



Computer Hardware

Class Five

Lab 4



Lab Objectives:

- Networking Hardware

Computer Hardware

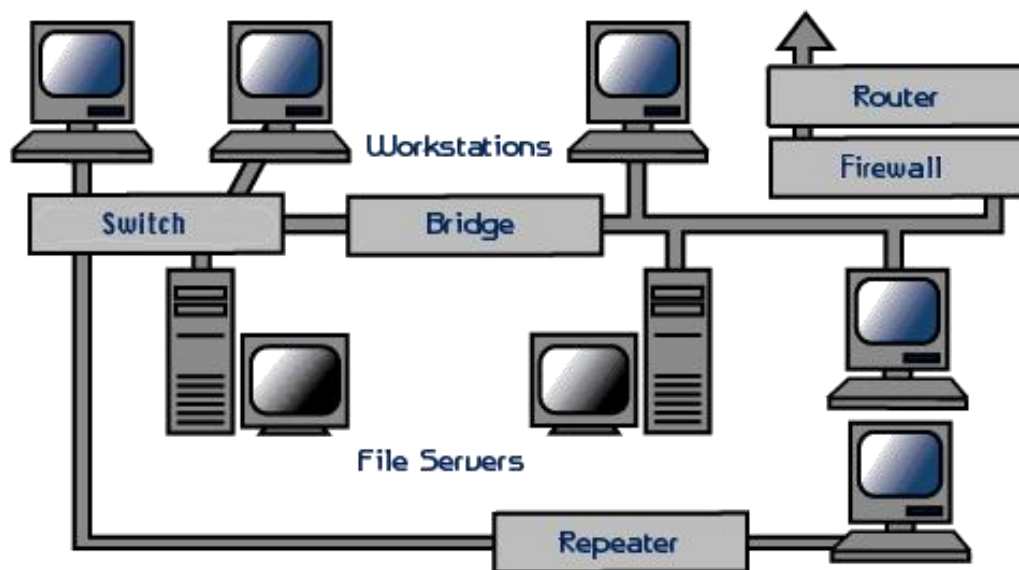
Computer hardware is any physical device used in or with your machine, whereas software is a collection of code installed onto your computer's hard drive.





Networking Hardware

Networking hardware, also known as network equipment or computer networking devices, are physical devices which are required for communication and interaction between devices on a computer network.



Most Important Networking Hardware

- ✓ Hub
- ✓ Switch
- ✓ Router
- ✓ Modem
- ✓ LAN Card



Hub

A hub, also called a network hub, is a common connection point for devices in a network. Hubs are devices commonly used to connect segments of a LAN.



The hub contains multiple ports. When a packet arrives at one port, it is copied to the other ports so that all segments of the LAN can see all packets.



Switch

A network switch is a computer networking device that connects devices on a computer network by using packet switching to receive, process, and forward data to the destination device.



Router

A router is a networking device that forwards data packets between computer networks.





Modem

A modem is a device or program that enables a computer to transmit data over, for example, telephone or cable lines.



LAN (Local Area Network) Card

A LAN card connects a computer to a network. LAN cards are typically built into your computer. You can connect to the network via an Ethernet cable, USB, or wirelessly.



Hub vs Switch vs Router

- The basic difference is varying **intelligence**

HUB

- Least expensive and complicated. No intelligence
- Just directs incoming packets from one port to other

SWITCH

- More expensive and intelligent
- Knows which port is carrying the traffic from which host/interface

ROUTER

- Most expensive and intelligent, Most complicated
- Learns about its neighboring conditions, manipulates data traffic