|  |  |
| --- | --- |
| Internet | DEFN: The Internet is a database that is accessible for information and communication.   * How is the Internet scalable? * Because of the hierachy, delegation, it allows the internet to expand. It grows it to grow larger and bigger. Delegation of authority lets the Internet scale without becoming bogged down because domain owners can each create and keep track of their own subdomains. |
| packets | DEFN: A small amount of data with a specific format being sent.   * Why do we break up data into packets to pass information through the Internet? * We break up data because hackers can easily access information. |
| router | DEFN: A router is a piece of equipment that passes data packets between networks. |
| redundancy | DEFN: The state of being not or no longer needed or useful   * What’s the benefit of redundancy in a routed system? * It's more efficient and stable and fast having multiple routers. |
| ISP | DEFN: Internet Service Provider - a company that provides users access to Internet. |
| protocol | DEFN: Set of rules governing an interaction of any variety.  -The protocol we used in the simulation was how the routers had to be |
| IPv4 | * What is an Internet Protocol (IP) address? * A unique number assign to connect a device to the internet. IPv4 uses a 32-bit address for each unique device. * How many unique devices can have unique addresses in IPv4? 4294967296 * How is it organized hierarchically? * The dotted decimal notation.   Ex. 127.54.163.12 |
| IPv6 | * How many unique addresses can IPv6 support? 3.4028237e+38 * Why do we need IPv6? * We need it because we have a lot of pepple in the world and we ran out on IPv4. * Will IPv6 eventually run out of addresses? Explain. * Yes, eventually we will need another system . Maybe IPv8 |
| DNS | * What is the purpose of the Domain Name System (DNS)? * It provides a more human-friendly address for a device. Such as .com, .gov, .net, .org. |
| Top-level domain | DEFN: examples such as .com, .net. .gov |
| Name server | DEFN: keep track of the ip addresses that correspond to a given domain name. Records about which IP numbers go with a domain name are maintained one level from the domain name in the domain name hierachy. For example, the cnn.com name servers ip address can be found on the .com server |

.com

Peardeck.com

App.peardeck.com

12

12.243

12.243.123

12.243.123.4