star topology is common in schools.</i>	
mesh topology	Devices are connected to many other devices.	<i>A mesh network has many routes for data.</i>	
hybrid network	A network that combines more than one topology.	<i>A hybrid network can combine star and bus.</i>	
wired / wireless	Using cables / using radio signals to connect.	<i>Wi-Fi is a wireless network.</i>	
Wi-Fi	A wireless technology for connecting to a LAN.	<i>My laptop connects to Wi-Fi.</i>	
Bluetooth	A short-range wireless technology.	<i>Bluetooth connects my phone to headphones.</i>	
NIC (network interface card)	Hardware that connects a computer to a network.	<i>Each NIC has a MAC address.</i>	
MAC address	A unique hardware address given to a NIC.	<i>A MAC address looks like 00:1A:2B:3C:4D:5E.</i>	
IP address	An address that identifies a device on a network.	<i>IPv4 uses four numbers, e.g. 192.168.1.1.</i>	

Keyword	Meaning	Example sentence	In my language
IPv4 / IPv6	Two versions of IP addresses. IPv6 is longer and has many more addresses.	<i>IPv6 was created because IPv4 addresses ran out.</i>	
public / private IP address	A public address is used on the internet. A private address is used inside a local network.	<i>My router has a public IP address.</i>	
router	A device that forwards data between networks.	<i>The router connects my home to the internet.</i>	
switch	A device that sends data to the correct device on a LAN.	<i>A switch uses MAC addresses.</i>	
gateway	A device that connects networks that use different protocols.	<i>A gateway connects the LAN to the internet.</i>	
modem	A device that changes digital data to signals for telephone or cable lines and back.	<i>A modem connects to the ISP.</i>	
repeater	A device that boosts a signal so it can travel farther.	<i>A repeater extends the Wi-Fi range.</i>	
URL	The address of a web page.	<i>Type the URL in the address bar.</i>	
DNS (domain name system)	Changes domain names into IP addresses.	<i>DNS finds the IP address of a website.</i>	
cloud computing	Using servers on the internet to store data or run programs.	<i>Cloud computing lets me access files anywhere.</i>	
cloud storage	Storing data on remote servers over the internet.	<i>Cloud storage is easy to share.</i>	
SaaS / IaaS / PaaS	Cloud services: software, infrastructure, platform as a service.	<i>Online email is an example of SaaS.</i>	
bandwidth	The amount of data that can be sent per second.	<i>A bigger bandwidth means faster downloads.</i>	
latency	The delay before data starts to move.	<i>High latency causes lag in online games.</i>	