

Networking Notes

- **Network** – A set of two or more computers connected to each other
- Wires or wireless links connect the devices (nodes) so they can talk.
- Networks can help us with:
 - Communication
 - Sharing Resources
 - Sharing Software
 - Sharing Data
- Four common types of networks are:
 - **WAN** – Wide Area Network, consists of several LANs, could cover the entire world
 - **MAN** – Metropolitan Area Network, can cover an entire town/city
 - **LAN** – Local Area Network, network in a limited area
 - **PAN** – Personal Area Network, smallest form of network
- Four types of network typology include:
 - Mesh
 - Ring
 - Bus
 - Star
- **Server** – a computer (node) that is a central storage unit for the network
- **Client** – a node that requests some service from a central server
- **Peer to Peer (P2P)** – all nodes have equal capabilities to use the resources available on the network
- **Network Interface Card (NIC)** – takes data packets/information from the computer and sends it out onto network cable, or into the air (wireless network)
- **Switches** – Intelligently transmit data from one device to another without broadcasting it to all devices on the network
- **Router** – can analyze data being sent over a network and send it to another network
- Three types of connection are:
 - **Ethernet cabling** – extremely common and has several types
 - **Fiber optic cabling** – faster, more expensive, greater distance

- **Wireless** – popular in homes due to ease and low expense of setup