

Computer Networking

Workshop No. 1 — Packet Tracer Basics



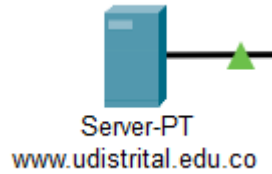
UNIVERSIDAD DISTRITAL
FRANCISCO JOSÉ DE CALDAS

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Season 2024-III

1. Have be recognized by the name www.udistrital.edu.co.



2. Have a public statis IP address, and a default gateway. In this sense, next values should be used:

- IPv4 Address: 193.168.100.200
- DNS Server: 193.168.100.200
- Default Gateway: 193.168.100.1
- Subnet Mask: 255.255.255.0

IP Configuration	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IPv4 Address	193.168.100.200
Subnet Mask	255.255.255.0

Gateway/DNS IPv4	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
Default Gateway	193.168.100.1
DNS Server	193.168.100.200

3. In HTTP services, delete all web pages but index.html. Edit this file and add a welcome message from the university (be creative, you could add a .css file if you want).

HTTP

HTTP <input checked="" type="radio"/> On <input type="radio"/> Off	HTTPS <input checked="" type="radio"/> On <input type="radio"/> Off
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File Manager

	File Name	Edit	Delete
1	index.css	(edit)	(delete)
2	index.html	(edit)	(delete)
3	logo.png		(delete)

4. In DHCP services check the service is on and add a new pool with next values:

- Pool Name: UDPool
- Default Gateway: 193.168.100.200
- DNS Server: 193.168.100.200
- Start IP Address: 193.168.100.1
- Subnet Mask: 255.255.255.0
- Maximum Users: 50

DHCP

Interface	FastEthernet0	Service	<input checked="" type="radio"/> On <input type="radio"/> Off
Pool Name	UDPool		
Default Gateway	193.168.100.200		
DNS Server	193.168.100.200		
Start IP Address :	193	168	100 1
Subnet Mask:	255	255	255 0
Maximum Number of Users :	50		
TFTP Server:	0.0.0.0		
WLC Address:	0.0.0.0		
Add		Save	Remove

5. In DNS services, check the service is on and add a new rule with next values:

- Name: www.udistrital.edu.co
- Type: A Record
- Address: 193.168.100.200

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name Type A Record ▼

Address

Add Save Remove

No.	Name	Type	Detail
0	www.udistrital.edu.co	A Record	193.168.100.200

6. You need to connect your server to the cloud. So, using a Cloud-PT called Internet using the Ethernet6 in Cable mode, to the FastEthernet0/0 of the server. Here it is important you relate into the Internet the cable relation from Coaxial7 to Ethernet6.

Ethernet6

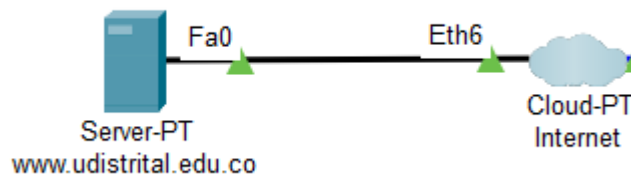
Provider Network ☒ Cable ☐ DSL

Cable

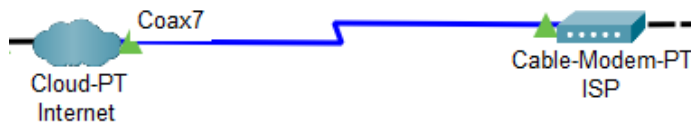
Coaxial7 ▼ <-> Ethernet6 ▼

Port Port

From Port	To Port
Coaxial7	Ethernet6



7. You need to connect a Cable-Modem-PT to the Internet. So, using a Cable-Modem-PT called ISP using the Port0 to the Coaxial7 of the internet.



8. As you want to test any student could reach the university website, it is necessary to run some tests since your home. So, you contact the ISP and ask for a internet service at home. They give you a wireless router called HomeRouter with the following values:

- IPv4 LAN Address: 192.168.0.1
 - LAN Subnet Mask: 255.255.255.0
 - Wireless SSID: UD_Invitados
 - Coverage Range (meters): 20
- You need to connect the HomeRouter to the ISP.

Wireless 2.4G Settings	
SSID	UD_Invitados
2.4 GHz Channel	6 - 2.437GHz
Coverage Range (meters)	20,00
Authentication <input checked="" type="radio"/> Disabled <input type="radio"/> WEP WEP Key <input type="text"/> <input type="radio"/> WPA-PSK <input type="radio"/> WPA2-PSK PSK Pass Phrase <input type="text"/> <input type="radio"/> WPA <input type="radio"/> WPA2	
RADIUS Server Settings	
IP Address	<input type="text"/>
Shared Secret	<input type="text"/>
Encryption Type	Disabled

9. At home, you have a PC-PT called WorkerPC with the following values:

- IPv4 Address: DHCP 6.

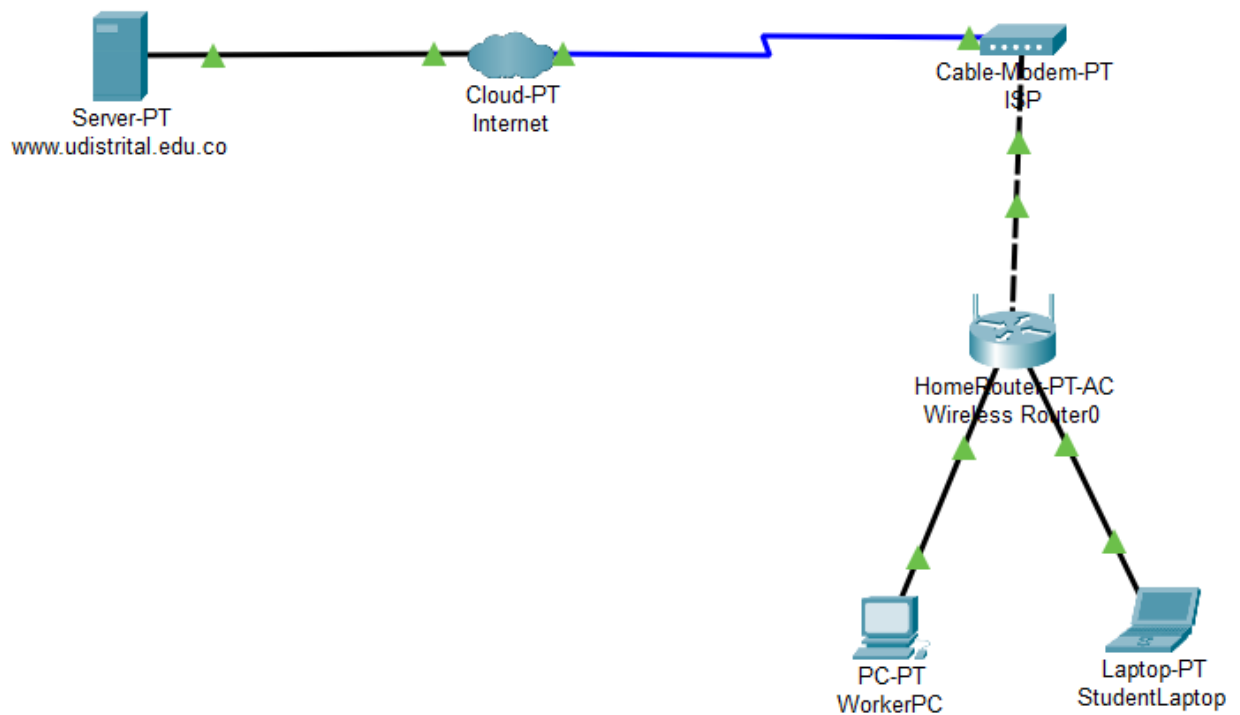
Also, you have a Laptop-PT called StudentLaptop with the following values:

- IPv4 Address: DHCP • Wireless Network: UD_Invitados

Global Settings	
Display Name	WorkerPC
Interfaces	FastEthernet0
Gateway/DNS IPv4 <input checked="" type="radio"/> DHCP <input type="radio"/> Static Default Gateway <input type="text" value="192.168.0.1"/> DNS Server <input type="text" value="193.168.100.200"/>	
Gateway/DNS IPv6 <input type="radio"/> Automatic <input checked="" type="radio"/> Static Default Gateway <input type="text"/> DNS Server <input type="text"/>	

To test the network, you need to access to a web browser in the StudentLaptop and type the URL `www.udistrital.edu.co`. Same test should be done in the WorkerPC. The result should be the university home page you created into the server.

Topology



Technical Decisions

The significant change to the workshop step-by-step was the creation of index.css and the use of images within the html for visual enhancement.

Results

