

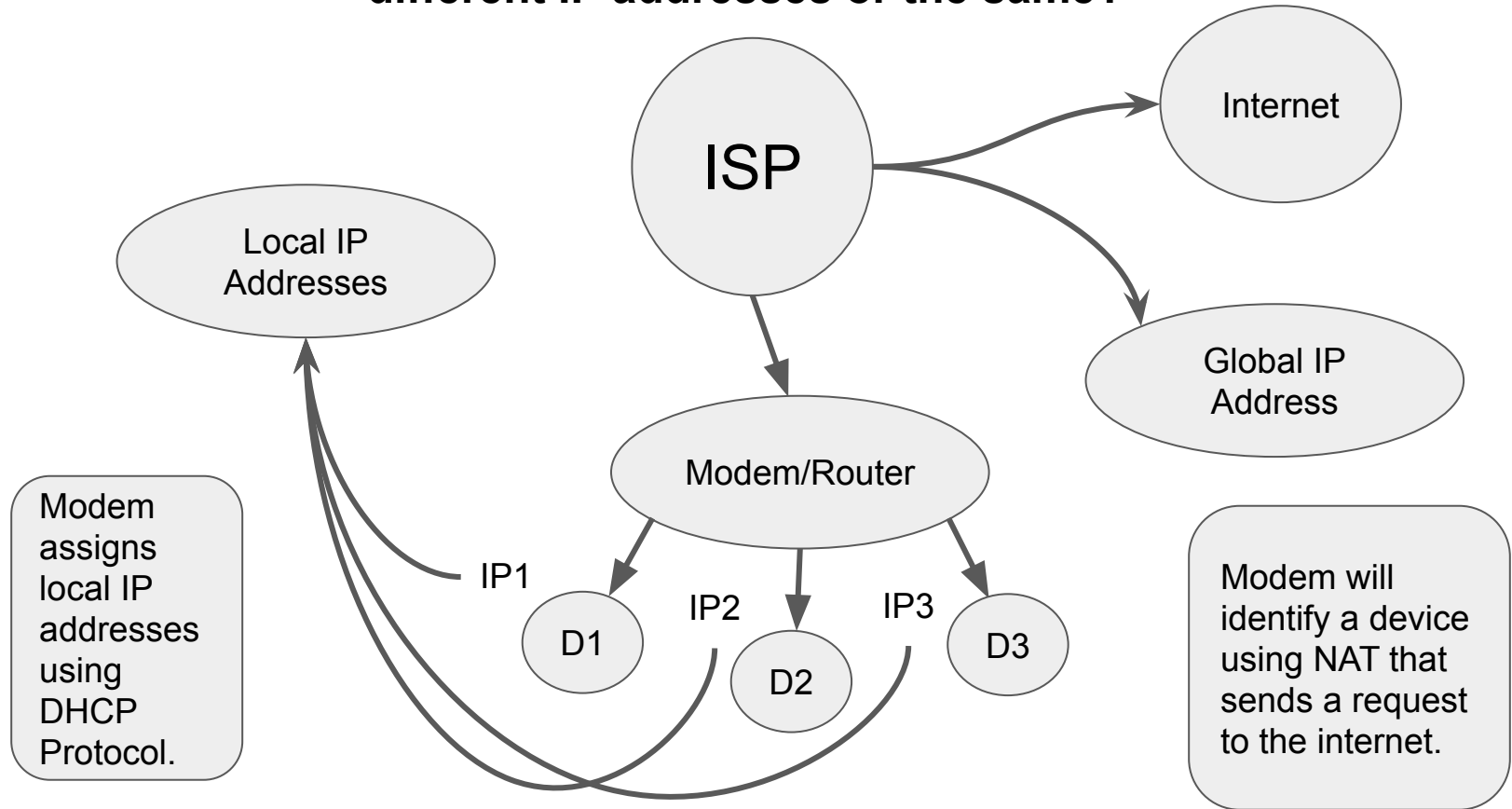


Assalam-u-alaikum

BILAL KHAN

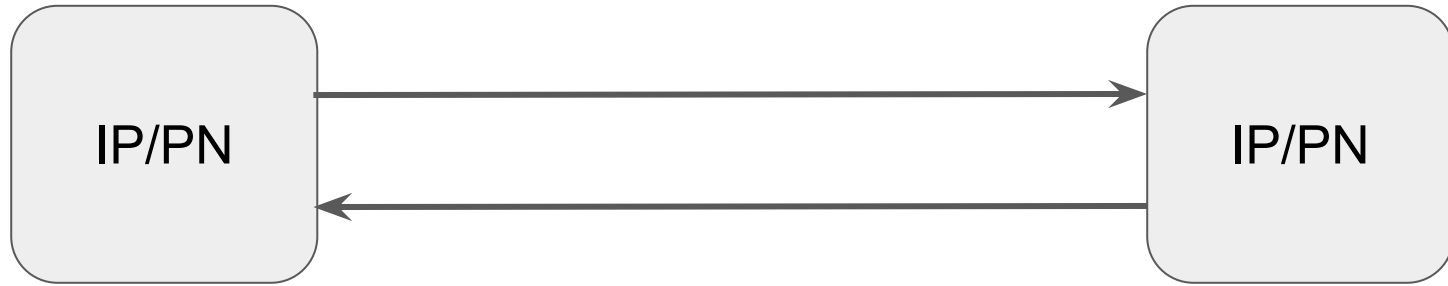
This is my 5th video of
DevOps

If I have multiple devices connected to the internet. Does each of them has different IP addresses or the same?



How the identify an application that made a request?

Ports will identify the application that made a request. In this way, IP address will identify the device and the ports will identify an application using port number.



What is Port number?

Port number is a 16 bit number that will identify an application.

Total = 2 power of 16 \approx 65,000

Web pages are using HTTP protocol. To receive the data in a browser there should be a port number defined to get the results. For this purpose, ports are defined to get the result in a specific application.

For HTTP, the port is 80.

For MongoDB, the port is 27017.

For MySQL, the port is 1433.

From 0 to 1023 ports are reserved ports.

From 1024 to 49152 ports are for applications.

Remaining ports are for use.

How to measure the speed of internet?

First of all, the measurement of the speed of internet will be in bits per second. How much kilo, mega, or giga bits are transferred in one second? This is how you can measure the speed of the internet.

1 kbps = 1000 bits/s

1 mbps = 1000,000 bits/s

1 gbps = 1000,000,000 bits/s

Sending the data from a computer to the server is called upload.

Receiving the data to your computer is called download.

How does the communication happen b/w two computers?

There are two ways in which communication happens?

- Guided way
- Unguided way

Guided way: If a path is already defined then it is called guided way. For example, two computers connected with a wire.

Unguided way: If there is not a single path. Instead there are multiple paths that will be called unguided way. For example, Wi-Fi, or bluetooth.

How countries are connected with the internet?

Physical Connection: They are connected using optical fiber cables, coaxial cables.

Wireless Connection: Bluetooth, Wi-Fi, 3G, 4G, LTE, 5G.

How things are connected with networks?

LAN(Local area network): These are the network of computers present in homes or small offices. LAN is connected using Ethernet or Wi-Fi.

MAN(Metropolitan area network): This is a network across cities. MAN is connected using Optical fiber cables.

WAN(Wide area network): This is a network across countries. WAN is connected using Optical fiber cables.

SoNET(Synchronous Optical Networking): It carries the data using optical fiber to cover the larger distance.

Frame Relay: It's a way to connect your local area network with wide area network.

What is Modem?

Modem is a device that converts digital signal into analog signal and vice versa. E.g. Let's say you have a digital data that is image. Modem will convert that data to electrical signals so that you can send it through some cables.

What is Router?

Router is a device that routes the data packets based on the IP address.

Let's say you're connected with multiple computers. In this case, the router will come and make it possible to differentiate multiple devices on the internet. In this way, if a device A searched a website, it will be open on that device only not on other devices.

That's It

I hope you will like this video.

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