Setting up VPN connection:
DI-824VUP+ with Windows PPTP client
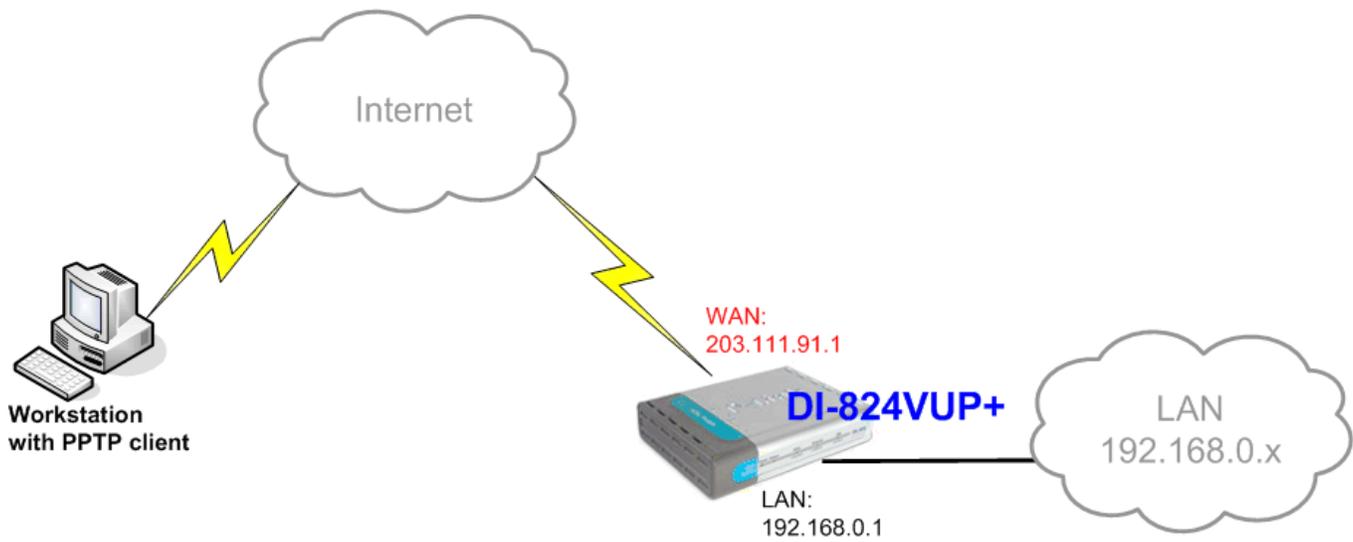
DI-824VUP+ (firmware 1.03 or higher)
LAN IP: 192.168.0.1   Subnet Mask: 255.255.255.0
WAN IP: 203.111.91.1 Subnet Mask: 255.255.255.252
Default Gateway: 203.111.91.2

If you are using DSL-300, DSL-300+, DSL-302G modem or DSL-500, DSL-504, DSL-604+ router please see **Appendix 3** at the end of this document.

Setting up DI-824VUP+

Log into the router's WEB interface and go to Home > LAN. Change the IP address of the LAN port of the router to required IP.

Once you have changed the LAN IP address on the router, make sure your PC has an IP address from the same subnet (192.168.2.x in this example), you may just need to renew IP on your PC or reboot.

Next go to the Home > WAN page, choose the type of connection your ISP requires. In our example it is Static IP Address.

You need to have a static IP address the on WAN port of at least one unit out of two participating in VPN connection. Some PPPoE connections have a static IP as well (in most of such cases you do not have to specify the IP – your ISP will be providing you with the same IP every time you connect).

After setting up the WAN port click on Apply.

Next make sure you can access the Internet (that will confirm that you have set WAN settings correctly), then log back into the router and go into Home > VPN

Make sure you have VPN box ticked.
Then click on PPTP Server Setting..
Click Apply.

Put a tick next to PPTP Server – Enable.
Virtual IP of PPTP Server – set it with the same subnet as used on the LAN of the router (e.g. 192.168.0.x).
Make sure you enable MPPE Encryption Mode (this will also automatically select MSCHAP).
Enter VPN Tunnel name and User Name with Password. Then Click Apply.

Setting up PPTP connection in Windows

Click on Start > My Network Places, Then click on View Network Connections under the Network tasks on the left hand side.

You should see a window similar to the one below.

Click on Create a new connection.
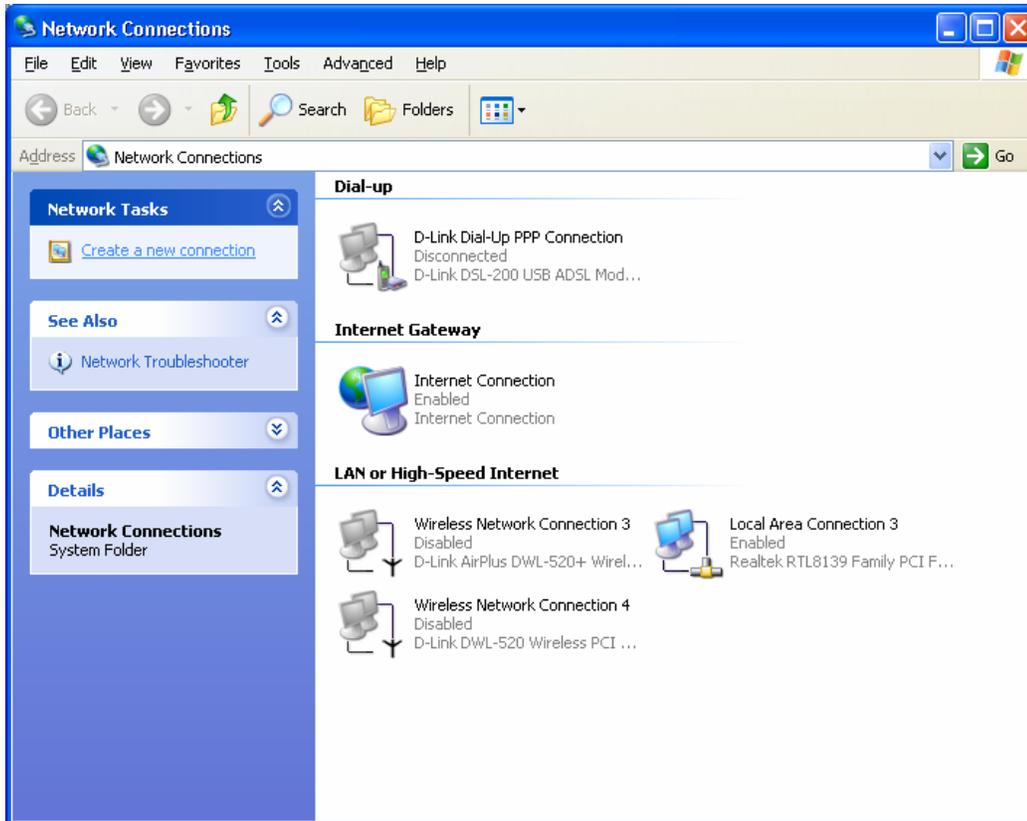
Click on Next when you get the Wizard as below.

Then select Connect to the network at my workplace.
Click on Next.
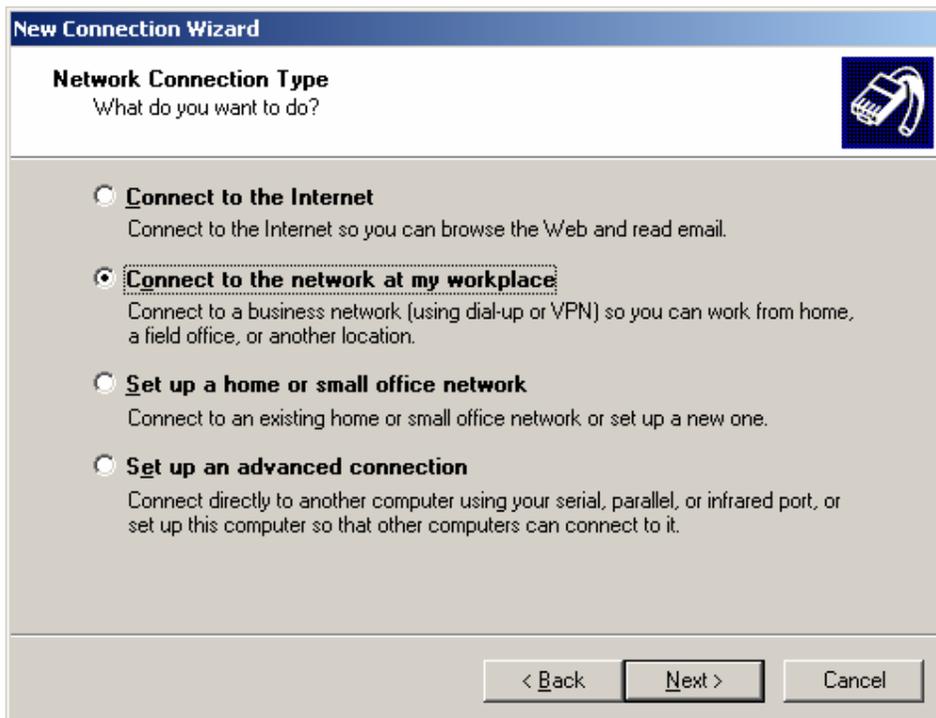
Click on Virtual Private Network connection, then click on Next.
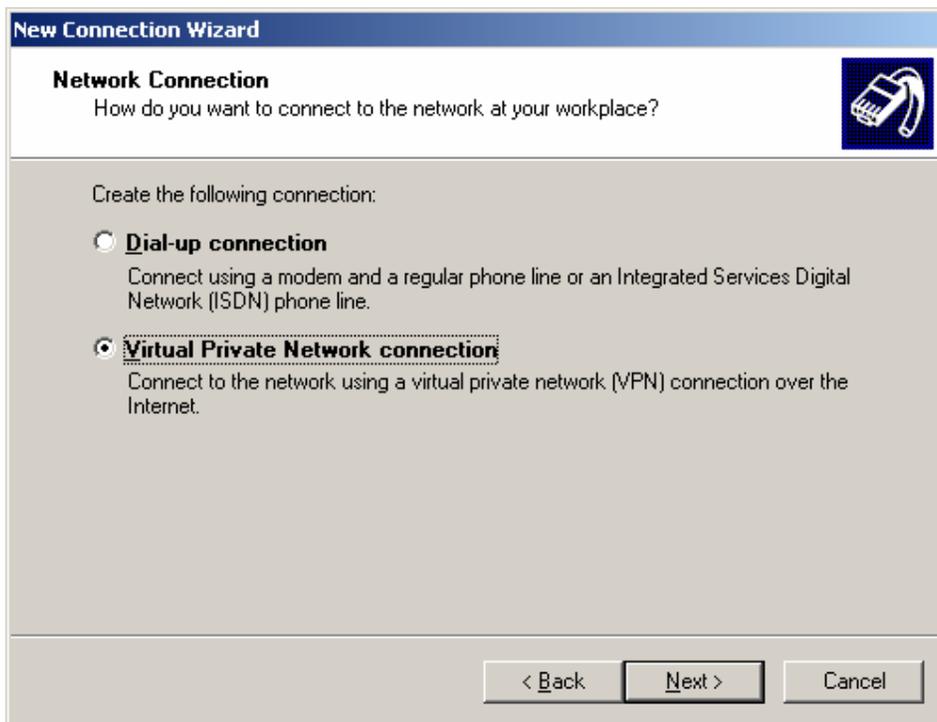
New Connection Wizard

Network Connection
How do you want to connect to the network at your workplace?

Create the following connection:

○ **Dial-up connection**

Connect using a modem and a regular phone line or an Integrated Services Digital Network (ISDN) phone line.

◉ **Virtual Private Network connection**

Connect to the network using a virtual private network (VPN) connection over the Internet.

< Back   Next >   Cancel

Enter a name for your PPTP connection:

New Connection Wizard

Connection Name
Specify a name for this connection to your workplace.

Type a name for this connection in the following box.

Company Name

D-Link VPN

For example, you could type the name of your workplace or the name of a server you will connect to.

< Back   Next >   Cancel

Optional step: select Do not dial the initial connection, if you use dial up you can change this later on, Click on Next.

New Connection Wizard

Public Network
Windows can make sure the public network is connected first.

Windows can automatically dial the initial connection to the Internet or other public network, before establishing the virtual connection.

⦿ Do not dial the initial connection.

◯ Automatically dial this initial connection:

[▾]

[< Back] [Next >] [Cancel]

Next enter in the public IP address of the VPN server (the one given by ISP).
You can find this IP under the status page of the DI-824VUP+ (if you have a router or NAT modem in front of the DI-824VUP+, you need to look up the IP address there).
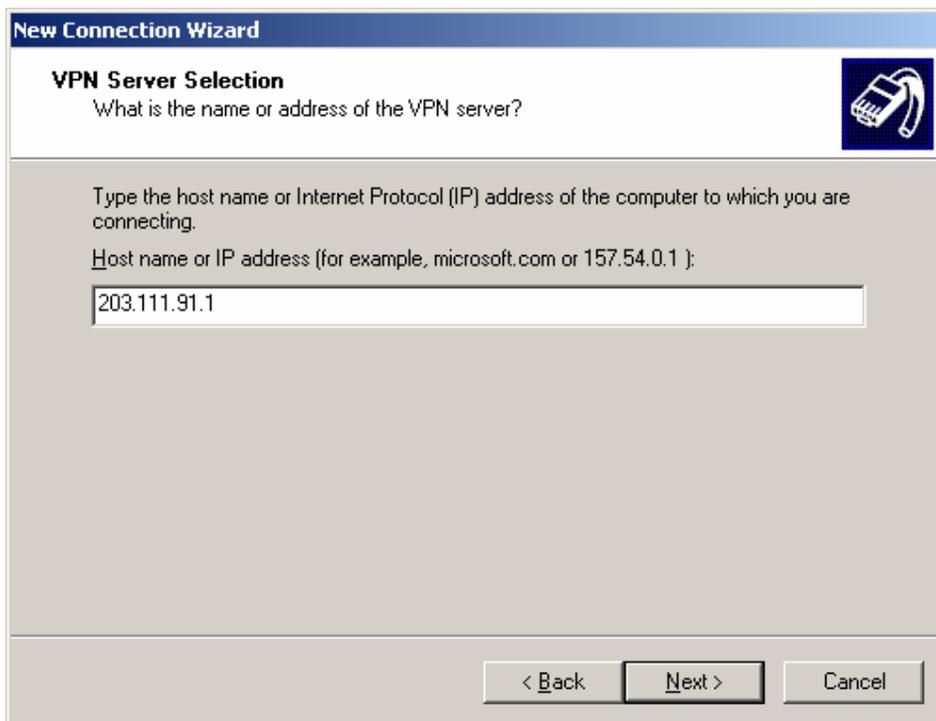
New Connection Wizard

VPN Server Selection
What is the name or address of the VPN server?

Type the host name or Internet Protocol (IP) address of the computer to which you are connecting.

Host name or IP address (for example, microsoft.com or 157.54.0.1):

[203.111.91.1]

[< Back] [Next >] [Cancel]

Optional step: to make your VPN safer in the home environment click on My use only, If you want other people to use this connection, click on Anyone's use.

New Connection Wizard

Connection Availability
You can make the new connection available to any user or only to yourself.

A connection that is created for your use only is saved in your user account and is not available unless you are logged on.

Create this connection for:

○ Anyone's use

⦿ My use only

< Back   Next >   Cancel
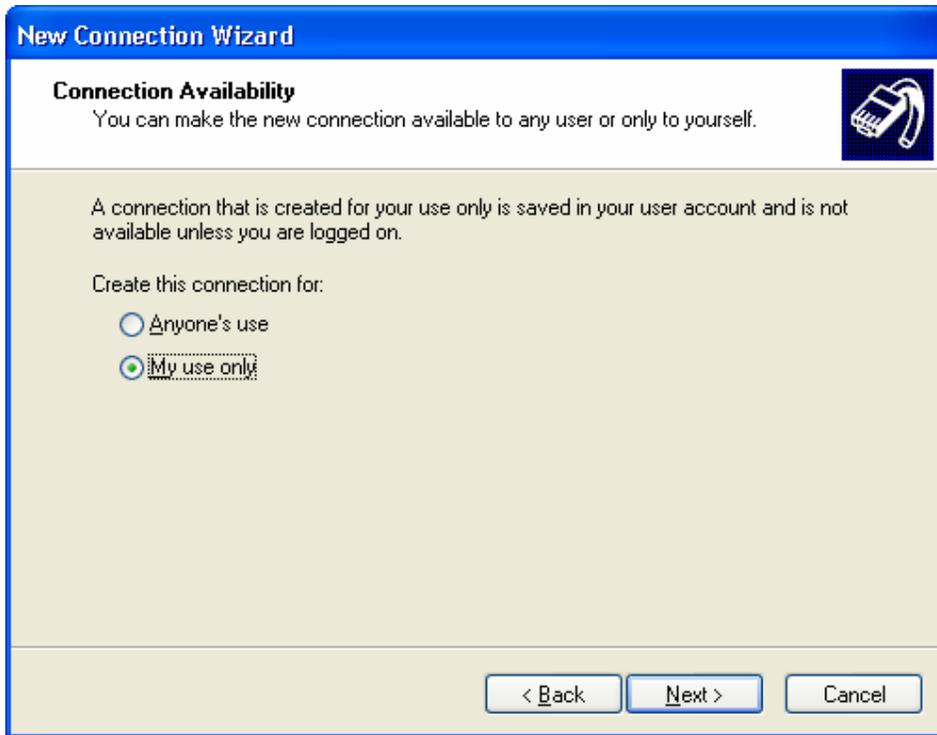
To complete the connection Wizard click on Finish.

New Connection Wizard

Completing the New Connection Wizard

You have successfully completed the steps needed to create the following connection:

D-Link VPN
• Share with all users of this computer

The connection will be saved in the Network Connections folder.

☐ Add a shortcut to this connection to my desktop

To create the connection and close this wizard, click Finish.

< Back   Finish   Cancel

Enter in the User name and password that you entered into the PPTP page of the DI-824VUP+, then click connect.
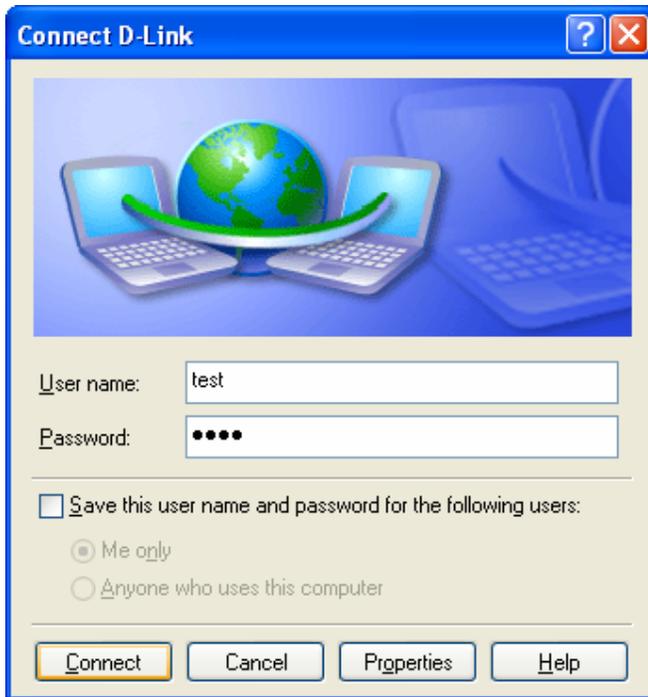
You should see the below.
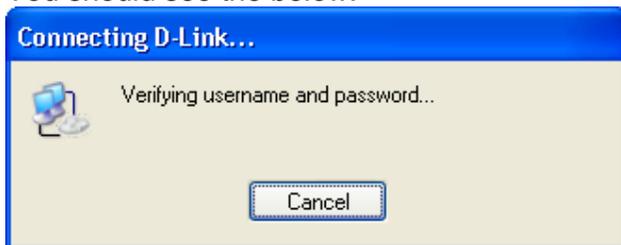
Then…
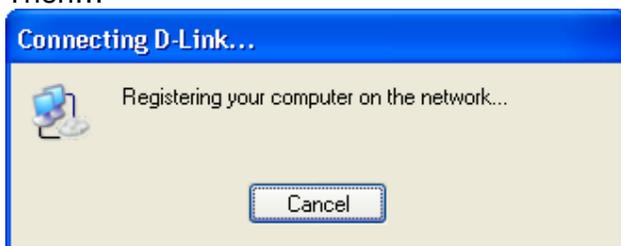
Once the PPTP connection is established you should see a window similar to the one below.
The Virtual Private Network icon is now blue, and says "Connected"
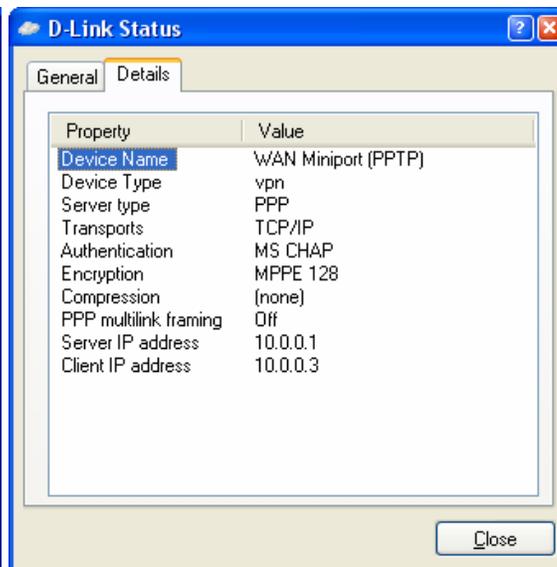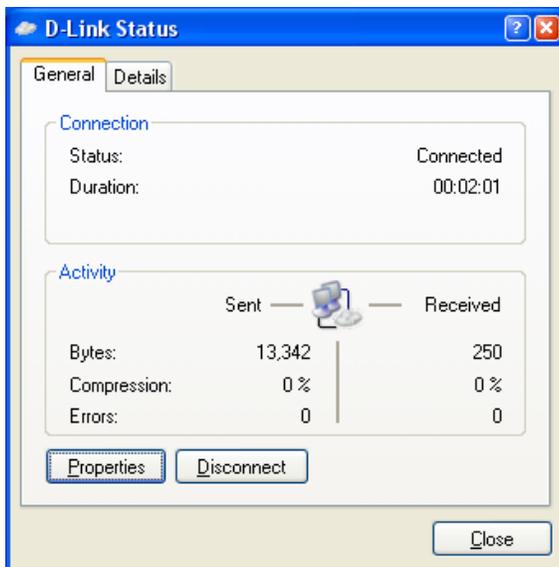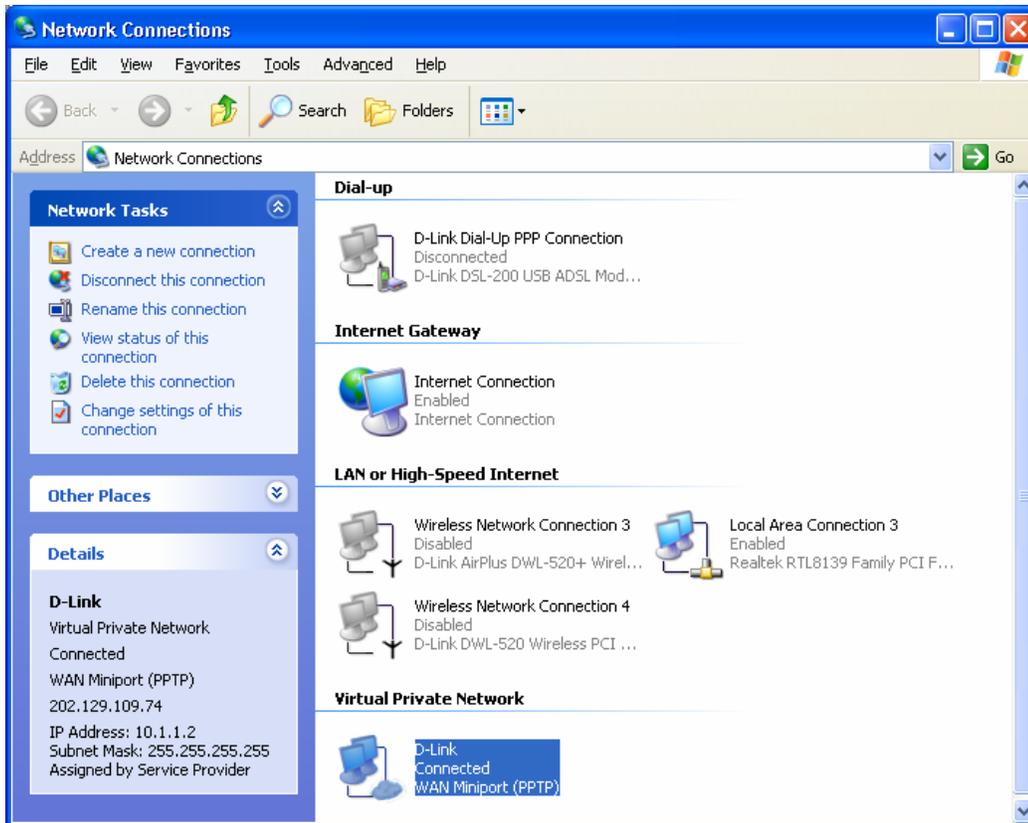
You can check your IP settings and VPN connectivity:

```
Command Prompt                                                    _ □ ×
C:\>ipconfig

Windows IP Configuration


Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . : 203.111.91.2
        Subnet Mask . . . . . . . . . . : 255.255.255.252
        Default Gateway . . . . . . . . : 203.111.91.1

PPP adapter {546DB0F7-AD1F-4C9C-A975-FBA8DB211EE0}:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . : 192.168.0.7
        Subnet Mask . . . . . . . . . . : 255.255.255.255
        Default Gateway . . . . . . . . : 192.168.0.7

C:\>ping 192.168.0.149

Pinging 192.168.0.149 with 32 bytes of data:

Reply from 192.168.0.149: bytes=32 time=4ms TTL=128
Reply from 192.168.0.149: bytes=32 time=6ms TTL=128
Reply from 192.168.0.149: bytes=32 time=4ms TTL=128
Reply from 192.168.0.149: bytes=32 time=3ms TTL=128

Ping statistics for 192.168.0.149:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

Appendix 1.
How to test your VPN connection.

Make sure that computers on both locations can access the Internet.

The make sure that you are on the XP's location with the PPTP connection.

The go to Start > Run, type *command* and click on OK.

If you type in the below then hit enter.

ping 192.168.0.1 –t (or the LAN IP address of the DI-824VUP+)

You should see messages similar to the one below:
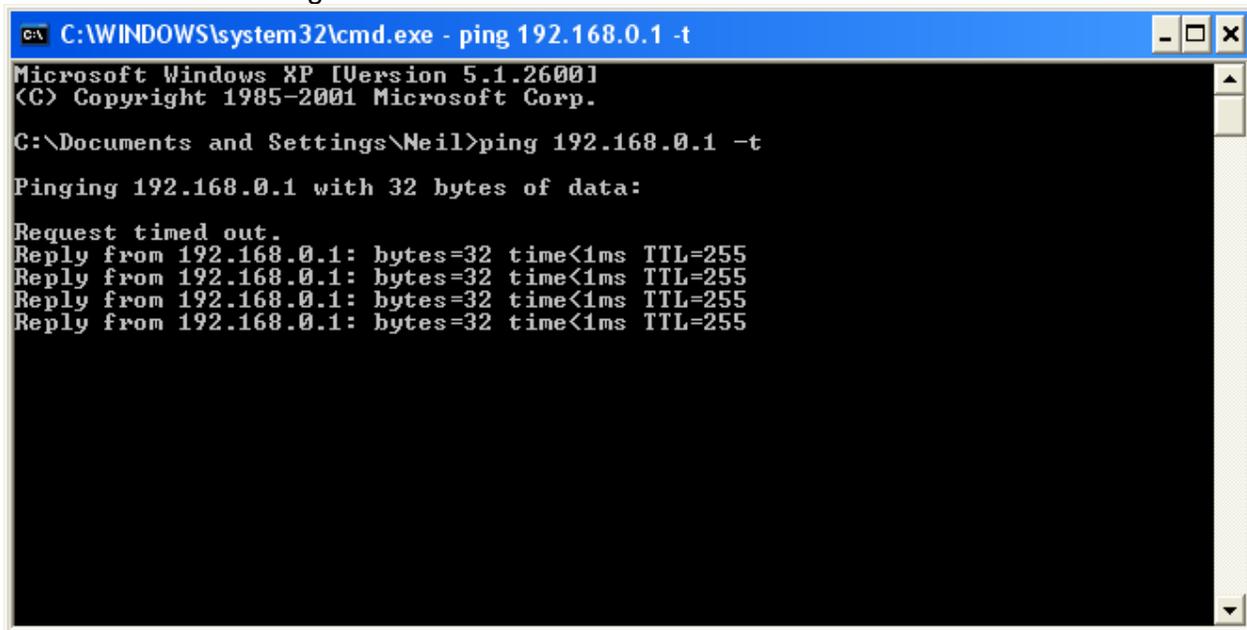
```
C:\WINDOWS\system32\cmd.exe - ping 192.168.0.1 -t                    - □ ×

Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Neil>ping 192.168.0.1 -t

Pinging 192.168.0.1 with 32 bytes of data:

Request timed out.
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
```

If you see a message saying Reply from… that means that VPN tunnel has been established successfully and you can communicate with remote network via VPN.

Appendix 2
Connecting to remote computers/drives via VPN

You can map remote computers' drives by opening Windows Explorer and going to Tools > Map Network Drive (you need to specify the IP address of the computer on remote network and the name of the shared folder):
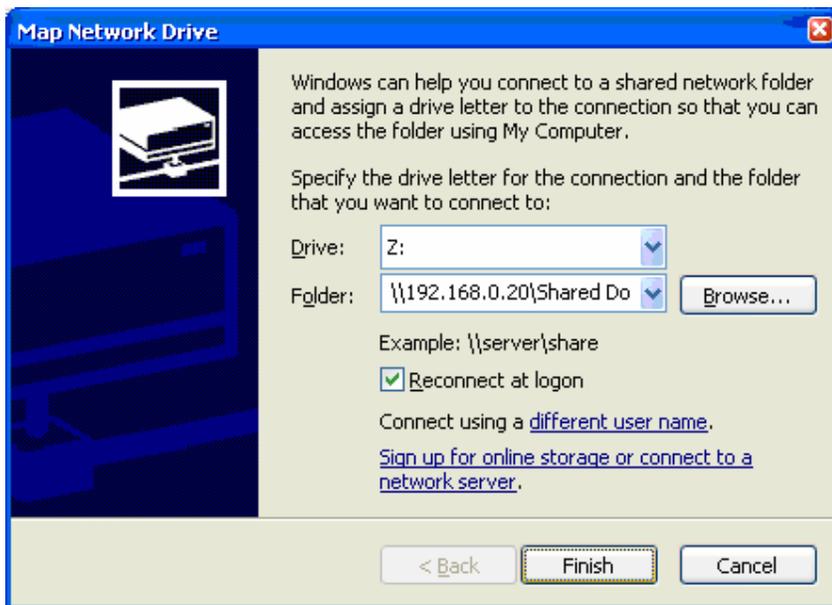
Alternatively you can do Search > Computers or People > Computer on Network > specify the IP address of the computer you are trying to connect to.

If you do not see computers in My Network Places or My Network Neighborhood you may need to enable NetBIOS over TCP/IP in Windows. Or use the methods described above.
Note that firewall/antivirus software installed on your or remote computer may stop you from accessing shared folders.

Appendix 3
Note to DSL-300, DSL-300+, DSL-302G modems users
And DSL-500, DSL-504, DSL-604+ users.

If you are using **DSL-300** to connect your DI-824VUP+ to the Internet please avoid using **192.168.1.x** addresses on your networks as it is the temporary subnet used by the modem.

If you are using **DSL-300+** to connect your DI-824VUP+ to the Internet please avoid using **192.168.0.x** addresses on your networks as it is the temporary subnet used by the modem. Also note that DSL-300+ links to the MAC address of the device connected to it directly. So if you configured the modem while it was connected to your PC directly or to another router, you will need to reconfigure it while it is connected to your DI-804HV. Here are the steps:

1. Connect the DSL-300+ modem to the WAN port of your DI-824VUP+.

2. Set WAN port on DI-824VUP+ to "Dynamic IP" and set LAN port to subnet different from 192.168.0.x (e.g. 192.168.3.1)

3. Renew IP address on your computer so it will be on 192.168.3.x subnet and log into the DSL-300+ using your Internet browser: http://192.168.0.1

4. In the DSL-300+ interface select Account Management. Put a tick next to your account and click on Delete.

5. Select Account Configuration and reconfigure the modem according to your ISP requirements. Click on OK to save settings.

If you are using **DSL-500, DSL-504, DSL-604+** router to connect your DI-824VUP+ to the Internet please avoid using **192.168.0.x** addresses on your networks as it is the default LAN subnet used by the routers. You may change it to a different subnet (e.g. 192.168.33.1) if you wish, under Configuration > Ethernet IP.

Note that you need to enable VPN pass-through on the router. Or go to NAT Configuration and enable DMZ: specify the IP address of the WAN port of DI-824VUP+ there.

DI-824VUP+ WAN port should be set with static IP from the same subnet as DSL-xxx LAN port. Default Gateway should be set as DSL-xxx LAN port IP address.

Please keep in mind that with DSL-xxx routers with NAT enabled your public IP address will be located on the WAN port of DSL-xxx router. WAN port of DI-824VUP+ will have private IP address. When setting up Remote Gateway in VPN you will need to use public IPs on DSL-xxx routers' WAN ports, e.g. 202.129.109.87 (see example with DSL-302G below).

With **DSL-302G** the setup is similar. This modem uses **10.1.1.1** address on LAN.
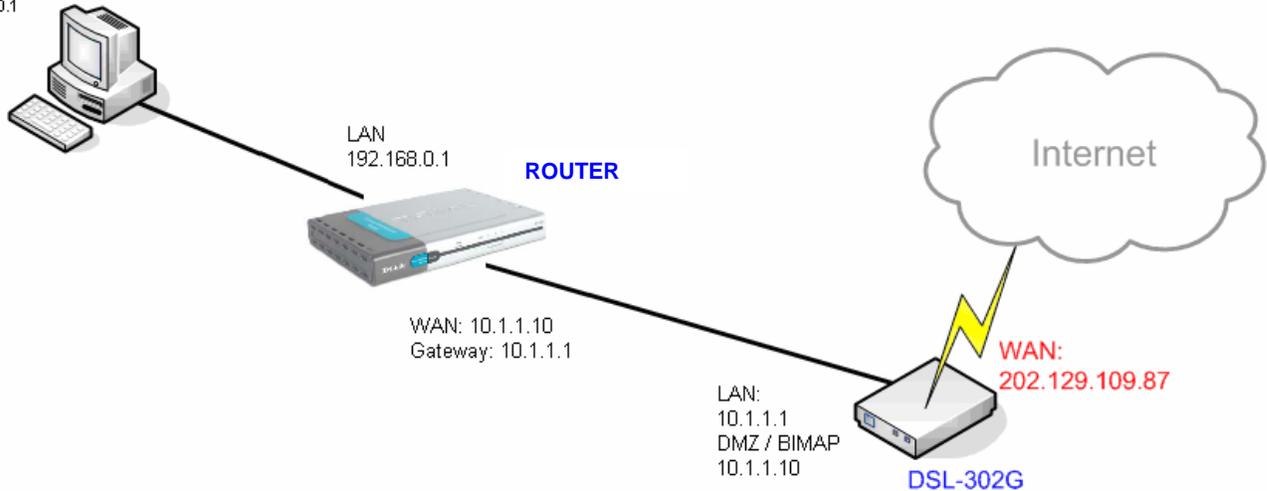
In order to enable VPN traffic pass-through in this modem you need to do the following:
Log into the modem's WEB interface and select WAN > NAT. Under NAT Options select NAT Rule Entry. Click on Add button.
Under Rule Flavor select BIMAP. Set Rule ID as next number in the rules table (in our case it is 2). IF Name = ALL. Local Address will be the IP on the WAN port of your DI-824VUP+ which is connected to this modem. Global address leave as 0.0.0.0:

NAT Rule – Add

NAT Rule Information				
Rule Flavor:	BIMAP			
Rule ID:	2			
IF Name:	ALL			
Local Address:	10	1	1	10
Global Address:	0	0	0	0

Submit   Cancel   Help

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Then click on Submit to apply the settings.

When setting up Remote Gateway in VPN you will need to use public IP on DSL-302G's WAN port.

~ End of Document ~