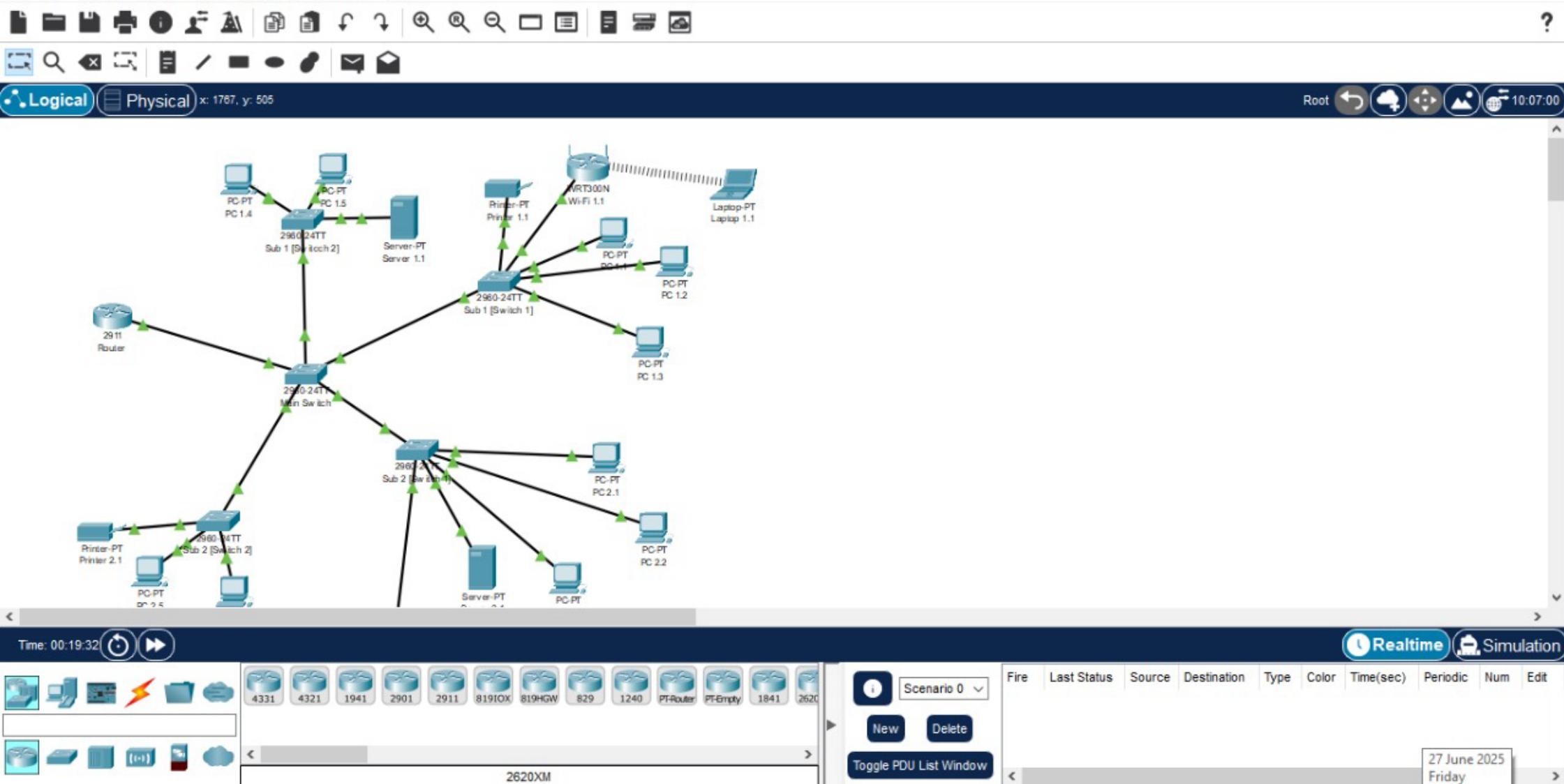
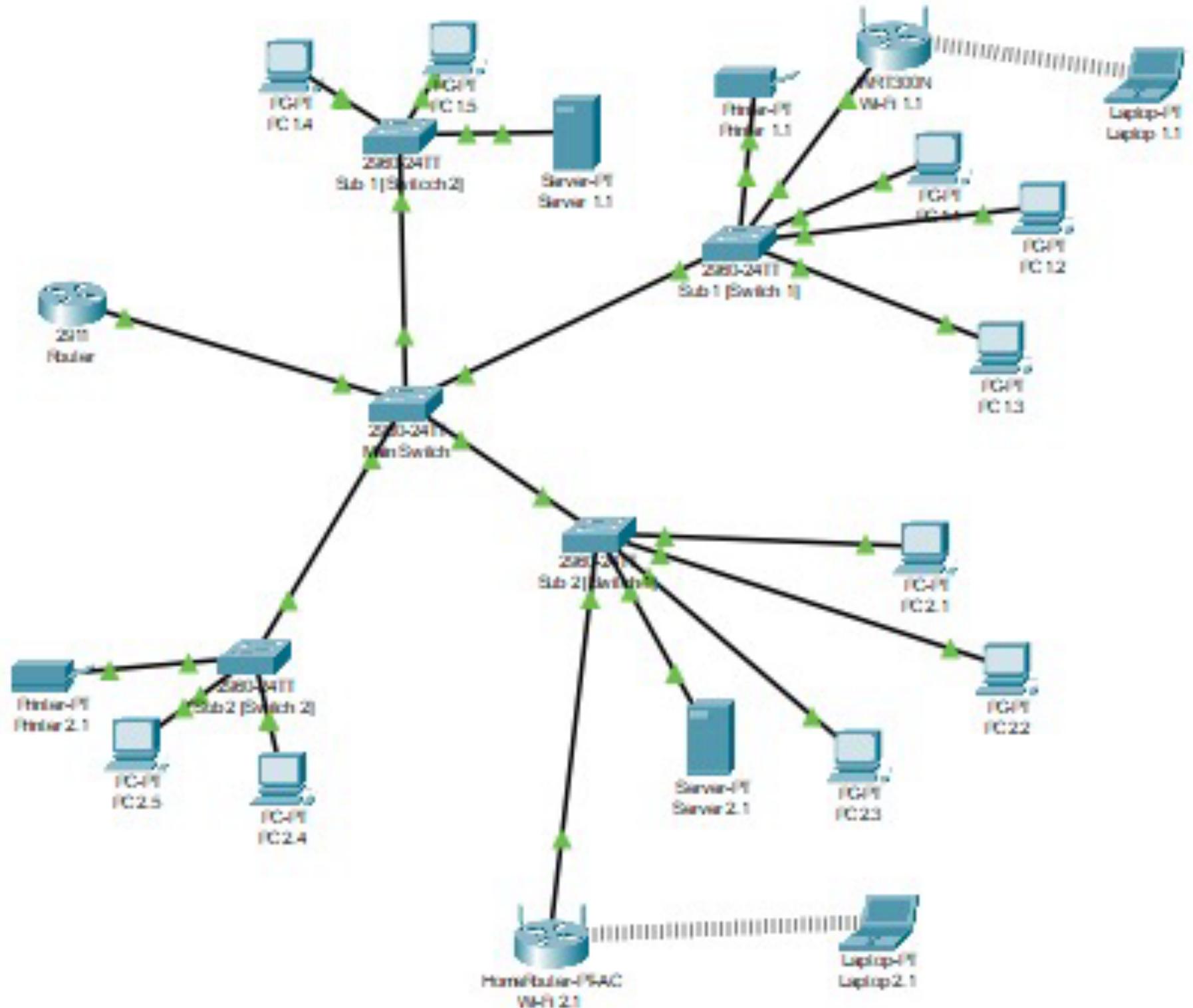
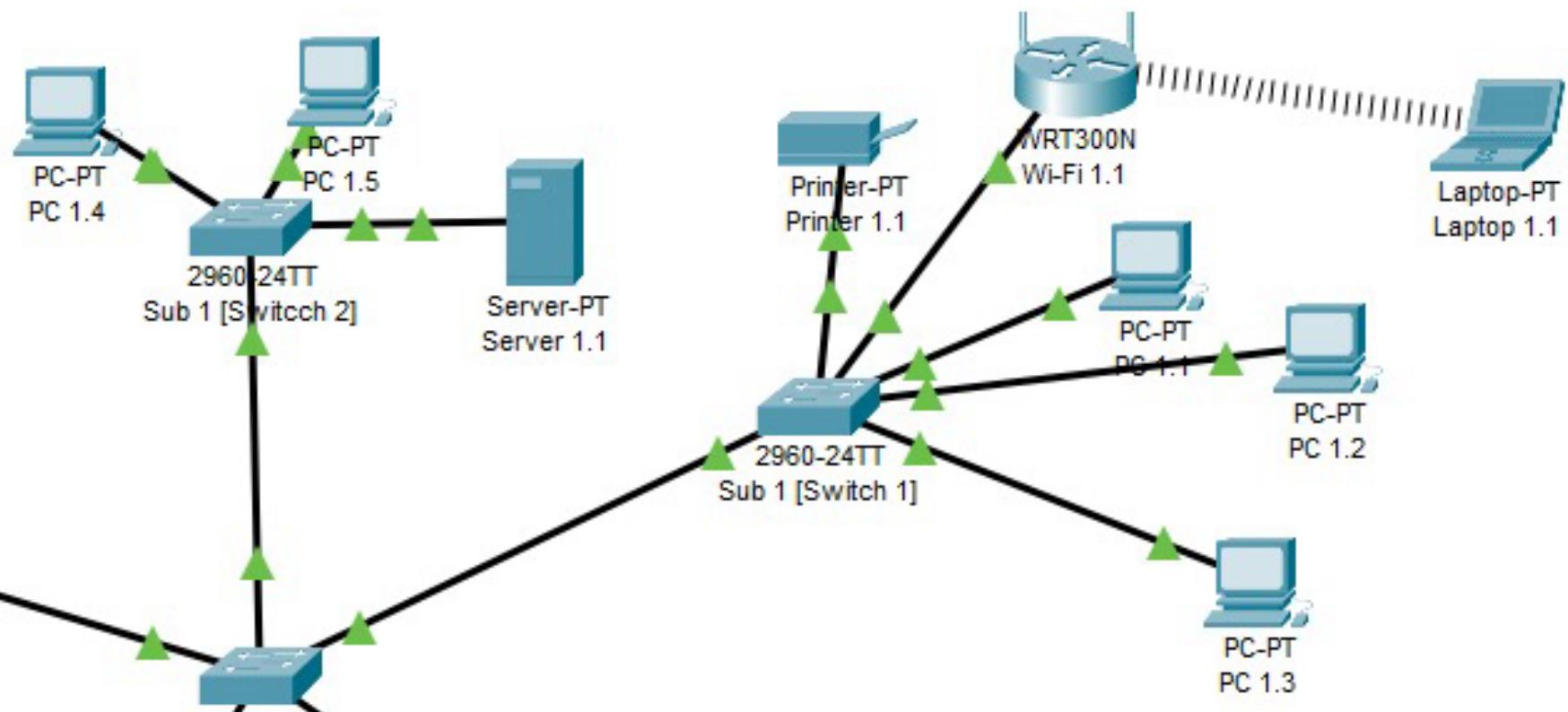


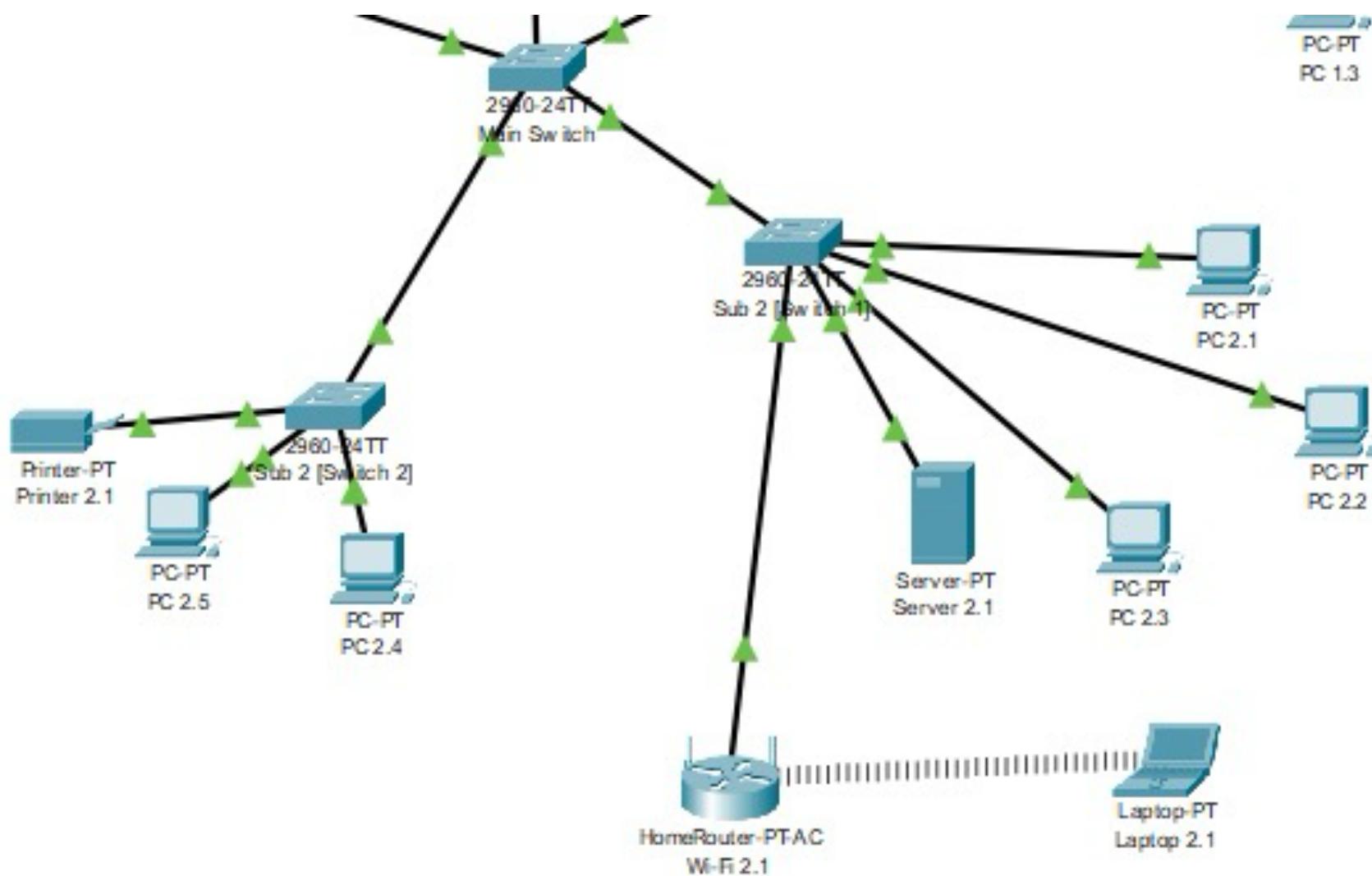
 Cisco Packet Tracer - C:\Users\Martin\Downloads\Internship Files\Activity 5.pkt

File Edit Options View Tools Extensions Window Help









```
Router(config)#ip dhcp excluded-address 192.168.1.1 192.168.1.10
Router(config)#ip dhcp excluded-address 192.168.2.1 192.168.2.10
Router(config)#ip dhcp pool VLAN10_POOL
Router(dhcp-config)#network 192.168.1.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.1.1
Router(dhcp-config)#
Router(dhcp-config)#ip dhcp pool VLAN20_POOL
Router(dhcp-config)#network 192.168.2.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.2.1
Router(dhcp-config)#network 192.168.2.0 255.255.255.0
```

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface g0/0.10
Router(config-subif)#encapsulation dot1Q 10
Router(config-subif)#ip address 192.168.1.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface g0/0.20
Router(config-subif)#encapsulation dot1Q 20
Router(config-subif)#ip address 192.168.2.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface g0/0
Router(config-if)#no shutdown
```

Device Name: Router

Device Model: 2911

Hostname: Router

Port	Link	VLAN	IP Address	IPv6 Address	MAC Address
GigabitEthernet0/0	Up	--	<not set>	<not set>	0060.3E7A.E101
GigabitEthernet0/0.10	Up	--	192.168.1.1/24	<not set>	0060.3E7A.E101
GigabitEthernet0/0.20	Up	--	192.168.2.1/24	<not set>	0060.3E7A.E101
GigabitEthernet0/1	Down	--	<not set>	<not set>	0060.3E7A.E102
GigabitEthernet0/2	Down	--	<not set>	<not set>	0060.3E7A.E103
Vlan1	Down	1	<not set>	<not set>	0060.2FCA.502D

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Router0

```
Router#show ip interface brief
Interface          IP-Address      OK? Method Status      Protocol
GigabitEthernet0/0  unassigned      YES NVRAM up           up
GigabitEthernet0/0.10 192.168.1.1  YES manual up          up
GigabitEthernet0/0.20 192.168.2.1  YES manual up          up
GigabitEthernet0/1    unassigned      YES NVRAM administratively down down
GigabitEthernet0/2    unassigned      YES NVRAM administratively down down
Vlan1               unassigned      YES NVRAM administratively down down
Router#write memory
Building configuration...
[OK]
```

Router>show ip dhcp binding			
IP address	Client-ID/ Hardware address	Lease expiration	Type
192.168.1.12	0002.16AD.7258	--	Automatic
192.168.1.13	0005.5EE0.5460	--	Automatic
192.168.1.14	0003.E4B1.7587	--	Automatic
192.168.1.11	00E0.8F59.86AA	--	Automatic
192.168.1.15	000C.853A.240E	--	Automatic
192.168.1.16	000C.CF31.8A2B	--	Automatic
192.168.1.17	0001.6460.B20B	--	Automatic
192.168.1.18	0090.2142.8702	--	Automatic
192.168.1.19	0009.7C71.3E5B	--	Automatic
192.168.2.11	00E0.A393.884D	--	Automatic
192.168.2.13	0030.F2EB.8967	--	Automatic
192.168.2.12	0060.2FAB.4647	--	Automatic
192.168.2.14	00E0.F909.E862	--	Automatic
192.168.2.15	000A.4130.06E4	--	Automatic

Device Name: Main Switch

Custom Device Model: 2960 IOS15

Hostname: Switch

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	10	--	00E0.F796.BC01
FastEthernet0/2	Up	10	--	00E0.F796.BC02
FastEthernet0/3	Down	10	--	00E0.F796.BC03
FastEthernet0/4	Down	10	--	00E0.F796.BC04
FastEthernet0/5	Down	10	--	00E0.F796.BC05
FastEthernet0/6	Down	10	--	00E0.F796.BC06
FastEthernet0/7	Down	10	--	00E0.F796.BC07
FastEthernet0/8	Down	10	--	00E0.F796.BC08
FastEthernet0/9	Down	10	--	00E0.F796.BC09
FastEthernet0/10	Down	10	--	00E0.F796.BC0A
FastEthernet0/11	Down	10	--	00E0.F796.BC0B
FastEthernet0/12	Down	10	--	00E0.F796.BC0C
FastEthernet0/13	Up	20	--	00E0.F796.BC0D
FastEthernet0/14	Up	20	--	00E0.F796.BC0E
FastEthernet0/15	Down	20	--	00E0.F796.BC0F
FastEthernet0/16	Down	20	--	00E0.F796.BC10
FastEthernet0/17	Down	20	--	00E0.F796.BC11
FastEthernet0/18	Down	20	--	00E0.F796.BC12
FastEthernet0/19	Down	20	--	00E0.F796.BC13
FastEthernet0/20	Down	20	--	00E0.F796.BC14
FastEthernet0/21	Down	20	--	00E0.F796.BC15
FastEthernet0/22	Down	20	--	00E0.F796.BC16
FastEthernet0/23	Down	20	--	00E0.F796.BC17
FastEthernet0/24	Up	--	--	00E0.F796.BC18
GigabitEthernet0/1	Down	1	--	00E0.F796.BC19
GigabitEthernet0/2	Down	1	--	00E0.F796.BC1A
Vlan1	Down	1	<not set>	0090.2B45.6C18

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch4

Switch#show vlan brief

VLAN	Name	Status	Ports
1	default	active	Gig0/1, Gig0/2
10	sub1	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12
20	sub2	active	Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23
1002	fdmi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

Device Name: Sub 1 [Switch 1]

Custom Device Model: 2960 IOS15

Hostname: Switch

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	1	--	0030.F21C.3B01
FastEthernet0/2	Up	1	--	0030.F21C.3B02
FastEthernet0/3	Up	1	--	0030.F21C.3B03
FastEthernet0/4	Up	1	--	0030.F21C.3B04
FastEthernet0/5	Down	1	--	0030.F21C.3B05
FastEthernet0/6	Down	1	--	0030.F21C.3B06
FastEthernet0/7	Down	1	--	0030.F21C.3B07
FastEthernet0/8	Down	1	--	0030.F21C.3B08
FastEthernet0/9	Down	1	--	0030.F21C.3B09
FastEthernet0/10	Down	1	--	0030.F21C.3B0A
FastEthernet0/11	Down	1	--	0030.F21C.3B0B
FastEthernet0/12	Down	1	--	0030.F21C.3B0C
FastEthernet0/13	Down	1	--	0030.F21C.3B0D
FastEthernet0/14	Down	1	--	0030.F21C.3B0E
FastEthernet0/15	Down	1	--	0030.F21C.3B0F
FastEthernet0/16	Down	1	--	0030.F21C.3B10
FastEthernet0/17	Down	1	--	0030.F21C.3B11
FastEthernet0/18	Down	1	--	0030.F21C.3B12
FastEthernet0/19	Down	1	--	0030.F21C.3B13
FastEthernet0/20	Down	1	--	0030.F21C.3B14
FastEthernet0/21	Down	1	--	0030.F21C.3B15
FastEthernet0/22	Down	1	--	0030.F21C.3B16
FastEthernet0/23	Down	1	--	0030.F21C.3B17
FastEthernet0/24	Up	1	--	0030.F21C.3B18
GigabitEthernet0/1	Up	1	--	0030.F21C.3B19
GigabitEthernet0/2	Down	1	--	0030.F21C.3B1A
Vlan1	Down	1	<not set>	0000.0CC6.C971

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch0

Device Name: Sub 1 [Switch 2]  
Custom Device Model: 2960 IOS15  
Hostname: Switch

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	1	--	00D0.586B.D801
FastEthernet0/2	Up	1	--	00D0.586B.D802
FastEthernet0/3	Up	1	--	00D0.586B.D803
FastEthernet0/4	Down	1	--	00D0.586B.D804
FastEthernet0/5	Down	1	--	00D0.586B.D805
FastEthernet0/6	Down	1	--	00D0.586B.D806
FastEthernet0/7	Down	1	--	00D0.586B.D807
FastEthernet0/8	Down	1	--	00D0.586B.D808
FastEthernet0/9	Down	1	--	00D0.586B.D809
FastEthernet0/10	Down	1	--	00D0.586B.D80A
FastEthernet0/11	Down	1	--	00D0.586B.D80B
FastEthernet0/12	Down	1	--	00D0.586B.D80C
FastEthernet0/13	Down	1	--	00D0.586B.D80D
FastEthernet0/14	Down	1	--	00D0.586B.D80E
FastEthernet0/15	Down	1	--	00D0.586B.D80F
FastEthernet0/16	Down	1	--	00D0.586B.D810
FastEthernet0/17	Down	1	--	00D0.586B.D811
FastEthernet0/18	Down	1	--	00D0.586B.D812
FastEthernet0/19	Down	1	--	00D0.586B.D813
FastEthernet0/20	Down	1	--	00D0.586B.D814
FastEthernet0/21	Down	1	--	00D0.586B.D815
FastEthernet0/22	Down	1	--	00D0.586B.D816
FastEthernet0/23	Down	1	--	00D0.586B.D817
FastEthernet0/24	Up	1	--	00D0.586B.D818
GigabitEthernet0/1	Down	1	--	00D0.586B.D819
GigabitEthernet0/2	Down	1	--	00D0.586B.D81A
Vlan1	Down	1	<not set>	00E0.F90C.2561

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch5

Device Name: Sub 2 [Switch 1]

Custom Device Model: 2960 IOS15

Hostname: Switch

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	1	--	0060.2F5C.1601
FastEthernet0/2	Up	1	--	0060.2F5C.1602
FastEthernet0/3	Up	1	--	0060.2F5C.1603
FastEthernet0/4	Up	1	--	0060.2F5C.1604
FastEthernet0/5	Down	1	--	0060.2F5C.1605
FastEthernet0/6	Down	1	--	0060.2F5C.1606
FastEthernet0/7	Down	1	--	0060.2F5C.1607
FastEthernet0/8	Down	1	--	0060.2F5C.1608
FastEthernet0/9	Down	1	--	0060.2F5C.1609
FastEthernet0/10	Down	1	--	0060.2F5C.160A
FastEthernet0/11	Down	1	--	0060.2F5C.160B
FastEthernet0/12	Down	1	--	0060.2F5C.160C
FastEthernet0/13	Down	1	--	0060.2F5C.160D
FastEthernet0/14	Down	1	--	0060.2F5C.160E
FastEthernet0/15	Down	1	--	0060.2F5C.160F
FastEthernet0/16	Down	1	--	0060.2F5C.1610
FastEthernet0/17	Down	1	--	0060.2F5C.1611
FastEthernet0/18	Down	1	--	0060.2F5C.1612
FastEthernet0/19	Down	1	--	0060.2F5C.1613
FastEthernet0/20	Down	1	--	0060.2F5C.1614
FastEthernet0/21	Down	1	--	0060.2F5C.1615
FastEthernet0/22	Down	1	--	0060.2F5C.1616
FastEthernet0/23	Down	1	--	0060.2F5C.1617
FastEthernet0/24	Up	1	--	0060.2F5C.1618
GigabitEthernet0/1	Up	1	--	0060.2F5C.1619
GigabitEthernet0/2	Down	1	--	0060.2F5C.161A
Vlan1	Down	1	<not set>	0060.47D1.7B5E

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch1

Device Name: Sub 2 [Switch 2]

Custom Device Model: 2960 IOS15

Hostname: Switch

Port	Link	VLAN	IP Address	MAC Address
FastEthernet0/1	Up	1	--	00E0.8F99.5E01
FastEthernet0/2	Up	1	--	00E0.8F99.5E02
FastEthernet0/3	Down	1	--	00E0.8F99.5E03
FastEthernet0/4	Up	1	--	00E0.8F99.5E04
FastEthernet0/5	Down	1	--	00E0.8F99.5E05
FastEthernet0/6	Down	1	--	00E0.8F99.5E06
FastEthernet0/7	Down	1	--	00E0.8F99.5E07
FastEthernet0/8	Down	1	--	00E0.8F99.5E08
FastEthernet0/9	Down	1	--	00E0.8F99.5E09
FastEthernet0/10	Down	1	--	00E0.8F99.5E0A
FastEthernet0/11	Down	1	--	00E0.8F99.5E0B
FastEthernet0/12	Down	1	--	00E0.8F99.5E0C
FastEthernet0/13	Down	1	--	00E0.8F99.5E0D
FastEthernet0/14	Down	1	--	00E0.8F99.5E0E
FastEthernet0/15	Down	1	--	00E0.8F99.5E0F
FastEthernet0/16	Down	1	--	00E0.8F99.5E10
FastEthernet0/17	Down	1	--	00E0.8F99.5E11
FastEthernet0/18	Down	1	--	00E0.8F99.5E12
FastEthernet0/19	Down	1	--	00E0.8F99.5E13
FastEthernet0/20	Down	1	--	00E0.8F99.5E14
FastEthernet0/21	Down	1	--	00E0.8F99.5E15
FastEthernet0/22	Down	1	--	00E0.8F99.5E16
FastEthernet0/23	Down	1	--	00E0.8F99.5E17
FastEthernet0/24	Up	1	--	00E0.8F99.5E18
GigabitEthernet0/1	Down	1	--	00E0.8F99.5E19
GigabitEthernet0/2	Down	1	--	00E0.8F99.5E1A
Vlan1	Down	1	<not set>	0004.9A24.D89E

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Switch6

[Physical](#) [Config](#) [GUI](#) [Attributes](#)

## Wireless-N Broadband Router

Firmware Version: v0.93.3

**Setup**[Setup](#)[Wireless](#)[Security](#)[Access Restrictions](#)[Applications & Gaming](#)

Wireless-N Broadband Router

WRT300N

[Administration](#)[Status](#)

Basic Setup

DDNS

MAC Address Clone

Advanced Routing

**Internet Setup**

Internet Connection type

Automatic Configuration - DHCP

Help...

Optional Settings  
(required by some  
internet service  
providers)Host Name: Domain Name: MTU:  Size: 1500**Network Setup**

Router IP

IP Address: 192 . 168 . 1 . 2

Subnet Mask: 255.255.255.0

DHCP Server Settings

DHCP Server:  Enabled  Disabled

DHCP Reservation

Start IP Address: 192.168.1. 100

Maximum number of Users: 50

IP Address Range: 192.168.1. 100 - 140

[Physical](#)   [Config](#)   **GUI**   [Attributes](#)

## Wireless-N Broadband Router

Firmware Version: v0.93.3

Wireless	Setup	Wireless	Security	Access Restrictions	Applications & Gaming	Wireless-N Broadband Router	WRT300N
Basic Wireless Settings			Wireless Security	Guest Network	Wireless MAC Filter	Advanced Wireless Settings	

## Basic Wireless Settings

Network Mode:	Mixed
Network Name (SSID):	Wi-Fi 1.1
Radio Band:	Auto
Wide Channel:	Auto
Standard Channel:	7 - 2.442GHz
SSID Broadcast:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled

Help...

[Physical](#) [Config](#) [GUI](#) [Attributes](#)

## Wireless Tri-Band Home Router

Firmware Version: v0.9.7

**Setup**[Setup](#)[Wireless](#)[Security](#)[Access  
Restrictions](#)[Applications  
& Gaming](#)**Wireless Tri-Band Home Router****HomeRouter-PT-AC**[Status](#)

Basic Setup

DDNS

MAC Address Clone

Advanced Routing

**Internet Setup**

Internet Connection type

Automatic Configuration - DHCP

Help...

Optional Settings  
(required by some  
internet service  
providers)

Host Name:

Domain Name:

MTU:  Size: 1500**Network Setup**

Router IP

IP Address: 192 . 168 . 2 . 2

Subnet Mask: 255.255.255.0

DHCP Server  
SettingsDHCP Server:  Enabled  Disabled

DHCP Reservation

Start IP Address: 192.168.1. 100

Maximum number  
of Users: 50

IP Address Range: 192.168.1. 100 - 149

[Physical](#)   [Config](#)   **GUI**   [Attributes](#)

## Wireless Tri-Band Home Router

Firmware Version: v0.9.7

**Wireless**[Setup](#)[Wireless](#)[Security](#)[Access Restrictions](#)[Applications & Gaming](#)**Wireless Tri-Band Home Router****HomeRouter-PT-AC**[Status](#)[Basic Wireless Settings](#)[Wireless Security](#)[Guest Network](#)[Wireless MAC Filter](#)[Advanced Wireless Settings](#)**Basic Wireless Settings****2.4 GHz**

Network Mode:

Auto

Network Name (SSID):

Wi-Fi 2.1

SSID Broadcast:

 Enabled    Disabled

Standard Channel:

2 - 2.417GHz

Channel Bandwidth:

Auto

[Help...](#)**5 GHz - 2**

Network Mode:

Auto

Network Name (SSID):

Wi-Fi 2.1 5 GHz-2

SSID Broadcast:

 Enabled    Disabled

Standard Channel:

149 - 5.745GHz

Channel Bandwidth:

Auto

**5 GHz - 1**

[Physical](#)   [Config](#)   [Desktop](#)   [Programming](#)   [Attributes](#)

**X**

**Link Information**   **Connect**   **Profiles**

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
Wi-Fi 2.1	2	64%
Wi-Fi 1.1	7	92%
Wi-Fi 2.1 5 GHz-1	1	64%
WPS-1	6	64%

**Site Information**

**Wireless Mode** Infrastructure  
**Network Type** Mixed B/G/N  
**Radio Band** Auto  
**Security** Disable  
**MAC Address** 00D0.BA32.A608

**Refresh**   **Connect**

**2.4GHz**

Wireless-N Notebook Adapter

Wireless Network Monitor v1.0

Model No. WPC300N

[Physical](#)   [Config](#)   [Desktop](#)   [Programming](#)   [Attributes](#)[Link Information](#)[Connect](#)[Profiles](#)

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
Wi-Fi 1.1	7	49%
Wi-Fi 2.1 5 GHz-2	1	68%
Wi-Fi 2.1 5 GHz-1	1	68%
Wi-Fi 2.1	2	95%

**Site Information**

**Wireless Mode** Infrastructure  
**Network Type** Mixed B/G/N  
**Radio Band** Auto  
**Security** Disable  
**MAC Address** 00:60:47:87:D108

[Refresh](#)[Connect](#)

2.4 GHz



Adapter is Active

Wireless-N Notebook Adapter

Wireless Network Monitor v1.0

Model No. WPC300N

Physical Config Desktop Programming Attributes

### IP Configuration

X

Interface FastEthernet0

▼

#### IP Configuration

 DHCP Static

DHCP request successful.

IPv4 Address

192.168.1.14

Subnet Mask

255.255.255.0

Default Gateway

192.168.1.1

DNS Server

0.0.0.0

#### IPv6 Configuration

 Automatic Static

IPv6 Address

/

Link Local Address

FE80::203:E4FF:FEB1:7587

Default Gateway

DNS Server

#### 802.1X

 Use 802.1X Security

Authentication

MD5

▼

Username

Password

Physical Config Desktop Programming Attributes

### IP Configuration

X

Interface FastEthernet0

▼

#### IP Configuration

 DHCP Static

DHCP request successful.

IPv4 Address

192.168.2.11

Subnet Mask

255.255.255.0

Default Gateway

192.168.2.1

DNS Server

0.0.0.0

#### IPv6 Configuration

 Automatic Static

IPv6 Address

/

Link Local Address

FE80::20C:CFEE:FE31:8A2B

Default Gateway

DNS Server

#### 802.1X

 Use 802.1X Security

Authentication

MD5

Username

Password

Physical Config Desktop Programming Attributes

Command Prompt



```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.11

Pinging 192.168.2.11 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.11: bytes=32 time=18ms TTL=127
Reply from 192.168.2.11: bytes=32 time=26ms TTL=127
Reply from 192.168.2.11: bytes=32 time=21ms TTL=127

Ping statistics for 192.168.2.11:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 18ms, Maximum = 26ms, Average = 21ms

C:\>ping 192.168.2.11

Pinging 192.168.2.11 with 32 bytes of data:

Reply from 192.168.2.11: bytes=32 time=24ms TTL=127
Reply from 192.168.2.11: bytes=32 time=30ms TTL=127
Reply from 192.168.2.11: bytes=32 time=29ms TTL=127
Reply from 192.168.2.11: bytes=32 time=36ms TTL=127

Ping statistics for 192.168.2.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 24ms, Maximum = 36ms, Average = 29ms

C:\>
```