

UNIVERSIDAD DISTRITAL FRANCISCO JOSÉ DE CALDAS

COMPUTER NETWORKING

Paola Andrea Cuellar Beltrán

Workshop No. 1 – Packet Tracer Basics

Eng. Carlos Andrés Sierra, M. Sc.

Computer Engineering

2024

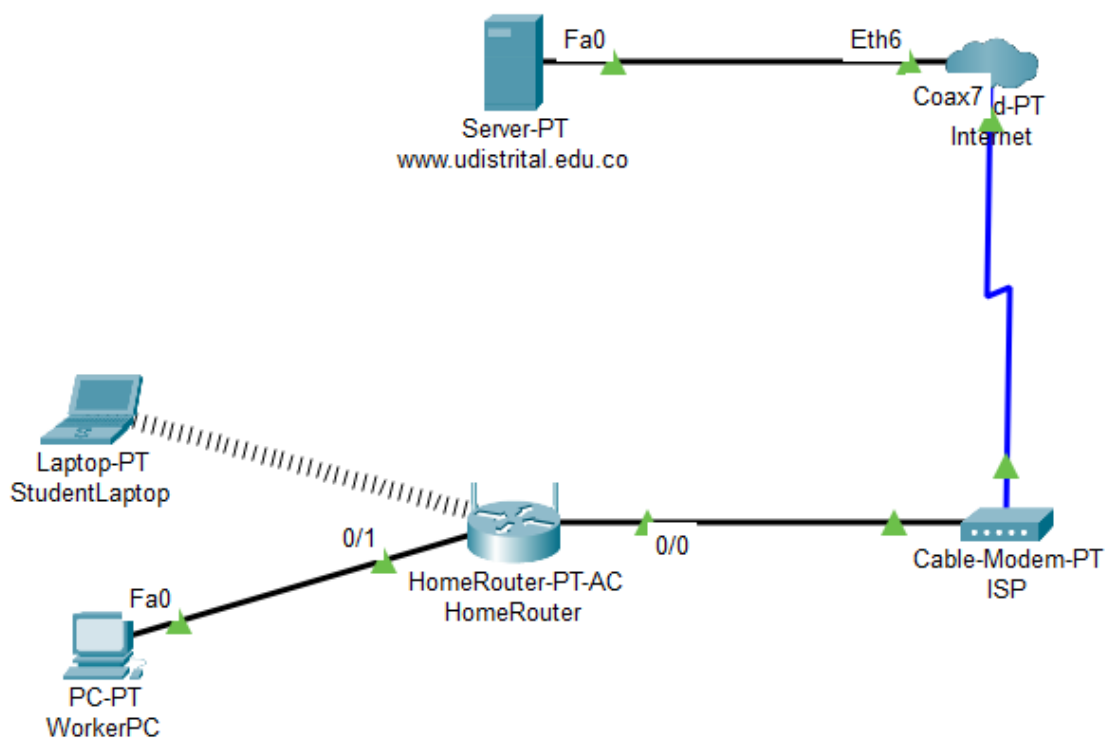
This report details the results of a networking workshop conducted using Cisco Packet Tracer. The objective of this workshop was to provide experience in designing and implementing a functional network infrastructure, utilizing a variety of networking components and concepts.

The workshop focused on the step by step construction of a network that incorporated servers, cloud connectivity, cable modems, routers, laptops, and personal computers, offering valuable insights into network architecture and configuration.

Finally, in this workshop was the successful creation of a fully functional network capable of hosting and accessing a website.

This report will provide a detailed analysis of the network design process, including technical decisions made, configuration steps taken, and the results of various tests conducted to ensure network functionality and performance. The following sections will offer an in depth look at each component of the network:

The network:



Server configurations:

www.udistrital.edu.co

Physical

Config

Services

Desktop

Programming

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Global Settings

Display Name

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway

DNS Server

Gateway/DNS IPv6

☐ Automatic

☒ Static

Default Gateway

DNS Server

☐ Top

www.udistrital.edu.co

Physical

Config

Services

Desktop

Programming

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

FastEthernet0

Port Status

Bandwidth

Duplex

MAC Address

☒ On

☐ 100 Mbps

☒ 10 Mbps

☒ Auto

☐ Half Duplex

☒ Full Duplex

☒ Auto

000C.CFE6.D768

IP Configuration

☐ DHCP

☒ Static

IPv4 Address

Subnet Mask

193.168.100.200

255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address

FE80::20C:CFFF:FEE6:D768

☐ Top

Cloud configurations:

Internet

Physical

Config

Attributes

GLOBAL

Settings

TV Settings

CONNECTIONS

Frame Relay

DSL

Cable

INTERFACE

Serial0

Serial1

Serial2

Serial3

Modem4

Modem5

Ethernet6

Coaxial7

Cable

Coaxial7

<->

Ethernet6

Port

From Port	To Port
Coaxial7	Ethernet6

Add

Remove

☐ Top

Router configurations:

HomeRouter

Physical

Config

GUI

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

Internet

LAN

Wireless 2.4G

Wireless 5G(1)

Wireless 5G(2)

Wireless Guest 2.4G

Wireless Guest 5G(1)

Wireless Guest 5G(2)

LAN Settings

IP Configuration

IPv4 Address

192.168.0.1

Subnet Mask

255.255.255.0

☐ Top

HomeRouter

Physical

Config

GUI

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

Internet

LAN

Wireless 2.4G

Wireless 5G(1)

Wireless 5G(2)

Wireless Guest 2.4G

Wireless Guest 5G(1)

Wireless Guest 5G(2)

Wireless 2.4G Settings

SSID

UD_Invitados

2.4 GHz Channel

6 - 2.437GHz

Coverage Range (meters)

20,00

Authentication

☒ Disabled

☐ WEP

☐ WPA

WEP Key

PSK Pass Phrase

☐ WPA-PSK

☐ WPA2-PSK

☐ WPA2

RADIUS Server Settings

IP Address

Shared Secret

Encryption Type

Disabled

☐ Top