

Eric is a smelleh Boi

- Eric Smelleh boi



introduction

- Get introduced to my little friend



Advantages

Computer networks bring a number of benefits:

- file sharing - users can share files with other users
- hardware sharing - users can share hardware, such as a printer
- communication - users can communicate via email, chat, or by video
- roaming access - users can sign in to any computer on the network and be able to access their files

On larger networks, such as those used by businesses and schools, there are additional benefits:

- centralised maintenance and updates - network managers can apply software updates across a network, removing the need for a user to worry about having to do so
- centralised security - anti-virus software and firewalls can be implemented across a network, helping to protect user files from risks
- user monitoring - network managers can monitor what users do on a network
- levels of access - different users can be given different access rights. This gives network managers the ability to generally restrict user access to certain files, while granting permission to specific users

Disadvantages

- cost - additional equipment is needed to allow computers to communicate
- management - networks require management by technical staff such as a network manager
- spread of malware - viruses and other forms of malware can easily spread across an improperly secured network
- hacking - once a device is connected to another device, it is possible that data may be accessed without the device owner's permission

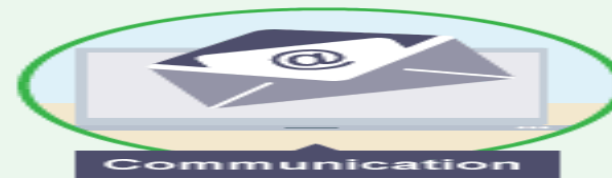
Advantages



Share files



Share internet connection and devices



Communication



Roaming profile

Disadvantages



Reliance on networked resources



Expensive hardware



Risk of viruses and hacking

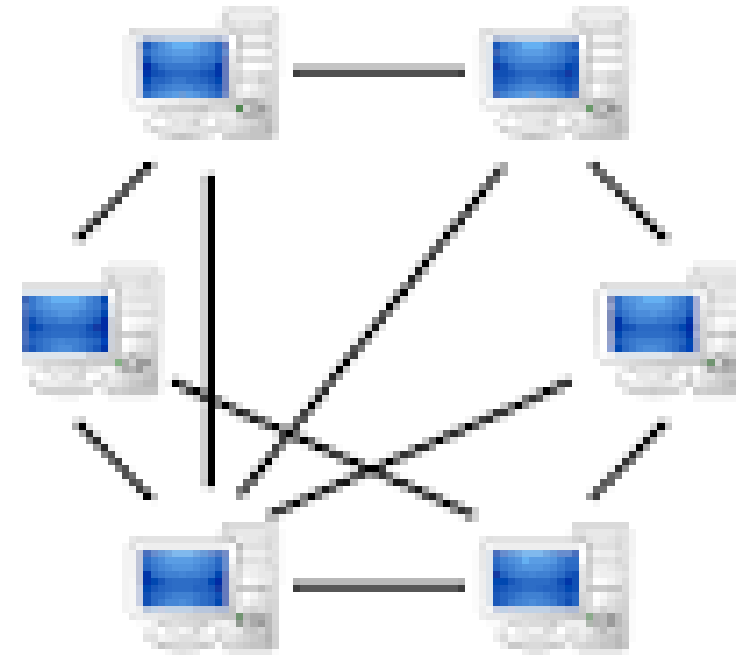


Specialist staff often required

Olly's P2P (peer to peer)

A group of computers that are linked together with equal permissions and responsibilities for processing and holding data.

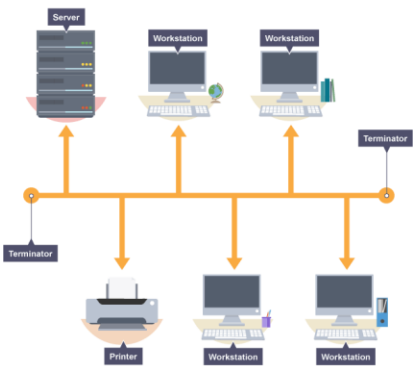
P2P programs allowed users to swap large files over the internet, typically music and movies. Rather than using central servers for this purpose, they used their worldwide user base's computers as both client and server (ie. P2P), effectively offloading processing loads onto their users. - From webroot



Servers

- **File Servers:** A file server is a computer responsible for the storage and management of data files so that other computers on the same network can access the files.
- applications servers:
- web servers:
- print servers:
- mail servers:

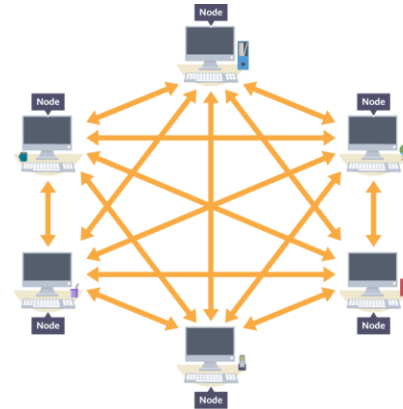
There are many ways LANs connect clients and servers. These are called topology. Find several LAN topology types. Copy images of several. Describe where some of them are most useful and explain their advantages and disadvantages (Grade 5/6)



Bus Topology:

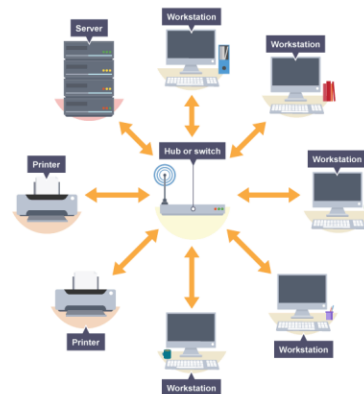
This topology makes it easily to connect new devices (nodes) to the network. Less cable is needed compared to star topology's meaning that it can be cheaper to install than its counterparts.

However, if the main backbone cable is broken the whole network will fail.



Mesh Topology:

This topology allows for high uptimes as there are large numbers of connections between nodes



Star Topology:

If one link fails the network will still work for most clients. High speed.
If the switch/Server fails
The whole network fails.



A timeline of wired networks



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