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MEDST255

Assignment 1

IP Address

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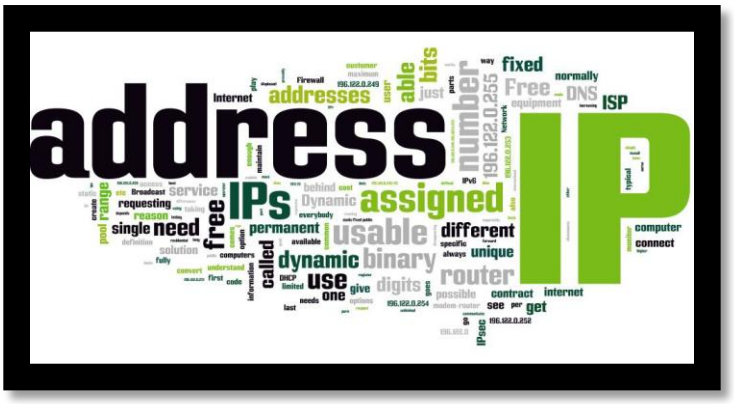

The letters IP stand for Internet Protocol. An IP address consist of a series of 32 binary bits, 1s and 0s.The function of an IP Address is to allocate a unique address to a device on a network so that any information sent to that device can reach it by referring to its address. Or in short terms basically a number that is used to identify a device on the network. Google-ing "IP address" from any device capable will tell you what your numeric public IP actually is. Each device on a network must have a unique IP address to communicate with the other network devices, like hubs, switches, and routers. This data can reveal the users location as well as the platform utilized to source the information such as, Windows, Mozilla, or Mac, Chrome. This is similar to a home or business address supplying that specific physical location with an identifiable address, devices on a network are differentiated from one another through IP addresses.

There are different types of IP address: private IP addresses, public IP addresses, static IP addresses, and dynamic IP addresses.An Internet Protocol address (IP address) is also a numerical label assigned to each device such as a computer, or a printer that shares a computer network which uses that Internet Protocol for communication. IP addresses are the numbers assigned to computer network interfaces. Even though we use names to refer to the things we search for on the Internet, such as www.example.org, computers decode these names into numerical addresses so they can send data to the right location. So when you send an email, visit a web site, or participate in a video discussion, your computer sends record packets to the IP address of the other end of the connection and receives packets destined for its own IP address. There are five classes of IP address, ranging from Class A-E. Class A: is used for large networks that are implemented by large companies and some countries. Class B: is used for medium- sized networks that are implemented by universities. Class C: Used for small networks that are

implemented by ISPs for customer subscriptions. Class D: is used for special use for multicasting. And Class E: is used for experimental testing.

History:

Robert Elliot Kahn who was born on December 23, 1938 is an American electrical engineer, that invented the Transmission Control Protocol (TCP) and the Internet Protocol (IP).He made two fundamental communication protocols at the heart of the Internet. When it was first introduced, the IP was a connection-less datagram serviced which worked along with with TCP, which was more connection oriented .Historically, the IP was the connectionless datagram service in the original Transmission Control Program which was introduced by Vint Cerf and Bob Kahn in 1974. The first major version of IP was the Internet Protocol Version 4 (IPv4), this was the overriding protocol of the Internet. Its successor was the Internet Protocol Version 6 (IPv6). On January 1, 1983, researchers began to collect the "network of networks" that became the current Internet. The online world then took on a more familiar form in 1990; this was when computer scientist Tim Berners-Lee invented the World Wide Web.

3 Examples:

When your computer is on the Internet, anything you do requires data to be transmitted and received. For example, when you visit a web site, such as ForMyIP.com, data is transmitted to your computer in order to load the content of the web page. The server where ForMyIP.com is located needs to know where to launch the data. When you connect to ForMyIP.com, it receives your IP Address and then knows where to send the data. Another example is someone that needs to mail you a letter has to know your address in order to send it to you, just like a server needs to know your IP Address to launch you data.

It’s just like when you send a letter to your friend it reaches him when the postman searches for his house number that you have written on the address and on finding it delivers the letter to your friend living in that house. Similar is the case with IP Address. An IP address is written in "dotted decimal" notation, which is 4 sets of numbers that are separated by period, each set representing 8-bit number ranging from (0-255). An example of IPv4 address is 216.3.128.12, which is the IP address previously assigned to iplocation.net.

When you send or receive data (for example, an e-mail note or a Web page), the message gets separated into little chunks called packets. Each of these packets both contains the sender's Internet address and the receiver's address. Any packet that is sent first to a gateway computer lets it understand a small part of the Internet. The gateway computer reads the targeted address and forwards the packet to a nearby gateway that in turn reads the same address and so onwards across the Internet until one gateway recognizes the packet as belonging to a computer within its immediate neighborhood or domain. That gateway then forwards the packet directly to the computer whose address is then specified.

Evaluate

The results show that network performance depends not only on IP version and traffic type, but also on the choice of the operating system. There are many common IP’s such as TCP, NetBEUI, and IPX/SPX. For example when evaluating the performance of this the internet protocol like on Apple Talk, apple talk is a protocol suite to network Macintosh computers. Its designed to run over major LAN types (mostly Ethernet & Token Ring), or even HTTP which

are Hyper Text Transfer Protocol that governs how files like texts, sound, graphics, and even video games are exchanged on the World Wide Web.

Work Cite Page

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