



What is Cyber Security?

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Cyber Security refers to the practice of protecting networks, programs, computer systems, and their components from unauthorized digital access and attacks

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Cyberattack



Cyber Security

What is Cyber Security?

Cyber Security and Information Security are different from one another



Information Security

Processes and tools deployed to protect sensitive information



Cyber Security

Set of techniques used to protect the integrity of networks



The cost of not being cybersecurity

Compromising confidential data

Information can be hacked which in turn can be used to spoil a company's image



Customer trust hampered

Customers will discontinue business with an organization if their information is leaked



Financial crisis

A company can spend a lot of money and time in restoring the lost data



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The cost of not being cybersecure

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Customer trust hampered

Let us now have a look at the basic network terminologies, which is used in implementing cyber security



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Basic Network Terminologies - Network



A network is a group of devices connected to each other, the connection can either be wired or wireless

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A network can be used for communication



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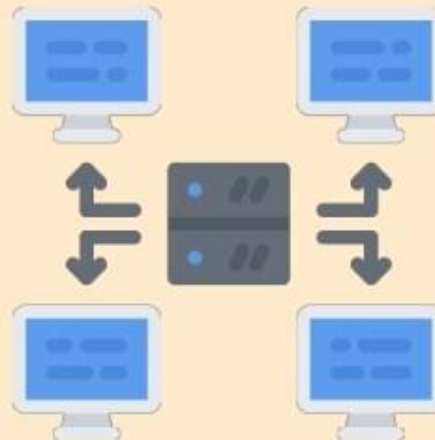


It is also used to share data and information



Basic Network Terminologies - Network

A network is a group of devices connected to each other, the connection can either be wired or wireless



Hardware devices such as printers and other input devices are also shared through a network

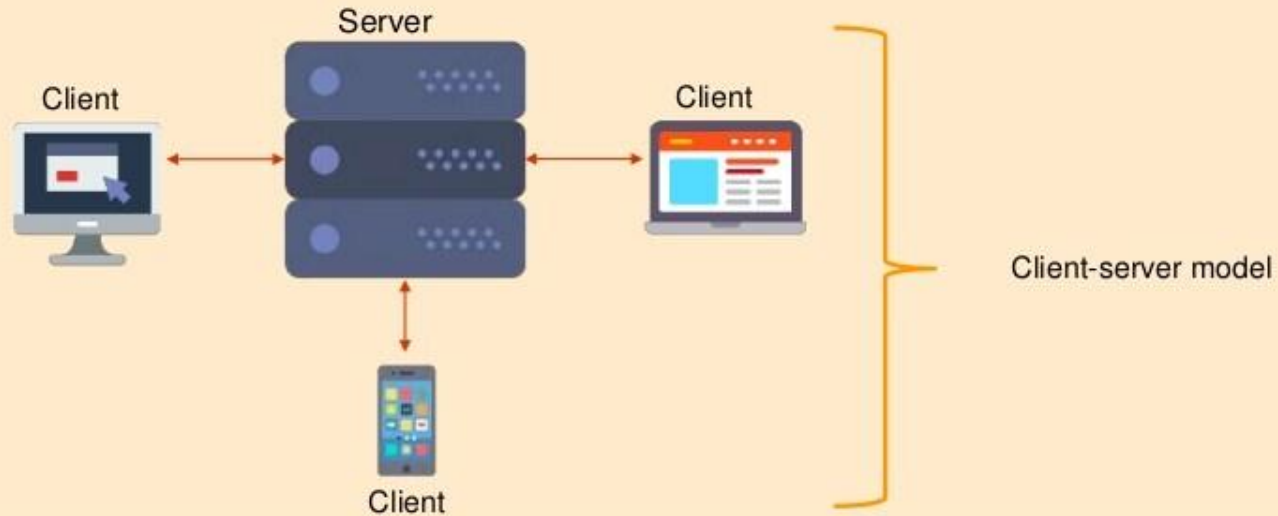
Basic Network Terminologies - Server



Server is a device that handles requests for data, information, and network services from other computers and devices known as clients. All your data is stored on this server

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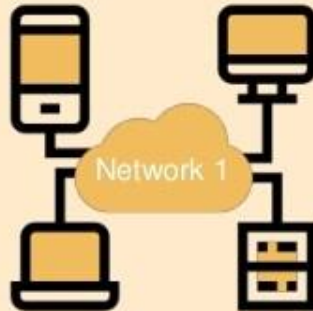
Basic Network Terminologies - Internet

Internet is referred to as a collection of multiple networks. It connects millions of networks across the world



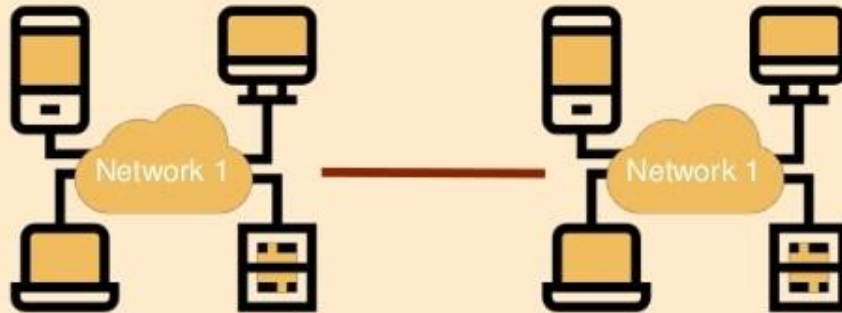
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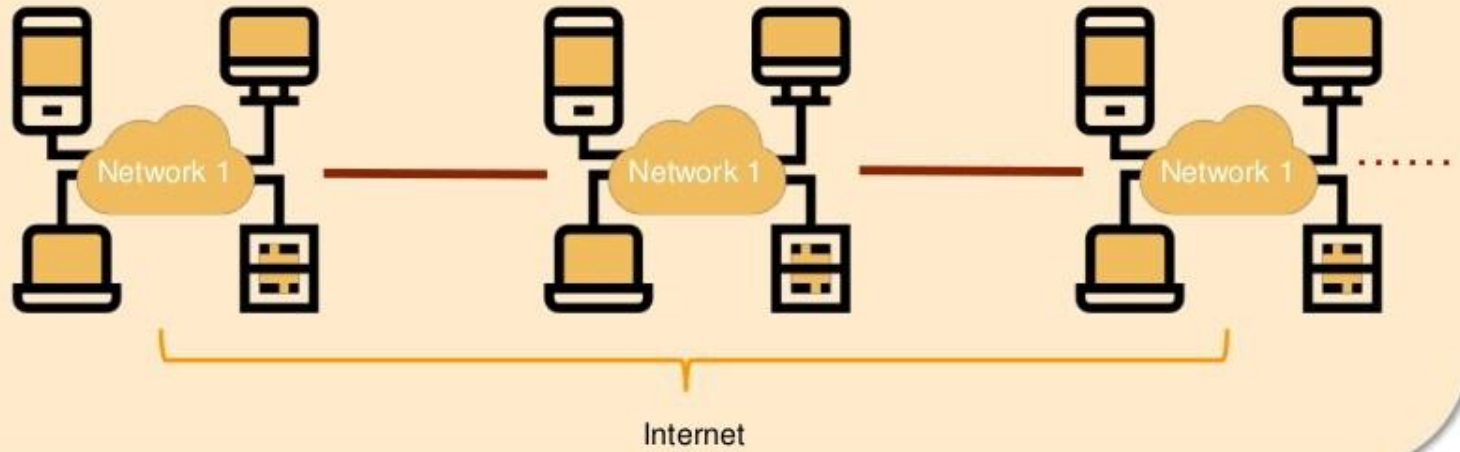
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Basic Network Terminologies – TCP/ IP

Transmission Control Protocol/ Internet Protocol is defined as the set of rules that determine the data connectivity and transmission between devices through the internet



Basic Network Terminologies – IP address



Internet protocol address is a numerical address which is assigned to each computer on a network. Without an IP address, a device cannot connect to the internet

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IP address is a 32-bit address

Basic Network Terminologies – MAC address



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MAC address is a 12-digit hexadecimal number

Basic Network Terminologies – Router

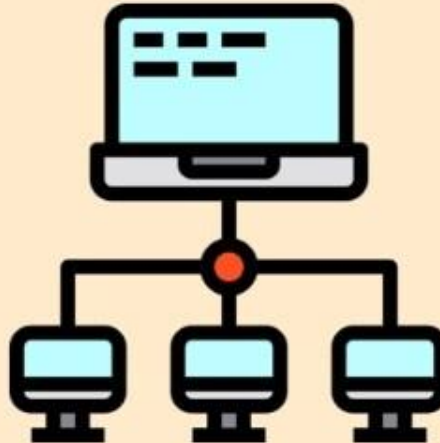
Router is a device that passes packets back and forth across networks. It routes the data in the appropriate path



A home router passes the incoming traffic from the internet to your devices and passes the outgoing traffic from your local devices to the internet

Basic Network Terminologies – Domain

Domain is referred to as a group of computers and other devices that are interconnected and treated as a whole



Basic Network Terminologies – Domain name

Domain name is nothing but the base part of a website name



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<https://cybersecurity.com>



Domain name

Basic Network Terminologies - DNS



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Basic Network Terminologies - DNS

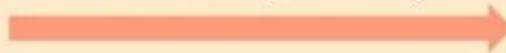
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Local PC



What is the IP of cybersecurity.com?



DNS Server



Basic Network Terminologies - DNS

The Domain Name System (DNS) is like a phonebook. It is responsible for mapping the domain name into its corresponding IP address



Local PC



This is the IP address:

172.16.254.1

DNS Server



Basic Network Terminologies - DHCP



Dynamic Host Configuration Protocol (DHCP) is the protocol that dynamically assigns IP addresses to devices in the network

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DHCP Server



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DHCP Server

Here, are your IP addresses

192.16.254.1

192.16.252.1

192.17.253.1



Basic Network Terminologies - VPN

Virtual Private Network (VPN) is a connection between a VPN server and a VPN client. It is a secure tunnel across the internet



VPN client



Hacker



VPN server



Internet



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