

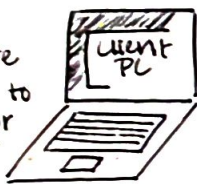
Preparing for the CompTIA Test
1. Critical Thinking
2. Practice

Client-server is very expensive and difficult to run

Client-Server



- * Nodes are dedicated to a client or to a server role



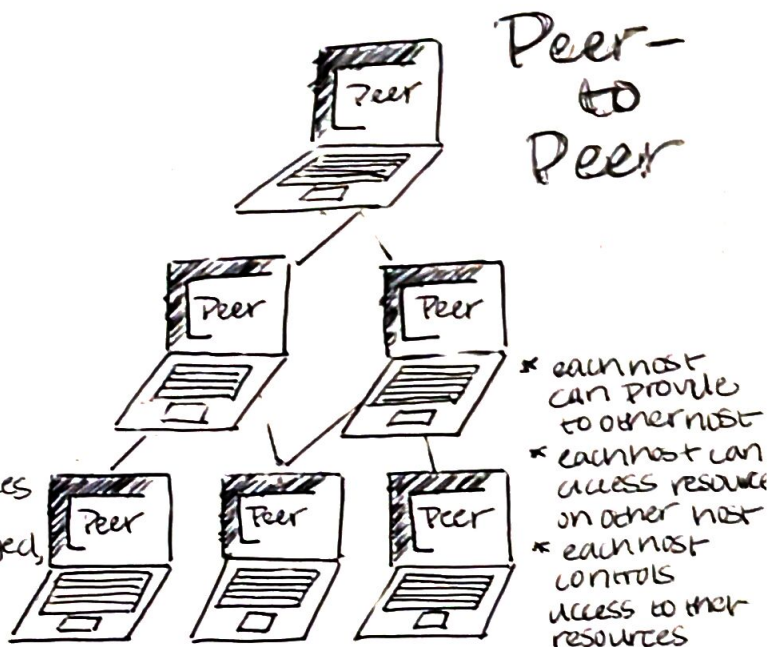
- * Application / resources are centralized, provisioned, managed, secured
- * Client nodes consumes the services provided by servers

ADVANTAGES

1. easy to expand
2. easy to support
3. centralized administration
4. easy to backup

DISADVANTAGES

1. expensive server operating system (OS)
2. expensive advanced planning required



Peer-to-Peer

- * each host can provide to other host
- * each host can access resource on other host
- * each host controls access to their resources

ADVANTAGES

1. easy to implement
2. inexpensive

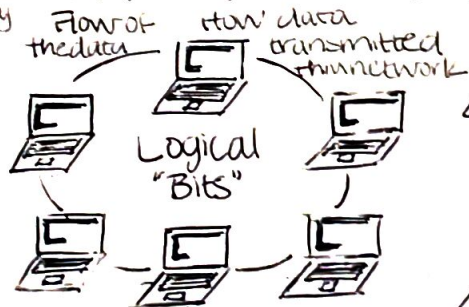
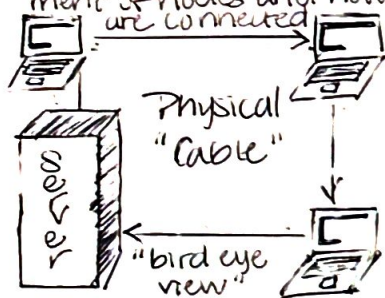
DISADVANTAGE

1. difficult to expand
2. difficult to support
3. lacks centralized control
4. not centralized storage

5. SECURITY ISSUES!

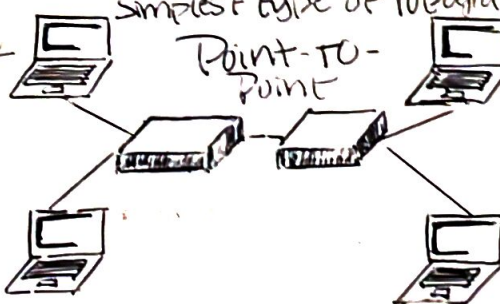
NETWORK TOPOLOGY

Describes the placement of nodes and how they are connected



Simplest type of topology

Point-to-Point



BUS Topology

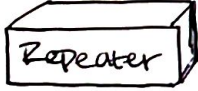
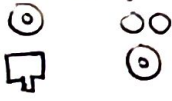
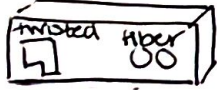
- * nodes are directly connected thru wire/wireless
- * connected all devices to a "back" cable
- * Logical BUS / Physical BUS
 - messages sent to all devices connected to the network

Physical Layer (OSI Model)

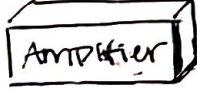
WIRE

WIRELESS

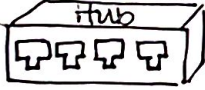
- 1). twisted pair
- 2). Coaxial
- 3). Fiber optic
- 4). Media converter



(Steps on wavelength)



- 5). Hub (repeater that has more ports/jack)



PDU is physical term used to describe each layer in the OSI model
Protocol Data Unit

SOHO Device

- 1). wireless
- 2). wired
- 3). default gateway
- 4). DNS server
- 5). DHCP server
- 6). Firewall
- 7). Switch
- 8). Router

signal

- Z router
- Z firewall
- Z DHCP
- Z DNS
- Z default gateway

