

This lab will require the following:

Windows Server 2008

A shared folder on the Windows 2008 Server containing at least one file

A computer running a Windows client (your home machine is fine for this lab).

Access to both computers as the Administrator

1. On the Windows 2008 Server, log on as the Administrator.
2. Click Start, point to Administrative Tools, then click on Active Directory Users and Computers
3. Create a new user named **remote** with the password of **cisIsTheBest!**
4. Right-Click on the user **remote** and select Properties.
5. Click on the tab called Dial-In (it is way over on the right).
6. Select Allow Access, click on OK. Exit Active Directory Users and Computers.
7. Open a Windows Explorer menu and create a new folder at the root of the c:\ drive called **shareit**.
8. Right click the new folder **shareit** and select Properties.
9. Select the Sharing tab. Click on Advanced Sharing
10. Check the box titles "Share this folder".
11. Click on permissions. Click Add
12. Type Remote in the object name box. Click "check name".
13. Select the user Remote. Click OK. Click OK
14. With the user remote selected, choose "Full Control".
15. Click OK, click OK, click OK.
16. From Windows Explorer, find a few .txt files and copy them to the shareit folder.
17. Click Start, point to Administrative Tools. Select Server Manager.
18. On the Select Server Roles page, choose Add Role, click Next.
19. Select the Network Policy and Access Services, click Next.
20. On the Network Policy and Access Services page, click Next.
21. On the Select Role Services page, select both Network Policy Server and Routing and Remote Access
22. Services, and then click Next.
23. On the Confirm Installation Selections page, click Install.
24. On the Installation Results page, click Close.
25. Routing and Remote Access. The Routing and Remote Access dialog box opens. (if not, choose Administrative Tools, Routing and Remote Access).
26. In the left pane of the dialog box, right-click your server name (local). From the pop-up menu, select Configure and Enable Routing and Remote Access. The Routing and Remote Access Server Setup Wizard opens.
27. Click Next. The wizard displays configuration options for the Routing and Remote Access Service.
28. Select the Custom Configuration option. Click Next.
29. Select VPN access, click next, then click Finished.

30. At the "Routing and Remote Access service has been installed. Do you want to start the service?" dialog box, select cancel
31. In the left pane of the dialog box, right-click your server name (local). From the pop-up menu, select Properties
32. Select the IPv4 tab. Select Static IP Address Pool and click add. Add the range of 192.168.100.100 to 192.168.100.115. Click OK, then OK again. The dialog box closes, and the tree underneath Your Servers name (local) has expanded.
33. Right-click Ports on the tree underneath Your Servers name (local), and select Properties from the pop-up menu. The Ports Properties dialog box opens.
34. Click WAN Miniport (PPTP) to select it. Click Configure. The Configure Device - WAN Miniport (PPTP) dialog box opens.
35. Click the Demand-dial routing connections (inbound and outbound) check box in order to remove the check. Click OK twice.
36. Click WAN Miniport (L2TP) to select it. Click Configure. The Configure Device - WAN Miniport (L2TP) dialog box opens.
37. Click the Demand-dial routing connections (inbound and outbound) check box in order to remove the check. Click OK twice.
38. Right-click Your Servers name (local). From the pop-up menu, point to All Tasks, then click Start. The Routing and Remote Access Service begins.
39. On your home machine, be certain you are logged on with administrator privileges.
40. Follow the procedures for your operating system to create a new VPN connection (Network and sharing center, set up a new network connection, connect to my workplace.
41. Create a new VPN connection called MyNet. The IP address to connect to will be your Windows 2008 Servers IP address.
42. Right-click MyNet and choose properties. At the General page, check the box next to dial another connection first. Select your VPN connection to our labs (NetLabMV or NetLabWIC). Click Next.
43. Double-click the MyNet icon to establish a VPN connection to your Windows 2008 Server.
44. Enter the user name and password for the account that can dial into your server. (remote, cisIsTheBest!) Click Connect. The Connecting MyNet dialog box opens, indicating that the computer is being registered on the network.
45. Open a Command Prompt window.
46. Type ipconfig /all and press Enter. The computer displays the IP address for each NIC on the computer, including the virtual NIC. (Note that the virtual NIC is named PPP adapter MyNet.)
What is the IP address of the virtual interface?
47. On your Windows 2008 Server, open a command prompt window
48. Type ipconfig /all and press Enter. The computer displays the IP address for each NIC on the computer, including the virtual NIC for the VPN. Note that the name of the virtual NIC is PPP Adapter RAS Server (Dial In) Interface.
What is the IP address of the virtual interface on the Windows 2008 Server?
49. On your home workstation that is connected to MyNet, Open a Windows Explorer window.
50. On the menu bar, click Tools, then click Map Network Drive. The Map Network Drive dialog box opens.
51. In the Folder text box, enter the UNC to connect to your Windows 2008 Servers virtual Interface (found 3 steps above). and the shareit folder, for example mine will look like

\\192.168.100.100\shareit Click *Connect using a different user name*. The Connect As dialog box opens.

52. Type Remote in the User name text box, and enter the password. Click OK. The Connect As dialog box closes. Uncheck Reconnect at Logon.

Why would your servers normal IP address work also?

53. Click Finish. The Map Network Drive dialog box appears briefly, indicating that the computer is attempting to map the network drive. After it closes, an icon for the mapped network drive appears underneath Network Drives in the My Computer window.

54. Double-click the icon for the mapped network drive. A folder containing the files you copied to the shareit folder on the Windows 2008 server appear.

55. Close the file and log off both computers.

Review Questions (include in your journal with full questions and only your answer):

1. What is one reason an organization might employ a VPN rather than simply allow users to dial directly into their remote access server?

- a. VPNs always provide better performance than direct-dial connections.
- b. VPNs allow more users to connect to the LAN simultaneously.
- c. VPNs are less expensive for connecting a large number of remote users.
- d. VPNs prevent the need for firewalls between access servers and the Internet.

2. In this lab, you connected a workstation to a server using a VPN. Which of the following is true about the VPN connection you created in this lab?

- a. It uses physical IP addresses.
- b. It uses virtual IP addresses on the workstation end.
- c. It uses virtual IP addresses on both ends.
- d. It requires a modem for connection.

3. Which of the following transmission methods is most apt to be used by VPN clients?

- a. PSTN
- b. T-1
- c. Frame Relay
- d. SONET

4. What does the "T" in PPTP stand for?

- a. Tunneling
- b. Transmission
- c. Transport
- d. Telecommunications

5. Which of the following protocol suites could be used to transmit data over a VPN that relies on PPTP? (Choose all that apply.)

- a. IPX/SPX
- b. TCP/IP
- c. NetBEUI
- d. AppleTalk