Computer Networking I.

Workshop No. 1: Packet Tracer Basics

Ichel Alejandra Delgado Morales - 20202020029

Universidad Distrital Francisco José de Caldas

Workshop Development

- ***Network Design***

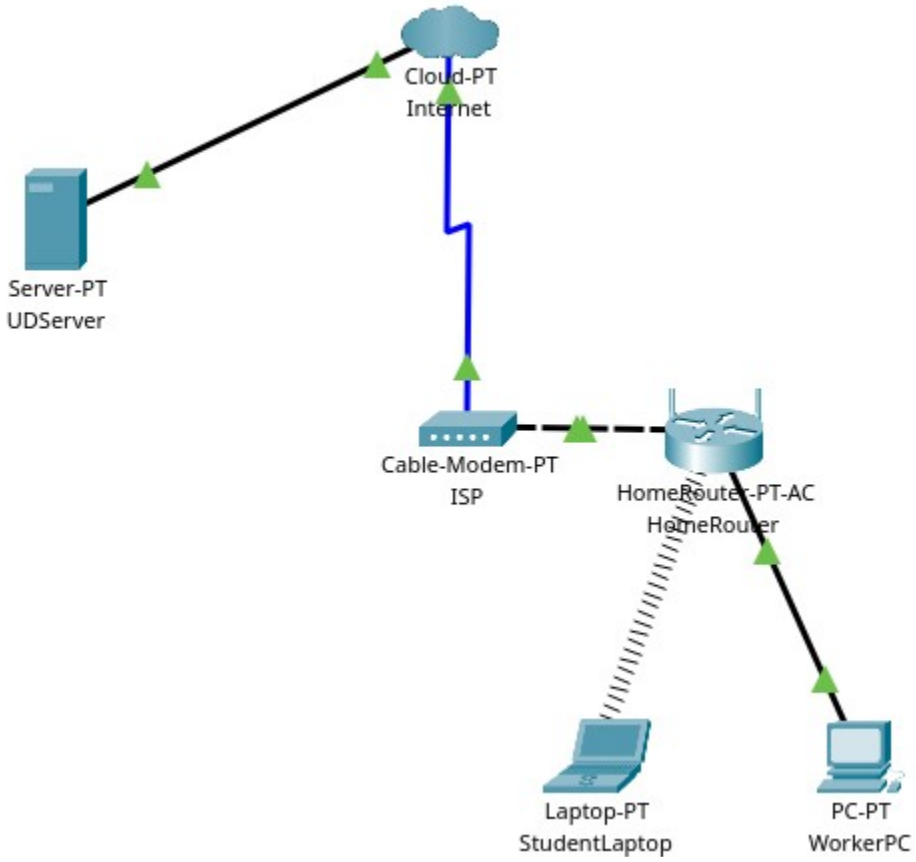

Figure 1.

Network design.

The network design was chosen because it was required to add a Cloud-PT, Server-PT, Cable-Modem-PT, a HomeRouter-PT-AC, a Laptop-PT and a PC-PT, and according to the 3-layer model, these devices should be organized as follows:

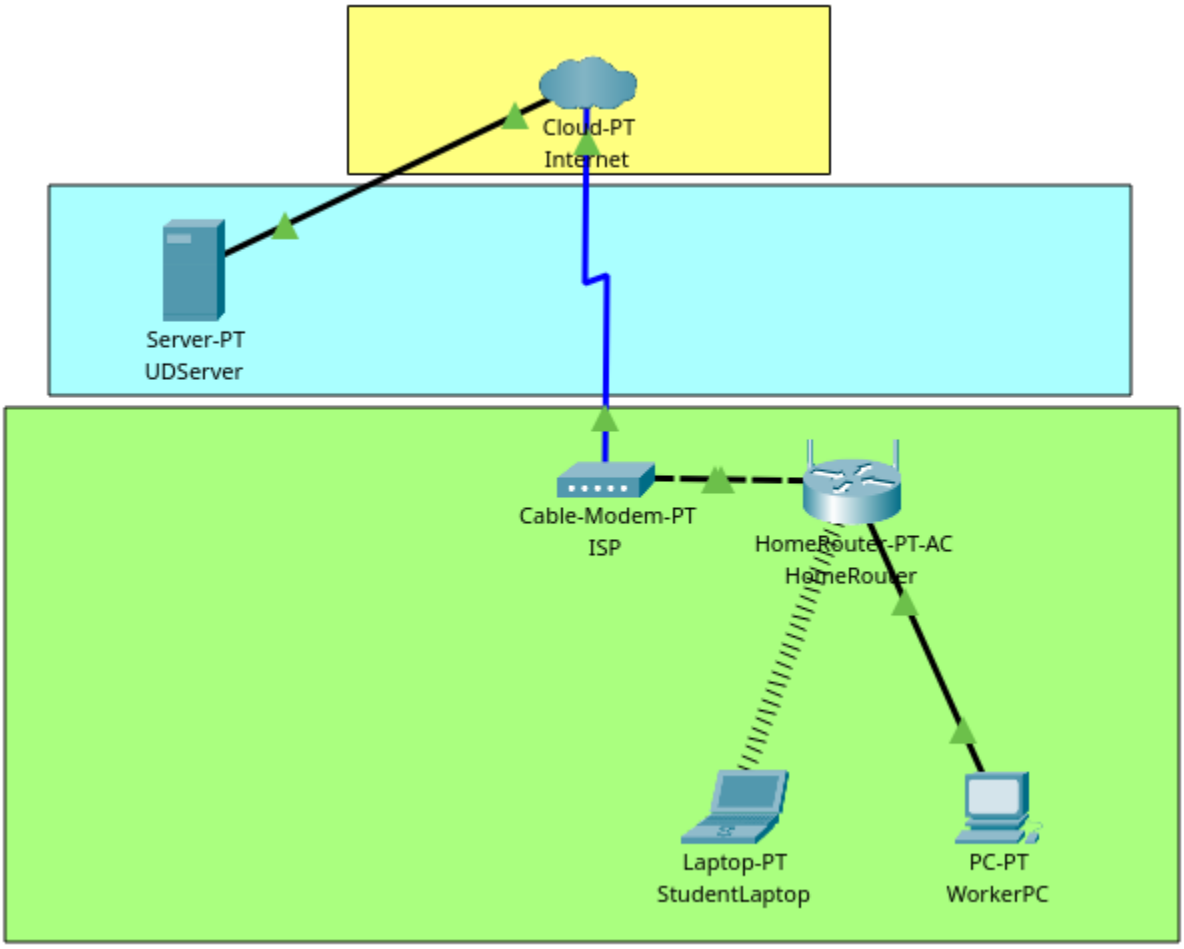

Figure 2.

Network design with layer identification.

Where the Cloud-PT belongs to in the 1st layer (core layer), the Server-PT belongs in the 2nd layer (distribution layer) and the Cable-Modem-PT, HomeRouter-PT-AC, Laptop-PT and the PC-PT belong in the 3rd layer (access layer).

- ***Server***

The server configuration (IP address, submask, DNS and default gateway) was done following the instructions on the document given for this workshop. Then, for the HTTP service, all the HTML files but the index.html were deleted, then a CSS was created for the page styles and an PNG image was imported because it was used for the page.

1. Server configuration

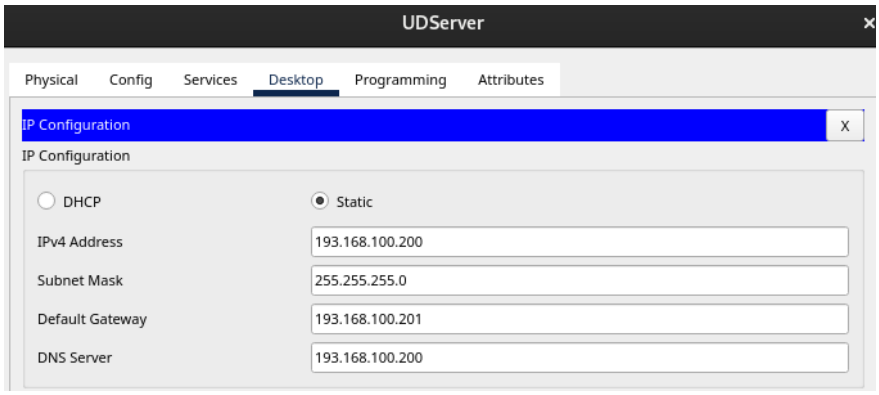

Figure 3.

Server configuration.

2. HTTP Service

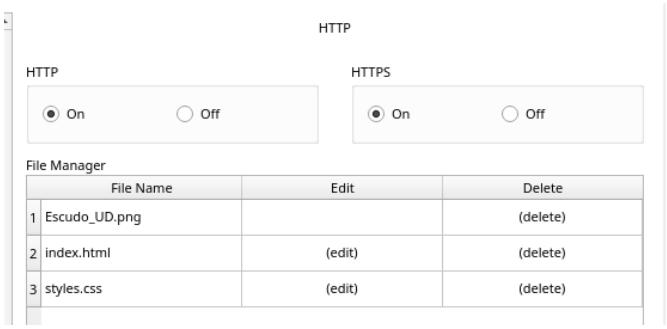

Figure 4.

HTTP Service configuration.

3. DNS Service

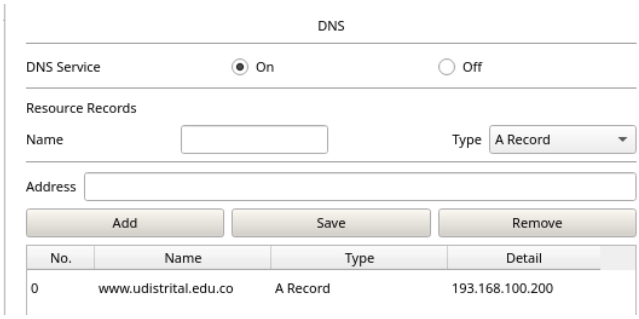

Figure 5.

DNS Service configuration.

- ***Home Router***

The Home Router was configured just as indicated on the document given. On the GUI tab, the Internet Connection in the Internet Setup was set to ***Automatic Configuration – DHCP,*** then the **Router IP Address** was set to **192.168.0.1** with the submask **255.255.255.0**, the **DHCP Server** was set to ***Enabled*** and the parameters for **Start IP Address** were also set up.

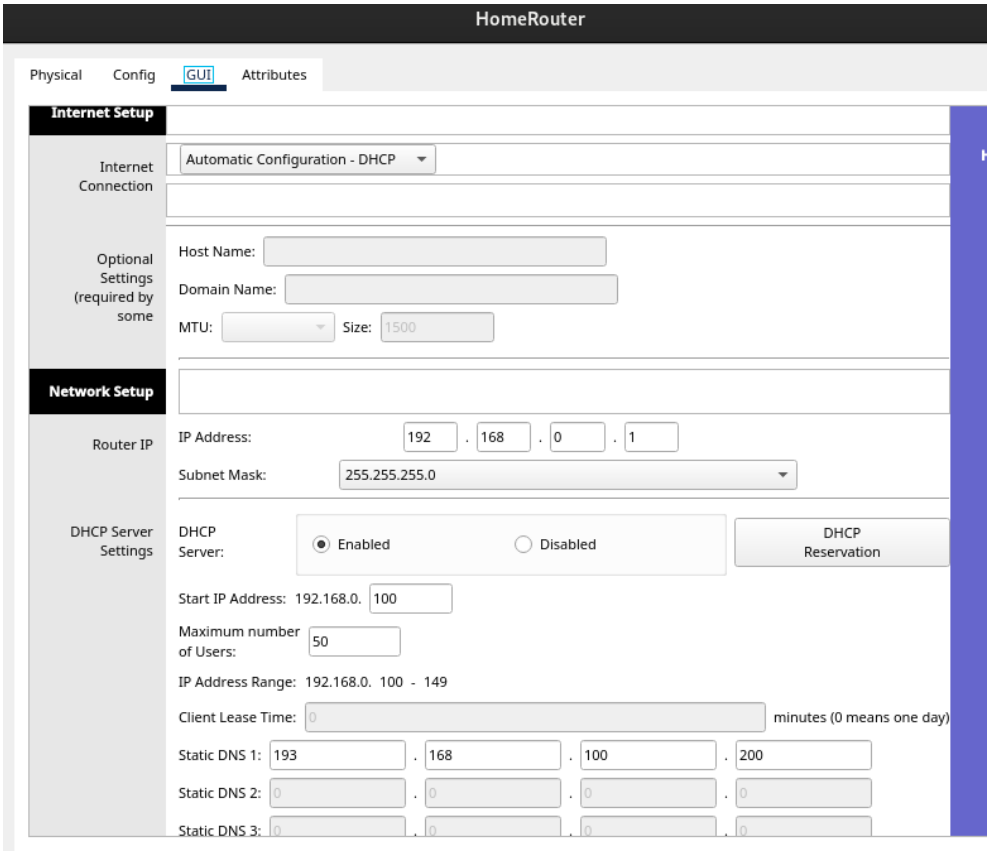

Figure 6.

Home Router Internet and Network Setup

The wireless configuration was also set for 2.4 GHz and 5 GHz with **network mode** on **Auto**, **network name "UD_Invitados"** and the rest of the parameters were left by default. The rest of the parameters on the other tabs were also left just as they were.

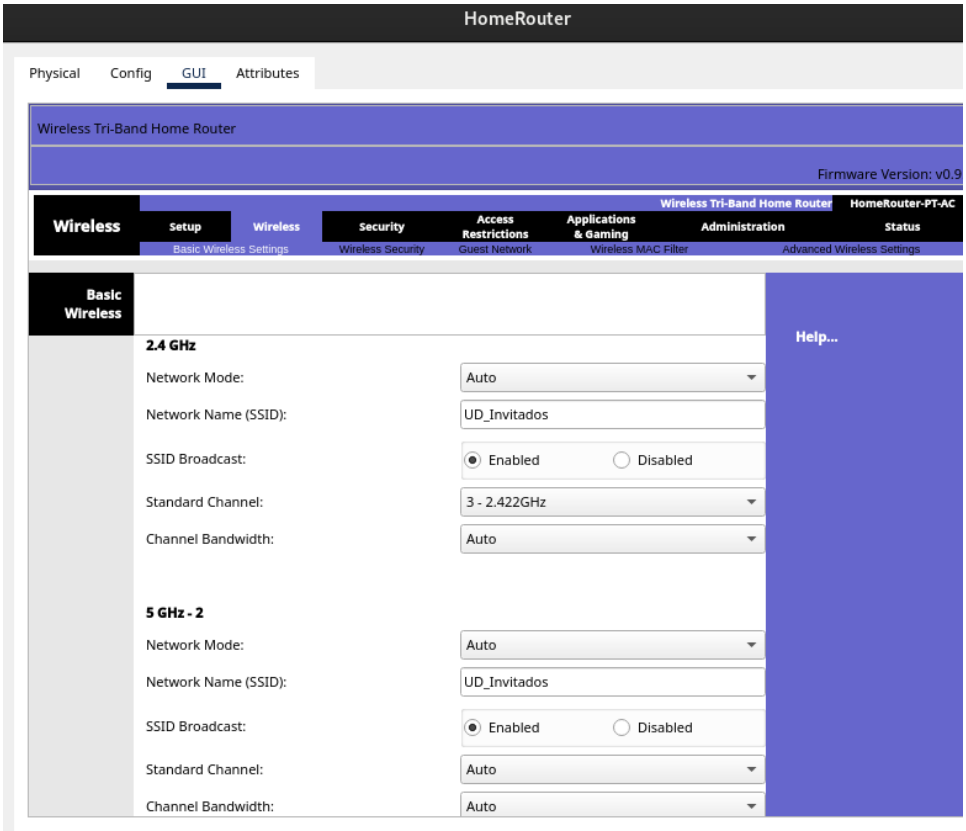

Figure 7.

Home Router Wireless Setup

- ***Worker PC***

The only thing that was needed for the Worker PC configuration was to enter IP Configuration on the Desktop tab and set the IP Configuration to DHCP:

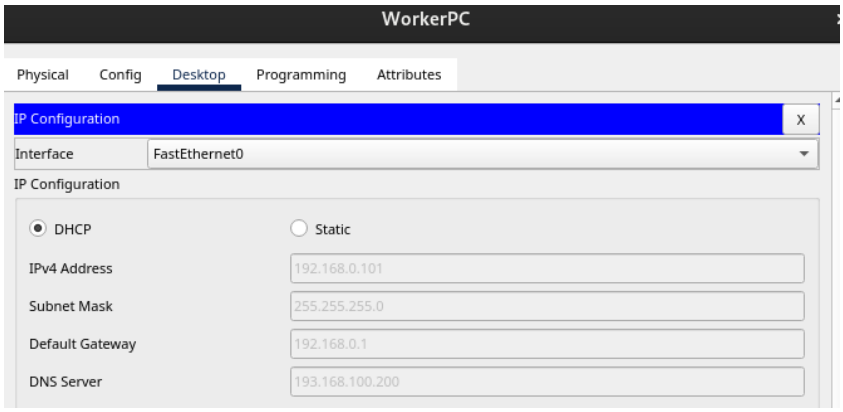

Figure 8.

Worker PC IP Configuration.

- ***Test result***

Figure 9.

Accessing www.udistrital.edu.co from the Worker PC.

- ***Student Laptop***

The Student Laptop needed the module for a wireless connection, so on the Physical tab, the **Linksys-WPC300N** module was selected and added to the laptop.

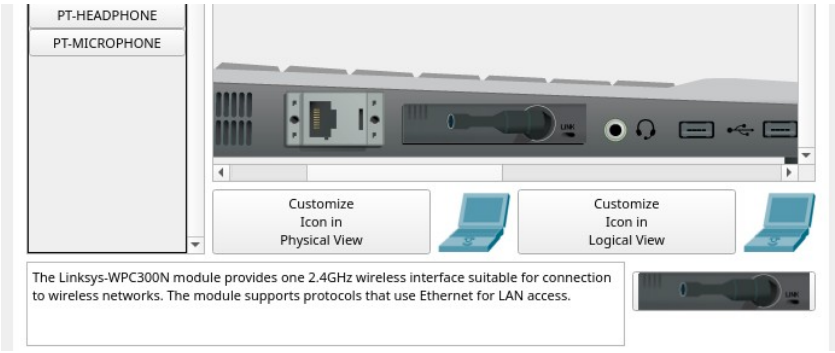

Figure 10.

Adding Linksys-WPC300N module to Student Laptop.

Once this was done, the next step was to enter the Desktop tab, then to the PC Wireless to check if the Wireless module was working and then on the IP Configuration option, set the IP Configuration to DHCP, just like it was done with the Worker PC.

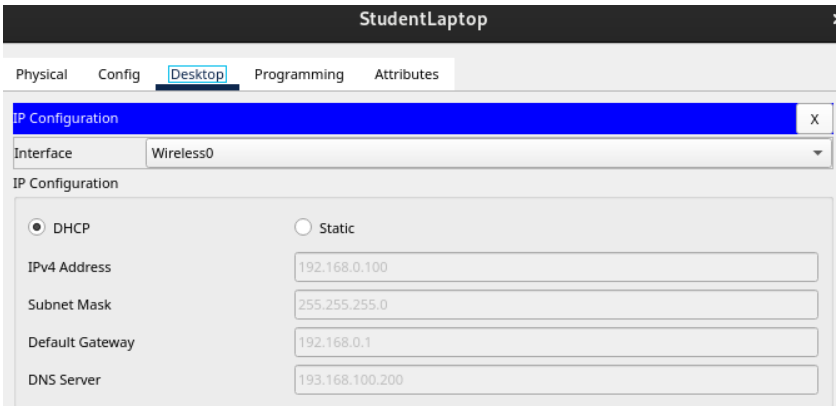

Figure 11.

Student Laptop IP Configuration.

- ***Test result***

Figura 12.

Accessing www.udistrital.edu.co from the Student Laptop