

Using ipconfig

Ipconfig, short for Internet Protocol Configuration, is a tool to display all existing IP network configuration values. The tool is also used to change settings of Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS). The ipconfig command with the switch /all provides more detailed information than ipconfig.

The parameter **/release** releases the IP address for the specified adapter from DHCP server. The parameter **/renew** renews the IP address for the specified adapter from DHCP server.

To get a better understanding of this technology, please refer to your course material or use your preferred search engine to research this topic in more detail.

Learning Outcomes

After completing this exercise, you will be able to:

- Using the Ipconfig Tool
- Disable or uninstall some network settings

Your Devices

You will be using the following devices in this lab. Please make sure these are powered on before proceeding.

- **PLABWIN10** (Workstation)



Task 1 - Use the Ipconfig Tool

In this task, you will learn the various commands of ipconfig tool.

Step 1

Ensure that you have powered on the required devices indicated in the Introduction of this lab.

Connect to **PLABWIN10** device, click in the Type here to search text box, and type **cmd**.

Select the **Command Prompt** option once it appears on the popup menu.

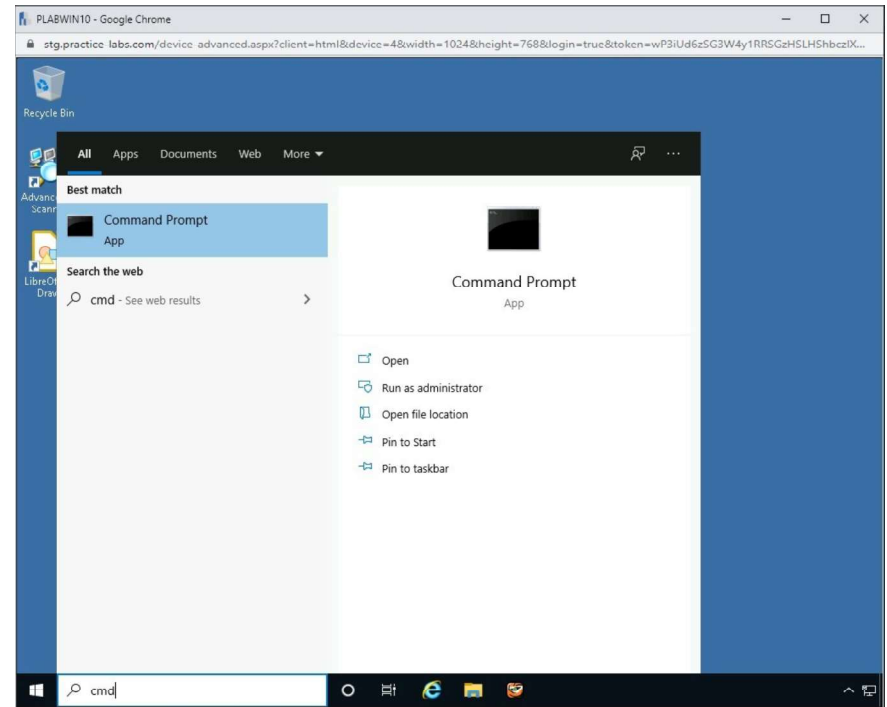


Figure 1.1 Screenshot of the PLABWIN10 desktop: Command Prompt menu-option is highlighted on the Best match popup menu.

Step 2

The **Command Prompt** window appears. To get the IP information about this computer and save it as a text file, type:

```
ipconfig /all > ip.txt
```

Press **ENTER**.

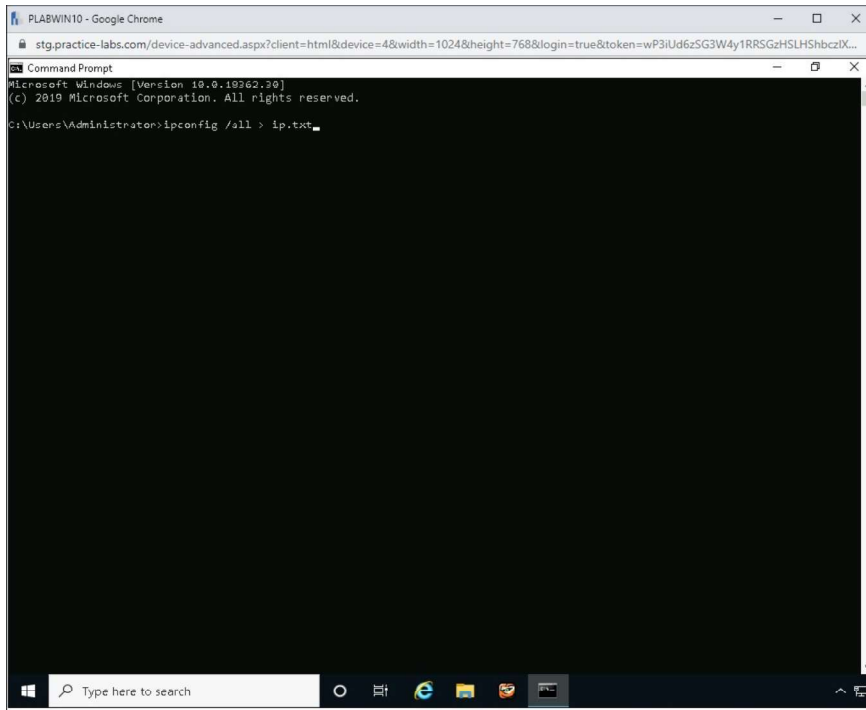


Figure 1.2 Screenshot of the PLABWIN10 desktop: Administrator Command Prompt window is displayed showing the command to get the IP information about this computer and save the information as a text file typed-in.

Step 3

To read the contents of **ip.txt** in Notepad, type:

```
notepad ip.txt
```

Press **Enter**.

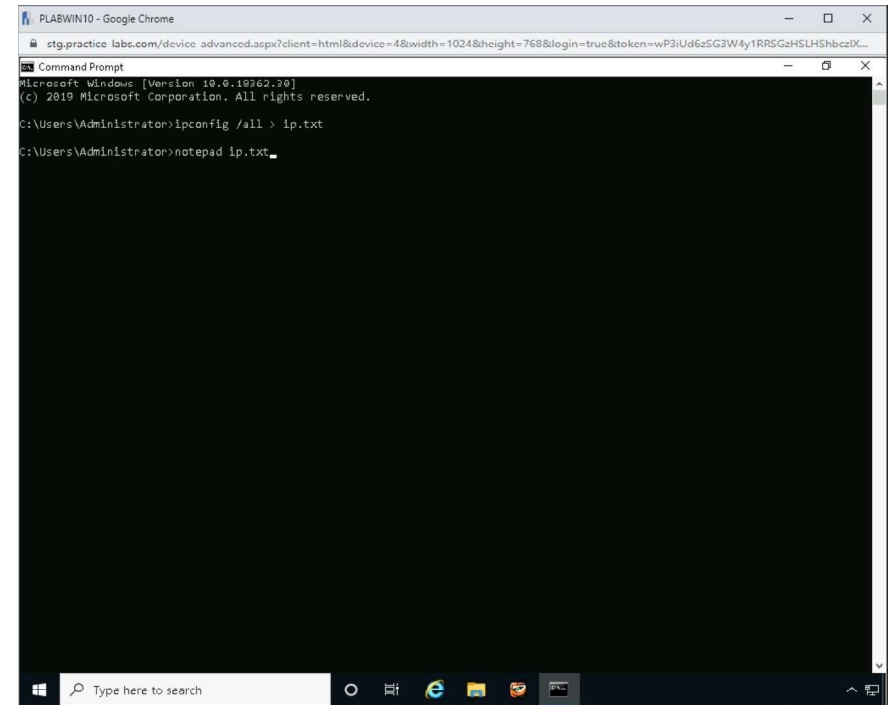


Figure 1.3 Screenshot of the PLABWIN10 desktop: Command to list contents of the specified Notepad file is typed in the Administrator Command Prompt window.

Step 4

The **Notepad** application window opens, indicating the ip settings of **PLABWIN10**.

Scroll down to see the other network details of this computer.

Close **Notepad**.

Minimize the **Command Prompt** window.

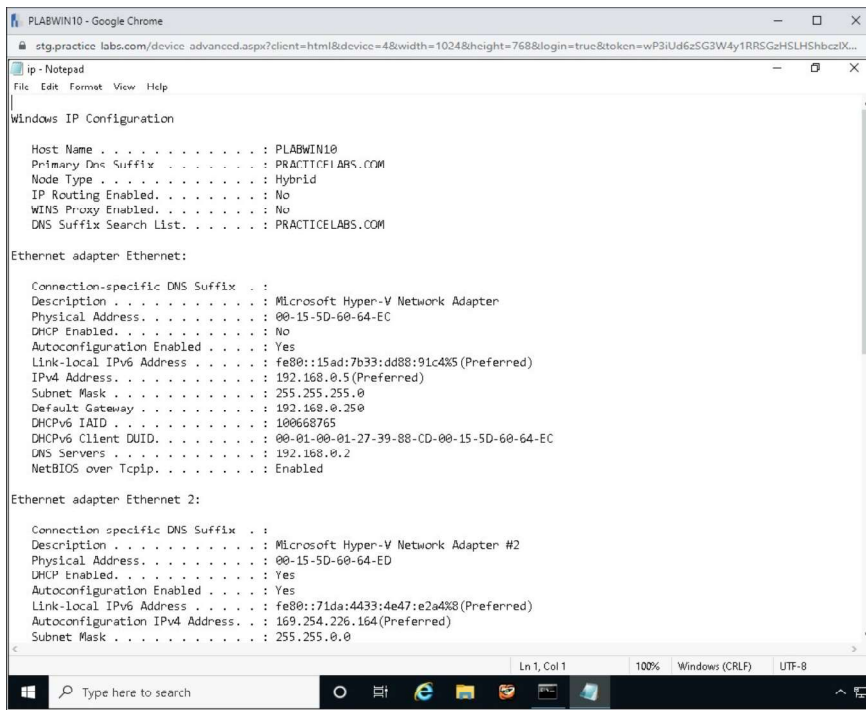


Figure 1.4 Screenshot of the PLABWIN10 desktop: Specified Notepad file is displayed in the ip - Notepad window.

Task 2 - Modify Network Settings

You can disable or uninstall some network settings like IPv6 which will alter the output of the ipconfig command.

To modify network settings, perform the following steps:

Step 1

On **PLABWIN10** device, click in the Type here to search text box, type:

control panel

As you type, the **Control Panel** options appears on popup menu. Select the option.

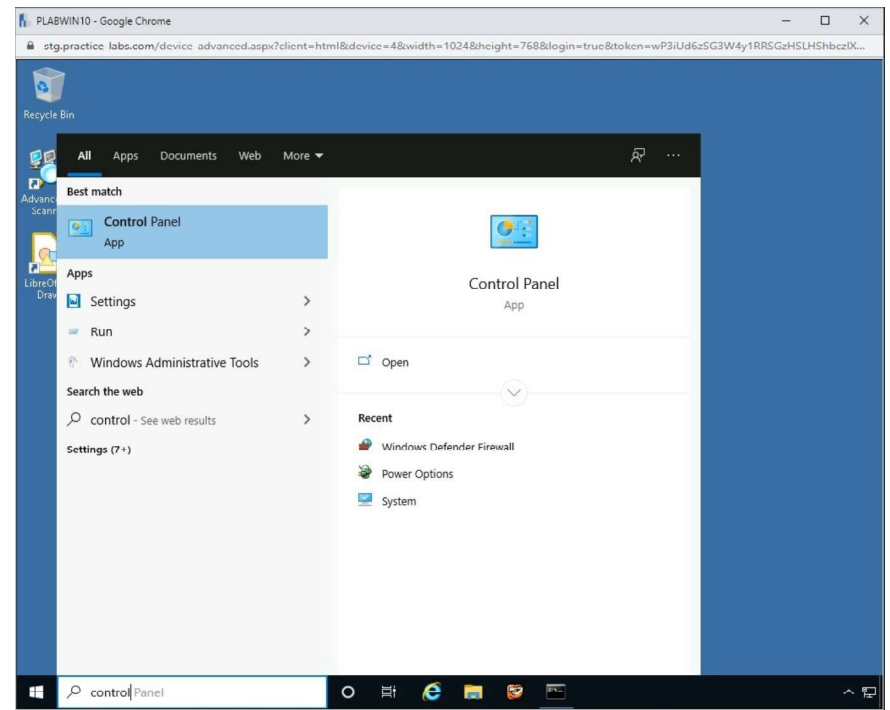


Figure 1.5 Screenshot of the PLABWIN10 desktop: Required option is highlighted on the Best match popup menu.

Step 2

On the **Control Panel** window, select the **View network status and tasks** link under the **Network and Internet** heading.

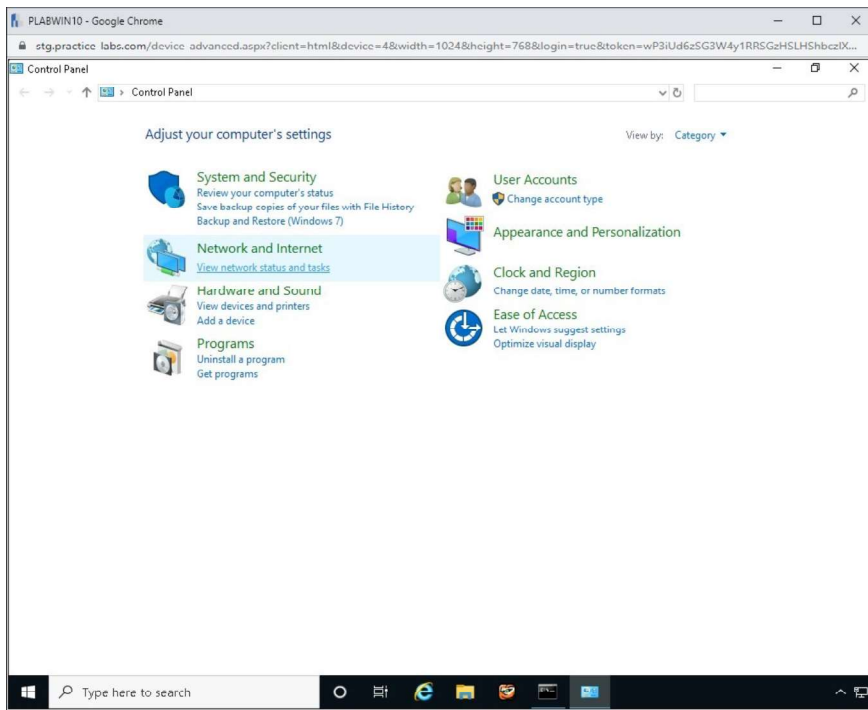


Figure 1.6 Screenshot of the PLABWIN10 desktop: View network status and tasks link on the Control Panel window is selected.

Step 3

On the **Network and Sharing Center** window, under the **View your active networks** section, click **Ethernet** link.

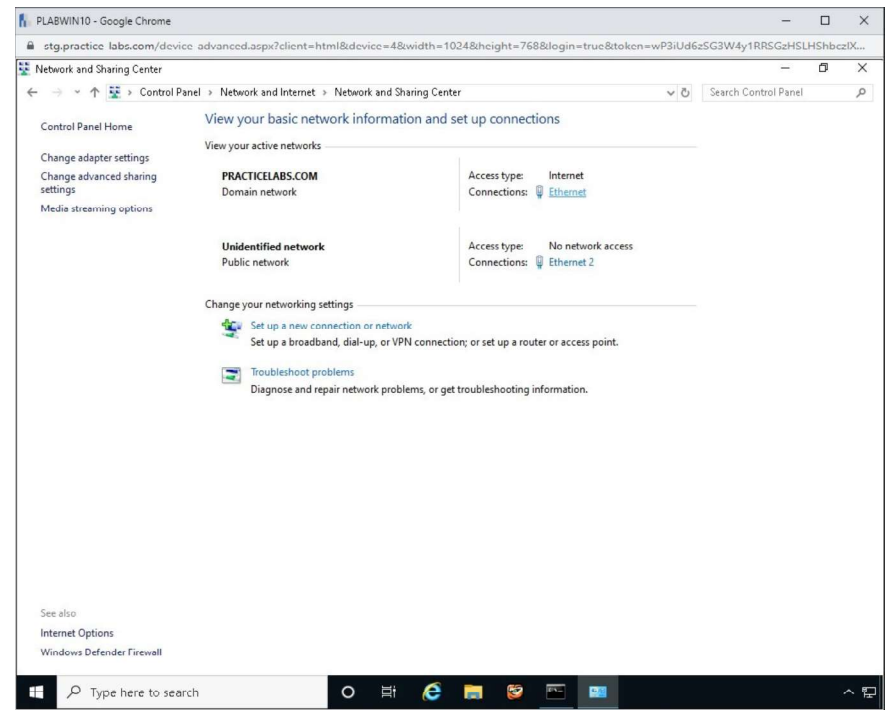


Figure 1.7 Screenshot of the PLABWIN10 desktop: Network and Sharing Center window is displayed showing the Ethernet link selected.

Step 4

On the **Ethernet Status** dialog box, click **Properties**.

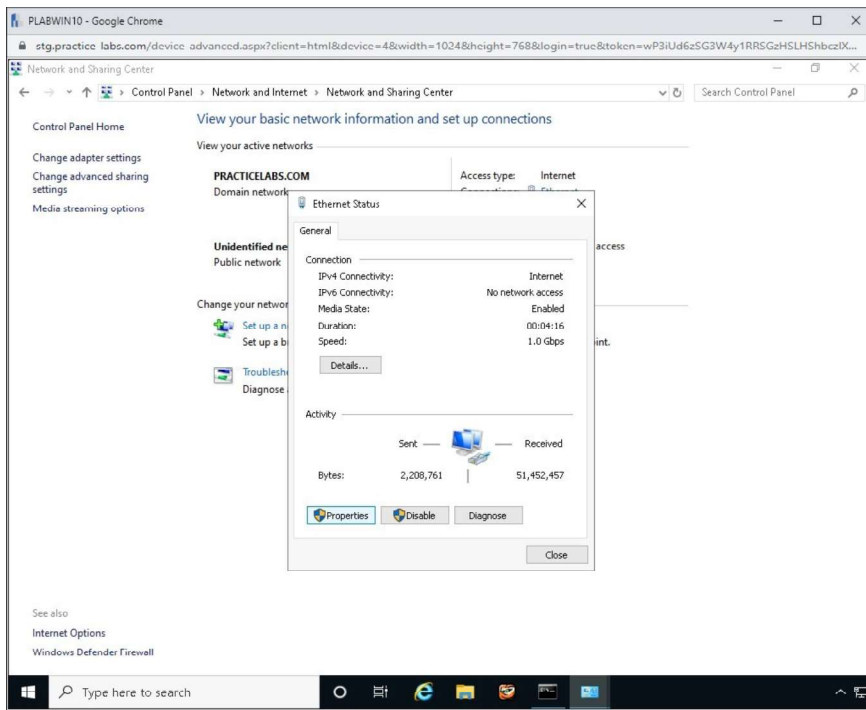


Figure 1.8 Screenshot of the PLABWIN10 desktop: Ethernet Status dialog box is displayed showing the Properties button highlighted.

Step 5

On the **Ethernet Properties** dialog box, clear **Internet Protocol Version 6 (TCP/IPv6)** check box.

Click **OK**.

Close all the open windows to access the desktop.

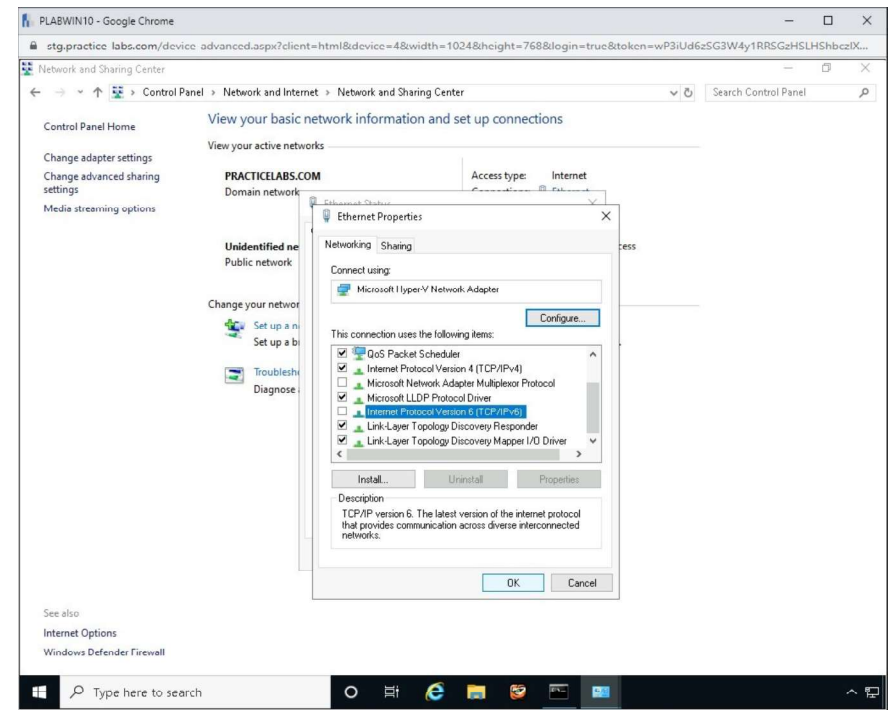


Figure 1.9 Screenshot of the PLABWIN10 desktop: Ethernet Properties dialog box is displayed showing the required settings performed and the OK button highlighted.

Step 6

Restore **Command prompt** from the taskbar.

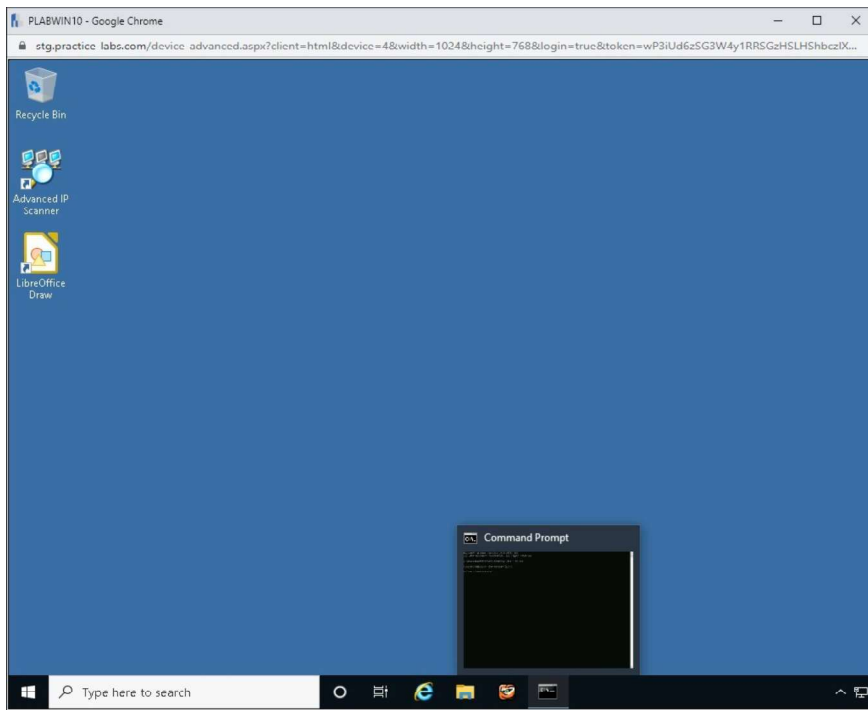


Figure 1.10 Screenshot of the PLABWIN10 desktop: Command Prompt icon on taskbar highlighted.

Step 7

To get the updated IP settings, type:

```
ipconfig
```

Press **Enter**.

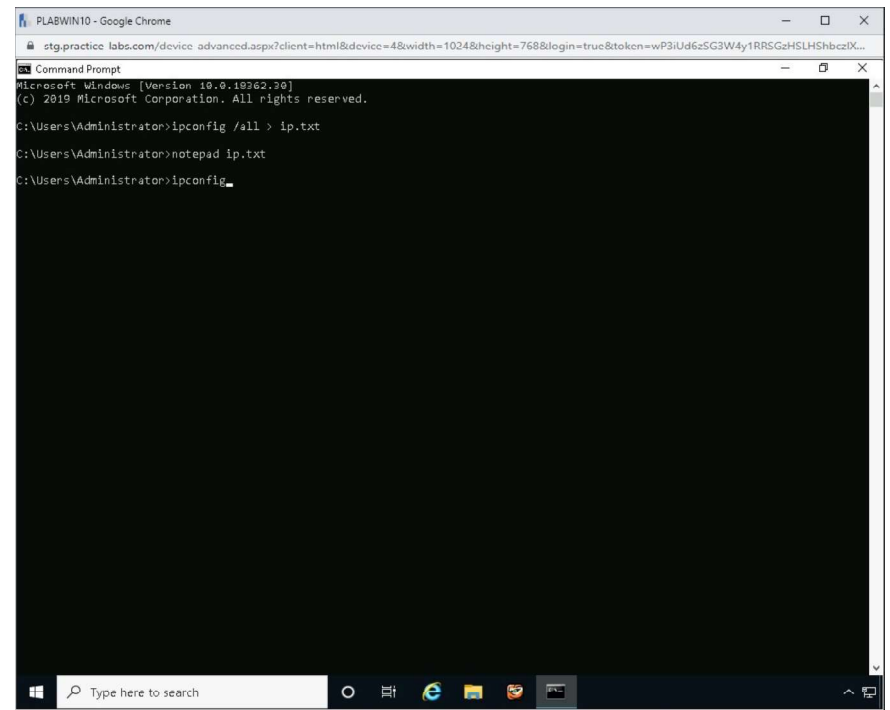


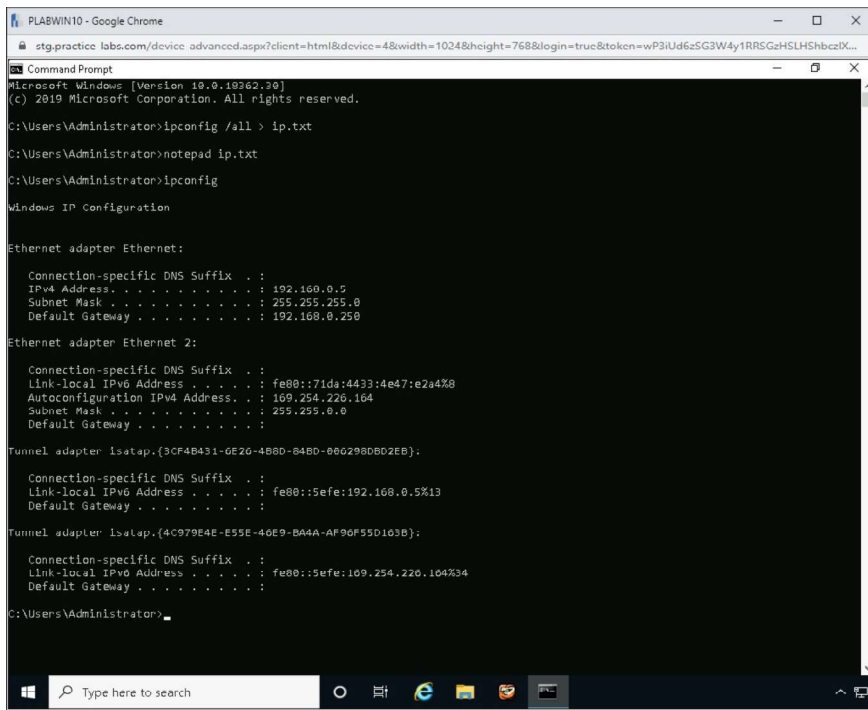
Figure 1.11 Screenshot of the PLABWIN10 desktop: Command to get IP information about this computer is typed in the Administrator Command Prompt window.

Step 8

Notice that the **Ethernet adapter Ethernet** section no longer has a **Link-local IPv6** address as it did in its previous output. Review the **ip.txt** file to verify this if necessary.

Recall that you cleared the TCP/IPv6 check box for the Ethernet network connection and so all IPv6 parameters have been removed.

Keep the command prompt window open.



The screenshot shows a Windows desktop environment titled 'PLABWIN10 - Google Chrome'. A Command Prompt window is open, displaying the output of the 'ipconfig /all' command. The output lists network configuration for three adapters: Ethernet, Ethernet 2, and two Tunnel adapters (Isatap). The Ethernet adapter shows IPv4 address 192.168.0.2, subnet mask 255.255.255.0, and default gateway 192.168.0.250. Ethernet 2 shows IPv4 address 169.254.226.164, subnet mask 255.255.0.0, and default gateway 169.254.226.164. The first Tunnel adapter (Isatap) shows IPv4 address 192.168.0.5%13, subnet mask 255.255.0.0, and default gateway 169.254.226.164. The second Tunnel adapter (Isatap) shows IPv4 address 109.254.220.104%34, subnet mask 255.255.0.0, and default gateway 169.254.226.164. The Command Prompt window is titled 'Command Prompt' and shows the user 'Administrator'.

```
Microsoft Windows [Version 10.0.19362.20]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ipconfig /all > ip.txt
C:\Users\Administrator>notepad ip.txt
C:\Users\Administrator>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 192.168.0.2
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.250

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::71d5:4437:4e47:e2a4%8
    Autoconfiguration IPv4 Address. . : 169.254.226.164
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 

Tunnel adapter Isatap.{3CF4B431-0E20-4B8D-B4BD-000298D8D2EB}:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::5efe:192.168.0.5%13
    Default Gateway . . . . . : 

Tunnel adapter Isatap.{4C979E4E-E55E-46E9-BA4A-AF96F55D103B}:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::5efe:109.254.220.104%34
    Default Gateway . . . . . : 

C:\Users\Administrator>
```

Figure 1.12 Screenshot of the PLABWIN10 desktop: Administrator Command Prompt window is displayed listing system-response to the command typed-in in the previous step.

Keep all devices powered on in their current state and proceed to the next exercise.