Lab 8A: Configuring the DNS Client for Windows XP Professional

Objectives

After completing this lab, you will be able to:

- Configure a computer running Microsoft® Windows® XP Professional to use DNS.
- Configure a Primary DNS server address.
- Configure a Secondary DNS server address.
- Configure a DNS domain suffix.
- Change the order in which DNS server addresses are used.

Prerequisites

Before working on this lab, you must have:

- Basic knowledge of the DNS service.
- Basic understanding of TCP/IP name resolution.
- Basic knowledge of Active Directory™ domains.

Estimated time to complete this lab: 15 minutes

Exercise 0
Lab Setup

Tasks	Detailed steps
1. Log on to the local computer as DomAdmin with a password of **dompass**.	**a.** Press CTRL+ALT+DELETE to open the logon screen. **b.** Type **DomAdmin** in the **User Name** box. **c.** Type **dompass** in the **Password** box, and then click **OK**.

Exercise 1
Configuring the DNS Client for Windows XP Professional to Use Static DNS Server Addresses

In this exercise, you will configure the DNS client to use static DNS server addresses by using the **Local Area Connections** property sheet. This configuration would need to be accomplished on all computers where DHCP is not used that require Internet or intranet access.

Scenario

Your organization is opening a new satellite office that will have only 15 workstations and a router to connect to the Internet. This router will also be used to connect to the corporate network. This new office will not be directly connected to the corporate network, but will continue using the same DNS server configuration. Because there will be no DHCP services in use by this office, you need to configure static IP addresses and static DNS server addresses.

Tasks	Detailed steps
1. Use the **ipconfig** command to determine the current DHCP-supplied DNS server address.	**a.** Click **Start**, and then click **Run**. **b.** In the **Run** box, type **cmd** and then press ENTER. **c.** At the command prompt, type **ipconfig /all** and then press ENTER.
Document your current Internet Protocol TCP/IP settings. **IP address:** **Subnet mask:** **Default gateway (If listed):** **DNS servers:**	
Are these addresses static or are they given by DHCP? How can you tell? **DHCP.** **DHCP Enabled = Yes.**	
1. (*continued*)	**d.** Close the Cmd.exe window.

Tasks	Detailed steps
2. Configure the local area connection to use static address for TCP/IP. Use the TCP/IP addresses that where recorded earlier in this lab.	**a.** Click **Start**, and then click **Control Panel**. **b.** On the **Pick a Category** page, click **Network and Internet Connections**. **c.** Under **Pick a Control Panel Icon**, click **Network Connections**. **d.** Right-click **Local Area Connections**, and then click **Properties**. **e.** Click **Internet Protocol (TCP/IP)**, and then click **Properties**. **f.** Click Use **the following IP address**, and then use the settings that you recorded after completing Task 1 to enter the IP address, Subnet mask, and Default gateway) in the corresponding boxes. *Notice that the Use the following DNS server addresses option is selected automatically.* **g.** In the **Use the** following **DNS server addresses** section, enter the DNS server addresses that you recorded after completing Task 1. **h.** Click **OK** to accept the new settings, and then click **OK** to close **Local Area Connections**. *Note that the new settings are not applied to this computer until the **Local Area Connections** property sheet is closed.*
3. Verify the new TCP/IP settings by using the **ipconfig** utility.	**a.** Click **Start**, and then click **Run**. **b.** In the **Run** box, type **cmd** and then press ENTER. **c.** At the command prompt, type **ipconfig /all** and then press ENTER.
Were the new settings applied? **Yes.**	
3. (*continued*)	**d.** Close the Cmd.exe window.

Exercise 2
Configure an Alternate DNS Server Address

In this exercise, you will configure an alternate DNS server address and change the order in which the DNS servers are used. Setting the priority order is important when using multiple DNS servers to resolve host names to IP addresses. Having more than one DNS server is typical in environments that use an internal DNS server to resolve intranet names and an external DNS server to resolve Internet names. Also in this lab you will use the nslookup command to verify DNS configuration.

Scenario

Your organization has decided to enable users to have access to the Internet from their desktops. Because the DNS server that is currently configured supplies name resolution only to the local intranet server names, a new DNS server address needs to be configured to provide name resolution to Internet names. You need to configure each of the client computers running Windows XP Professional to use this new DNS server. Most of the client computers are configured to use DHCP for their TCP/IP configuration, but there are still 20 computers that do not. You will need to configure the DNS server address on each of these 20 computers manually.

Tasks	Detailed steps
1. Configure an alternate DNS server address by using the advanced DNS settings option, and configure this DNS server address with the IP address of 192.168.25.*x* (where *x* is your student number). Move this new DNS server address up in the order of use.	**a.** On the Network Connections page, right-click **Local Area Connection**, and then click **Properties**. **b.** Click **Internet Protocol (TCP/IP)**, and then click **Properties**. **c.** Click **Advanced**, and then click the **DNS** tab. **d.** Under **DNS server addresses, in order of use**, click **Add**. **e.** In DNS **server**, type **192.168.25.***x* (where *x* is your student number), and then click **Add**. *Notice that the address is entered under the already existing address.* **f.** Verify that the 192.168.25.*x* address is selected, and then click the up arrow to the right of this box. *Notice that the address moved up in the order of use.* **g.** Leave the Advanced **TCP/IP Settings** dialog box open.
2. Add internal.nwtraders.msft and nwtraders.msft to the list of DNS suffixes, and set this domain as the DNS suffix for the local area connection. Verify that the local area connection addresses are registered in DNS.	**a.** Click **Append these DNS suffixes (in order)**, and then click **Add**. **b.** In **Domain suffix**, type **internal.nwtraders.msft** and then click **Add**, and then click **Add** again, and then type **nwtraders.msft**, and then click **Add**. **c.** Verify that the check box for **Register this connection's addresses in DNS** is selected, and then click **OK**. **d.** Click **OK** to close **Internet Protocol (TCP/IP) Properties**, and then click **OK** to close **Local Area Connection**. **e.** Close the Network **Connections** dialog box.

Tasks	Detailed steps
3. Use the ipconfig utility to verify the changes to the DNS configuration.	**a.** Click **Start**, and then click **Run**. **b.** In the **Run** box, type **cmd** and then press ENTER. **c.** Type **ipconfig /all**, and then press ENTER  *Notice that the DNS Suffix Search List is now displayed in addition to the Alternate DNS server address.* **d.** Leave the command prompt open.
4. Use the **nslookup** utility to verify the DNS settings.	**a.** At the command prompt, type **nslookup** and then press ENTER.  *Notice that since the DNS server address that you placed first in the search list is an address that is currently not available nslookup displays that this server address cannot be found. After nslookup fails connecting to the primary DNS server it then connects to the alternate DNS server 192.168.*x.*200 (where x is the classroom number).* **b.** Type **?** to see the list of available commands. **c.** Type *computername* and then press ENTER.  *You will receive two responses. The first response is from the correctly configured name server, and the second is the DNS record for your computer name.* **d.** Type **set debug**, press ENTER, type *computername* and then press ENTER.  *Notice the two Questions. The first question looked for computername.internal.nwtraders.msft, and the second question asks for computernam.nwtraders.msft. Since there is no internal.nwtraders.msft domain defined on the DNS server, the first query is unsuccessful.* **e.** Type **exit** and press ENTER. Close all open windows.
5. Remove all TCP/IP and DNS configuration information from the Advanced Properties of TCP/IP, and set the general TCP/IP settings to obtain settings automatically. Then verify the new TCP/IP settings by using the Ipconfig /all command.	**a.** On the Network Connections page, right-click **Local Area Connection**, and then click **Properties**. **b.** Click **Internet Protocol (TCP/IP)**, and then click **Properties**. **c.** Click **Advanced**, and then click the **DNS** tab. **d.** Under **DNS server addresses, in order of use**, click **Remove** twice. **e.** Click **Append primary and connection specific DNS suffixes**, and then clear the **DNS suffix for this connection** box, and then click **OK**. **f.** On the General tab click **Obtain an IP address automatically**, and then click **Obtain DNS sever address automatically**, and then click **OK**, and then **Close**. **g.** Close all open windows, and then log off.