Lab - My Local Network

Objectives

- Record all the different network attached devices in your home or classroom.
- Investigate how each device connects to the network to send and receive information.
- Create a diagram showing the topology of your network.
- Label each device with its function within the network.

Background / Scenario

The path that a message takes from its source to destination can be as simple as a single cable connecting one computer to another or as complex as a network that literally spans the globe. The network infrastructure contains three categories of hardware components:

- End devices
- Intermediary network devices
- Network media

Instructions

Take a close look at the network you have at home or school. Record the network and end-user devices that are connected on the local network.

Sample

Manufacturer	Device	Location	Connection	Media
Apple	iPhone	Mobile	Wireless	WiFi & cell phone
Samsung	Galaxy Smart Phone	Mobile	Wireless	WiFi & cell phone
Cisco	Cable Modem	Home office	Wired	Cable TV coaxial cable and Ethernet cable.
Linksys	Wireless Router	Home office	Wired	Ethernet cable.
HP	Printer/Scanner	Home office	Wireless	WiFi
Apple	MacBook Air	Mikayla's Room	Wireless	WiFi
Beats by Dre	Headphones	My Room	Wireless	Bluetooth
Microsoft	Xbox	My Room	Wired	Ethernet Cable

Your Local Network

Manufacturer	Device	Location	Connection	Media
blank	blank	blank	blank	blank
blank	blank	blank	blank	blank
blank	blank	blank	blank	blank
blank	blank	blank	blank	blank

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Manufacturer	Device	Location	Connection	Media
blank	blank	blank	blank	blank
blank	blank	blank	blank	blank
blank	blank	blank	blank	blank
blank	blank	blank	blank	blank

Continue the list on a separate page if necessary.

Reflection

1. Are there other electronic devices that are not connected to the local network to share information or resources? What would be the benefit of having these devices online?

2. Which type of connectivity is used most frequently in your local network, wired or wireless?

3. Draw a diagram of your local network. Label each device with a name and location.

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Answer Key

Your Local Network

Manufacturer	Device	Location	Connection	Media
Motorola	Cable Modem	Home Office	Wired	Cable TV coaxial cable and Ethernet cable.
Netgear	Wireless Router	Home Office	Wired	Ethernet Cable
HP	All-in-One Printer	Home Office	Wireless	WiFi
Dremel	3D Printer	Home Office	Wired	Ethernet Cable
Lenovo	Laptop	Home Office	Wireless/Wired	WiFi/Ethernet Cable
Apple	Laptop	Home Office	Wireless/Wired	WiFi/Ethernet Cable
Samsung	Smart TV	Great Room	Wireless	WiFi
Apple	iPhone	Mobile	Wireless	WiFi & cell phone

Reflection

1. Are there other electronic devices that are not connected to the local network to share information or resources? What would be the benefit of having these devices online?

    Network Attached Storage can provide extra local or back up storage and allow users to share their files in a central location. Home Security cameras can be connected to the network so you can have access to the information remotely.

2. Which type of connectivity is used most frequently in your local network, wired or wireless?

    If most of your devices are connected via Ethernet cables, then you would be using wired connection more frequently. However, if most of your devices are more mobile, such as tablets, smartphones, laptops, you probably use the wireless connection more often.

3. Draw a diagram of your local network. Label each device with a name and location.