

Why do we use networks?

Advantages

- Share hardware devices between multiple users, e.g., printer
- Share files/folders and collaborate
- The ability to have multi-user systems e.g., Databases
- User activity tracking.
- Backup files centrally with a client server model
- Deploy and upgrade software centrally with client server model
- **Communication:** Networks enable instant communication through email, messaging apps, and video conferencing etc
- **Remote Access:** Users can access network resources and data remotely



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Disadvantages

- Extra hardware costs for routers, servers, cabling etc.
- Initial setup costs and employing a network managers for larger organisations
- Greater security risks, malware, hacking
- **Maintenance Costs:** Regular maintenance and upgrades
- **Downtime:** Network failures can disrupt operations
- Ensuring **data privacy** on a network can be challenging
- Bandwidth limitations: can lead to performance issues.
- **Network Bottlenecks:** As the number of users and devices increases, network bottlenecks can occur.

