

Logging into SSCC's PC Network Domain Using PPTP (Virtual Private Networking): Instructions for Windows 9x/ME

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This publication documents a superior method of gaining remote access to network shares defined on the SSCC's Microsoft Windows NT domain (called PRIMO).

PPTP is the networking protocol that underlies "Virtual Private Networking" (VPN). VPN is a remote access technology that allows for high-security, encrypted connections over the public Internet (or even over a private network) between an appropriately configured client computer (yours) and a remote "VPN server" (ours). This is an easy and cheap way to log into the PRIMO domain from just about anywhere.

In the SSCC we will, over time, probably take advantage of the high-security potential of VPN connections. In the short run, the biggest advantage of VPN connections for SSCC's remote Windows 9x/ME users is that they can be initiated from anywhere in the world. Logging into PRIMO via a VPN connection does not require that you login first to DOIT's modem pool; it requires only that you get access to the Internet in some way. Dialing into DOIT's modem pool via the Dial-Up Networking connections that you create when you install WiscWorld is one way to connect to the Internet. But you could also dial up a commercial Internet Service Provider (AOL, for example) that has local access numbers all over the world. Or you could connect to the Internet via an Ethernet connection at a distant university or a public facility.

Requirements:

- Windows 9x/ME Operating System
- *Client for Microsoft Networks, Dial-Up Networking,* and *Microsoft VPN Adapter* (See below for more details)
- Existing Internet connection (WiscWorld/DOIT dial-up, Ethernet, DSL, Cable Modem, etc.)
- SSCC Windows NT account (PRIMO account)

NOTE: Windows 95 users are required to download and install the dial-up networking update (DUN 1.3 update/2.4MB) before proceeding. This download is available from <u>Microsoft's website</u> and adds VPN support to Windows 95.

Verifying/Meeting the Requirements for VPN

You must have *Client for Microsoft Networks*, *Dial-Up Networking*, and the *Microsoft VPN Adapter* installed on your home PC. Either or both of *Client for Microsoft Networks* and *Dial-Up Networking* may have come already installed on your PC. You will almost certainly have to install the *Microsoft VPN Adapter* yourself. Fortunately, this is a straightforward procedure.

To determine if you need to install *Client for Microsoft Networks*:

- 1. Click on the Start button, go to Settings, and choose Control Panel
- 2. Double-click on **Network**
- 3. Select the **Configuration** tab

If **Client for Microsoft Networks** is not listed as an installed component:

- 1. Click on the **Add...** button.
- 2. Choose **Client** and click on the **Add...** button
- 3. Select **Microsoft** on the left-hand side of the window and **Client for Microsoft Networks** on the right-hand side. Click **OK**.

Dial-Up Networking and Microsoft VPN Adapter are installed in the following way:

- 1. In the Control Panel, double-click on Add/Remove Programs
- 2. Click on the **Windows Setup** tab.
- 3. Double-click on **Communications**.
- 4. Check the boxes, if necessary, next to **Dial-Up Networking** and **Virtual Private Networking**. If they are already checked, they are already installed.

| Communications | × | | | |
|--|--|--|--|--|
| To add or remove a component, click the ch box means that only part of the component w what's included in a component, click Details | eck box. A shaded vill be installed. To see s. | | | |
| Bill In Server | | | | |
| ✓ ♣ Direct Cable Connection | 0.0 MB | | | |
| V 🐝 HyperTerminal | 0.6 MB | | | |
| 🗌 🖂 🍖 Phone Dialer | 0.2 MB | | | |
| 🖌 🗹 📴 Virtual Private Networking | 0.0 MB 💌 | | | |
| Space required: | 6.4 MB | | | |
| Space available on disk: | 880.9 MB | | | |
| Description | | | | |
| Provides secure connections to private networks across public networks such as the Internet. | | | | |
| | <u>D</u> etails. | | | |
| Ск | Cancel | | | |

5. Click **OK**. Installation will proceed. You may be prompted for your system CD to install these components.

Setting up the VPN Connection

You have to define a *Dial-Up Networking* connection to connect your PC to the SSCC's VPN server. This sounds odd because the VPN connection itself goes over the Internet, not a phone line and modem, but *Dial-Up Networking* is indeed the tool you use to define the connection. Here's how:

- 1. Double-click on My Computer and then on Dial-Up Networking
- 2. Double-click on Make New Connection
- 3. Give the new connection an appropriate name like "Primo via VPN". In the **Select a Device**: box, drop down the list of options and select **Microsoft VPN Adapter**. Click **Next**.

| Make New Connection | | × |
|---------------------|--|---|
| | Ivpe a name for the computer you are dialing: Primo via VPN Select a device: Microsoft VPN Adapter Configure | |
| | <pre> Back Next > Cancel</pre> | |

4. In the **Host name or IP Address**: box enter vpn.ssc.wisc.edu. Note that this is an evolving resource in the SSCC and the identity of our VPN server may change.

You also have to configure *Client for Microsoft Networks* to log you into the PRIMO domain automatically:

- 1. Click on the Start button, go to Settings, and choose Control Panel
- 2. Double-click on **Network**
- 3. Select the **Configuration** tab
- 4. Select **Client for Microsoft Networks** and then click on the **Properties** button
- 5. Select Log on to Windows NT domain. Enter "PRIMO" in the box labeled Windows NT domain: Click OK.

| ent for | Microsoft Networks Properties | ? |
|---------|---|------------|
| General | | |
| Logo | n validation | |
| V | Log on to Windows NT domain | |
| | When you log on, your password will be veri on a Windows NT domain. | fied |
| | Windows NT domain: | |
| | PRIMO | |
| Netw | ork logon options | |
| • | Quick logon | |
| | Windows logs you onto the network, but net drives are not reconnected until you use the | work m. |
| C | Logon and restore network connections | |
| | When you log onto the network, Windows verifies that each network drive is ready for t | ise. |
| | | |
| | ОК | Cancel |

- 6. Click on the **Identification** tab
- 7. Enter "PRIMO" in the box labeled **Workgroup:**

| letwork | | |
|--|--|--|
| Configuration Iden | tification Access Control | |
| Window compute compute descript | is uses the following information to identify your or on the network. Please type a name for this er, the workgroup it will appear in, and a short ion of the computer. | |
| Computer name: | MY_COMPUTER | |
| Workgroup: | РВІМО | |
| Computer Description: | Your computer's description | |
| | | |
| | | |
| | | |
| | | |
| | OK | |

8. Click **OK** to exit the network configuration application and then click on **Yes** when prompted to restart your computer.

Connecting

You must first connect in a standard way to the Internet. One way to do this is by dialing into DOIT's modem pool in the way you set up when you installed WiscWorld. Otherwise you could connect to a private ISP or take advantage of an Ethernet LAN connection in an office on the UW campus or, in theory, anywhere else that a LAN is connected to the Internet. Once your Internet connection is made you initiate the connection to our VPN server.

Double-click on the SSCC VPN Server Dial-Up Networking connection that you created earlier (**Primo via VPN** if you used the suggested name). You will be prompted for your SSCC username and password at this step. You will know that this process has been successful when you see your SSCC login script executing.