

Lesson 1 - Understanding Basic Network Structure:

A **network** is a connection of computers and devices by communications channels that facilitates communications among users and allows users to communicate with one another; consists of 2 or more computers connected together, and they can communicate and share resources (e.g. information)

Why Networking?

Sharing information — data communication

Sharing hardware or software - print document.

Advantages of network:

- Sharing resources such as hardware and software
- Enables communication between two or more users on the network
- Enables management at one central point.

Disadvantages of network:

- Network can be exposed thus enabling hacking
- Only people who have account can use computers on the network
- Need more skills to administrate and supervise the network
- Virus attack on one computer can spread across the network
- Security and privacy challenge like reduce privacy.

Centralize administration and support - Internet-based, so everyone can access the same administrative or support application from their PCs

How many kinds of Networks?

Depending on one's perspective, we can classify networks in different ways

Based on transmission media: Wired (UTP, coaxial cables, fiber-optic cables) and Wireless

Based on network size: LAN and WAN (and MAN)

Based on management method: Peer-to-peer and Client/Server

Based on topology (connectivity): Bus, Star, Ring ...