

Types of Networks

February 28, 2011

What Type of Network Do We Have?

Networks can be divided into different types so we can identify them and how they communicate with each other.

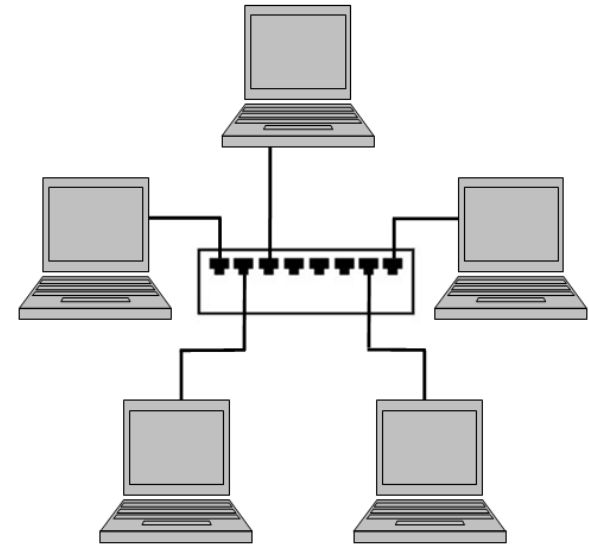
The categories that we will use to describe our networks are size, medium, location and security.

Size is the number of computers and networks inside the defined network. Medium is how the signal is sent and received. The location is the geographical size of the network. Security is the overall vulnerability of the network.

| Category | Description |
|---------------------|--------------------|
| Network Size | |
| Medium | |
| Location | |
| Security | |

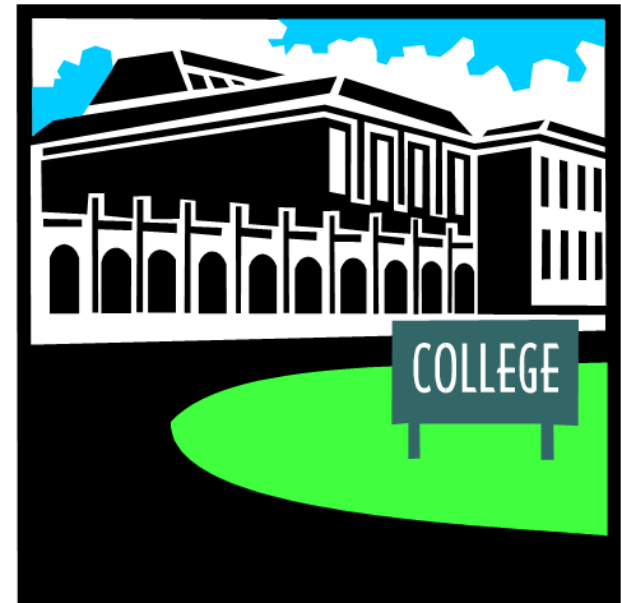
Local Area Network (LAN)

| Category | Description |
|---------------------|--|
| Network Size | Two or more computers connected together |
| Medium | Connection is commonly made by multiple conductor, coax, or fiber optic cable, or wireless signal |
| Location | Typically in a single room or building |
| Security | Security is usually excellent since there is a physical barrier of the building to protect the information on the network. |



Campus Area Network (CAN)

| Category | Description |
|---------------------|--|
| Network Size | Two or more computers, or LANs connected together |
| Medium | Connection is commonly made by multiple conductor, coax, or fiber optic cable, or wireless signal |
| Location | Typically within a single organization that has more than one building such as a school, hospital or factory. |
| Security | Security is still very good, since the buildings can be observed continuously and security is provided by the organization that operates the campus. |



Metropolitan Area Network (MAN)

| Category | Description |
|---------------------|---|
| Network Size | Two or more computers, LANs or CANs connected together |
| Medium | Connection is commonly made by multiple conductor, coax, or fiber optic cable, wireless signal, microwave or satellite. |
| Location | Typically within a 30 mile radius of the metropolitan or built up area. |
| Security | Security is not very good, since the MAN is large and is mainly protected by local law enforcement. |



Wide Area Network (WAN)

| Category | Description |
|---------------------|--|
| Network Size | Two or more computers, LANs, CANs, MANs and WANs connected together. A wide area network can exist inside a larger WAN |
| Medium | Connection is commonly made by multiple conductor, coax, or fiber optic cable, wireless signal, microwave or satellite. |
| Location | Mainly on the Earth but devices feeding the network exist throughout the entire Solar System. |
| Security | Wide Area Networks have the worst security, because they are subject to every form of attack. No particular group provides protection for the overall network. |

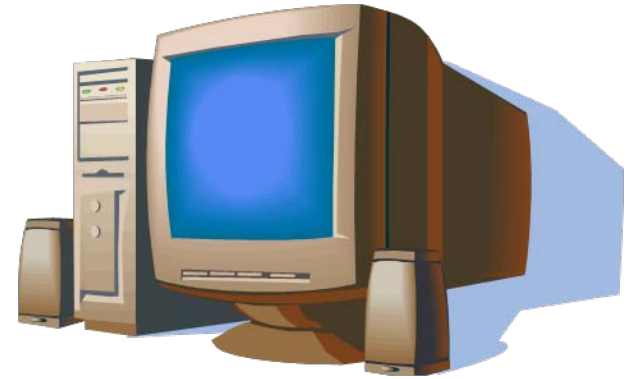


Lab Exercise

Visit five networks and determine what type of network they are.

We can have a Local Area Network in one building that is connected to the Wide Area Network that is provided the Internet Service Provider (ISP) or we can have a Campus Area Network that connects to the servers at the Metropolitan Area Network which connects tot the Internet or WAN.

In a table, record the network size, the medium that is used, the location or geographic area of the network and how it is secured.



| Category | Description |
|--------------|-------------|
| Network Size | |
| Medium | |
| Location | |
| Security | |