Lab 3.3.3 Determine the MAC Address of a Host

Objective

- Determine the MAC address of a Windows XP computer on an Ethernet network using the **ipconfig /all** command.

- Access to the **Run** command.

Background/Preparation

Every computer on an Ethernet local network has a Media Access Control (MAC) address that is burned into the Network Interface Card (NIC). Computer MAC addresses are usually displayed as 6 sets of two hexadecimal numbers separated by dashes or colons. (example: 15-EF-A3-45-9B-57). The **ipconfig /all** command displays the computer MAC address. You may work individually or in teams.

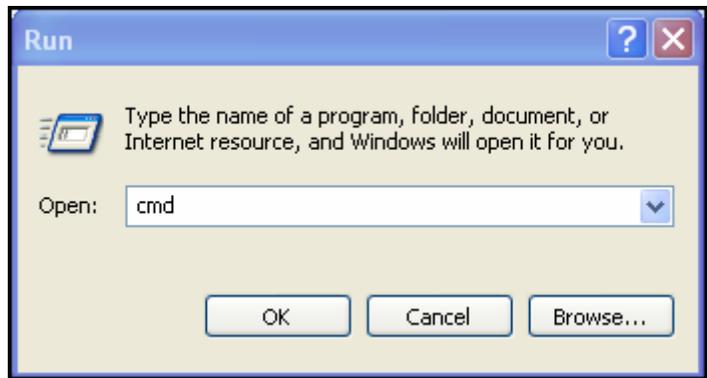The following resources are required:

- Windows XP workstation with at least one Ethernet network interface card (NIC)
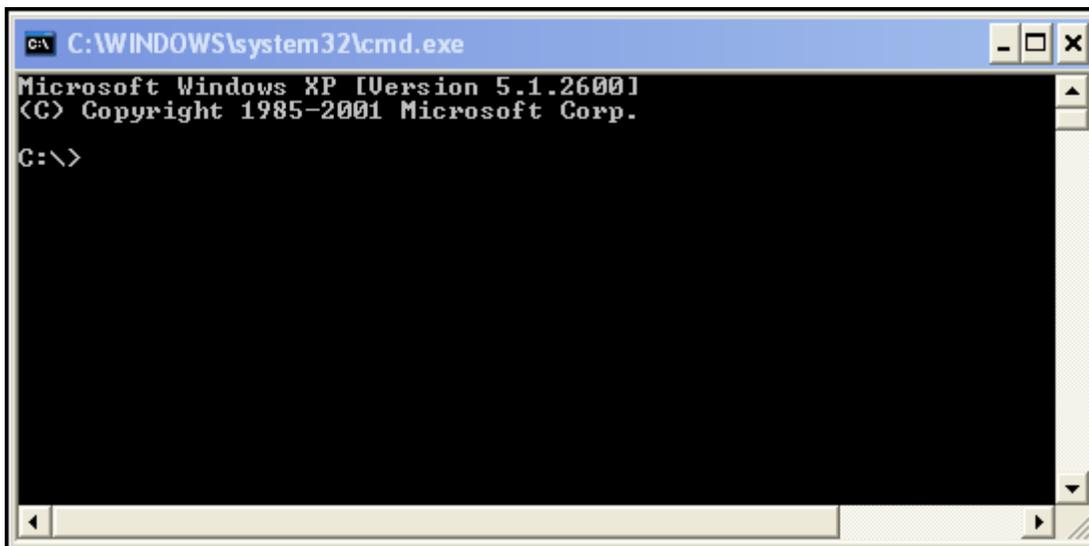
Step 1: Open a Windows command prompt window

    a. From the Windows XP desktop, click **Start** then **Run.**

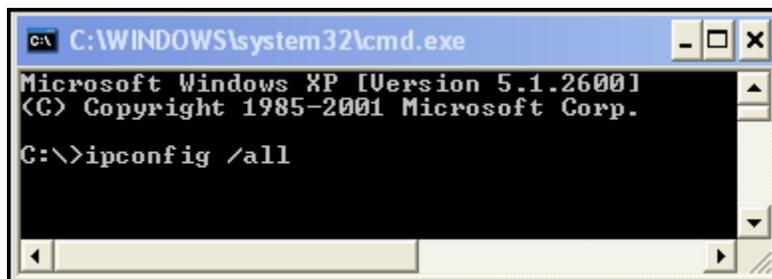   b. Type **cmd** in the Run dialogue box then click **OK**.

    c.   A Windows command prompt window opens.

Step 2: Use the *ipconfig /all* command

    a.   Enter the **ipconfig /all** command at the command prompt.

b. Press **Enter**. (Typical results are shown in the following figure, but your computer will display different information.)

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Windows IP Configuration

        Host Name . . . . . . . . . . : CBROWN
        Primary Dns Suffix . . . . . . . :
        Node Type . . . . . . . . . . : Unknown
        IP Routing Enabled . . . . . . . : No
        WINS Proxy Enabled . . . . . . . : No
        DNS Suffix Search List . . . . . : netdev.sourcehill.net

Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix . . : sourcehill.net
        Description . . . . . . . . . . . : VIA Rhine II Fast Ethernet Adaptor
        Physical Address . . . . . . . . : 00-50-2C-A5-F5-73
        Dhcp Enabled . . . . . . . . . . : Yes
        Autoconfiguration Enabled . . . . . : Yes
        IP Address. . . . . . . . . . . . : 192.168.1.30
        Subnet Mask . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 192.168.1.2
        DHCP Server . . . . . . . . . . : 192.168.1.2
        DNS Servers . . . . . . . . . . : 172.16.8.25
                                          172.16.9.25
        Lease Obtained. . . . . . . . . . : Monday, October 3, 2006 12:47:14
        Lease Expires . . . . . . . . . . : Thursday, October 7, 2006 12:47:14
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Step 3: Locate the MAC (physical) address(es) in the output from the *ipconfig /all* command

a. Use the table below to fill in the description of the Ethernet adapter and the Physical (MAC) Address:

Description	Physical Address

Step 4: Reflection

a. Why might a computer have more than one MAC address?

_____

_____

b. The sample output from the **ipconfig /all** command shown previously had only one MAC address. Suppose the output was from a computer that also had wireless Ethernet capability. How might the output change?

_____

_____

    c.   Try disconnecting the cable(s) to your network adapter(s) and use the **ipconfig /all** command again. What changes do you see? Does the MAC address still display? Will the MAC address ever change?

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    d.   What are other names for the MAC address?

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