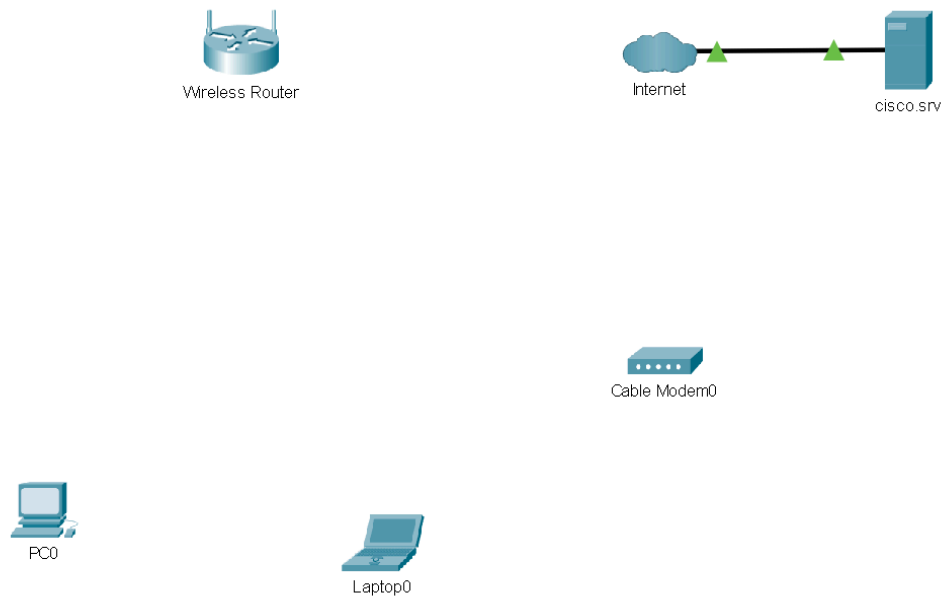
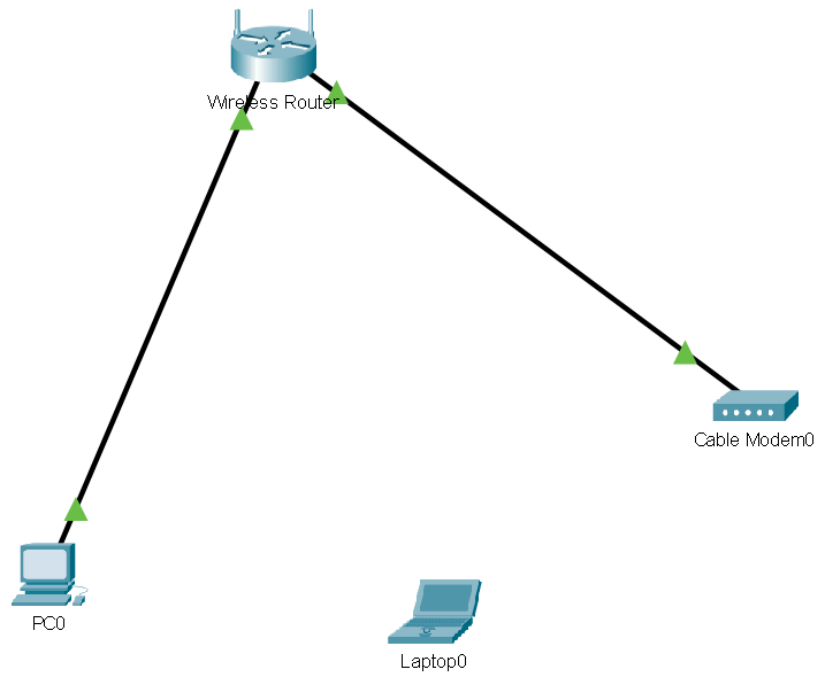


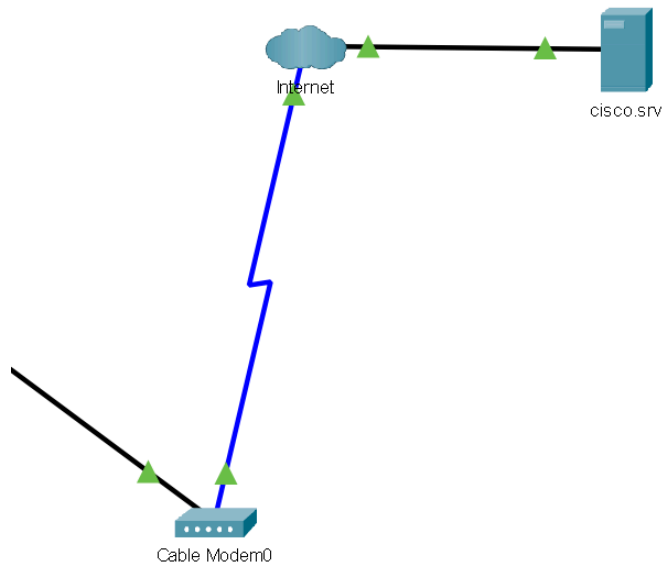
First, I added End devices (PC & Laptop) and Network Devices (cable modem) to the workspace.



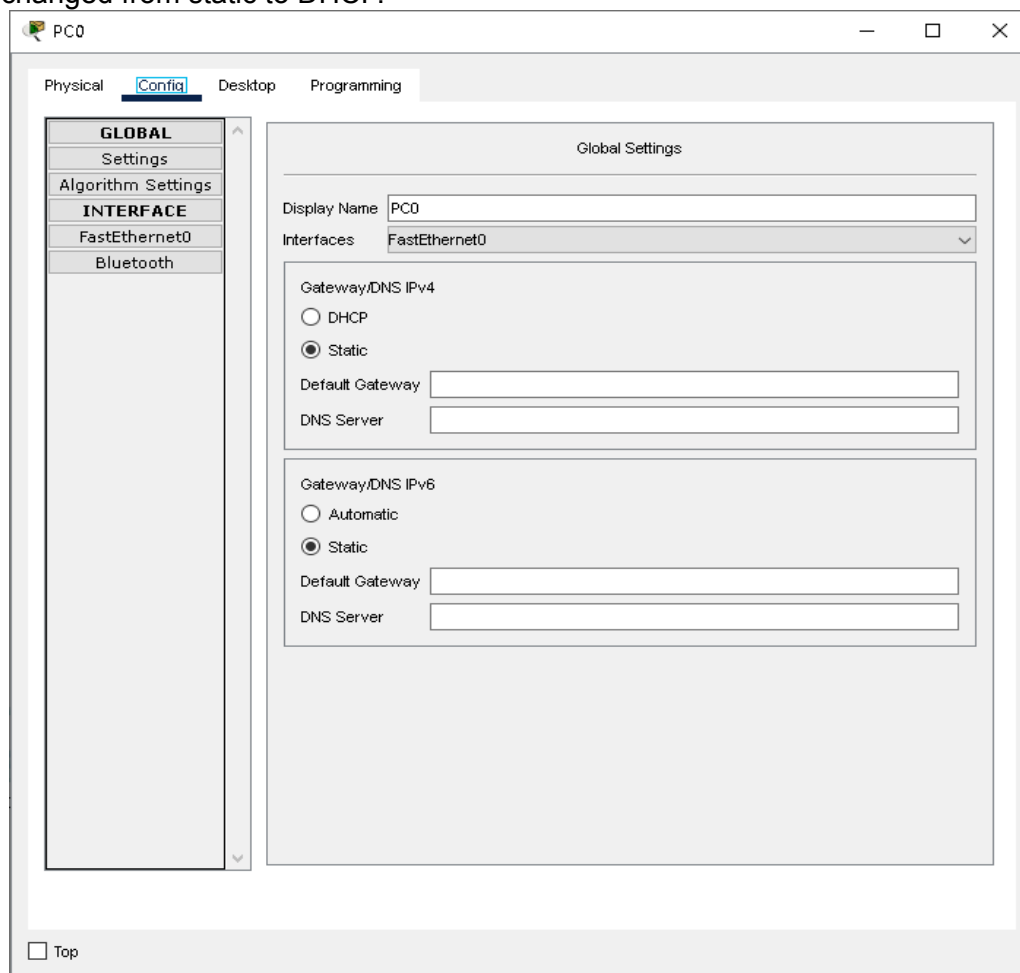
Next, I started wiring. I used Copper straight-through cables to connect the pc to the wireless router and another from the router to the cable modem. This is the same cable connecting the Internet cloud to the example Cisco server.



I used a Coaxial cable to connect the Cable Modem to the Internet cloud.



Next, I configure the PC. First, I set up the Dynamic host configuration protocol (DHCP). I changed from static to DHCP.



With DHCP selected, The PC has now received an IPv4 address.

The screenshot shows a window titled "PC" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the window, there are four tabs: "Physical", "Config", "Desktop", and "Programming". The "Config" tab is currently selected and highlighted. On the left side of the "Config" tab, there is a vertical sidebar with a tree view. The tree view has two main sections: "GLOBAL" and "INTERFACE". Under "GLOBAL", there are "Settings" and "Algorithm Settings". Under "INTERFACE", there are "FastEthernet0" and "Bluetooth". The "FastEthernet0" item is currently selected. The main area of the window displays the configuration for "FastEthernet0". At the top of this area is the title "Global Settings". Below this title, there are two sections. The first section is for "Gateway/DNS IPv4". It contains a "Display Name" field with the value "PC", an "Interfaces" dropdown menu showing "FastEthernet0", and two radio buttons: "DHCP" (which is selected) and "Static". Below the radio buttons are two text input fields: "Default Gateway" with the value "192.168.0.1" and "DNS Server" with the value "209.165.200.225". The second section is for "Gateway/DNS IPv6". It contains two radio buttons: "Automatic" and "Static" (which is selected). Below the radio buttons are two empty text input fields for "Default Gateway" and "DNS Server". At the bottom left of the window, there is a "Top" button with a small square icon next to it.

PC

Physical **Config** Desktop Programming

GLOBAL

- Settings
- Algorithm Settings

INTERFACE

- FastEthernet0
- Bluetooth

Global Settings

Display Name: PC

Interfaces: FastEthernet0

Gateway/DNS IPv4

- ☒ DHCP
- ☐ Static

Default Gateway: 192.168.0.1

DNS Server: 209.165.200.225

Gateway/DNS IPv6

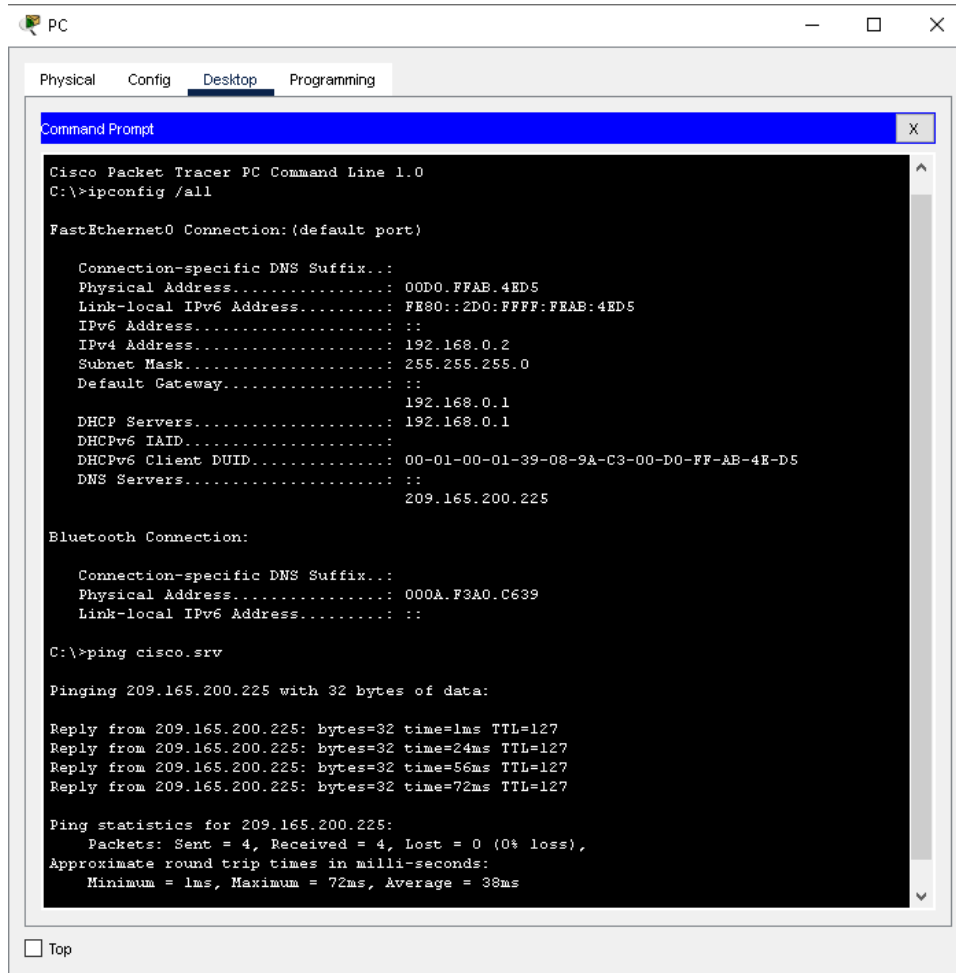
- ☐ Automatic
- ☒ Static

Default Gateway:

DNS Server:

Top

Next I open Command Prompt on the PC and use **ipconfig /all** to review the IPv4 address information, then use the **ping cisco.srv** command to test the connectivity from the PC to the Cisco server.



The screenshot shows a PC window titled "PC" with tabs for "Physical", "Config", "Desktop", and "Programming". The "Desktop" tab is active, displaying a "Command Prompt" window. The Command Prompt shows the output of the `ipconfig /all` command, detailing network settings for the FastEthernet0 interface, including IPv4 and IPv6 addresses, subnet mask, default gateway, and DNS servers. It also shows the output of the `ping cisco.srv` command, displaying four successful ping replies with their respective times and TTL values, followed by a summary of the ping statistics.

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

FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...: 
    Physical Address. . . . .: 00D0.FFAB.4ED5
    Link-local IPv6 Address . . . . .: FE80::2D0:FFFF:FEAB:4ED5
    IPv6 Address. . . . .: ::
    IPv4 Address. . . . .: 192.168.0.2
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: ::
                           192.168.0.1
    DHCP Servers. . . . .: 192.168.0.1
    DHCPv6 IAID. . . . .: 
    DHCPv6 Client DUID. . . . .: 00-01-00-01-39-08-9A-C3-00-D0-FF-AB-4E-D5
    DNS Servers. . . . .: ::
                           209.165.200.225

Bluetooth Connection:

    Connection-specific DNS Suffix...: 
    Physical Address. . . . .: 000A.F3A0.C639
    Link-local IPv6 Address . . . . .: ::

C:\>ping cisco.srv

Pinging 209.165.200.225 with 32 bytes of data:

Reply from 209.165.200.225: bytes=32 time=1ms TTL=127
Reply from 209.165.200.225: bytes=32 time=24ms TTL=127
Reply from 209.165.200.225: bytes=32 time=56ms TTL=127
Reply from 209.165.200.225: bytes=32 time=72ms TTL=127

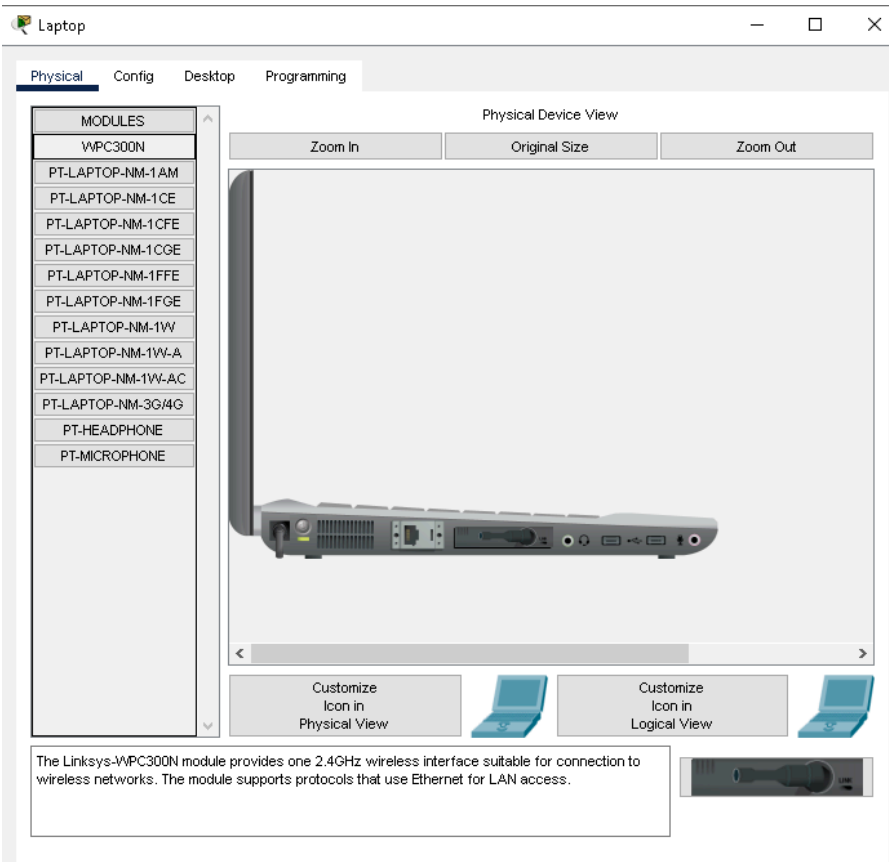
Ping statistics for 209.165.200.225:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 72ms, Average = 38ms
```

To configure the laptop, first I removed the ethernet copper NIC and replaced it with a wireless WPC300N NIC.

Ethernet:



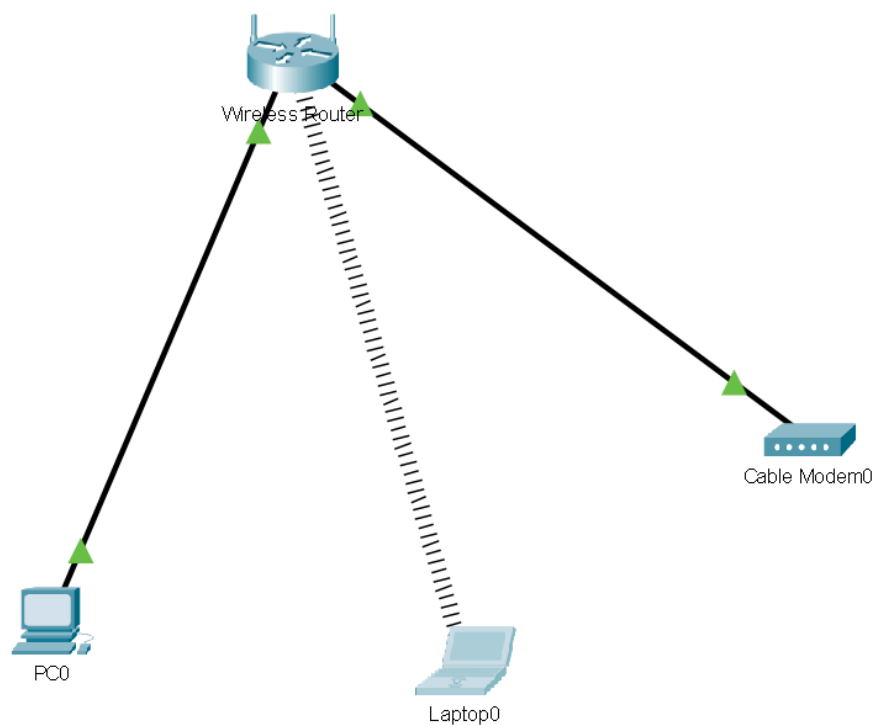
Wireless:



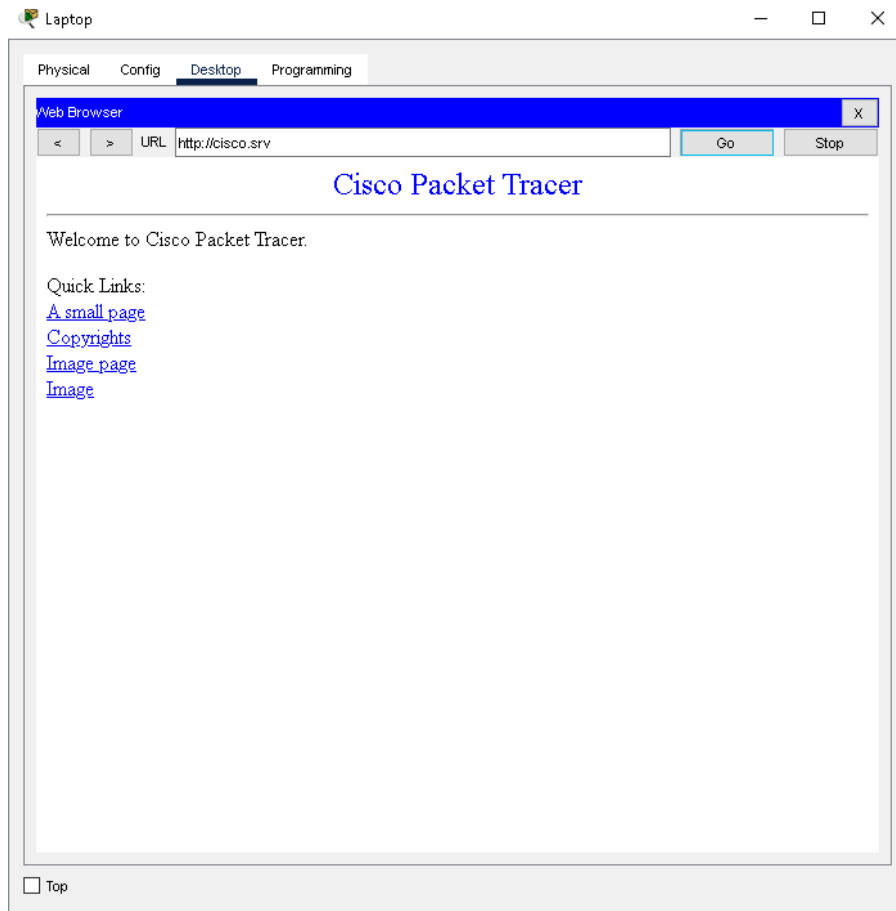
Now that the wireless module is installed, I navigate through the desktop to the home network.



The laptop is now be wirelessly connected to the router:



The laptop successfully connects to cisco.srv site:



Final Network Diagram:

