

Lab - View Wireless and Wired NIC Information

Objectives

Part 1: Identify and Work with PC NICs

Part 2: Identify and Use the System Tray Network Icons

Background / Scenario

This lab requires you to determine the availability and status of the network interface cards (NICs) on the PC. Windows provides a number of ways to view and work with your NICs.

In this lab, you will access the NIC information of the PC and change the status of these cards.

Required Resources

- 1 PC (Windows 10 with two NICs, wired and wireless, and a wireless connection)
- A wireless router

Instructions

Part 1: Identify and Work with PC NICs

In Part 1, you will identify the NIC types in the PC. You will explore different ways to extract information about these NICs and how to activate and deactivate them.

Note: This lab was performed using a PC running on the Windows 10 operating system. You should be able to perform the lab with another Windows operating systems version. However, menu selections and screens may vary.

Step 1: Use Network connections.

You will verify which network connections are available.

- a. Right-click **Start** and select **Network Connections**.
- b. The Network Connections window displays the list of NICs available on this PC. Look for your Local Area Connection and Wireless Network Connection adapters in this window.

Note: If the Network status page is displayed, click **Change adapter options** to navigate to the Network Connections window.

Note: Other types of network adapters, such as Bluetooth Network connection and Virtual Private Network (VPN) adapter, may also be displayed in this window.

Step 2: Work with your wireless NIC.

Verify the wireless network connection settings.

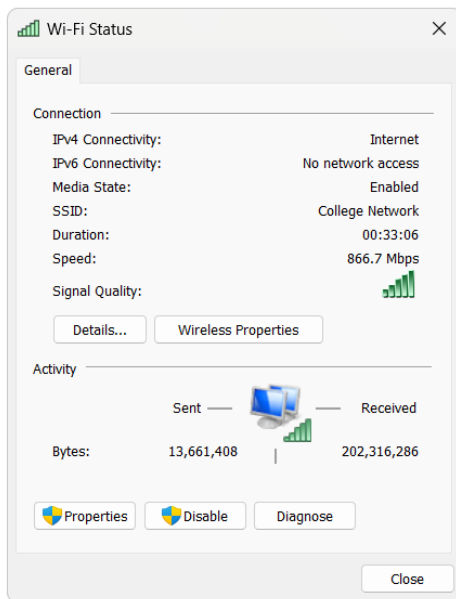
- a. Right-click a **Wireless Network Connection**. The first option displays if your wireless NIC is enabled or disabled. If your wireless NIC is disabled, you will have an option to **Enable** it.
- b. Verify that the wireless network is connected. If not, click **Connect/Disconnect** to connect to the desired network. Click **Status** to open the Wireless Network Connection Status window.

What is the Service Set Identifier (SSID) for the wireless router of your connection?

College Network

What is the speed of your wireless connection?

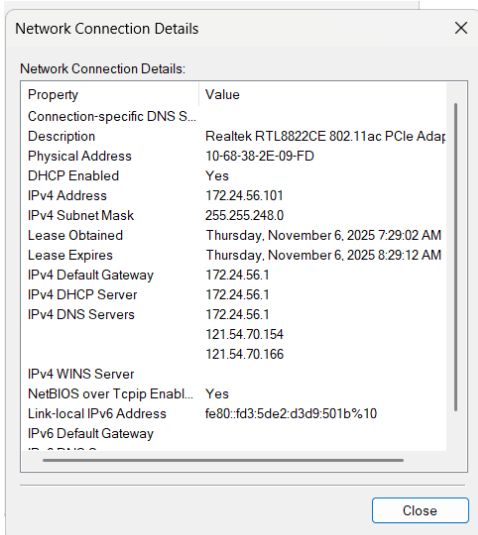
866.7 Mbps



- c. Click **Details** to display the Network Connection Details window.

What is the MAC address of your wireless NIC? Connection-specific DNS Suffix:

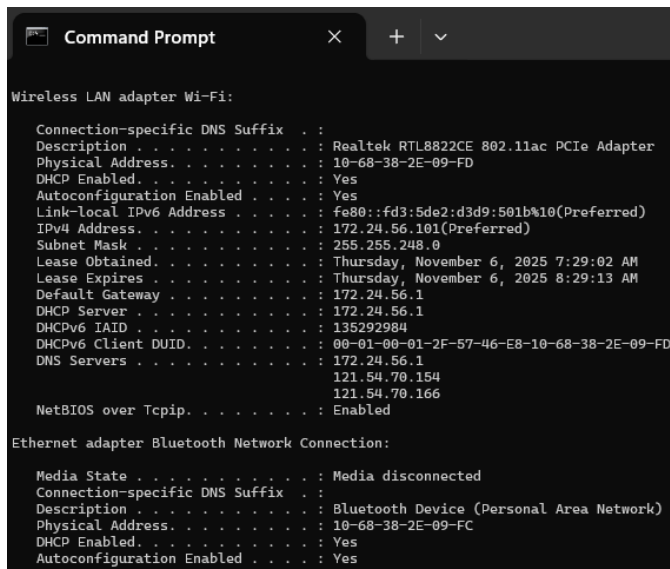
Physical Address: 10-68-38-2E-09-FD



- d. Open a Command Prompt and enter **ipconfig /all**.

```
C:\Users\Bob> ipconfig /all
```

Notice the information displayed is similar to the Network Connection Details window information. When you have reviewed the details, click **Close** to return to the Wireless Network Connection Status window.



```
Command Prompt

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . : 
Description . . . . . : Realtek RTL8822CE 802.11ac PCIe Adapter
Physical Address. . . . . : 10-68-38-2E-09-FD
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::fd3:5de2:d3d9:501b%10(Preferred)
IPv4 Address. . . . . : 172.24.56.101(Preferred)
Subnet Mask . . . . . : 255.255.248.0
Lease Obtained. . . . . : Thursday, November 6, 2025 7:29:02 AM
Lease Expires . . . . . : Thursday, November 6, 2025 8:29:13 AM
Default Gateway . . . . . : 172.24.56.1
DHCP Server . . . . . : 172.24.56.1
DHCPv6 IAID . . . . . : 135292984
DHCPv6 Client DUID. . . . . : 00-01-00-01-2F-57-46-E8-10-68-38-2E-09-FD
DNS Servers . . . . . : 172.24.56.1
                        121.54.70.154
                        121.54.70.166
NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . : 
Description . . . . . : Bluetooth Device (Personal Area Network)
Physical Address. . . . . : 10-68-38-2E-09-FC
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
```

- e. Return to the Wireless Network Connection Status window. Click **Wireless Properties** to open the **Wireless Network Properties** window of the Home-Net network.
- f. You should always use wireless security whenever available. To verify (or configure) the wireless security options click on the **Security** tab.

The window displays the type of security and encryption method enabled. You can also enter (or change) the security key in this window. Close all windows.

Step 3: Work with your wired NIC. *(Not applicable to this device)*

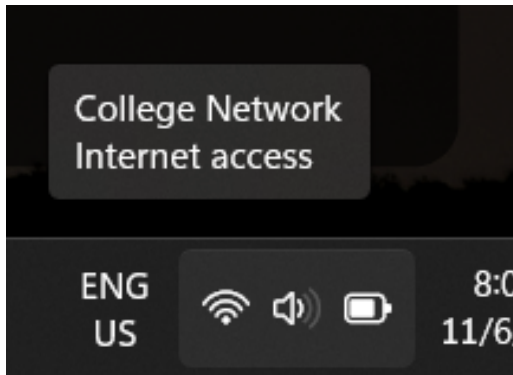
We will now verify the wired network connection settings.

- a. Open the **Network Connections** window by right-clicking Windows **Start** > **Network Connections**.
Note: If the Network status page is displayed, click **Change adapter options** to navigate to the Network Connections window.
- b. Select and right-click the **Local Area Connection** option to display the drop-down list. If the NIC is disabled, enable it.
- c. Click the **Status** option to open the Local Area Connection Status window. This window displays information about your wired connection to the LAN.
- d. Click **Details...** to view the address information for your LAN connection.
- e. Open a Command Prompt and enter **ipconfig /all**. Find your Local Area Connection information and compare this with the information displayed in the Network Connection Details window.
- f. Close all windows on your desktop.

Part 2: Identify and Use the System Tray Network Icons

In Part 2, you will use the network icons in your system tray to display the networks available on the network.

- a. The bottom right-hand corner of the Windows 10 screen contains the system tray. Move your mouse to display the system tray.
- b. If you hover over the network icon in the system tray, it displays the currently connected networks.



- c. Click the wireless network icon, and it displays the wired and wireless network SSIDs that are in range of your wireless NIC.
- d. Right-click the wireless network icon, and it displays a troubleshooting option and to open the Network and Sharing Center window.
- e. Click the **Open Network and Sharing Center** option.
- f. The Network and Sharing Center is a central window that displays information about the active network or networks, the network type, the type of access.

Reflection

Why would you activate more than one NIC on a PC?

Activating more than one NIC gives the PC more connection options and better network performance. With this setup, I can use the wired NIC for a stable and faster internet connection, while the wireless NIC let me connect to Wi-Fi when I need mobility. Having both active also lets me switch easily if one connection fails.:>