



Networks

Star network

- Advantage
 - Fault tolerant
 - Load tolerant
- Disadvantages
 - Higher costs
 - Dependent on central server

Bus network

- Advantage
 - Easy to add workstations
 - Best choice for temporary networks
- Disadvantages
 - If backbone breaks the entire network stops working
 - Data collisions can happen if network is busy

Client-Server

- Advantages
 - Centrally stored files
 - Security is centralised
 - Administration is performed centrally
 - More load tolerant for large networks
- Disadvantages
 - If server breaks network is unusable
 - One machine is more important than rest
 - Need specialised knowledge
 - More expensive

Peer to peer

- Advantages
 - Cost saving - no server needed
 - All machines have equal status
 - No network manager
 - Easy to set up
- Disadvantages
 - Poorer security as resources are shared
 - Harder to find files not stored centrally
 - Only suitable for small networks
 - Users decide what resources they share

Wireless network

- Advantage
 - Allows inexpensive LANs to be set up without cable
 - Ideal for old listed buildings where cables can't be installed
 - Global set of standards
- Disadvantage
 - Power consumption is high
 - Transmission is slower than cable

Ring network

- Advantage
 - Not dependent on central computer
 - Computers have same access
- Disadvantage
 - Faults are difficult to locate
 - Impossible to keep network running whilst adding new equipment

Factors that influence network choice

- Cost of network
- Size of network
- How the system will be used
- Existing systems
- Performance required
- Security issues

Network topology

Physical configuration of how a network is connected