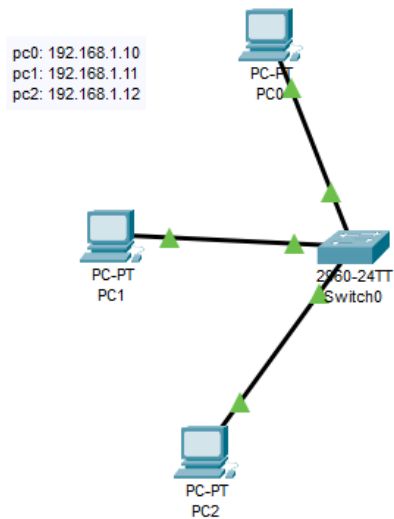


## Laboratorio 15

En el laboratorio usando packet tracer realizaremos las siguientes conexiones:  
Ethernet, Wifi, Fibra Óptica y Bluetooth



PC0

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address: 192.168.1.10

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address: /

Link Local Address: FE80::290:CFF:FEA0:E518

Default Gateway:

DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

```

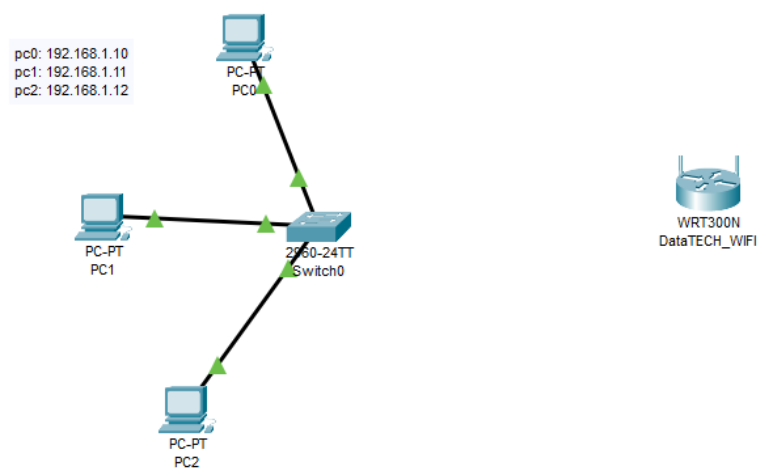
C:\>ping 192.168.1.11

Pinging 192.168.1.11 with 32 bytes of data:

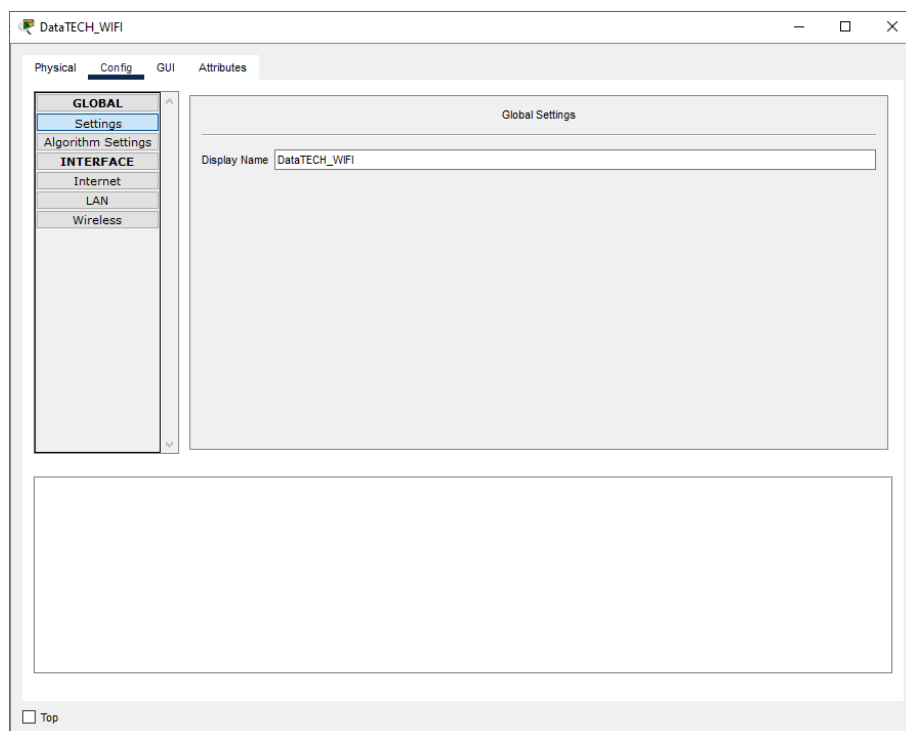
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time=7ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 7ms, Average = 1ms

```



Ahora realizaremos conexiones usando WIFI:



DataTECH\_WIFI

Physical

Config

GUI

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

Internet

LAN

Wireless

Wireless Settings

SSIDDefault

2.4 GHz Channel6 - 2.437GHz

Coverage Range (meters)250.00

Authentication

☐ Disabled

☐ WEP

☐ WPA-PSK

☒ WPA2-PSK

☐ WPA

WEP Key

PSK Pass Phrase12345678

RADIUS Server Settings

IP Address

Shared Secret

Encryption TypeAES

Top

DataTECH\_WIFI

Physical

Config

GUI

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

Internet

LAN

Wireless

LAN Settings

IP Configuration

IPv4 Address192.168.1.1

Subnet Mask255.255.255.0

Top

Laptop-PT  
Laptop0

WRT300N  
DataTECH\_WIFI

Laptop-PT  
Laptop1

MODULES

WPC300N

PT-LAPTOP-NM-1AM

PT-LAPTOP-NM-1CE

PT-LAPTOP-NM-1CFE

PT-LAPTOP-NM-1CGE

PT-LAPTOP-NM-1FFE

PT-LAPTOP-NM-1FGE

PT-LAPTOP-NM-1W

PT-LAPTOP-NM-1W-A

PT-LAPTOP-NM-1W-AC

PT-LAPTOP-NM-3G/4G

PT-HEADPHONE


PT-MICROPHONE

Physical Device View

Zoom In

Original Size

Zoom Out

The image shows the physical device view of the WPC300N module. It is a small, dark-colored electronic component with various ports and connectors. A red circle highlights the USB port on the right side of the device.

Laptop0

Physical **Config** Desktop Programming Attributes

**GLOBAL**

Settings

Algorithm Settings

**INTERFACE**

Wireless0

Bluetooth

Wireless0

Port Status ☒ On

Bandwidth 11 Mbps

MAC Address 0010.1110.8D24

SSID Default

Authentication

☒ Disabled ☐ WEP ☐ WPA-PSK ☐ WPA2-PSK ☐ WPA ☐ WPA2 ☐ 802.1X

WEP Key

PSK Pass Phrase

User ID

Password

Method: MD5

User Name

Password

Encryption Type Disabled

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.2

Subnet Mask 255.255.255.0

IPv6 Configuration

☒ Automatic ☐ Static

IPv6 Address

Link Local Address: FE80::210:11FF:FE10:8D24

☐ Top

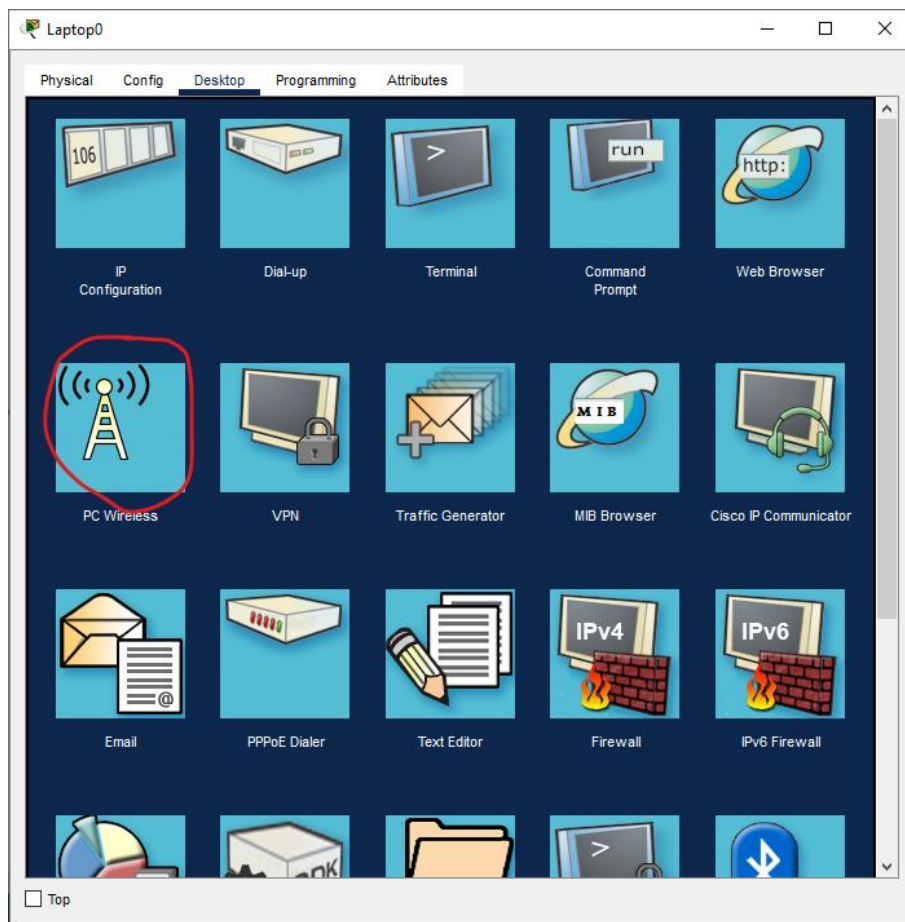
IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.3

Subnet Mask 255.255.255.0

Ahora se conectará la laptop a la conexión inalámbrica.



Laptop0

PhysicalConfigDesktopProgrammingAttributes

Link InformationConnectProfiles

Below is a list of available wireless networks. To search for more wireless networks, click the **Refresh** button. To view more information about a network, select the wireless network name. To connect to that network, click the **Connect** button below.

Wireless Network Name	CH	Signal
Default	1	100%

Site Information

Wireless ModeInfrastructure

Network TypeMixed B/G/N

Radio BandAuto


SecurityWPA2-PSK

MAC Address0009.7C84.3806

Refresh

Connect

2.4GHz



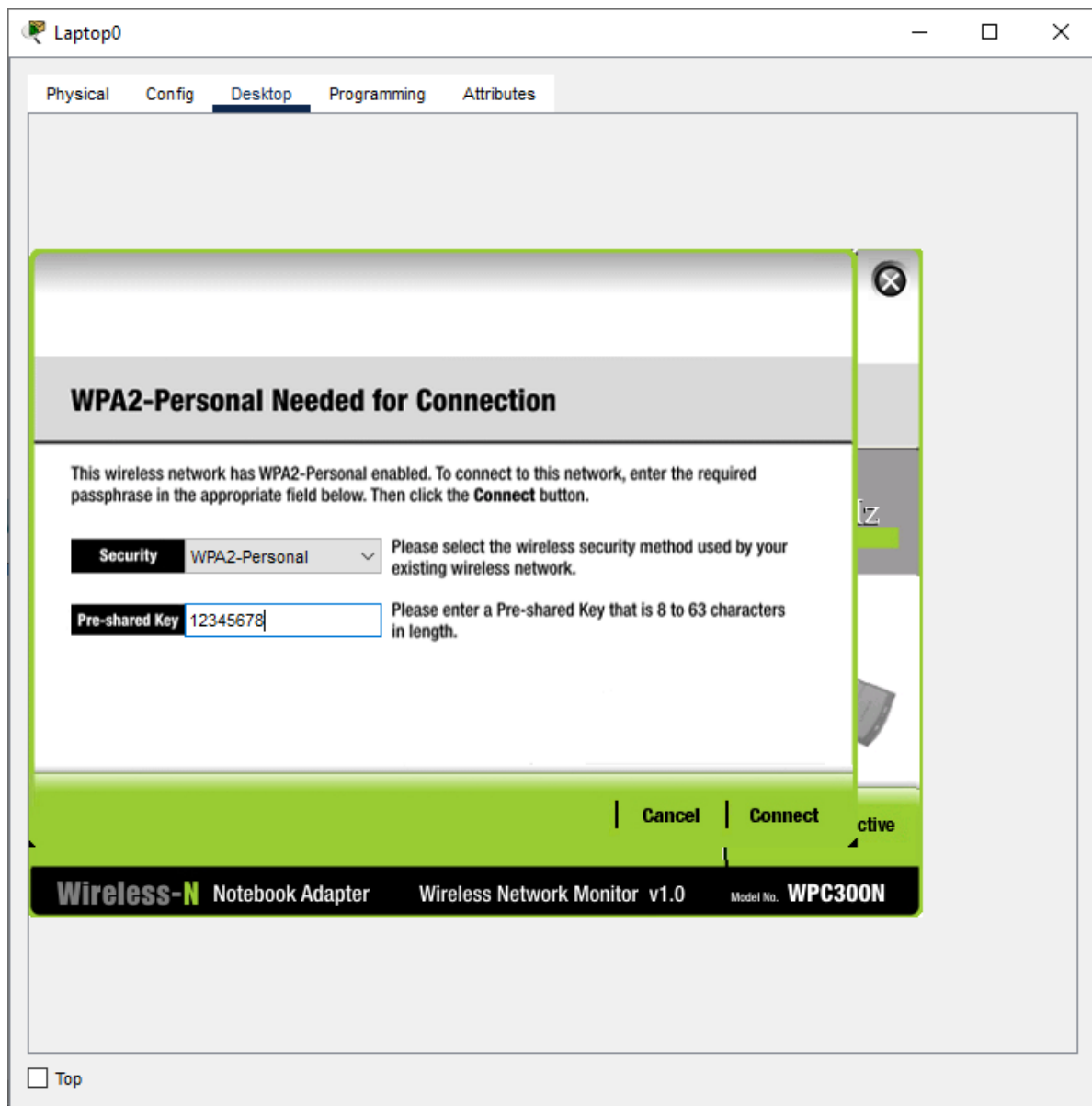
Adapter is Inactive

Wireless-N Notebook Adapter

Wireless Network Monitor v1.0

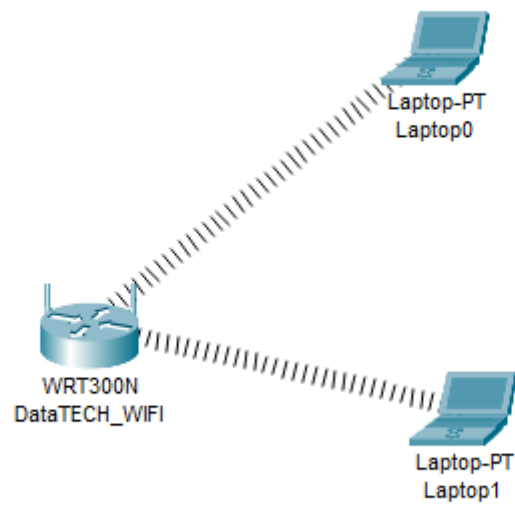
Model No. WPC300N

☐ Top



Luego se repite el proceso con el otro laptop, nos quedaría el siguiente resultado.





Revisamos que están conectados a la red usando el comando ping en el Command Promp de la laptop

```
Laptop0
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>
ping 192.168.1.3

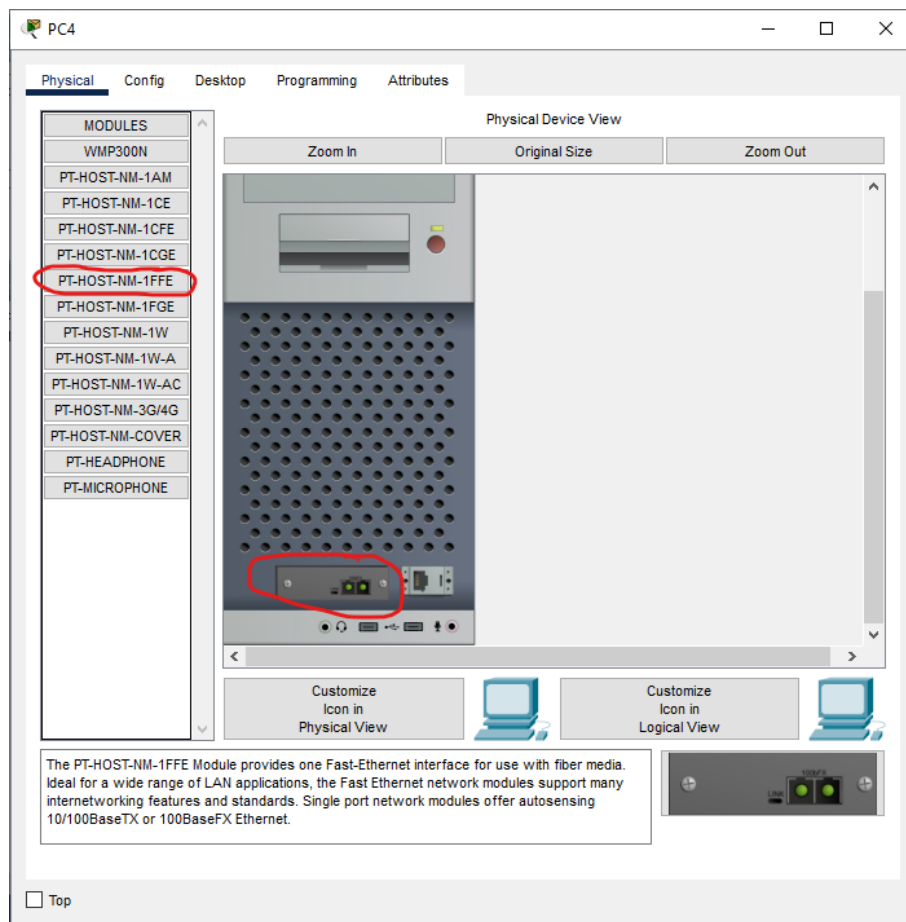
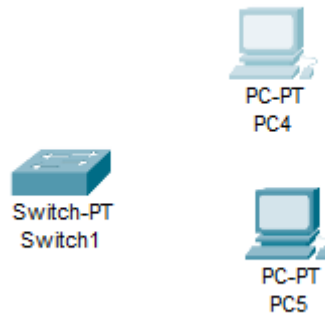
Pinging 192.168.1.3 with 32 bytes of data:

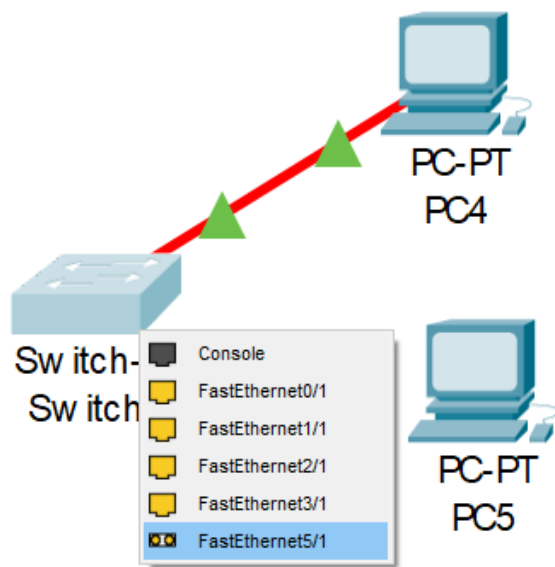
Reply from 192.168.1.3: bytes=32 time=27ms TTL=128
Reply from 192.168.1.3: bytes=32 time=21ms TTL=128
Reply from 192.168.1.3: bytes=32 time=11ms TTL=128
Reply from 192.168.1.3: bytes=32 time=15ms TTL=128

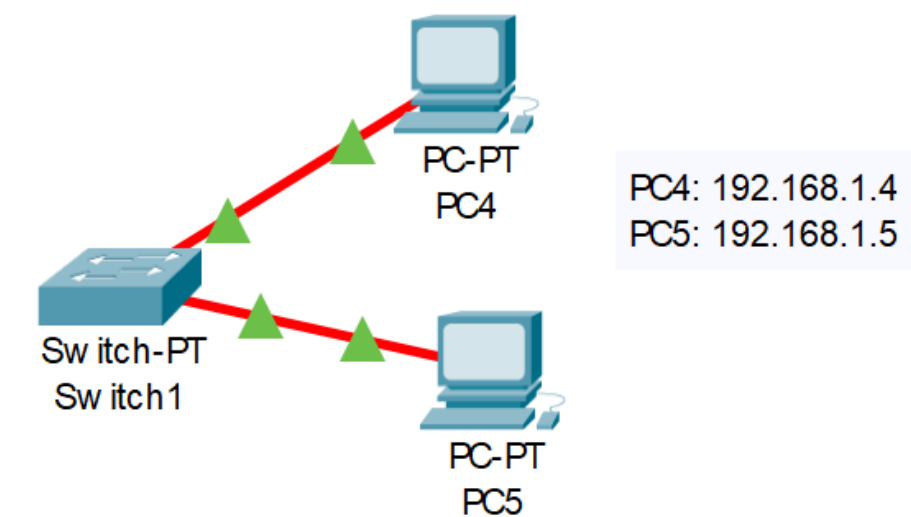
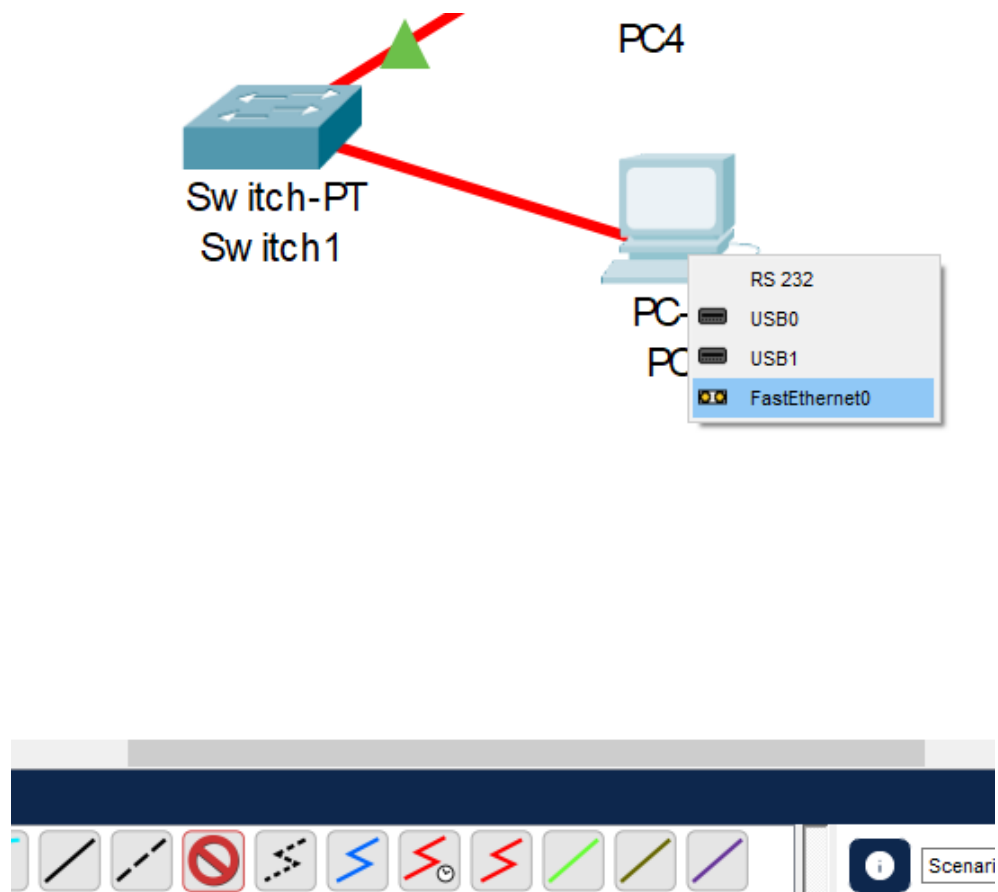
Ping statistics for 192.168.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 11ms, Maximum = 27ms, Average = 18ms

C:\>|
```

Después de terminar de configurar el router y las laptops, creamos un Switch y 2 computadores para realizar conexiones usando fibra óptica.







IP Configuration

☐ DHCP

☒ Static

IPv4 Address: 192.168.1.4

Subnet Mask: 255.255.255.0

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.1.5

Subnet Mask 255.255.255.0

PC4

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>
ipconfig

Bluetooth Connection:(default port)

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: ::
IPv6 Address.....: ::
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::
0.0.0.0

FastEthernet0 Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: FE80::205:SEFF:FE37:D2AA
IPv6 Address.....: ::
IPv4 Address.....: 192.168.1.4
Subnet Mask.....: 255.255.255.0
Default Gateway.....: ::
0.0.0.0

C:\>ping 192.168.1.5

Pinging 192.168.1.5 with 32 bytes of data:

Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

☐ Top

Ahora se realizarán unas conexiones por Bluetooth

Laptop2

Physical

Config

Desktop

Programming

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

Bluetooth

Port Status

☒ On

MAC Address

00E0.B065.2CD6

Coverage Range (meters)

10,00

Discoverable

☒ On

Devices

Name	MAC Address	Status
------	-------------	--------

Discover

Pair

Unpair

Tether

Untether

Beacon Broadcasting

Broadcast

☐ On

Frequency (seconds)

10

UUID

{d423883c-b8d0-437d-9c68-254a330910cc}

Data

IP Configuration

IPv4 Address

Subnet Mask

☐ Top

Laptop3

Physical

Config

Desktop

Programming

Attributes

Bluetooth Configuration

Port Status

☒ On

MAC Address

0003.E482.63A4

Coverage Range (meters)

10,00

Discoverable

☒ On

Devices

Name	MAC Address	Status
Laptop2	00E0.B065.2CD6	Unpaired

Discover

Pair

Unpair

Tether

Untether

Beacon Broadcasting

Broadcast

☐ On

Frequency (seconds)

10

UUID

{d405532c-abc1-42ae-b41b-2b04c7eb4412}

Data

IP Configuration

IP Address

Subnet Mask

☐ Top

Laptop3

Physical Config **Desktop** Programming Attributes

**Bluetooth Configuration** X

Port Status ☒ On

MAC Address 0003.E482.63A4

Coverage Range (meters) 10,00

Discoverable ☒ On

Devices

Name	MAC Address	Status
Laptop2	00E0.B065.2CD6	Unpaired

Discover **Pair** Unpair Tether Untether

Beacon Broadcasting

Broadcast ☐ On

Frequency (seconds) 10

UUID {d405532c-abc1-42ae-b41b-2b04c7eb4412}

Data

IP Configuration

IP Address

Subnet Mask

☐ Top

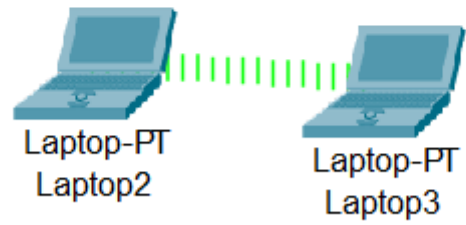
Bluetooth Pairing X

? Laptop3 (0003.E482.63A4) wants to pair with Laptop2 on Bluetooth. Do you want to pair?

Yes No



## Bluetooth



## Resultado

