CCNA Course

-- Day 1 –

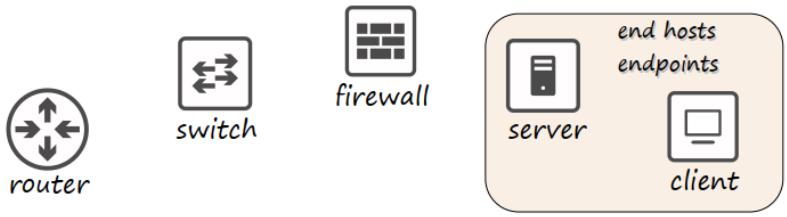
Network Devices

<u>Computer Network:</u> "A computer network is a digital telecommunications network which allows nodes to share resources."

What is a node?

Nodes is the devices used in Networking!

Here are some of the nodes: →

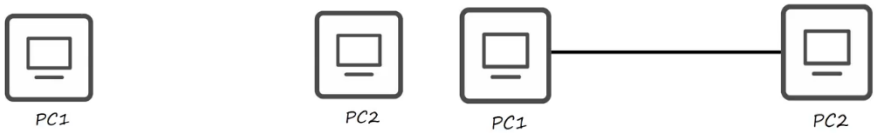


Let's build a sample network and examine each node's role:

If we have these 2 PCs, then this is not a network!

We must connect them together with a **Cable**!

2 PCs connected together actually make a **network**!



If we now take a look at the definition once more, then these 2 nodes are connected, they can share resources and essentially have a conversation with each other!

There are many kinds of Devices which can be Network Clients, for example:

- Laptop
- Desktop PC running Microsoft Windows
- iMAC running macOS.
- Even Apple phones iOS or Android or Tablets .. etc.

A **client** is a device that accesses a service made available by a server.

So, what is a **server**?

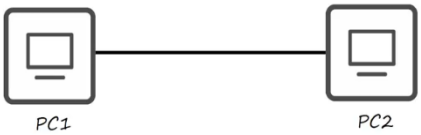
When you think of the word **server** you may think of something like this IBM server or this DELL server. And indeed, these are powerful servers, and you see a rows and rows of servers like these in the data centers. However, not all servers look like that!

In fact, any kinds of the clients we've mentioned before can be a server too!

If we looked to the definition o the client and then reverse that definition!!

A **server** is a device that provides functions or services for clients!

If we looked at the previous sample network with 2 PCs, and PC1 asks PC2 for the file "image.jpg", PC2 responds and sends the requested image file!



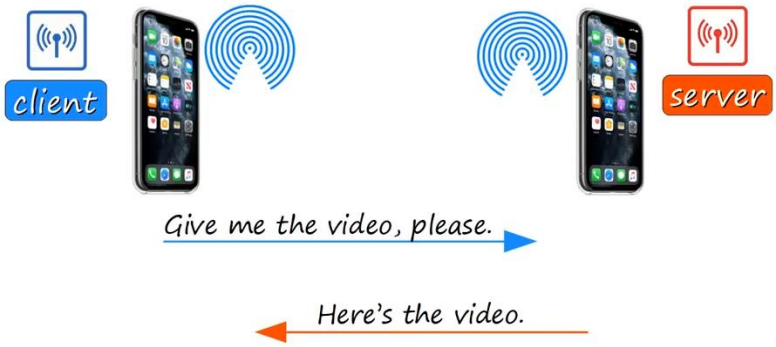
Now, from the definition of the client and the server, we can know that

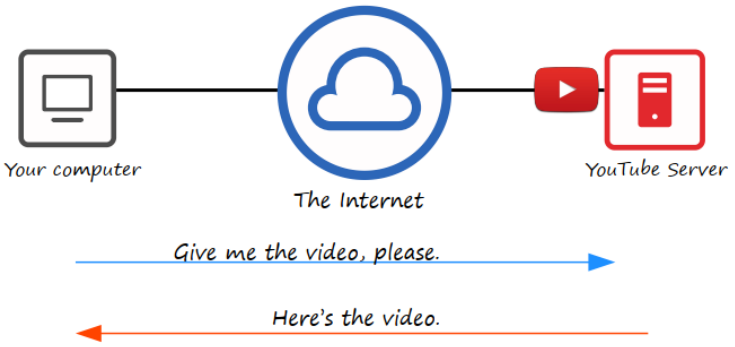
PC1 is a **client** and PC2 is a **server**!

PC1 is the one requesting for a service, requesting the “image.jpg”, so he is the client!

PC2 is the one providing the service, sending the “image.jpg”, so he is the server!

Let’s take another example of a client-server relationship.





Also, keep in mind, the same device can be a client in some situations and a server in other situations!