

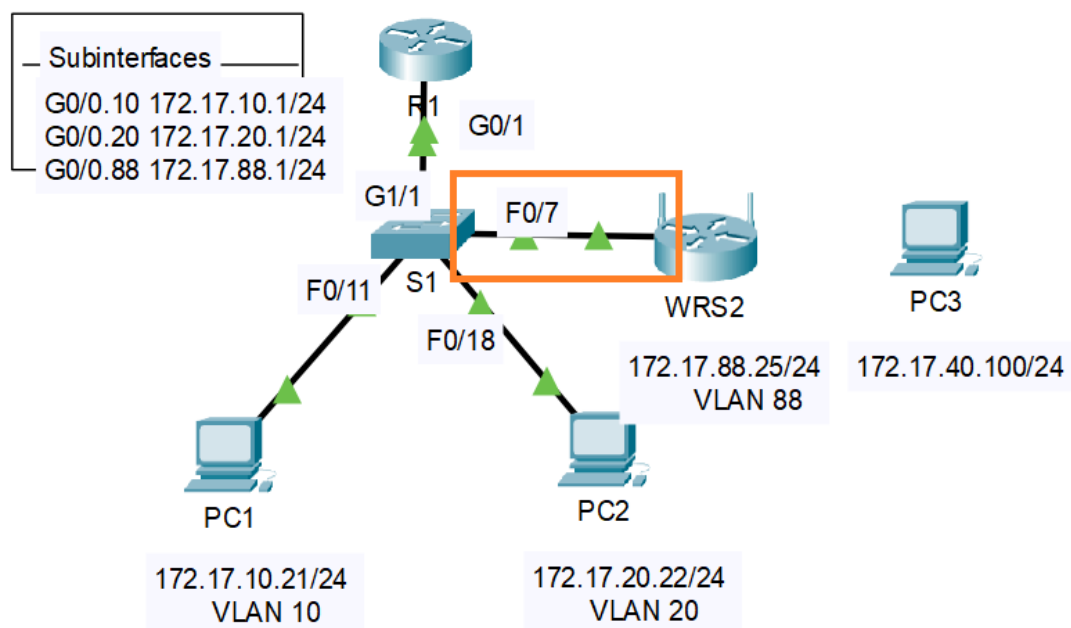
# LAB 6

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MSSV	23520161
Lớp	IT005.P13.2

## Phần 1: Cấu hình thiết bị mạng không dây

### Bước 1: Kết nối thiết bị mạng không dây vào mô hình

- Sử dụng cáp thẳng (Copper Straight-through) để kết nối từ cổng Internet của wireless router đến cổng Fa0/7 của switch



### Bước 2: Cấu hình cơ bản

- Cấu hình phần Internet connection

WRS2

Physical Config **GUI** Attributes

Wireless-N Broadband Router Firmware Version: v0.93.3

**Setup** Setup **Wireless** Security Access Restrictions Applications & Gaming Administration Status

Basic Setup DDNS MAC Address Clone Advanced Routing

**Internet Setup**

Internet Connection type: Static IP

Internet IP Address: 172 . 17 . 88 . 25

Subnet Mask: 255 . 255 . 255 . 0

Default Gateway: 172 . 17 . 88 . 1

DNS 1: 0 . 0 . 0 . 0

DNS 2 (Optional): 0 . 0 . 0 . 0

DNS 3 (Optional): 0 . 0 . 0 . 0

Optional Settings (required by some internet service providers)

Host Name:

Domain Name:

MTU: Size: 1500

**Network Setup**

Router IP: IP Address: 192 . 168 . 0 . 1

Subnet Mask: 255.255.255.0

DHCP Server: ☐ Enabled ☒ Disabled

DHCP Reservation

Start IP Address: 192.168.0.100

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- Cấu hình phần Network Setup

WRS2

Physical Config **GUI** Attributes

Optional Settings (required by some internet service providers)

Host Name:

Domain Name:

MTU:  Size: 1500

**Network Setup**

Router IP

IP Address:  172  17  40  1

Subnet Mask:  255.255.255.0

DHCP Server Settings

DHCP Server: ☒ Enabled ☐ Disabled

Start IP Address:  172.17.40.100

Maximum number of Users:  50

IP Address Range: 172.17.40.100 - 149

Client Lease Time:  0 minutes (0 means one day)

Static DNS 1:  0  0  0  0

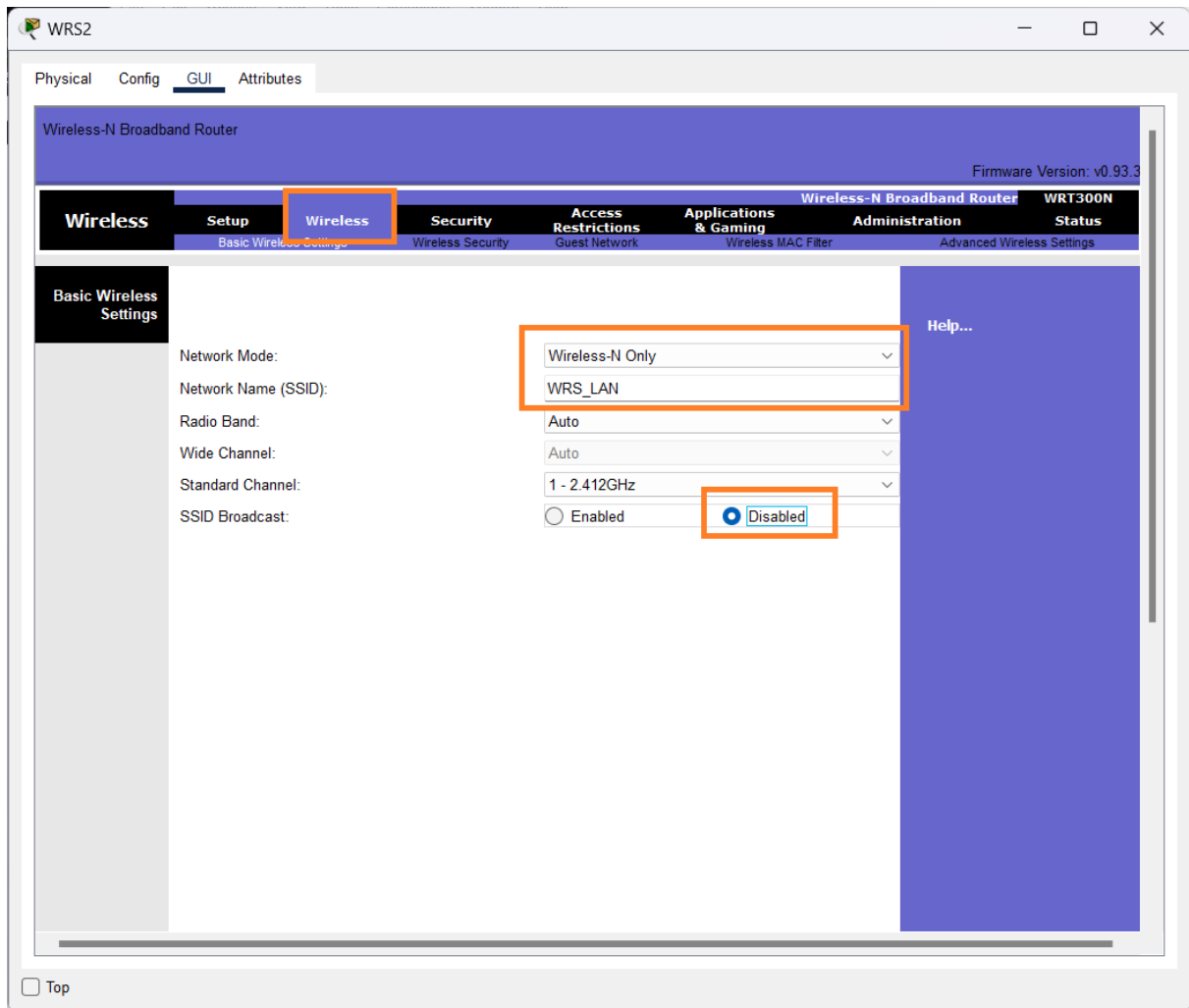
Static DNS 2:  0  0  0  0

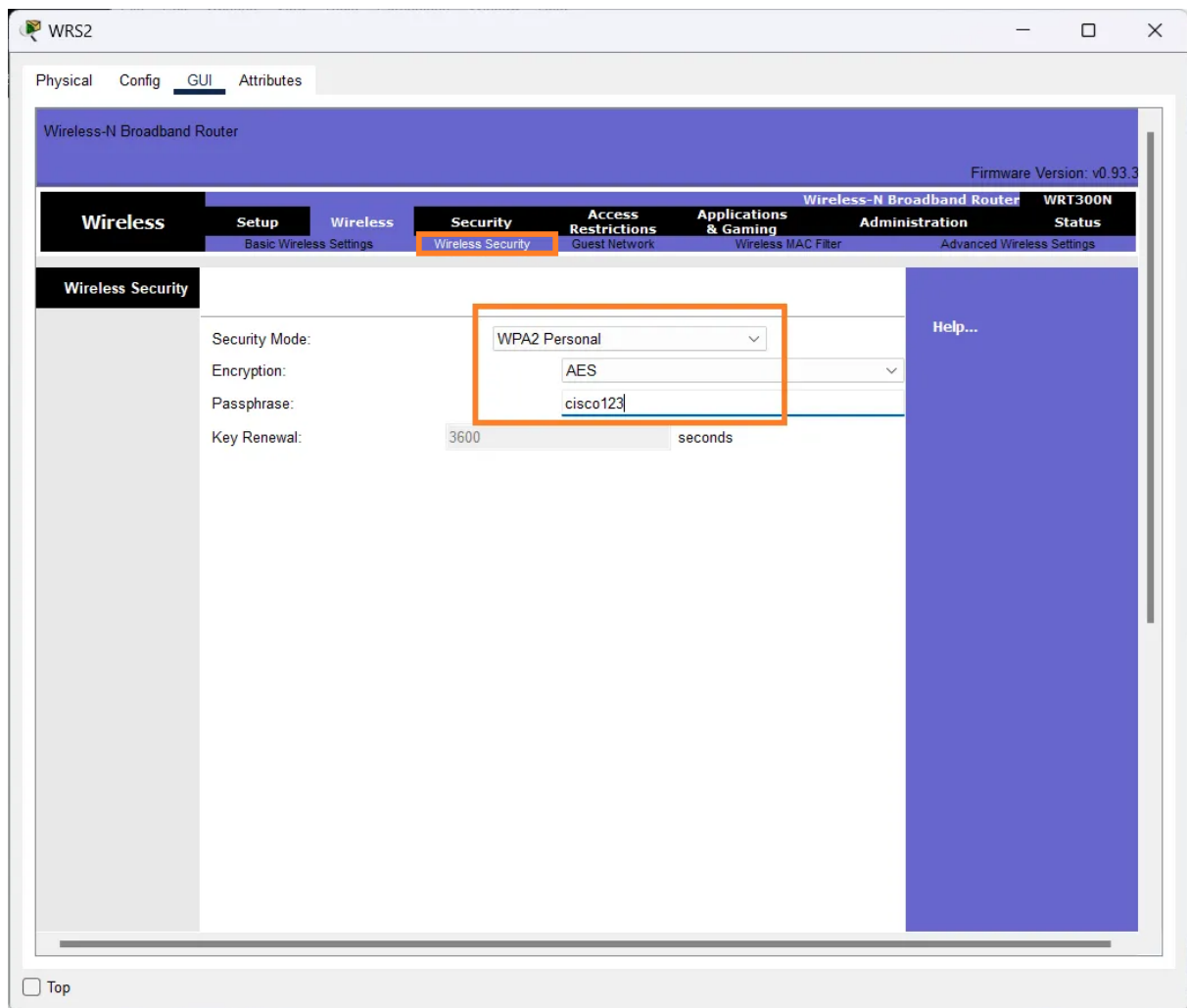
Static DNS 3:  0  0  0  0

WINS:  0  0  0  0

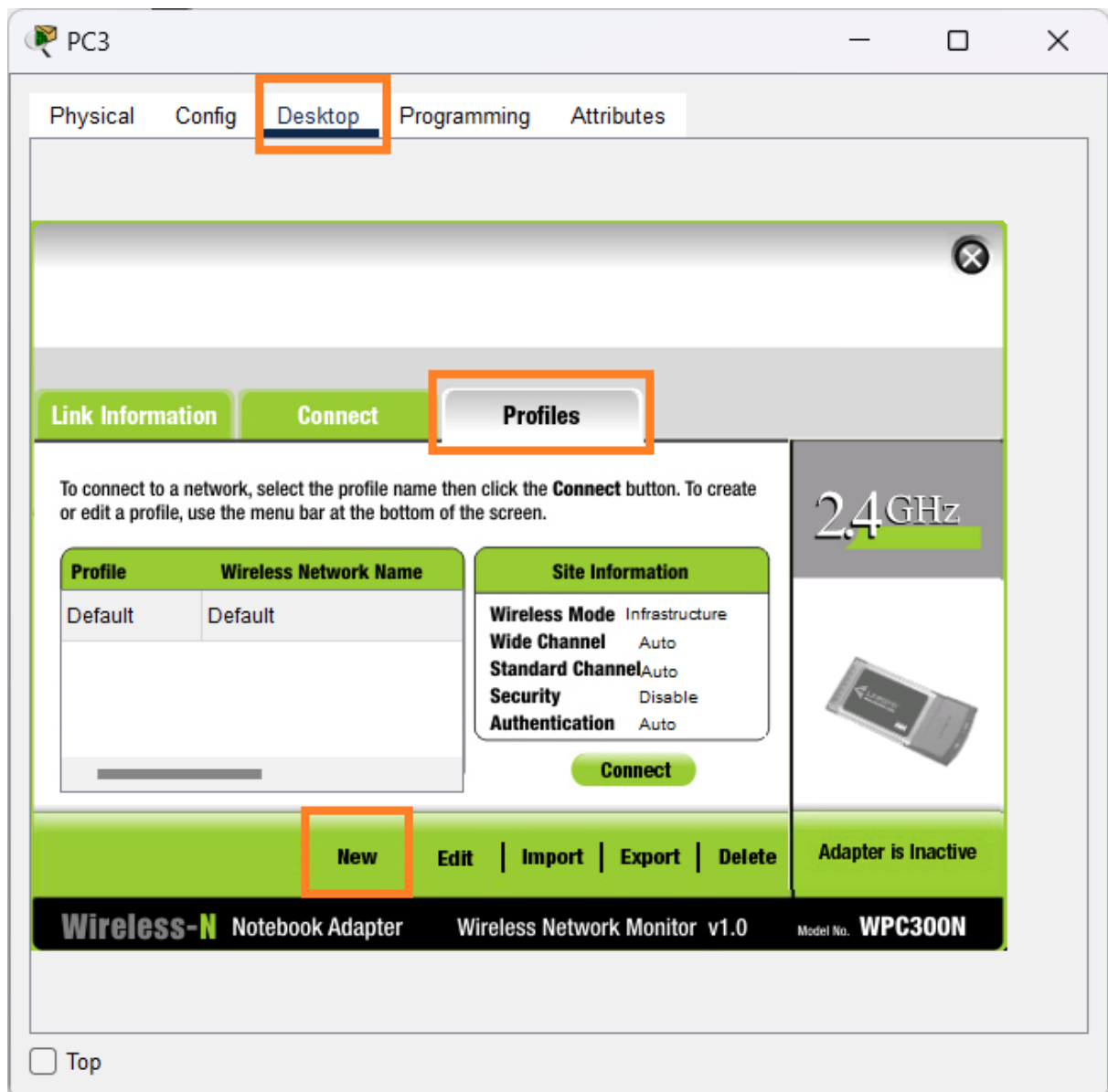
☐ Top

### Bước 3: Cấu hình truy cập và bảo mật

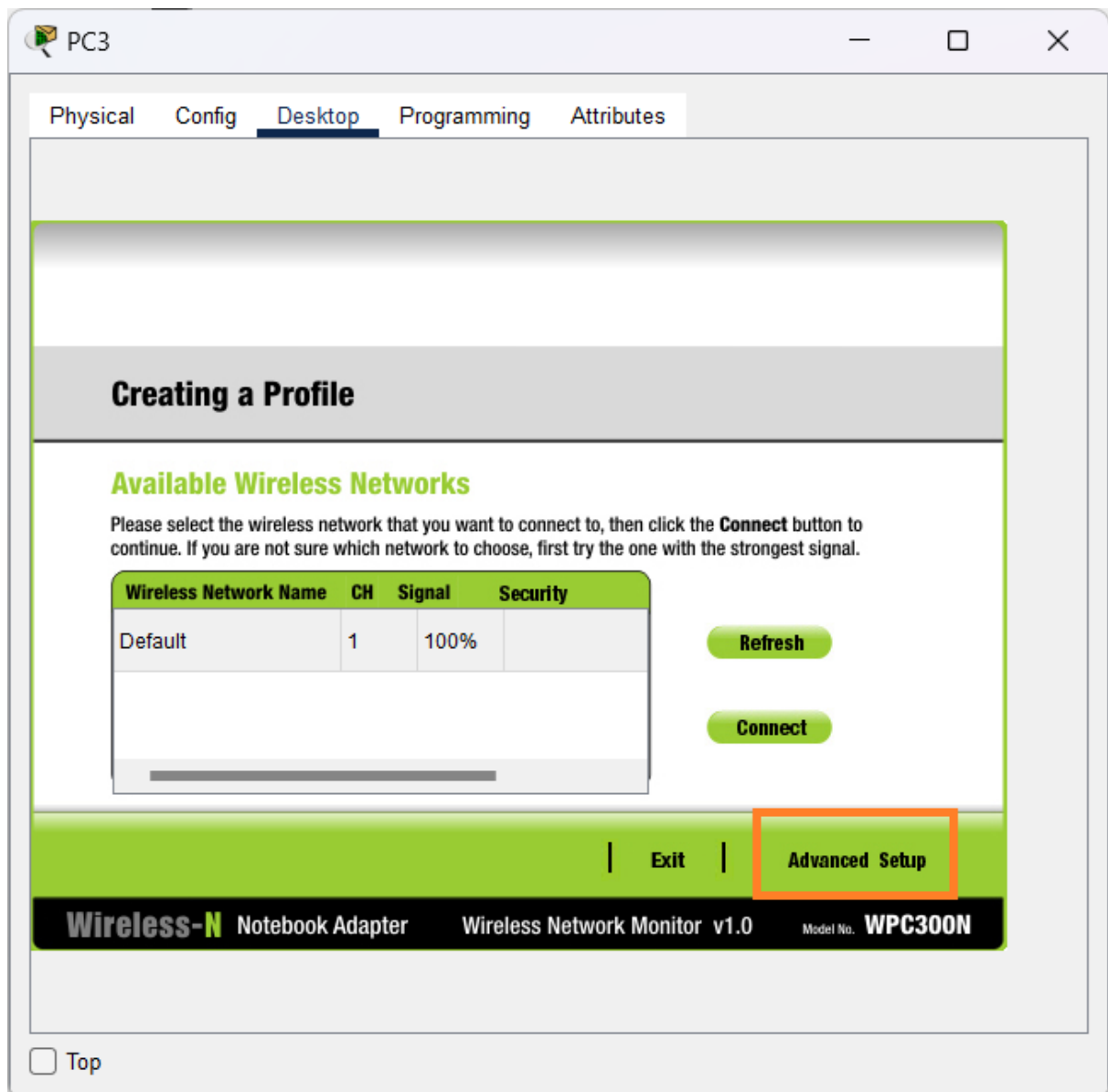




## Bước 4: Cấu hình Wireless Client



Đặt tên **Wireless Access**



PC3

PhysicalConfigDesktopProgrammingAttributes

Creating a Profile

Wireless Mode

Please choose the Wireless Mode that best suits your needs.

☒ Infrastructure Mode

Select Infrastructure Mode if you want to connect to a wireless router or access point.

☐ Ad-Hoc Mode

Select Ad-Hoc Mode if you want to connect to another wireless device directly without using a wireless router or access point.

Please enter the wireless network name (SSID) for your wireless network.

The wireless network name is shared by all devices in a wireless network and is case-sensitive.

Wireless Network Name

Wireless Network

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Wireless-N Notebook Adapter

Wireless Network Monitor v1.0

Model No. WPC300N

☐ Top



PC3

PhysicalConfigDesktopProgrammingAttributes

Creating a Profile

Network Settings

☒ Obtain network settings automatically (DHCP)  
Select this option to have your network settings assigned automatically.

☐ Specify network settings  
Select this option to specify the network settings for the adapter.

IP Address

DNS 1

Subnet Mask

DNS 2

Default Gateway

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Wireless-N Notebook AdapterWireless Network Monitor v1.0Model No. WPC300N

☐ Top

PC3

PhysicalConfigDesktopProgrammingAttributes

Creating a Profile

Wireless Security

Security

WPA2-Personal

Please select the wireless security method used by your existing wireless network.

**WEP** stands for Wired Equivalent Privacy.  
**WPA-Personal**, also known as Pre-shared Key, is a security standard stronger than WEP encryption.  
**WPA2-Personal** is the newer version with stronger encryption than WPA-Personal.  
**WPA-Enterprise, WPA2-Enterprise** and **RADIUS** use Remote Authentication Dial-In User Service (RADIUS).

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Wireless-N Notebook Adapter

Wireless Network Monitor v1.11

Model No. WPC300N

☐ Top

PC3

Physical Config **Desktop** Programming Attributes

### Creating a Profile

#### Wireless Security - WPA2 Personal

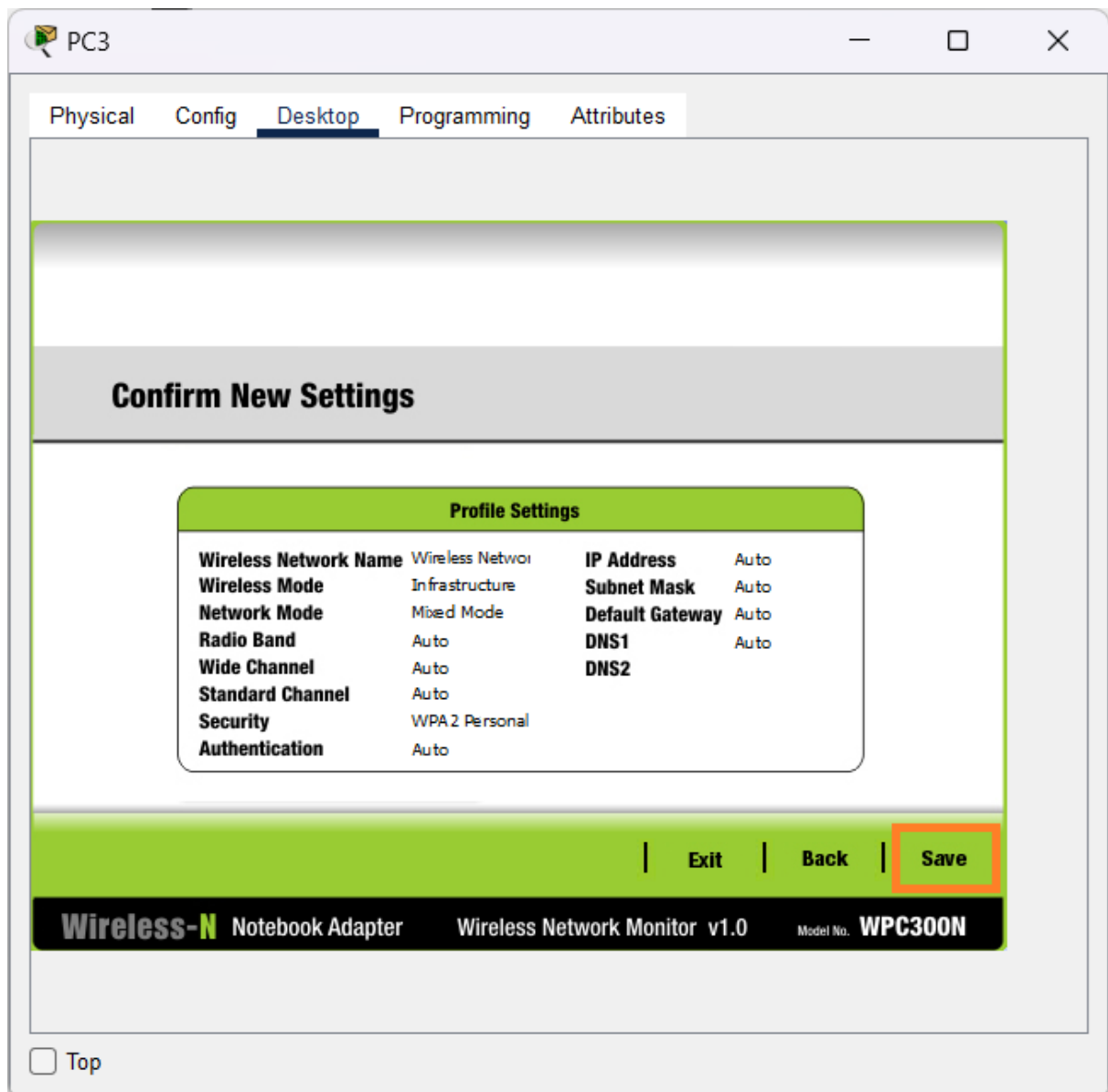
**Pre-shared Key**  Please enter a Pre-shared Key that is 8 to 63 characters in length.

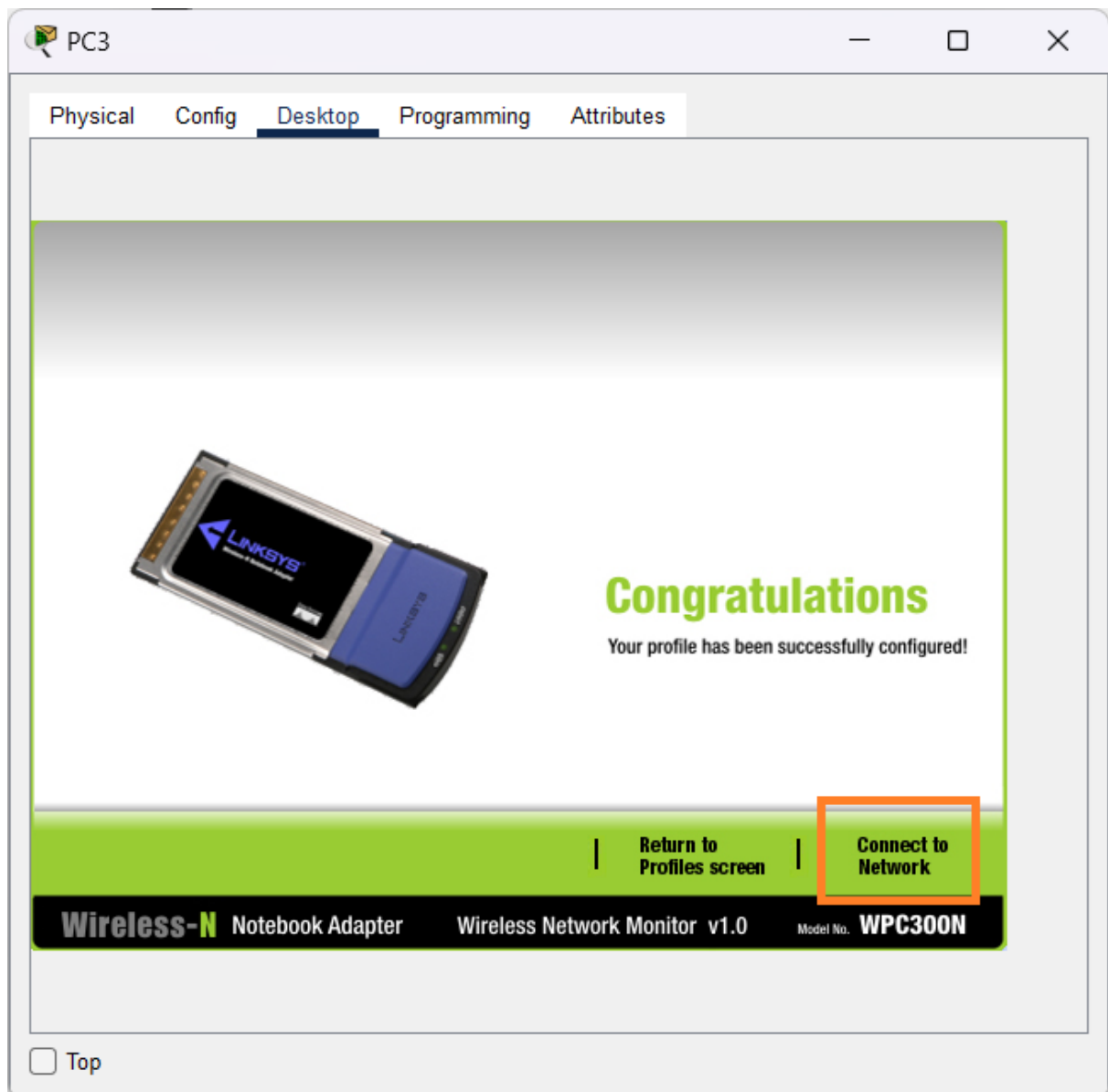
[Back](#) | [Next](#)

**Wireless-N** Notebook Adapter Wireless Network Monitor v1.11 Model No. **WPC300N**

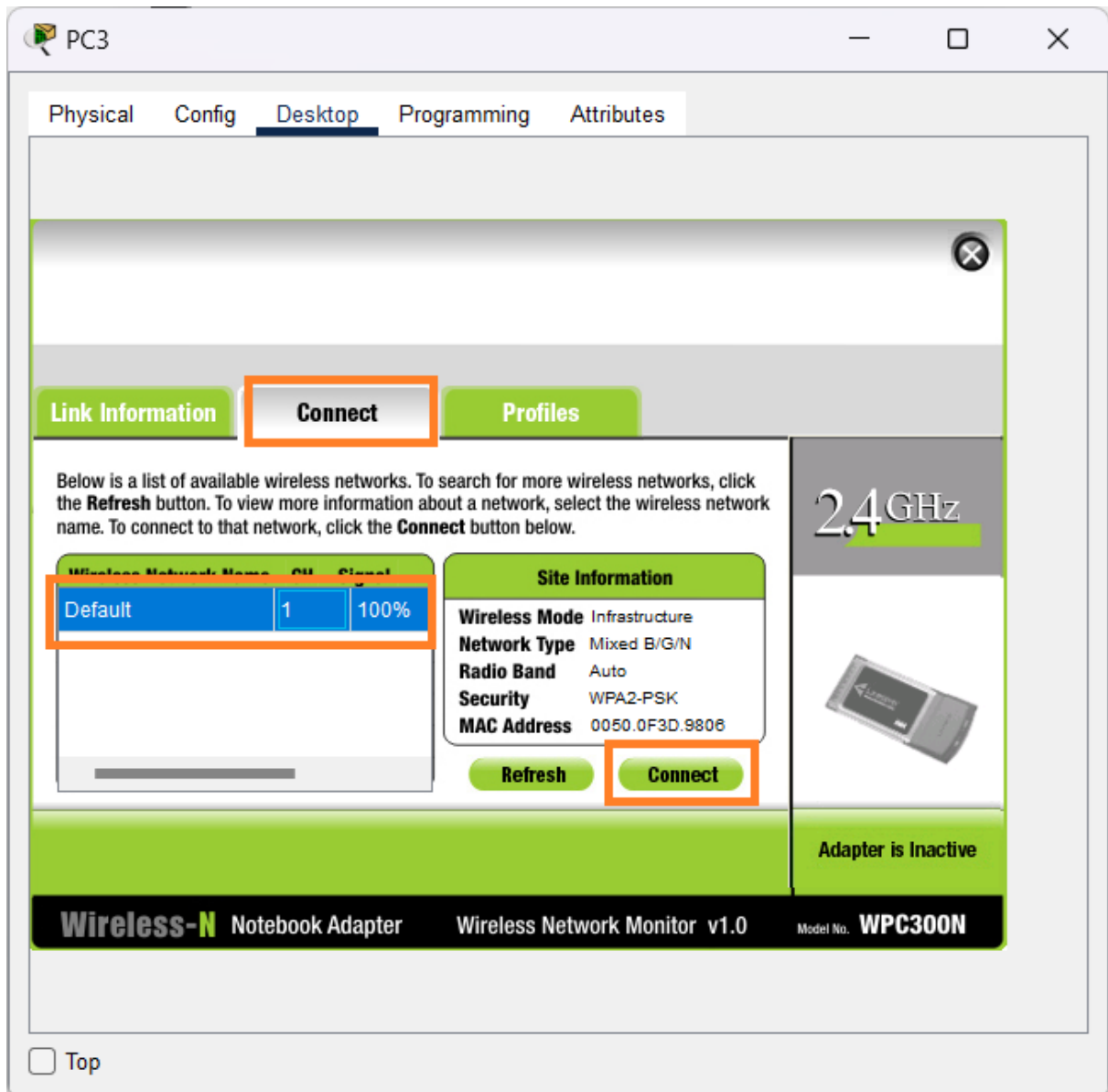
☐ Top

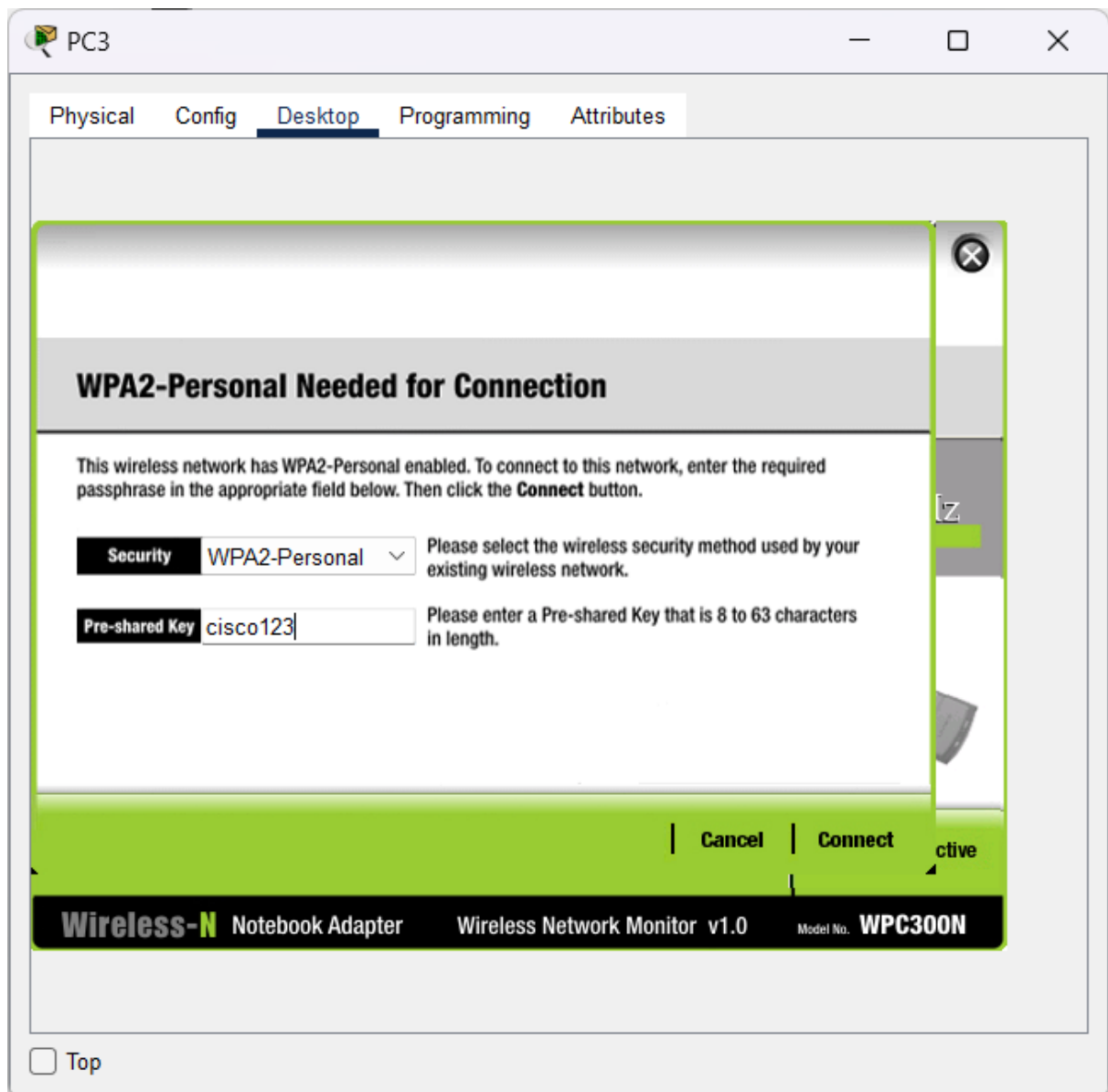
Nhập **cisco123**





- Kết nối vào mạng (nếu chưa kết nối được)





Nhập **cisco123**

## Bước 5: Kiểm tra kết nối



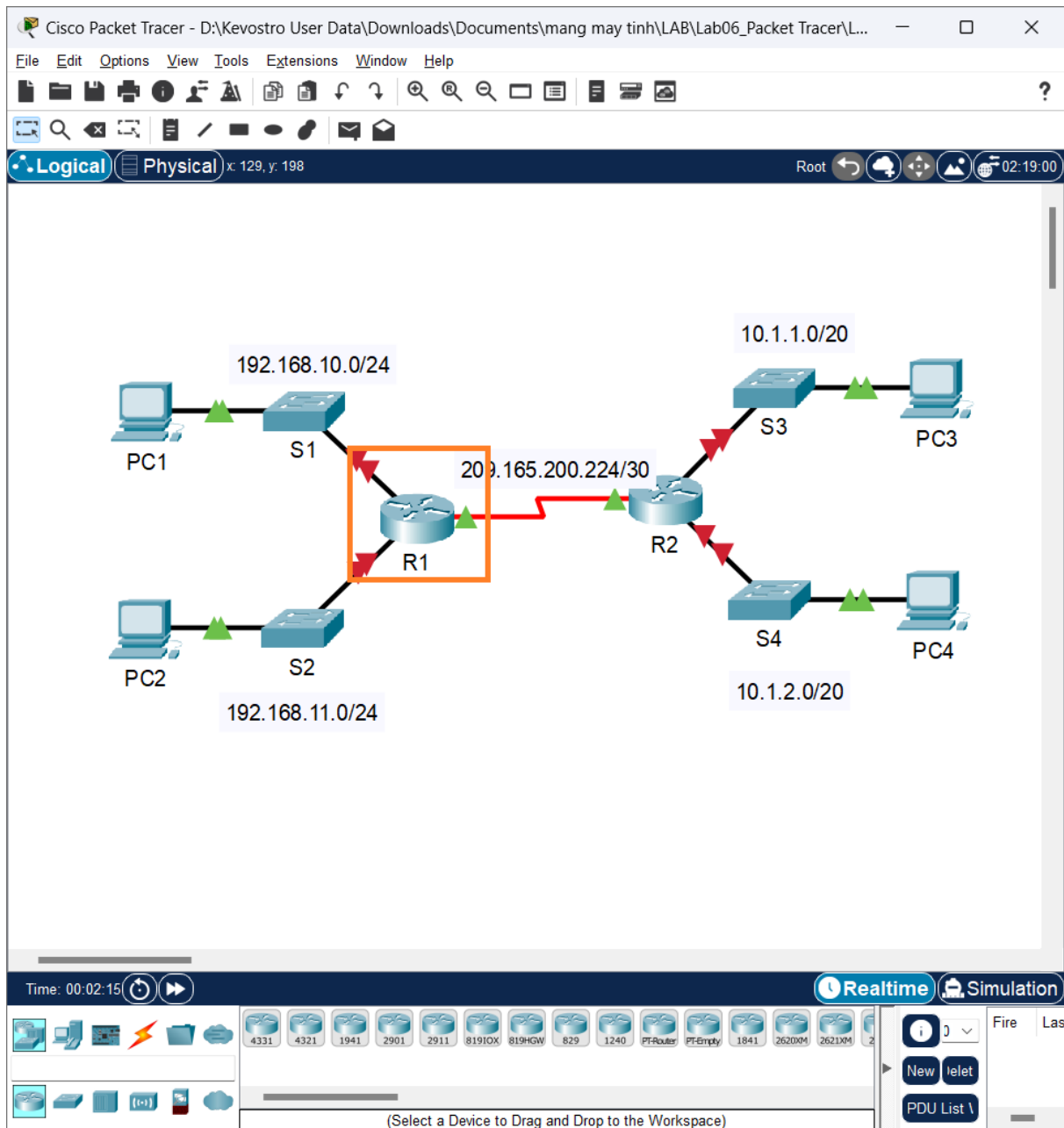
- More information

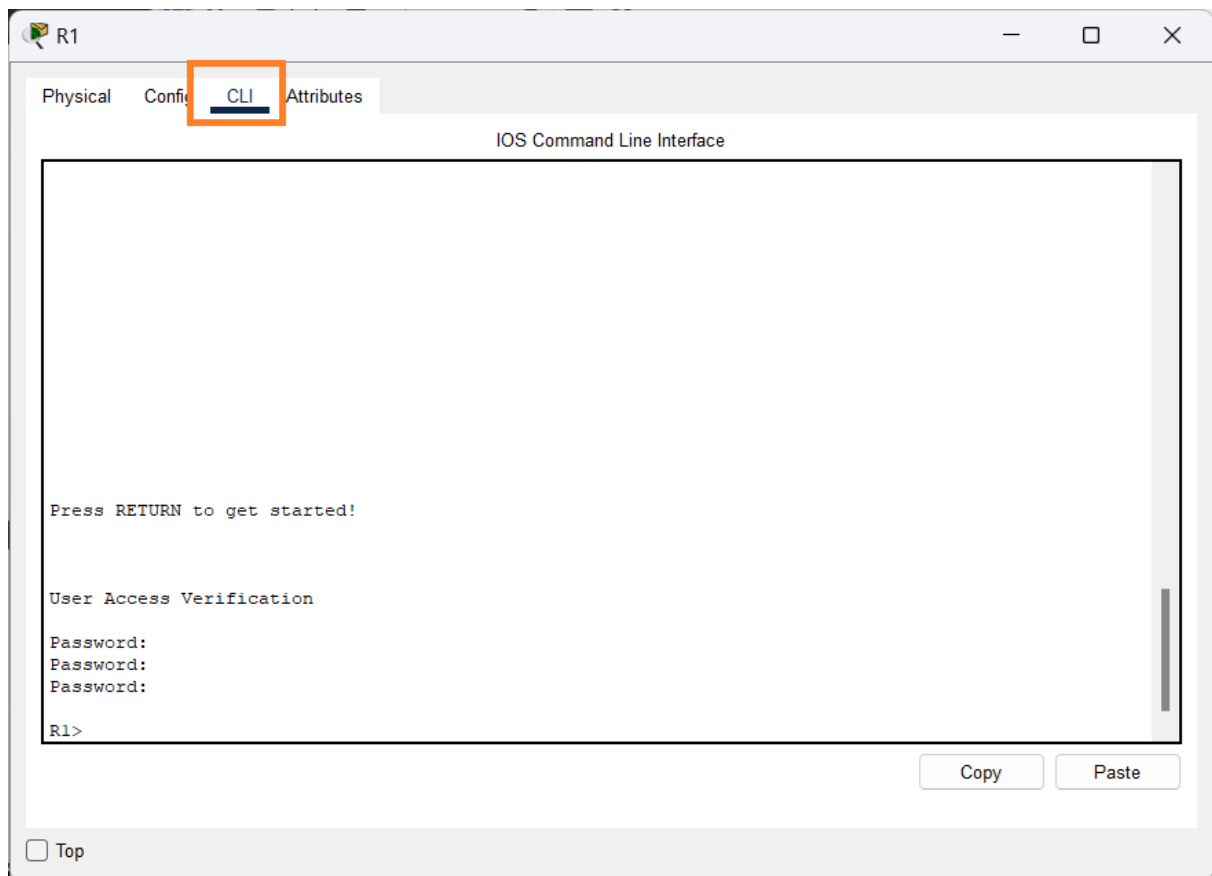




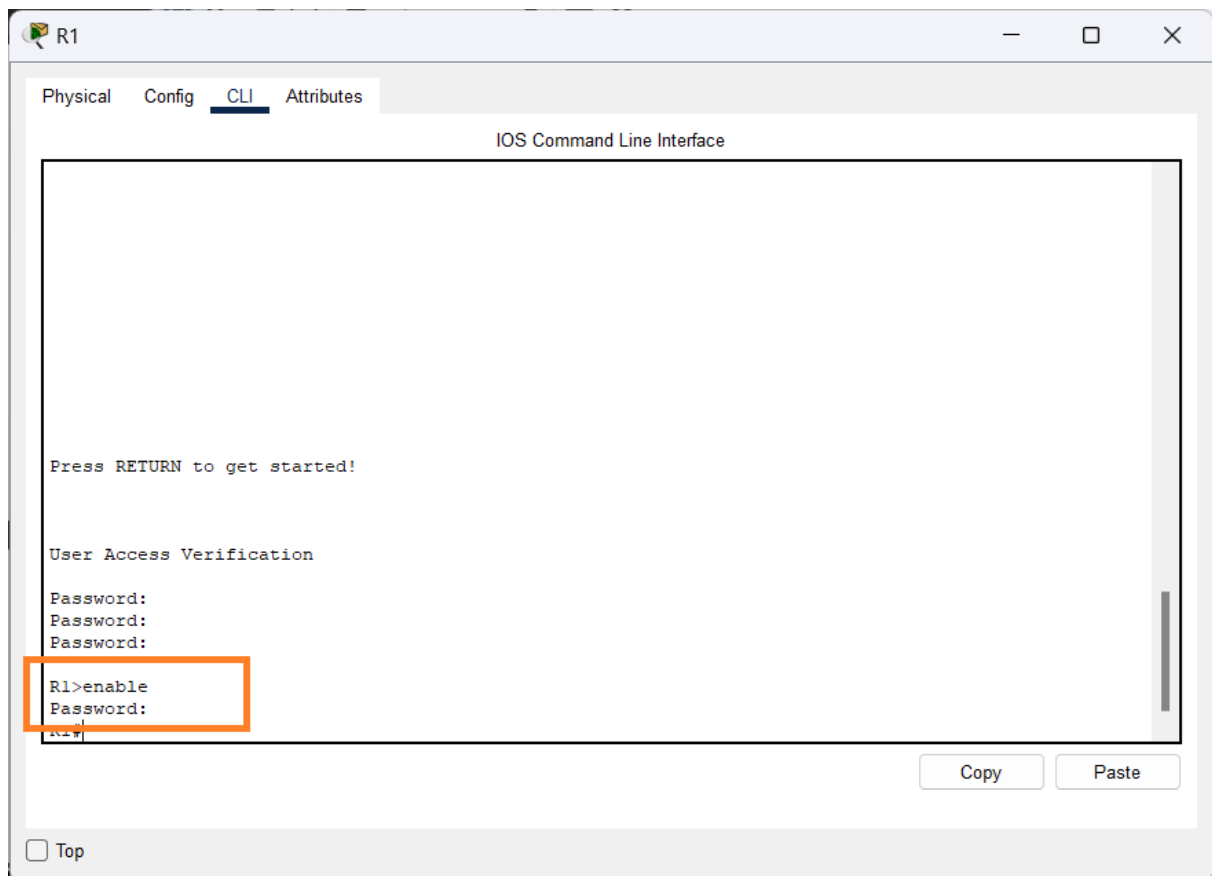
## Phần 2: Cấu hình địa chỉ IP trên router

### Cấu hình R1

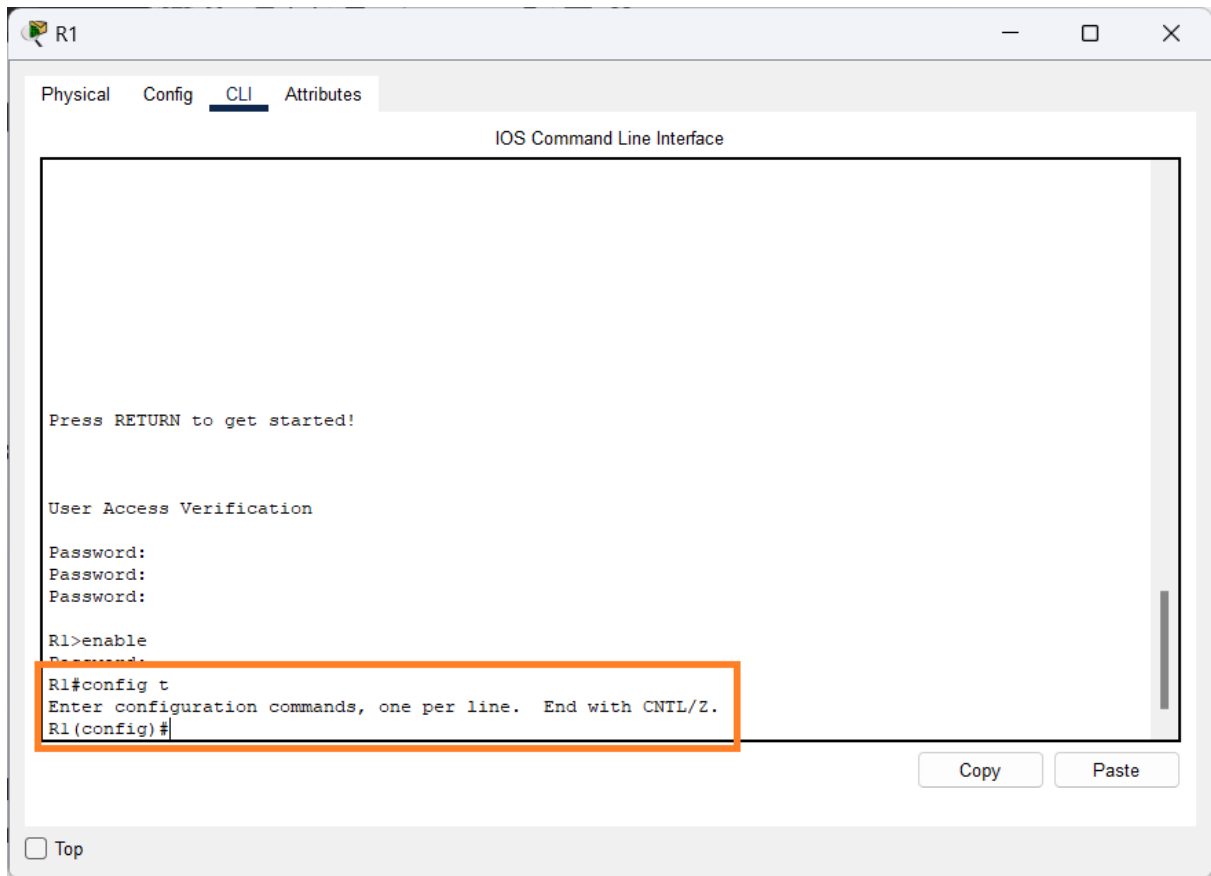




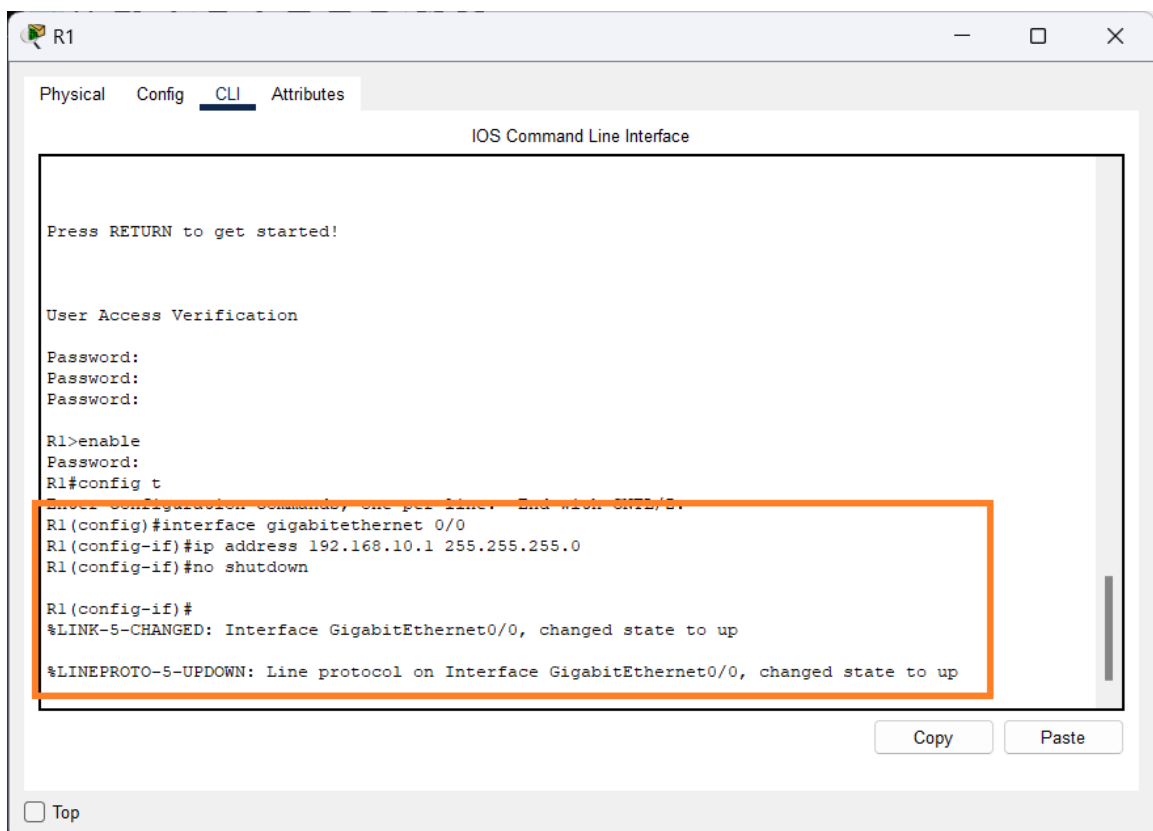
Nhập password **cisco**



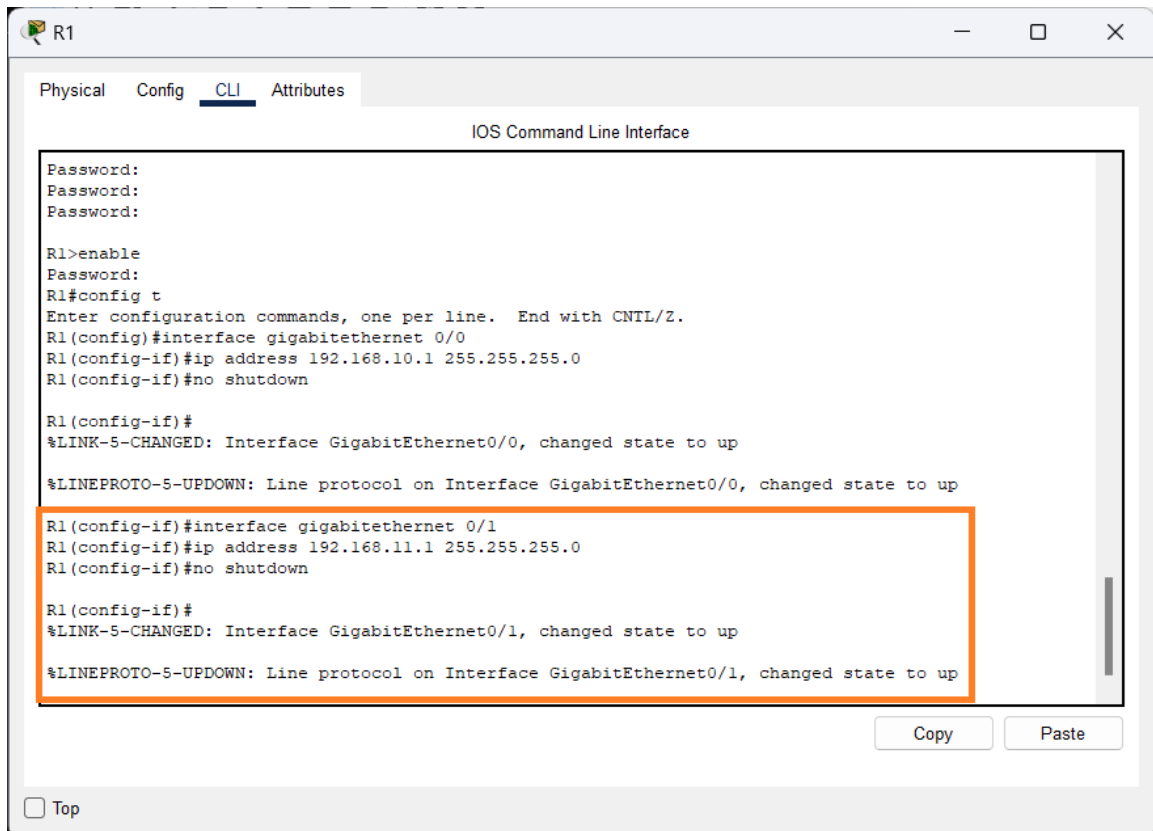
Nhập **class**



- Cấu hình địa chỉ cho interface là gigabitethernet 0/0 R1



- Cấu hình địa chỉ cho interface gigabitethernet 0/1 R1



The screenshot shows the R1 CLI interface with the following commands and output:

```
Password:
Password:
Password:

R1>enable
Password:
R1#config t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#interface gigabitethernet 0/0
R1(config-if)#ip address 192.168.10.1 255.255.255.0
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

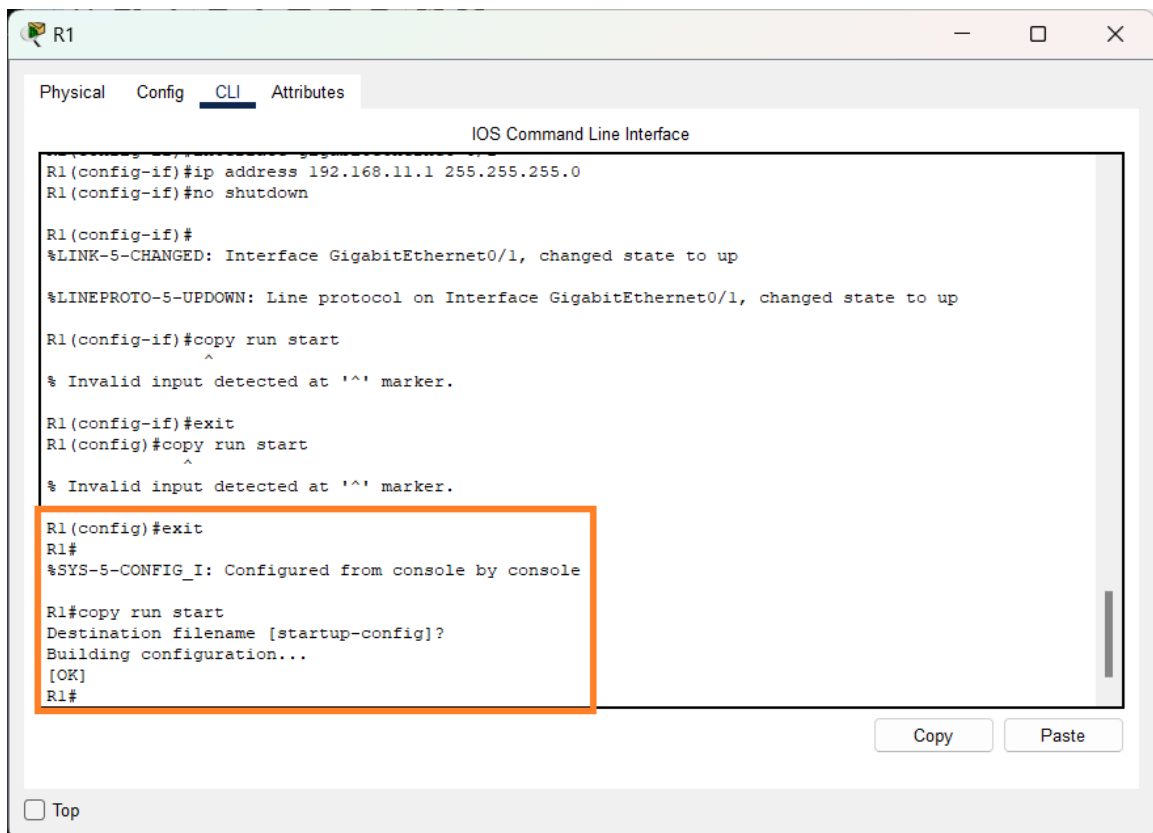
R1(config-if)#interface gigabitethernet 0/1
R1(config-if)#ip address 192.168.11.1 255.255.255.0
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

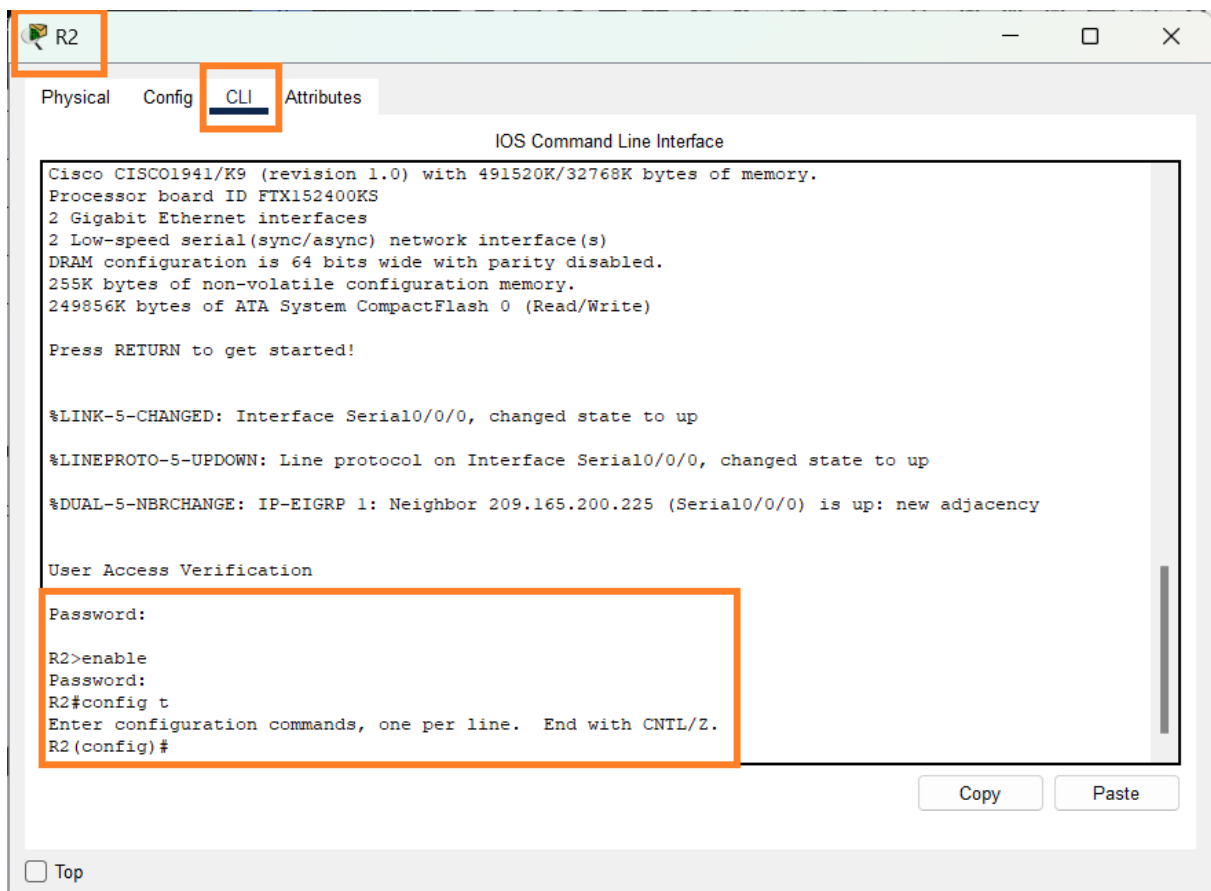
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
```

The configuration for interface gigabitethernet 0/1 is highlighted with an orange box. At the bottom of the window, there are "Copy" and "Paste" buttons, and a "Top" link.

- Lưu thay đổi



## Tương tự cho Gi0/0, Gi0/1 của R2



```
R2
Physical Config CLI Attributes
IOS Command Line Interface

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
%DUAL-5-NBRCHANGE: IP-EIGRP 1: Neighbor 209.165.200.225 (Serial0/0/0) is up: new adjacency

User Access Verification
Password:
R2>enable
Password:
R2#config t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#interface gigabitethernet 0/0
R2(config-if)#ip address 10.1.1.1 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
R2(config-if)#
```

```
R2
Physical Config CLI Attributes
IOS Command Line Interface

R2 (config-if)#ip address 10.1.1.1 255.255.255.0
R2 (config-if)#no shutdown

R2 (config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

R2 (config-if)#interface gigabitethernet 0/1
R2 (config-if)#ip address 10.1.2.1 255.255.255.0
R2 (config-if)#no shutdown
R2 (config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

R2 (config-if)#exit
R2 (config)#exit
R2#
%SYS-5-CONFIG_I: Configured from console by console

R2#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R2#
```

## Bước 2: Kiểm tra cấu hình

### Kiểm tra R1



R1

PhysicalConfigCLIAttributes

IOS Command Line Interface

R1#  
R1#  
R1#  
R1#show run  
Building configuration...  
  
Current configuration : 1218 bytes  
!  
version 15.1  
no service timestamps log datetime msec  
no service timestamps debug datetime msec  
service password-encryption  
!  
hostname R1  
!  
!  
!  
enable secret 5 \$1\$mERr\$9cTjUIEqNGurQiFU.ZeCil  
!  
!  
!  
!  
!  
!  
ip cef  
no ipv6 cef

CopyPaste

☐ Top

R1

PhysicalConfigCLIAttributes

IOS Command Line Interface

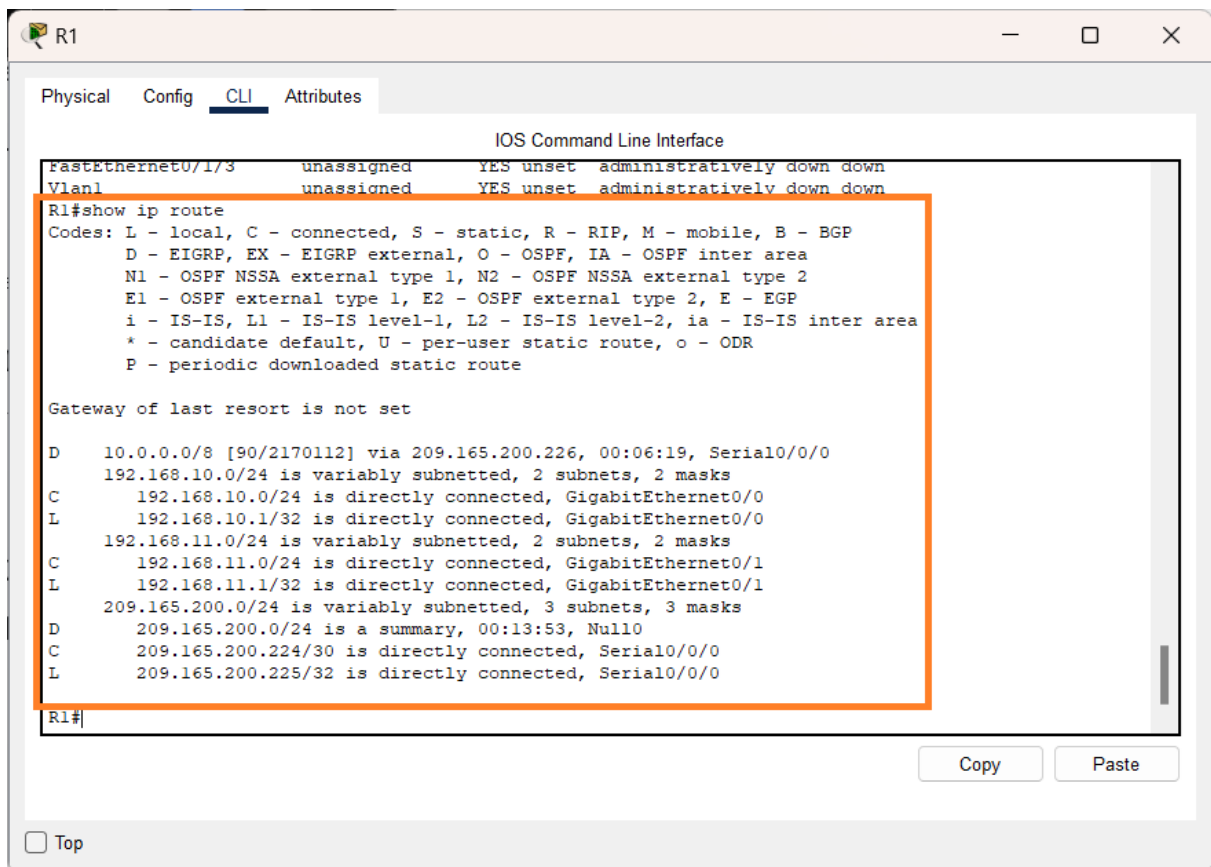
!  
hostname R1  
!  
!  
!  
enable secret 5 \$1\$mERr\$9cTjUIEqNGurQiFU.ZeCil  
!  
!  
!  
!  
!  
!  
ip cef  
no ipv6 cef

R1#show ip interface brief

Interface	IP-Address	OK?	Method	Status	Protocol
GigabitEthernet0/0	192.168.10.1	YES	manual	up	up
GigabitEthernet0/1	192.168.11.1	YES	manual	up	up
Serial0/0/0	209.165.200.225	YES	manual	up	up
Serial0/0/1	unassigned	YES	unset	administratively down	down
FastEthernet0/1/0	unassigned	YES	unset	administratively down	down
FastEthernet0/1/1	unassigned	YES	unset	administratively down	down
FastEthernet0/1/2	unassigned	YES	unset	administratively down	down
FastEthernet0/1/3	unassigned	YES	unset	administratively down	down
Vlan1	unassigned	YES	unset	administratively down	down

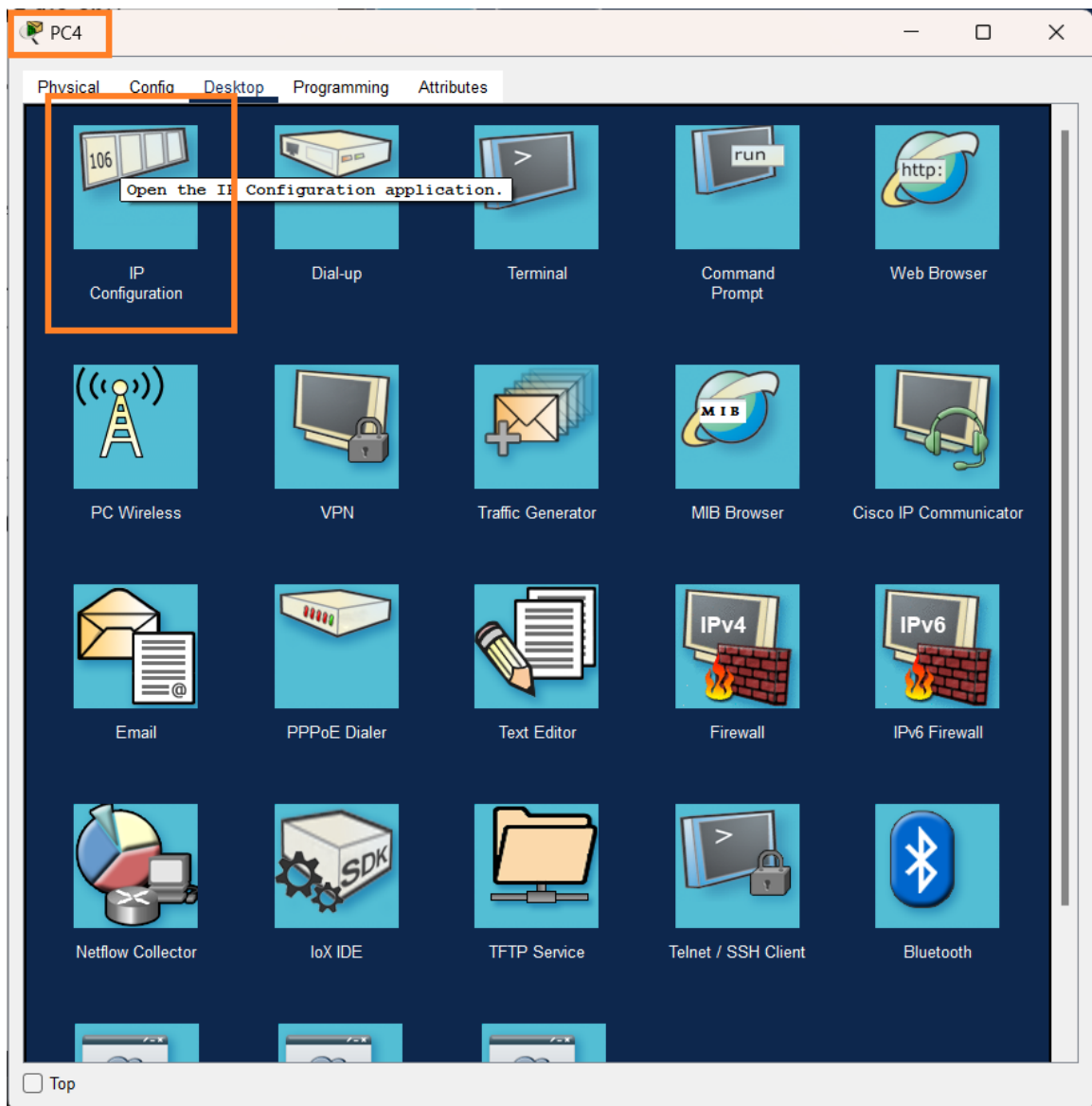
CopyPaste

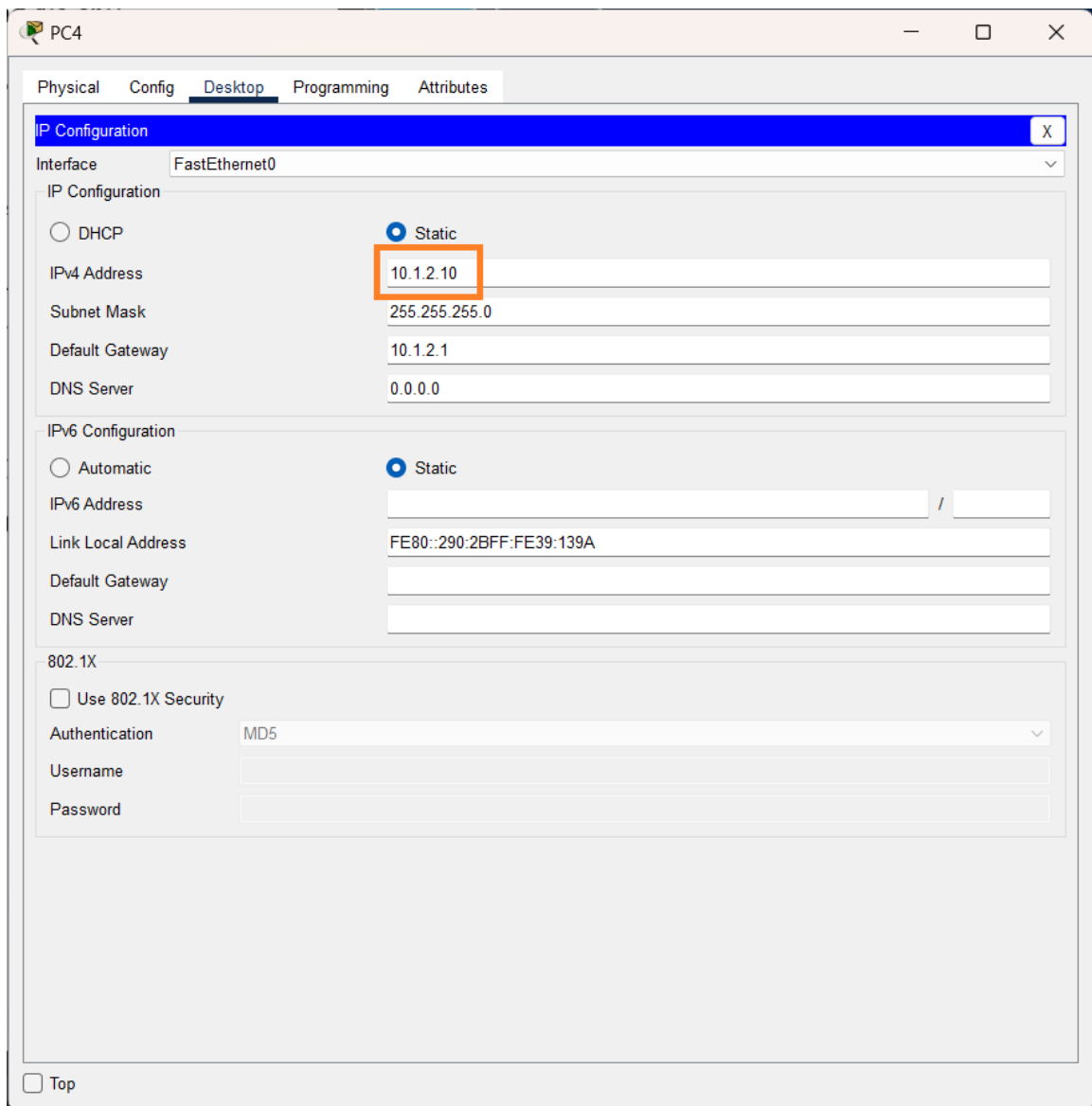
☐ Top



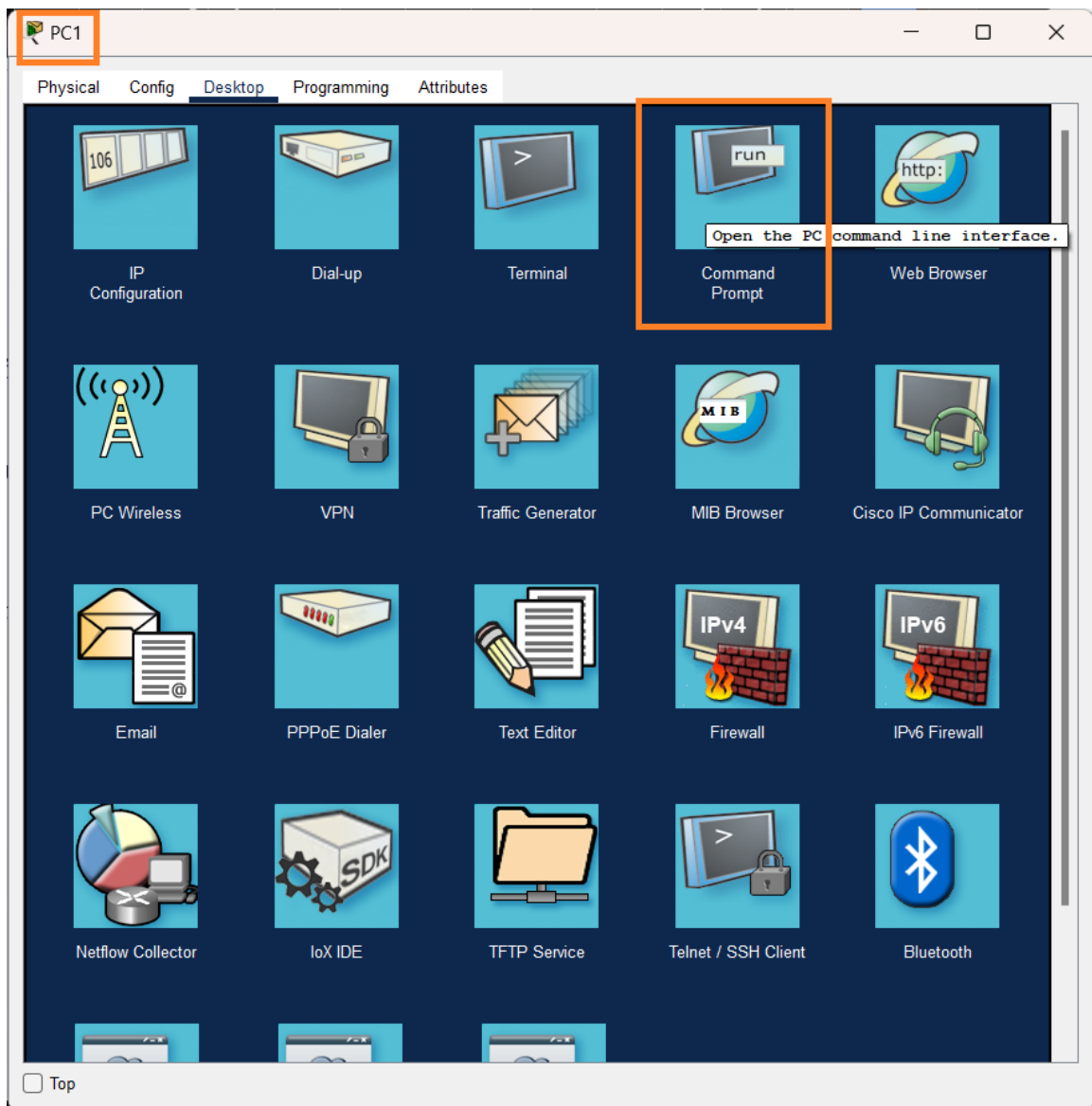
## Ping từ PC1 → PC4

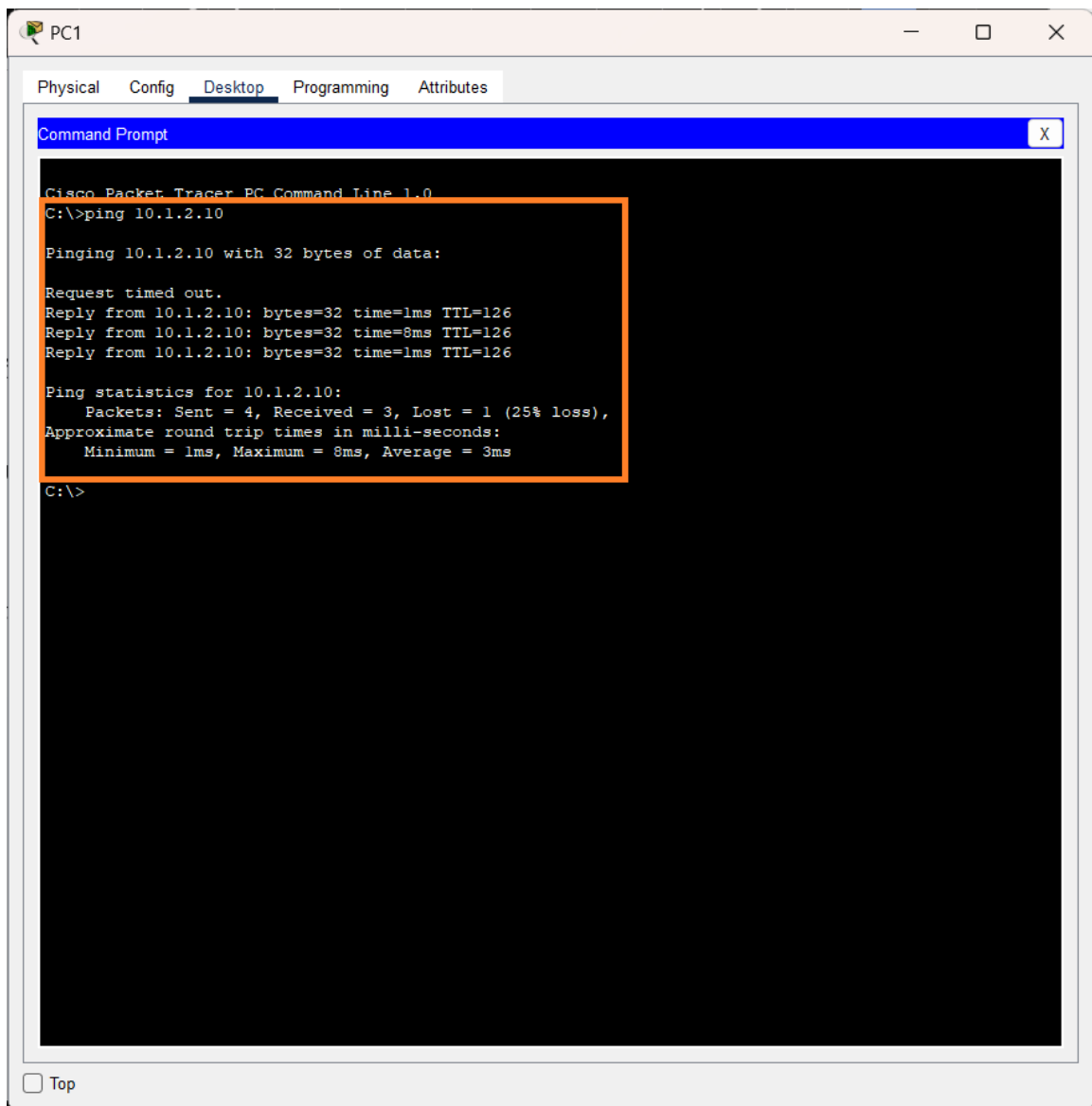
- Kiểm tra IP của PC4





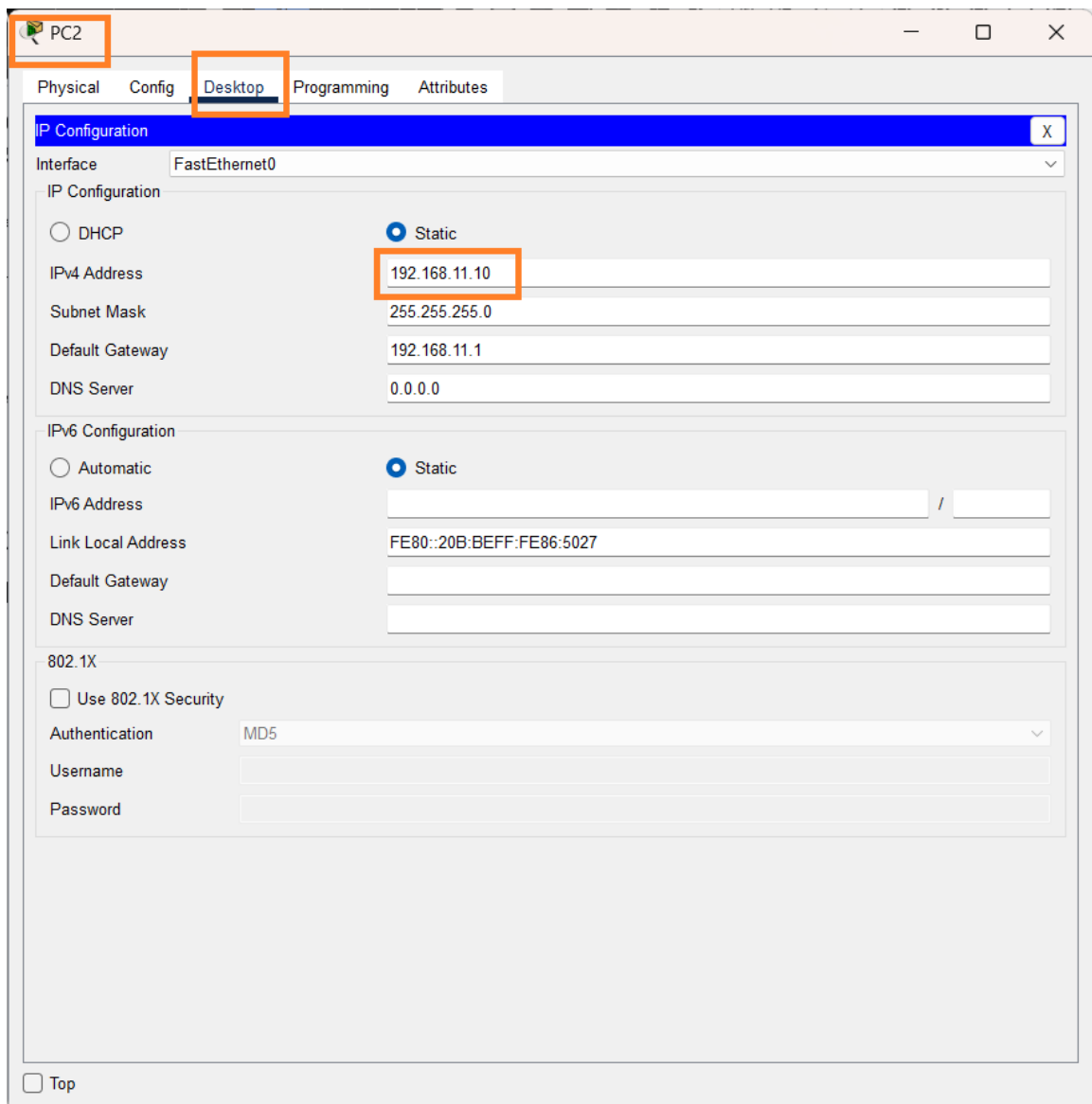
- Ping từ PC1 sang PC4





## Ping từ R2 sang PC2

- Kiểm tra IP của PC2



- Đăng nhập vào R2 để vào shell

