



20520536-Bùi Đoàn Thế Huy-Bao Cao Lab 5

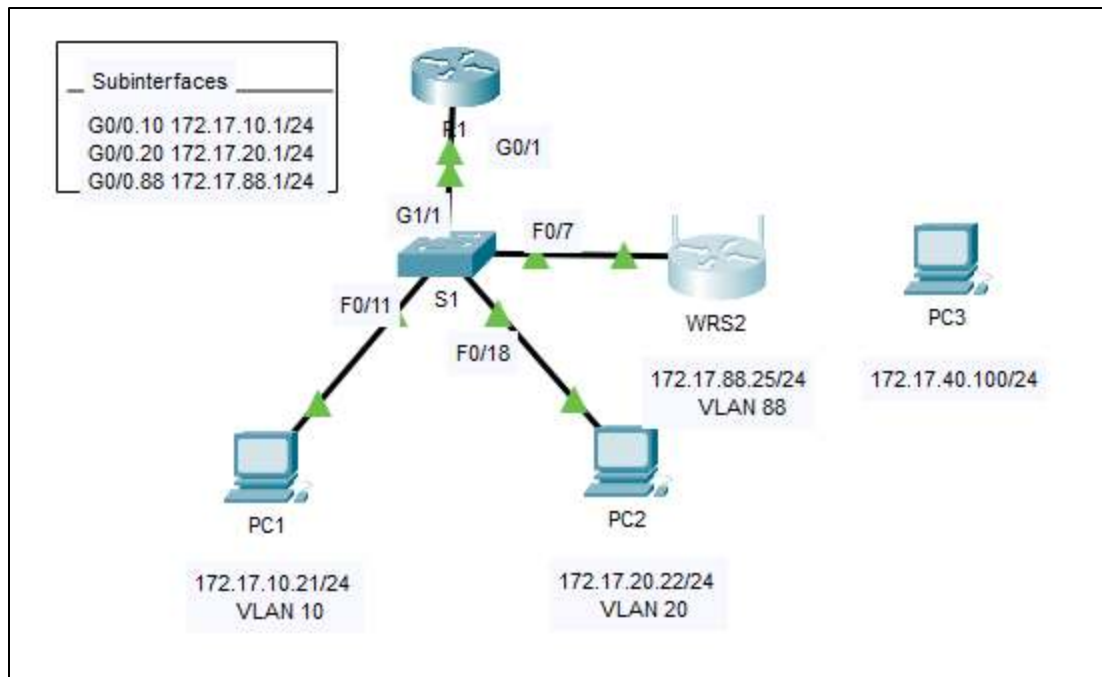
nhập môn mạng máy tính (Trường Đại học Công nghệ thông tin, Đại học Quốc gia  
Thành phố Hồ Chí Minh)

## Lab 5: Cấu hình Thiết bị Mạng

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

#### 1.1 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.



#### 1.2 Cấu hình cơ bản

-Cấu hình phần Internet connection

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

## -Cấu hình phần Network Setup

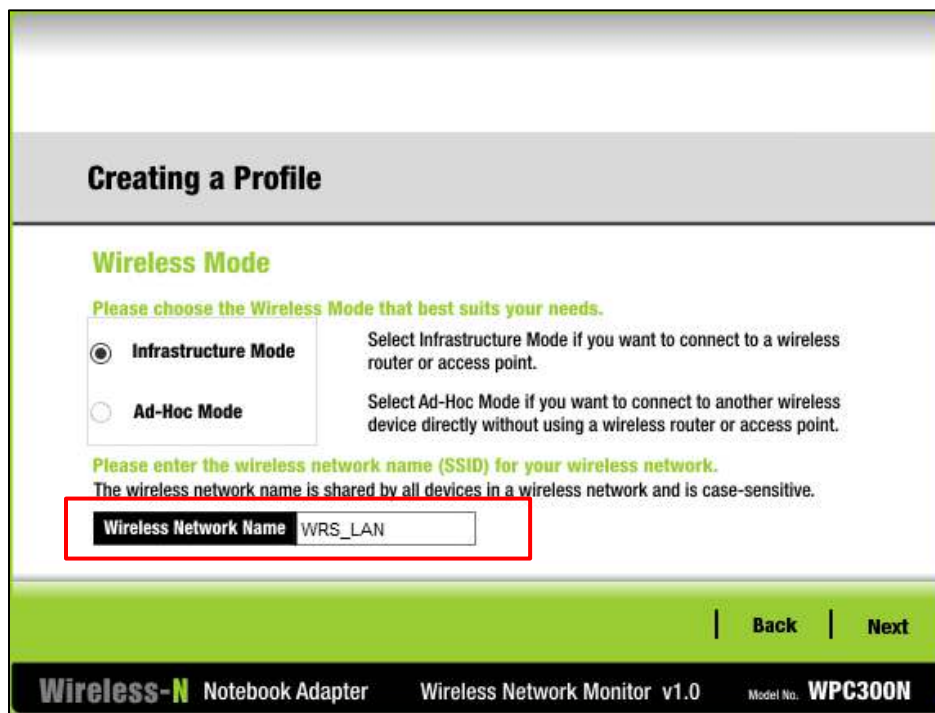
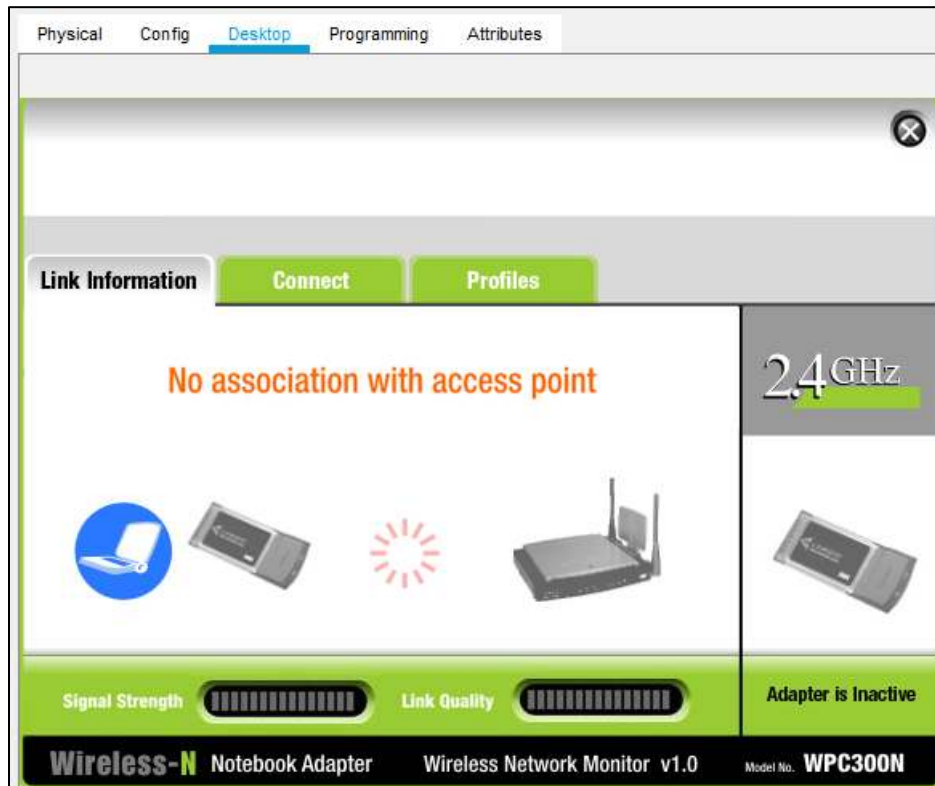
Network Setup	
Router IP	IP Address: 172 . 17 . 40 . 1
	Subnet Mask: 255.255.255.0
DHCP Server Settings	DHCP Server: <input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
	Start IP Address: 172.17.40. 100
	Maximum number 50
DHCP Reservation	

## 1.3 Cấu hình truy cập và bảo mật

Basic Wireless Settings	
Network Mode:	Wireless-N Only
Network Name (SSID):	WRS_LAN
Radio Band:	Standard - 20MHz Channel
Wide Channel:	3
Standard Channel:	1 - 2.412GHz
SSID Broadcast:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled

Wireless Security	
Security Mode:	WPA2 Personal
Encryption:	AES
Passphrase:	cisco123
Key Renewal:	3600 seconds

## 1.4 Cấu hình Wireless Client



## 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 Adapter | Wireless Network Monitor v1.0 | Model No. WPC300N

## 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 v1.1 | Model No. WPC300N

## Confirm New Settings

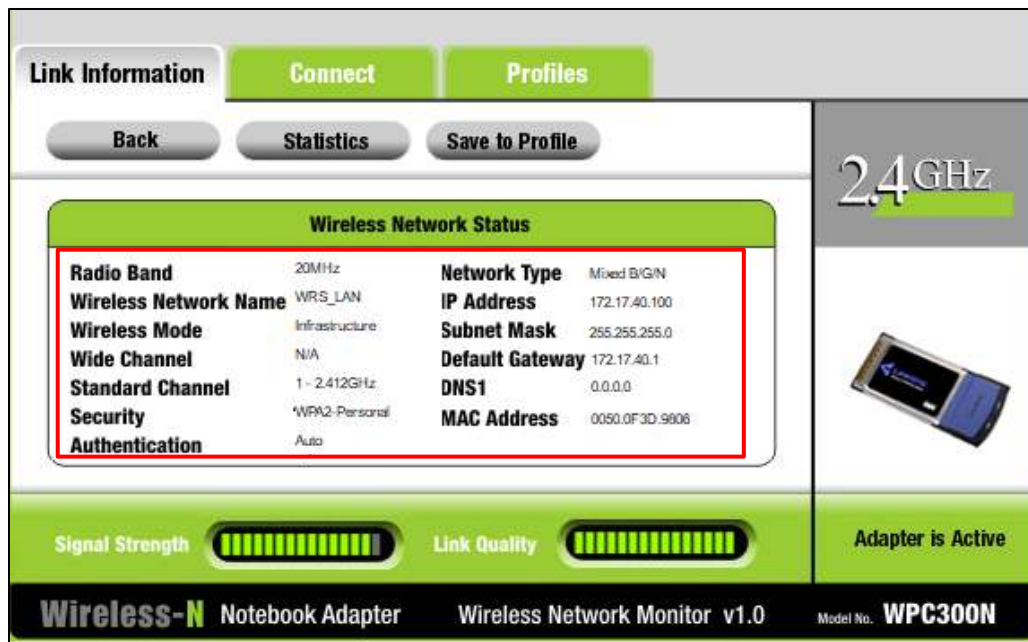
Profile Settings			
Wireless Network Name	WRS_LAN	IP Address	Auto
Wireless Mode	Infrastructure	Subnet Mask	Auto
Network Mode	Mixed Mode	Default Gateway	Auto
Radio Band	Auto	DNS1	Auto
Wide Channel	Auto	DNS2	
Standard Channel	Auto		
Security	WPA2 Personal		
Authentication	Auto		

[Exit](#) | [Back](#) | [Save](#)

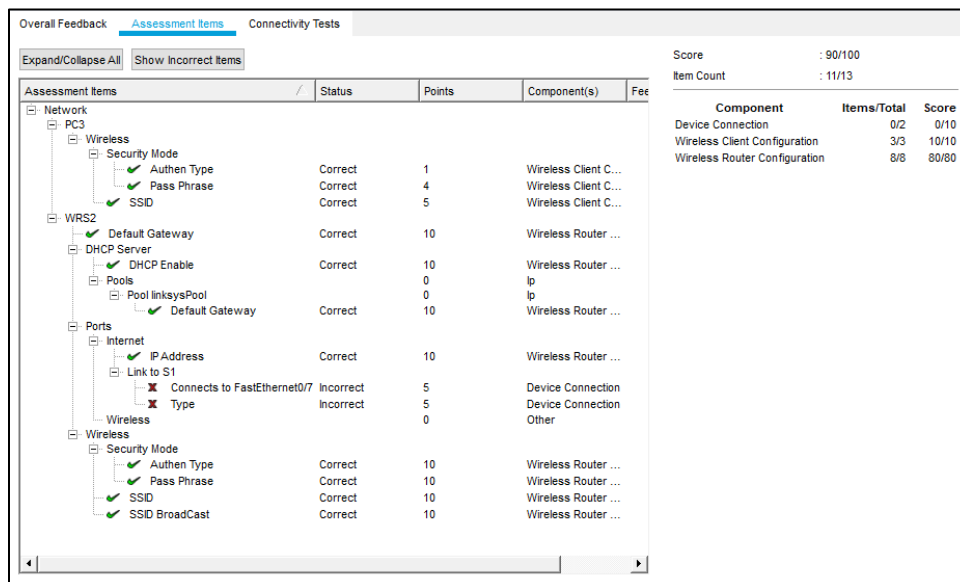
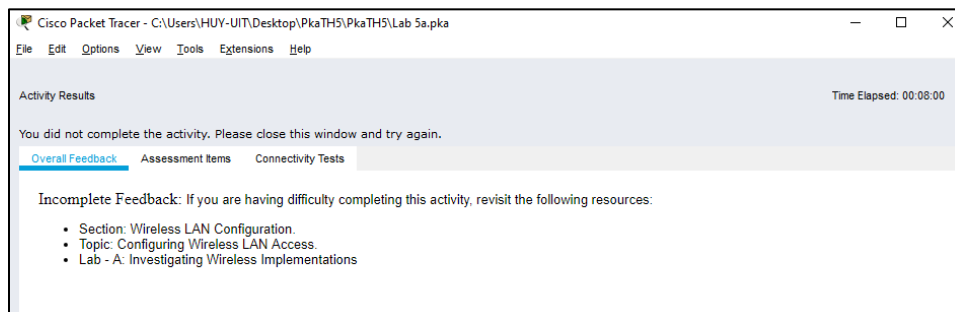


## 1.5 Kiểm tra kết nối





## 1.6 Kiểm tra kết quả thực hành



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

### 2.1 Cấu hình địa chỉ IP cho router R1,R2

-R1:

```
Physical  Config  CLI  Attributes
IOS Command Line Interface

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-S-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-S-UPDOWN: Line protocol on Interface GigabitEthernet0/0,
changed state to up
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-S-CHANGED: Interface GigabitEthernet0/1, changed state to up

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

-R2:

```
IOS Command Line Interface

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-S-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-S-UPDOWN: Line protocol on Interface GigabitEthernet0/0,
changed state to up
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-S-CHANGED: Interface GigabitEthernet0/1, changed state to up

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



## 2.2 Kiểm tra cấu hình

-R1:

```
R1#show run
Building configuration...

Current configuration : 1316 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
```

```
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
```

```
R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B -
BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
inter area
        * - candidate default, U - per-user static route, o - ODR
        P - periodic downloaded static route

Gateway of last resort is not set

D    10.0.0.0/8 [90/2170112] via 209.165.200.226, 00:04:53,
Serial0/0/0
    192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.10.0/24 is directly connected, GigabitEthernet0/0
L    192.168.10.1/32 is directly connected, GigabitEthernet0/0
    192.168.11.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.11.0/24 is directly connected, GigabitEthernet0/1
L    192.168.11.1/32 is directly connected, GigabitEthernet0/1
    209.165.200.0/24 is variably subnetted, 3 subnets, 3 masks
D    209.165.200.0/24 is a summary, 00:07:13, Null0
C    209.165.200.224/30 is directly connected, Serial0/0/0
L    209.165.200.225/32 is directly connected, Serial0/0/0
```

-R2:

R2#show run

```
Building configuration...

Current configuration : 925 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R2
!
!
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
!
!
!
!
!
ip cef
no ipv6 cef
```

R2#show ip interface brief

Interface	IP-Address	OK?	Method	Status
Protocol				
GigabitEthernet0/0	10.1.1.1	YES	manual	up
up				
GigabitEthernet0/1	10.1.2.1	YES	manual	up
up				
Serial0/0/0	209.165.200.226	YES	manual	up
up				
Serial0/0/1	unassigned	YES	unset	administratively
down down				
Vlan1	unassigned	YES	unset	administratively
down down				

R2#show ip route

```
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS
       inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 5 subnets, 3 masks
D    10.0.0.0/8 is a summary, 00:02:28, Null0
C    10.1.1.0/24 is directly connected, GigabitEthernet0/0
L    10.1.1.1/32 is directly connected, GigabitEthernet0/0
C    10.1.2.0/24 is directly connected, GigabitEthernet0/1
L    10.1.2.1/32 is directly connected, GigabitEthernet0/1
D    192.168.10.0/24 [90/2170112] via 209.165.200.225, 00:04:48,
Serial0/0/0
D    192.168.11.0/24 [90/2170112] via 209.165.200.225, 00:03:40,
Serial0/0/0
209.165.200.0/24 is variably subnetted, 3 subnets, 3 masks
D    209.165.200.0/24 is a summary, 00:02:28, Null0
C    209.165.200.224/30 is directly connected, Serial0/0/0
L    209.165.200.226/32 is directly connected, Serial0/0/0
```

## PC1->PC4

### Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 10.1.2.10

Pinging 10.1.2.10 with 32 bytes of data:

Request timed out.
Reply from 10.1.2.10: bytes=32 time=6ms TTL=126
Reply from 10.1.2.10: bytes=32 time=1ms TTL=126
Reply from 10.1.2.10: bytes=32 time=1ms TTL=126

Ping statistics for 10.1.2.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 6ms, Average = 2ms
```

## R2->PC2

```
R2#ping 192.168.11.10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.11.10, timeout is 2
seconds:
.!!!!
Success rate is 80 percent (4/5), round-trip min/avg/max = 2/3/5 ms
```