Packet Tracer - Network Representation

Questions:

**List the intermediary device categories.**

Routers

Switches

Hubs

Wireless Devices

Security

WAN Emulation

**Without entering into the internet cloud or intranet cloud, how many icons in the topology represent endpoint devices (only one connection leading to them)?**

15

**Without counting the two clouds, how many icons in the topology represent intermediary devices (multiple connections leading to them)?**

11

**How many end devices are not desktop computers?**

8

**How many different types of media connections are used in this network topology?**

4

**Step 2: Explain the purpose of the devices.**

**Questions:**

**a. In Packet Tracer, only the Server-PT device can act as a server. Desktop or Laptop PCs cannot act as a server. Based on your studies so far, explain the client-server model.**

There will be clients, there will be servers. The server provides the network services to clients to perform user based tasks. A centralized administration of clients.

**b. List at least two functions of intermediary devices.**

1. Intraconnect devices
2. Ensure data flows throughout the network

**c. List at least two criteria for choosing a network media type.**

1. Distance media can carry a signal
2. Amount of data that should be transmitted
3. Cost

**Step 3: Compare and contrast LANs and WANs.**

**Questions:**

**a. Explain the difference between a LAN and a WAN. Give examples of each.**

LAN: Is a local area network

WAN: Wide area network (over long distances)

LAN- home network or an office

WAN- the internet

**b. In the Packet Tracer network, how many WANs do you see?**

2

**c. How many LANs do you see?**

3

**d. The internet in this Packet Tracer network is overly simplified and does not represent the structure and form of the real internet. Briefly describe the internet.**

Network of networks. Global mesh of interconnected networks.

**e. What are some of the common ways a home user connects to the internet?**

Cable. Dialup. Satellite. Dial up.

**f. What are some common methods that businesses use to connect to the internet in your area?**

We can mostly see DSL, DSL cable, and Satellite

**Challenge Question**

**Now that you have had an opportunity to explore the network represented in this Packet Tracer activity, you may have picked up a few skills that you would like to try out. Or maybe you would like the opportunity to explore this network in more detail. Realizing that most of what you see and experience in Packet Tracer is currently beyond your skill level, here are some challenges you might want to attempt. Do not worry if you cannot do them all. You will be a Packet Tracer master user and network designer soon enough**.

· **Add an end device to the topology and connect it to one of the LANs with a media connection. What else does this device need to send data to other end users? Can you provide the information? Is there a way to verify that you correctly connected the device?**

· **Add a new intermediary device to one of the networks and connect it to one of the LANs or WANs with a media connection. What else does this device need to serve as an intermediary to other devices in the network?**

· **Open a new instance of Packet Tracer. Create a new network with at least two LANs connected by a WAN. Connect all the devices. Investigate the original Packet Tracer activity to see what else you might need to do to make your new network functional. Record your thoughts and save your Packet Tracer file. You may want to revisit your network later after you have mastered a few more skills.**