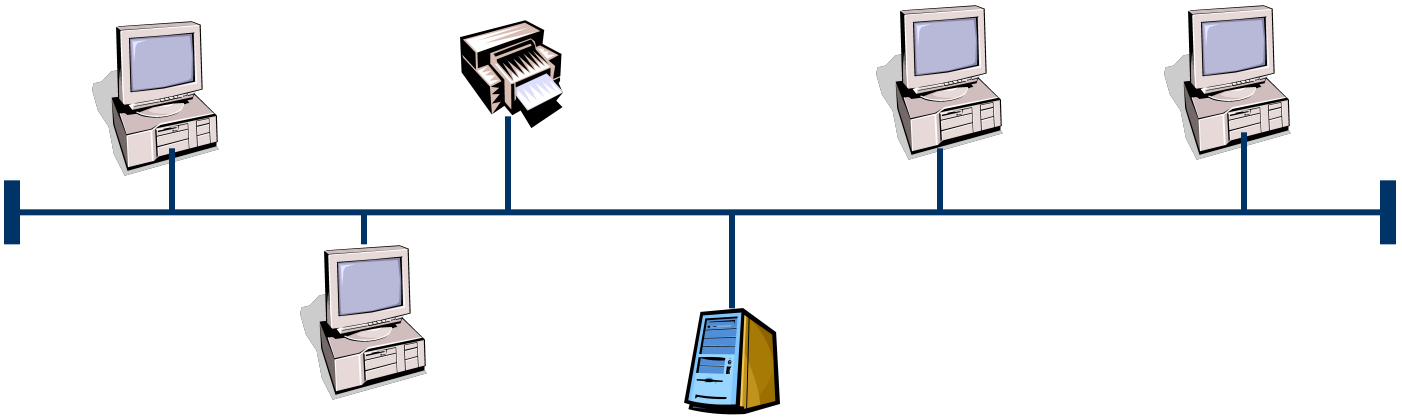
Topology

- The physical topology of a network refers to the configuration of cables, computers and other peripherals.
- The main types of network topologies are:
  - Linear Bus
  - Star
  - Ring
  - Tree or Hybrid

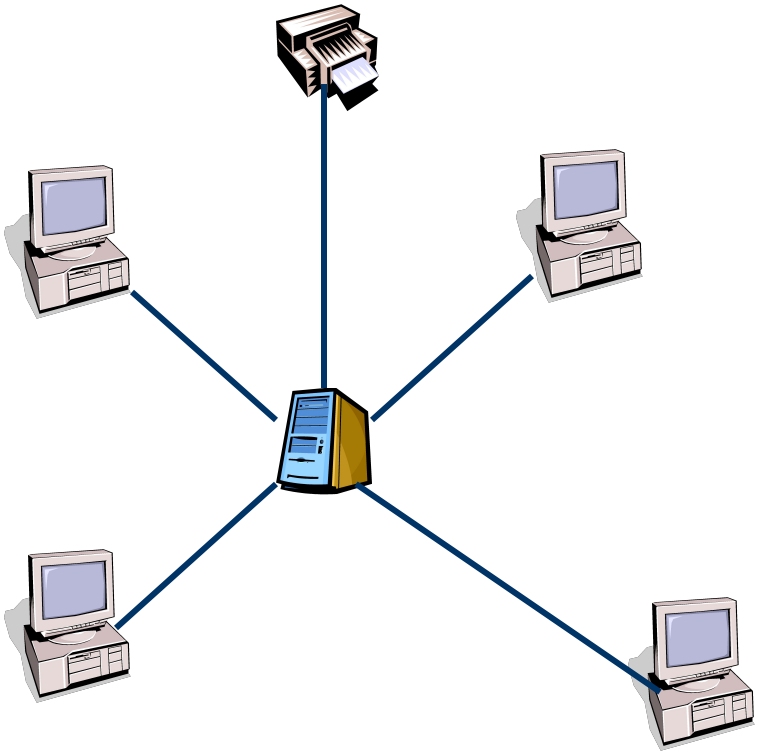
Linear Bus topology

- A linear bus topology consists of a main run of cable with a terminator at each end. All servers workstations and peripherals are connected to the linear cable



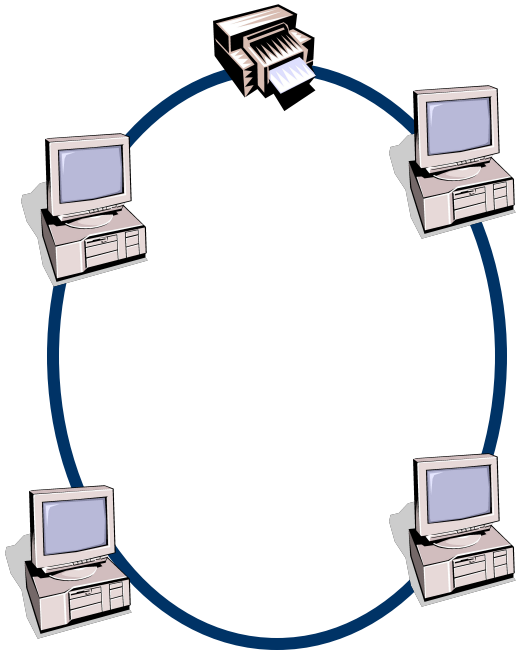
Star topology

- A star network is designed with each node (file server, workstation, peripheral) connected directly to a central network hub or server



Ring topology

- A ring network is one where all workstations and other devices are connected in a continuous loop. There is no central server



Tree or hybrid topology

- A tree or hybrid topology combines characteristics of linear bus and star and/or ring topologies.
- It consists of groups of star-configured workstations connected to a linear bus backbone cable

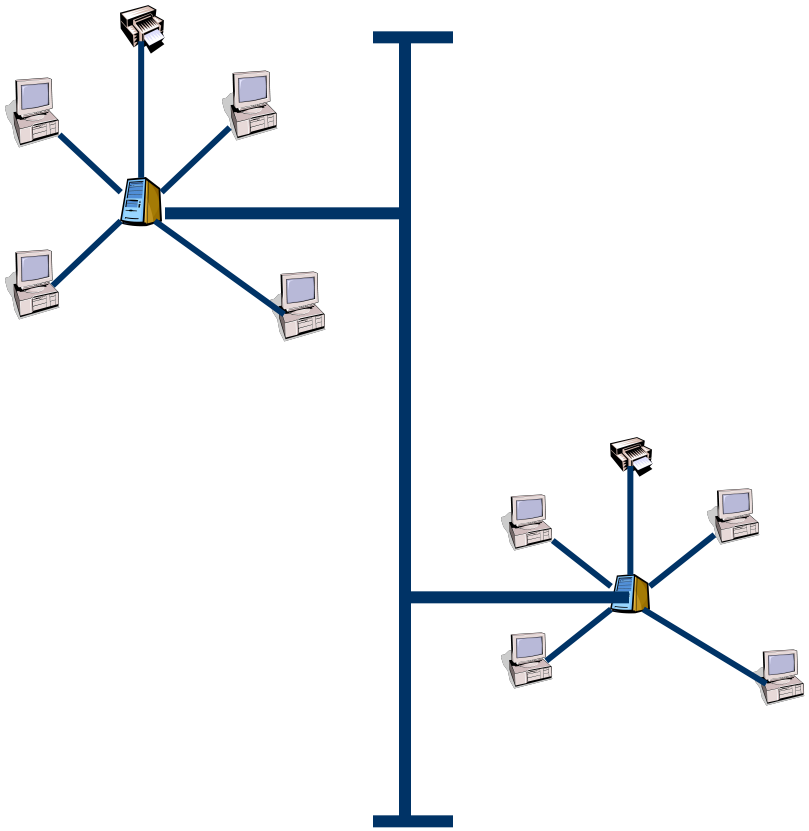
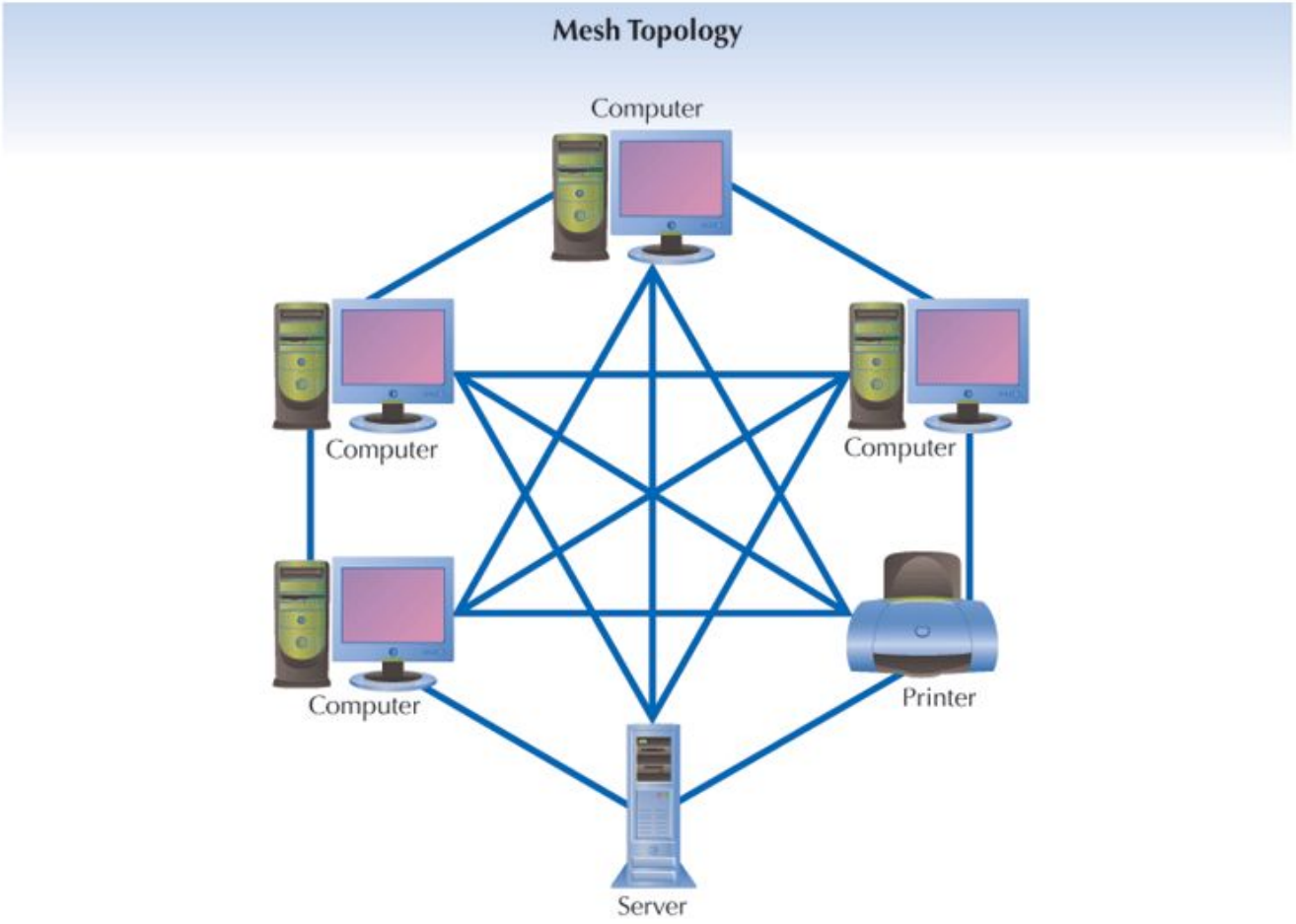
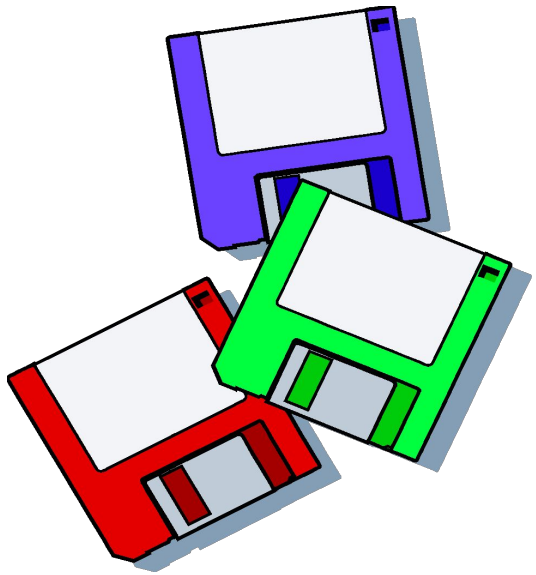


Figure 5.5d Network Topologies



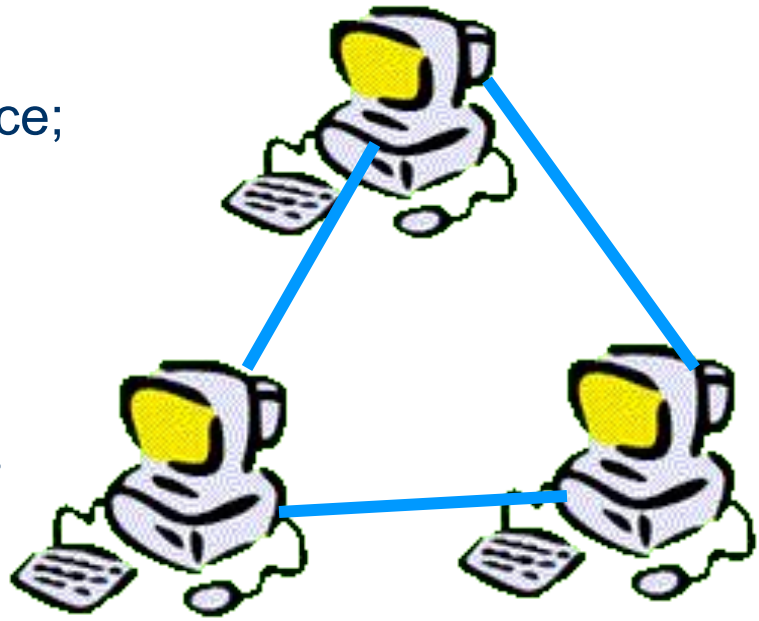
Network Operating Software

- Network operating systems co-ordinate the activities of multiple computers across a network
- The two major types of network OS are:
  - Peer-to-peer
  - Client/server



Peer to peer network OS

- In peer to peer network OS, there is no file server or central management source; all computers are considered equal
- Peer to peer networks are design primarily for small to medium LANS
- AppleShare and Windows for Workgroups are examples of programs that can function as peer to peer



Client/Server network OS

- Client/server network OS centralise functions and applications in one or more dedicated file servers.
- The file server provides access to resources and provides security
- Novel Netware and Windows NT Server are examples of client/server network operating systems