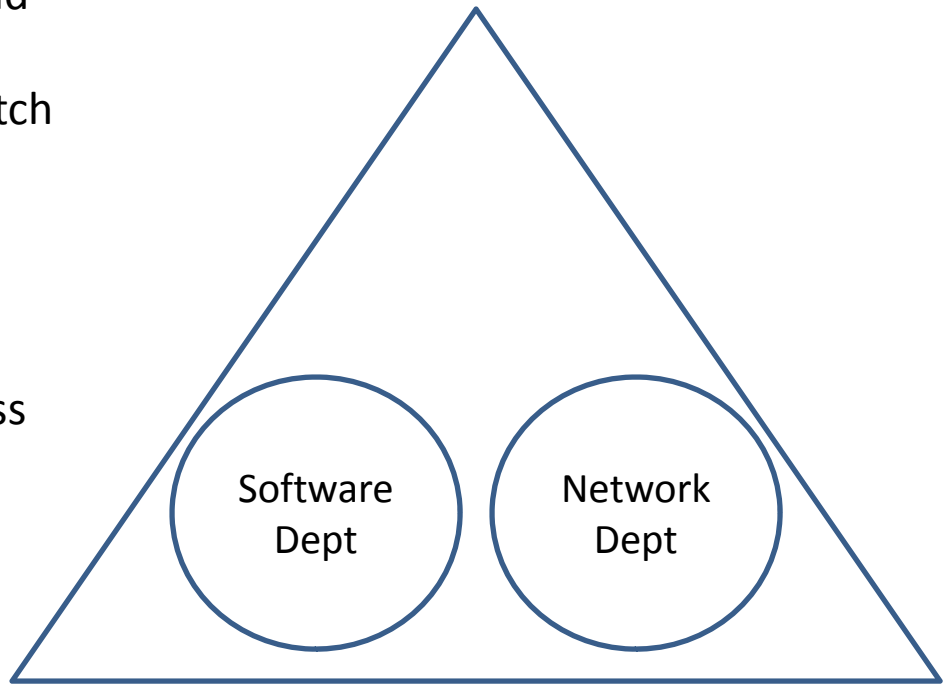
# Setting a Static IP

April 23, 2010

# Who Uses Static TCP/IP Addresses?

1. Organizations that no longer use peer to peer networks and move to server client set-ups will use IP addresses that match the computer name.
2. Static IP is best for name resolution such as for DNS servers, where having the machine change it's IP address at each startup would be inefficient.

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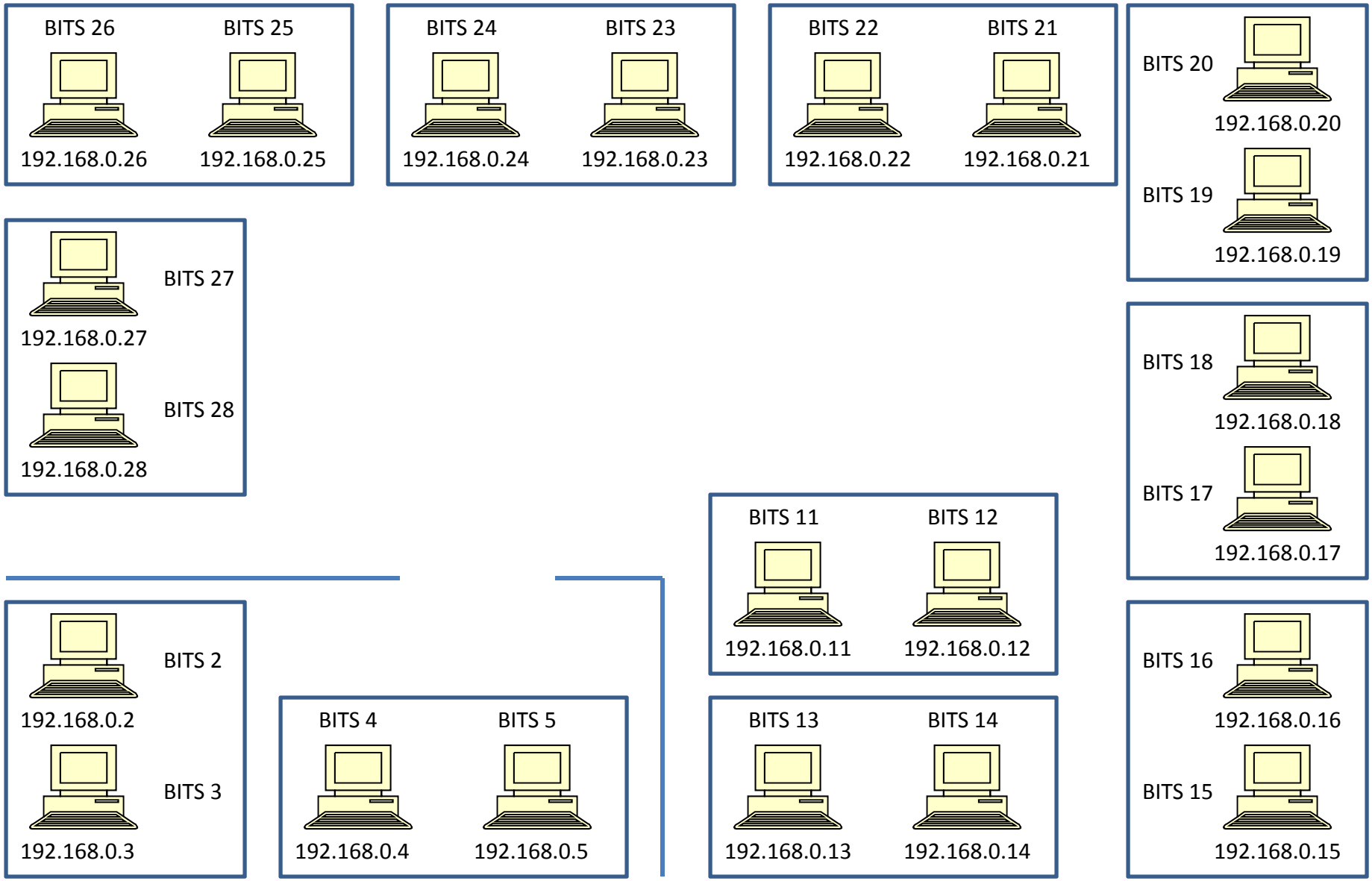
# Retrieve the TCP/IP Data from the ISP and from the LAN Diagram

1. Obtain a static IP address from the Internet Server Provider (ISP)
2. Obtain a Primary and Secondary DNS IP address from the ISP
3. Get the computer IP address from the Local Area Network (LAN) diagram on the next page. In this exercise, we will be setting up BITS17.

| | |
|---|---|
| Gateway address: | 192.168.0.1 |
| Primary DNS: | 209.18.47.61 |
| Secondary DNS: | 209.18.47.62 |

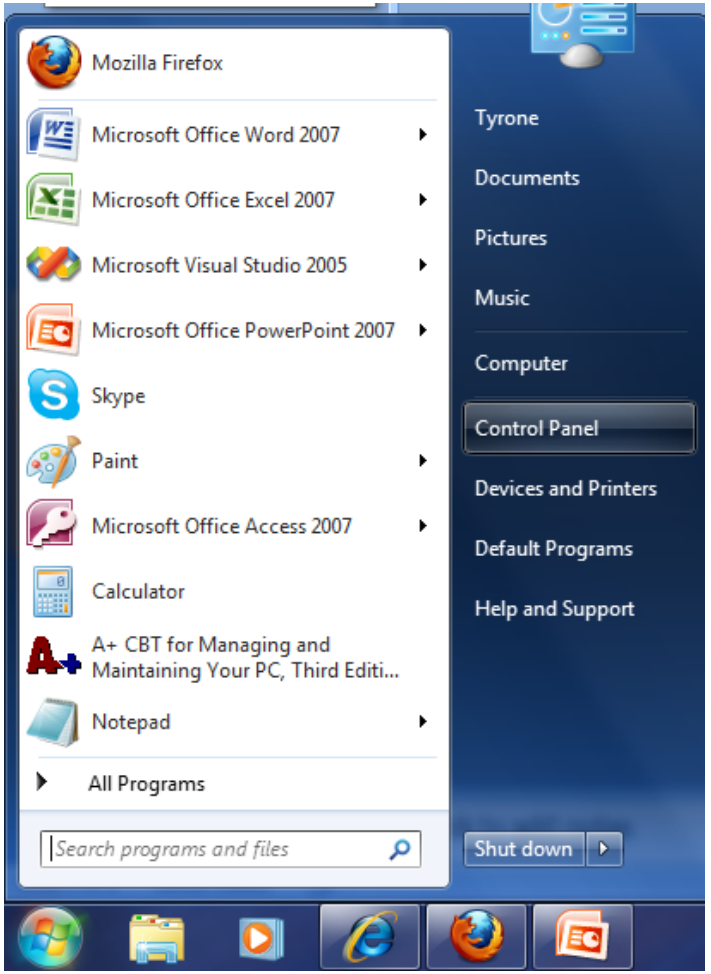
# The LAN Diagram



# Setting Static IPs in Windows 7

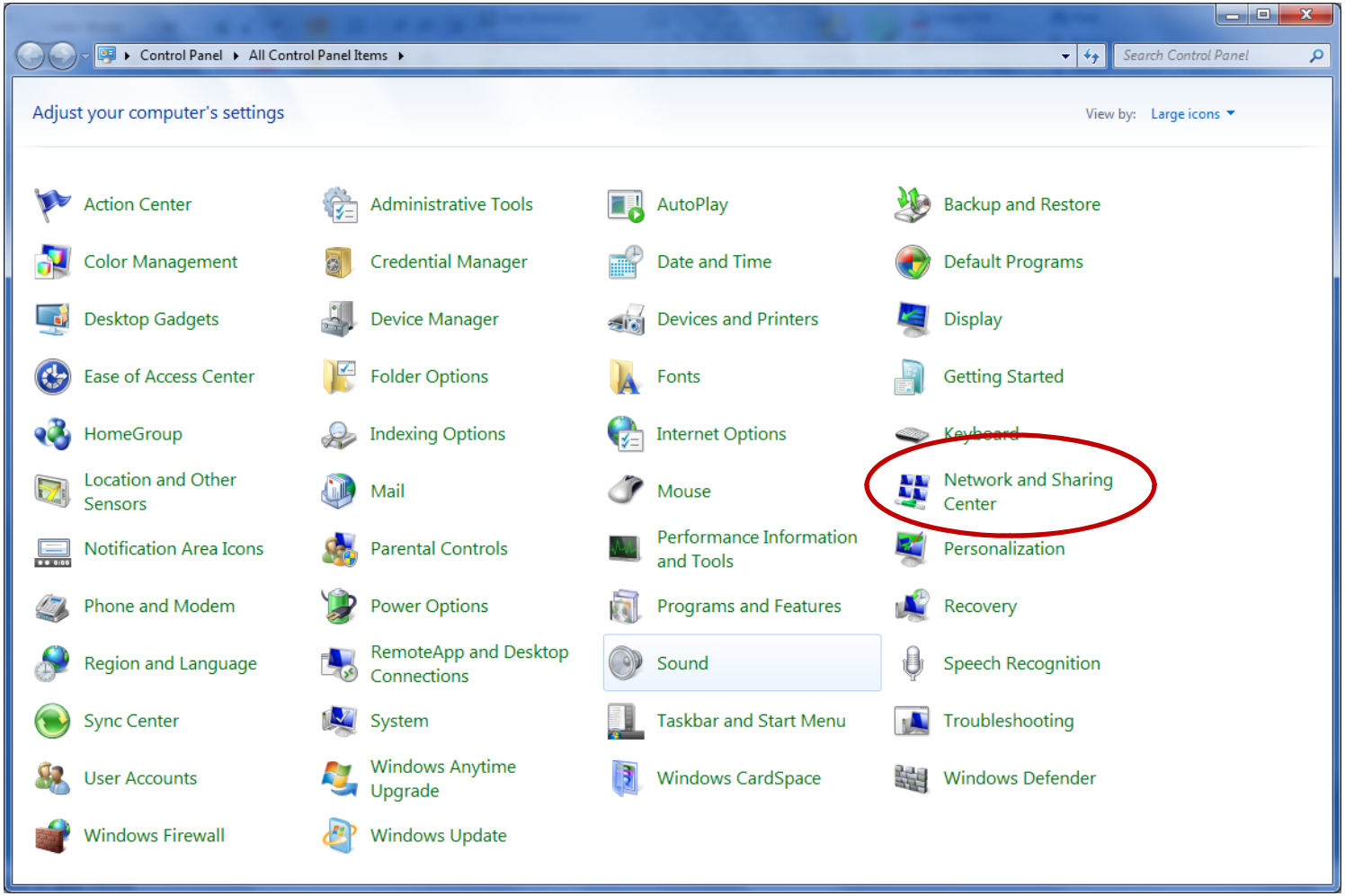
To access the window to change from Dynamic Host Configuration Protocol (DHCP) to Static IP, we press the round Start Button icon on the lower left corner of the Windows' desktop.

Then we select the Control Panel command button  on the Start Menu.



# The Control Panel Window

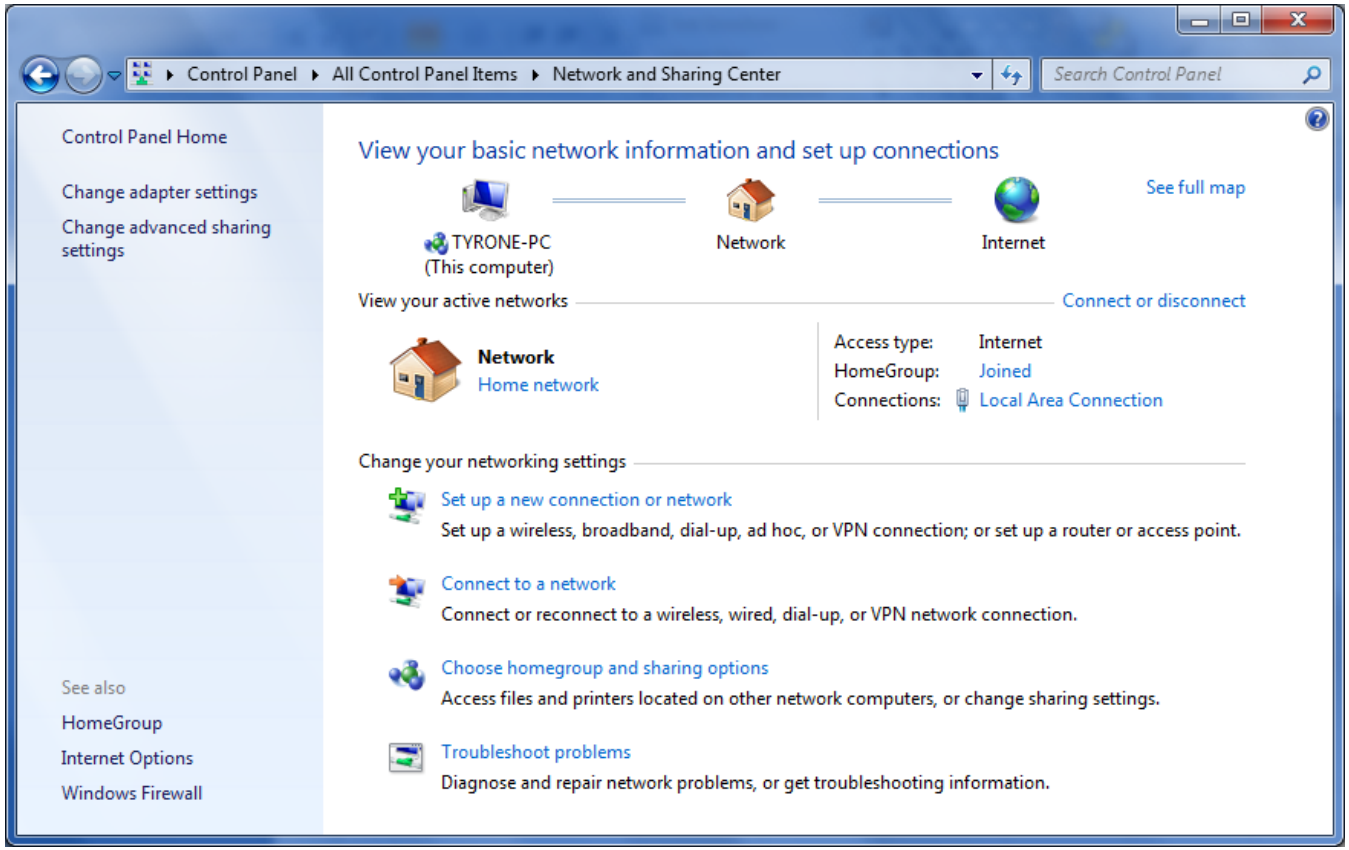
Next, we pick the Network and Sharing Center hyperlink.



# The Network and Sharing Center Window

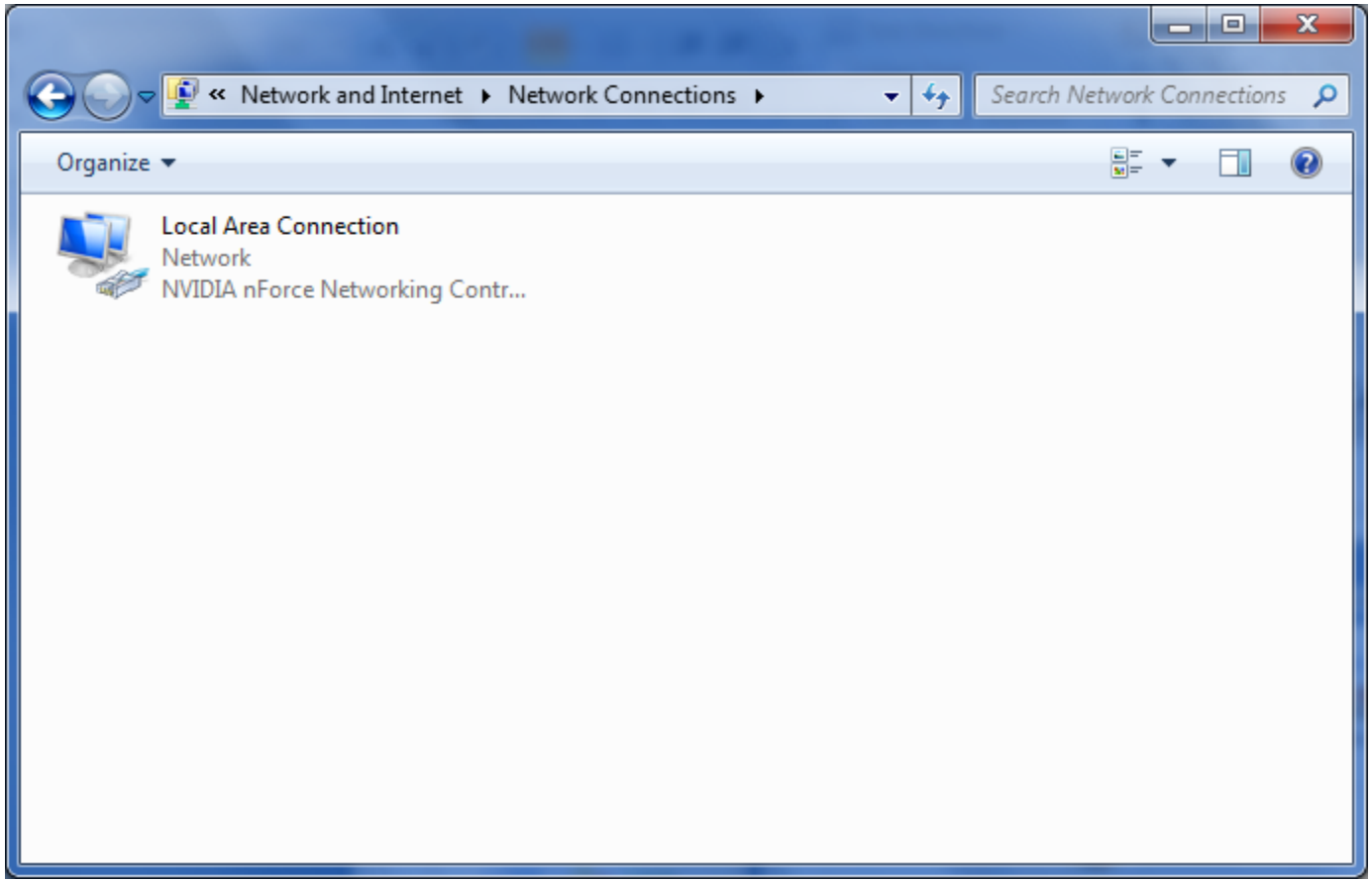
In the Network and Sharing window, we can see the vertical navigation bar on the left side of the dialogue box.

We now pick the Change adapter setting hyperlink.



# Local Area Connection

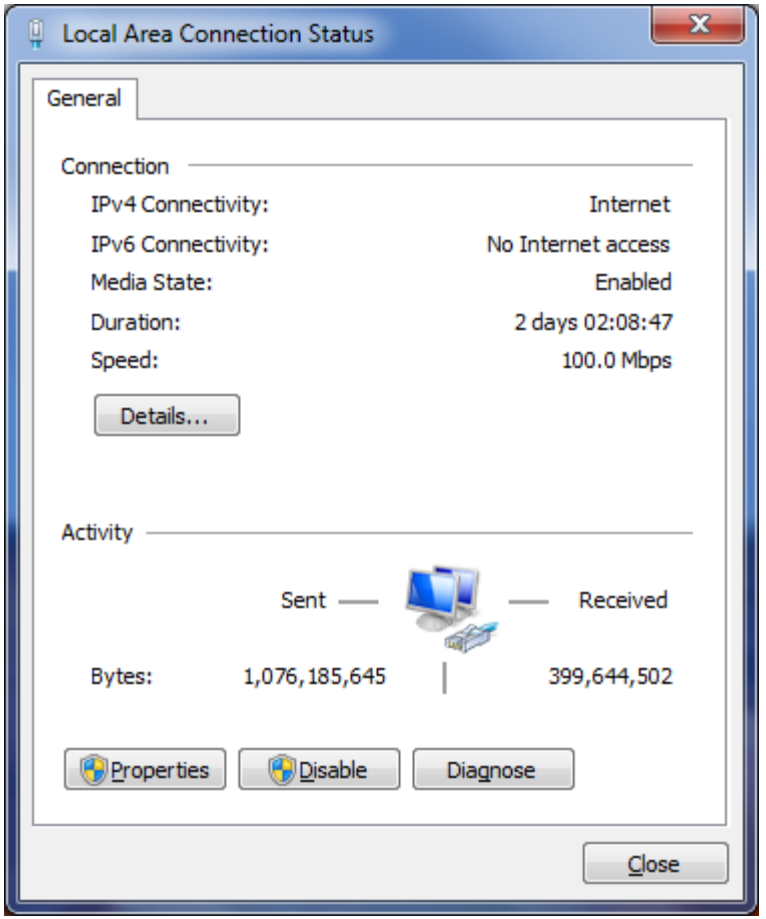
We next double click on the Local Area Connection hyperlink.



# The Local Area Connection Status Window

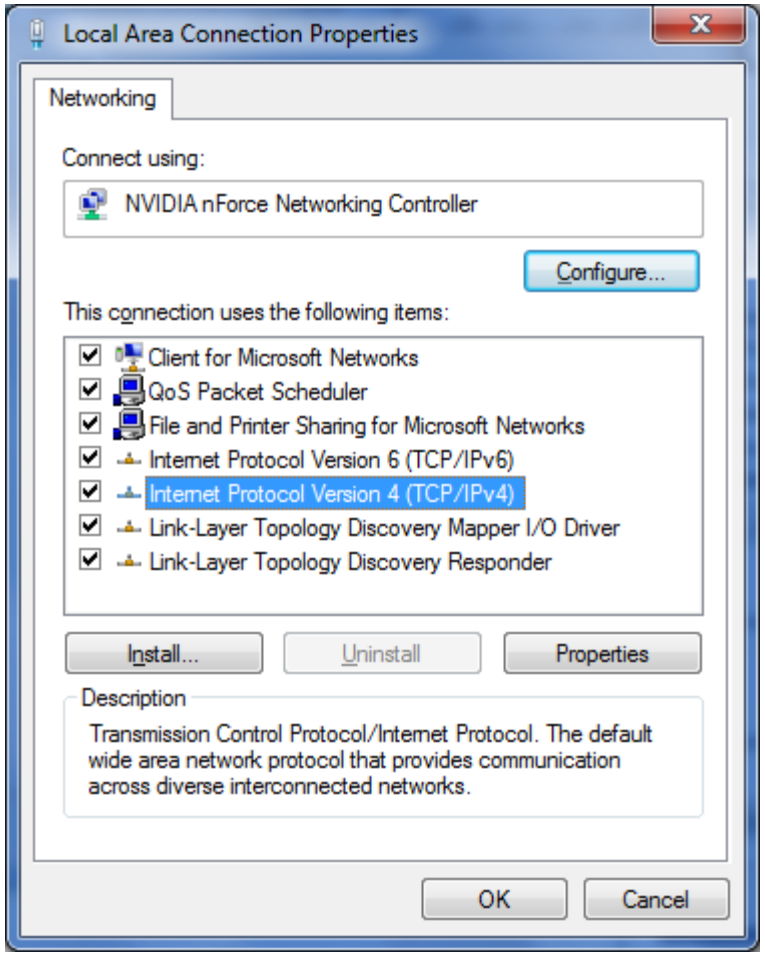
The Local Area Connection Status dialogue box gives the technician real-time data about the IPv4 connectivity, how long the link has been in progress and the speed of transmission. On the bottom of the utility, we can observe the sent and received number of Bytes.

To change from DHCP to Static IP, we double click on the Properties command button.



# Local Area Connection Properties

As highlighted in blue, we double click on the Internet Protocol Version 4 (TCP/IPv4) phrase in the connection list box.



# Internet Protocol Version 4 (TCP/IPv4) Properties

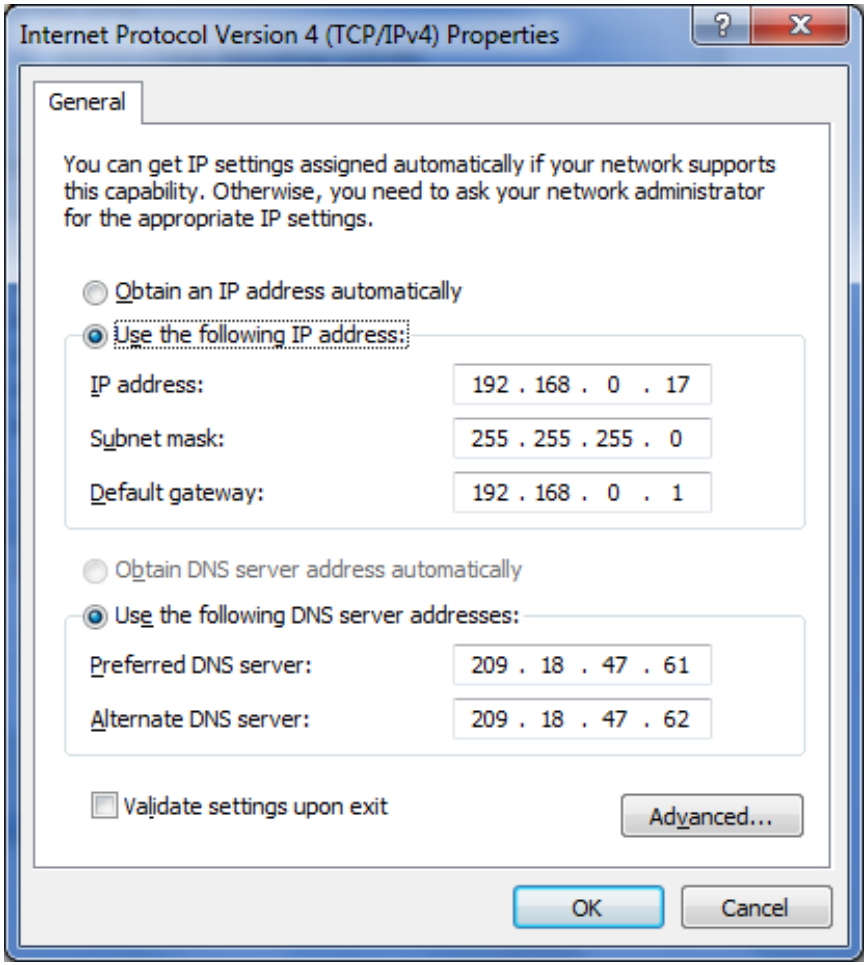
We first select the “Use the following IP address:” radial button.

For the IP address, we retrieve that information from our Local Area Network (LAN) diagram. In this example, our computer is 192.138.0.17.

This is a standard Class C network, so we will use 255.255.255.0 for the Subnet mask.

The Default Gateway is our router’s IP address , which is 192.168.0.1 and is the first address on the network.

The Preferred and Alternate DNS Server addresses are obtained typically from the ISP.



# Close and Save Setting

To close and save the Settings, press the OK button on the Internet Protocol Version 4 (TCP/IPv4) Properties window.

We press OK on the Local Area Connection Properties window.

We close the Local Area Connection Status dialogue box and the Local Area Connection window.

To quickly check your connection, we can Ping the router and then we visit the World Class CAD website on the Internet to check the Static IP setup.