Recap/

Network types

Internet is not owned it’s a worldwide collection of interconnected networks

Small home networks connect a few computers to each other and to the internet

The SOHO network allows computers to connect to a corporate network

Medium to large networks can have many locations and many computers

There are devices all around that you may interact with on a daily basis that are also connected to internet (phones, smartwatches, tablets,…) and things from home like (security cameras, smart TV, appliances, gaming console,…)

Data transmission

Data is categorized in:

**Volunteered data**

- created and explicitily shared by individuals (social media)

**Observed data**

- captured by recording the actions of individuals   
 (location data while using cell phone)

**Inferred data**

- this is data such as a credit score  
 based on analysis of volunteered or observed data

Bit = binary digit = smallest data and that is 0 or 1

Methods of signal transmission used in networks:

**Electrical signals**

- transmission by representing data as electrical pulses on copper wire

**Optical signals**

- transmission by converting the electrical signals into light pulses

**Wireless signals**

- transmission by using infrared, microwave, or radio waves through air

Bandwidth and throughput

Bandwidth

Capacity of a medium to carry data

Digital bandwidth

Measures the amount of data that can flow from one place to another in a given amount of time

Measured in bits in second (Kbps, Mbps, Gbps)

Throughput

doesn’t match the bandwidth

Its influenced by:

Amount of data being sent and received over the connection

Latency created by the number of network devices encountered between source and destination