

Networking

IP address → MAC Address

LAN, MAN, WAN
and etc.

The address which starts with 192. are not ip address. It can't be hacked by anyone. findable in public network.

MAC address

MAC address stands for Media Access Control. It's our

physical ^{address}. ~~It's~~ With this we can find what device is that like:

iPhone, Printers, laptops etc. It has Identifier. The first 3 pairs are

identifier. There are three

types of mac address :

1) Unicast, 2) Multicast and 3) Broadcast.

TCP, UDP and The Three Way Handshake

TCP stands for Transmission control protocol.

UDP stands for User Datagram protocol.

- * TCP utilizes making up of a website,
- * UDP ~~util~~ is used to send messages to other host.

- * Three Way handshake is a process used to establish a reliable connection between client and server. SYN and ACK.
- SYN and ACK is the examples.



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Memo No. _____
Date / /

Common Ports and Protocols

Port → A port is a virtual point where network connections start and end.

Eg: A port is like a door on a computer that helps to send and receive data.

Some common ports and protocols are:

- Websites and web Browsing:
- 1) Port 80 - (HTTP) - This isn't secure.
- 2) Port 443 - (HTTPS) - This is secure.

SMTP →

- Email → 1) Port 25 - Sends emails.

- POP3 → 2) Port 110 - Receive emails.

- IMAP → 3) Port 143 - Keep them on servers.

FTP →

- File Transfer → 1) Port 20, 21 - between computers.

2) Port 22 - It secures file transfer.
↳ (SFTP/SSH)

• Remote Access - 1) Port 22 - To another computer (SSH)
(RDP) ← 2) Port 3389 - Access to another Windows computers.

• Network and Internet Services :

1) Port 53 - Helps computers find website address. → (DNS)

2) Port 67 and 68 - Assigns IP address to devices. (DHCP)

• Messaging and Communication : (Internet) ↑

1) Port 23 - Unsecure remote access

2) Port 5060 and 5061 - Used for internet phone calls. → (SIP)

Remote access - A remote access is using a computer or network from a different location.



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Memo No. _____

Date

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~~HTTP~~ — IPv4 and IPv6

Types of IP Addressing :

IPv4 and IPv6 are the types of IP Address.

IPv4 → Internet Protocol Version 4 is the first version of internet Protocol.

IPv6 → Internet Protocol version 6 is the most recent version of Internet Protocol.

~~IP~~ IPv6 is more safer than IPv4.

IPv4 and IPv6 was made because of need of address.



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Memo No. _____

Date / /

Subnetting and CIDR

~ Subnetting → It is the process of dividing a larger IP into smaller.

~ CIDR → It is the method for allocating IP addresses and routing.

These are used in hacking because of these we can find vulnerabilities, plan attacks and exploit weakness in network.