

# Computer Network, it's basic Hardware Components and Processing alternatives

Tags: Computer Network, Telecommunications Hardware, Network nodes, Basic Processing Alternatives, Centralized Processing, Decentralized Processing, Distributed Processing, Client-Server Systems,

## Networks and Distributed Processing

- **Computer Network**- the communications media, devices, and software needed to connect two or more computer systems or devices
- **Network nodes**- the computers and devices on networks *Network Nodes ExcaliDraw Organizations can use networks to share hardware, programs, and databases*

## Basic Processing Alternatives

- **Centralized** - processing occurs in a single location or facility
- **Decentralized** - processing involves devices placed at various remote locations; the devices may not communicate with one another
- **Distributed** - processing uses devices placed at remote locations ; *devices are connected to each other via a network*  
Basic Processing Alternatives Excalidraw

## Client/server Systems

\***Client/Server** architecture features multiple computer platforms dedicated to special functions. For example, database management, printing, or communications.\*

**CHECK THIS FILE(HAS ADDITIONAL INFORMATION)**: Client-Server ExcaliDraw

Note: Usually there are more **clients** than **servers**

## Telecommunications Hardware

- **Modem** - a device that converts (modulates and demodulates) **communications signals** so they can be transmitted over the **communication media**
- **Router** - a telecommunications device (processor) used to forward (**route**) data packets between computer networks, ensuring that the data sent gets to the correct address

- **Switch** - a device containing ports to which all the devices on the network can connect.  
-Uses the physical device address in each incoming message to determine which output port it should forward the message to reach its intended destination