

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) >

Installing the VPN Client on a Windows Computer

[Next](#) >

- [What Is a VPN and When Do I Need It?](#)
- [What Do I Need to Get Started?](#)
- [How Do I Configure the VPN Client to Access Dartmouth?](#)
- [How Do I Use the VPN?](#)
- [What If I Have a Problem?](#)

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[Next](#) >

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- [VPN Client for Windows](#)

01/25/05

Last Updated: 2/2/05

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) > [VPN](#) >

What Is a VPN and When Do I Need It?

< [Previous](#) | [Next](#) >

VPN (Virtual Private Network) is a system through which any member of the the Dartmouth community can connect to Dartmouth College resources from a Windows computer. VPN software can be used if you are using the wireless network, or if you are off campus and you use an Internet Service Provider (ISP) other than Dartmouth and are experiencing firewall problems with Kerberos. The VPN software creates a secure network connection between your computer and the Dartmouth network and gives you a Dartmouth IP address. Kerberos seems to work well within the VPN's tunnels.

< [Previous](#) | [Next](#) >

01/28/05

Last Updated: 2/1/05

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) > [VPN](#) >

What Do I Need to Get Started?

< [Previous](#) | [Next](#) >

Review the [export restrictions](#). If you agree to abide by these restrictions, click **Proceed to download page**. Click **Download VPN Client for Windows** from the window that appears. A file named **vpnclient-win-is-4.0.2.A-k9.exe** will be downloaded to your computer. When prompted, specify a folder on your computer for the file to be downloaded to. Once the download is complete, open the folder you specified, then double-click the **vpnclient-win-is-4.0.2.A-k9.exe** file. This is a compressed file that will expand into other files in the same folder in which the **vpnclient-win-is-4.0.2.A-k9.exe** file resides. One of the expanded files will be **Setup.exe**; double-click it. Answer the questions as they appear, accepting the defaults. Once the program is installed, restart your computer.

Note: You may get a message stating that IPSec Policy Agent needs to be disabled. This is what Retrospect uses. If you use Retrospect for backups, after installing the VPN Client, you should ensure that Retrospect is still working. If it isn't, you may need to reinstall it.

< [Previous](#) | [Next](#) >

01/28/05

Last Updated: 2/2/05

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) > [VPN](#) >

How Do I Configure the VPN Client to Access Dartmouth?

< [Previous](#) | [Next](#) >

- [Authenticating to the VPN with Your Dartmouth College PKI Certificate](#)
- [Authenticating to the VPN Using the Dartmouth Name Directory \(DND\)](#)

< [Previous](#) | [Next](#) >

01/28/05

Last Updated: 2/1/05

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) > [VPN](#) >

Authenticating to the VPN with Your Dartmouth PKI Certificate

Dartmouth recommends that you store your Public Key Infrastructure (PKI) certificate and private key on a USB Token (see [Using PKI Secure Certificates at Dartmouth](#) for instructions). If you have obtained your PKI certificate and private key on a PKI USB token, see *How do I configure my VPN connection?* below.

If you used *Internet Explorer* to obtain and store your PKI certificate and private key, they will already be accessible in the VPN Client connection configuration dialog; see *How do I configure my VPN connection?* below.

If you are not using the *Internet Explorer* Web browser, you will need to export your private key and certificate to a PKCS #12 file; see [Moving Certificates between Computers and Browsers](#) for instructions. (**Note:** The Cisco VPN can only read PKCS #12 files written by *Internet Explorer* on Windows.)

After your computer restarts, click **Start, Programs, Cisco Systems VPN Client**, then **VPN client**.

To import your private key and certificate from a PKCS#12 file:

- Click the **Certificates** tab
- Click the **Import** button.
- Use the **Browse** button to select the file you exported, or enter the file name in the **Import Path** field.
- Enter the password for the PKCS#12 file in the **Import Password** field.
- To protect your private key in the VPN client certificate store, enter a **password** and confirm it in the remaining fields.
- Click the **Import** button, then click the **Connection Entries** tab.

How do I configure my VPN connection?

- Click **Start, Programs, Cisco Systems VPN Client**, then **VPN Client**.
- In the VPN Client window, click **New**. In the **Connection Entry** field, enter **Dartmouth via VPN**.
- In the **Host** field, enter **vpn.dartmouth.edu**.
- The **Authentication** tab is selected by default in a new entry. With the **Authentication** tab selected, click the **Certificate Authentication** button. Select your Dartmouth College

certificate in the pop-up menu labeled **Name**. (If you have more than one certificate, you can use the **Certificates** tab of the VPN Client window and the **View** icon to browse the available certificates.) Click **Save**. You'll be returned to the VPN Client window.

How do I start the VPN client?

To start the VPN client, select the **Dartmouth via VPN** connection from the VPN client window, then click **Connect** to start sending all your network traffic via the VPN. The first time you run this, it may take a few seconds to make the connection. If necessary, insert your PKI Token into a USB port. When prompted for a password, enter the **password** for your certificate, then click **OK**.

Note: In some instances, your computer may automatically restart itself the first two times you try to connect. It should work as intended on the third try.

[Previous](#) | [Next](#)

01/28/05

Last Updated: 1/31/05

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) > [VPN](#) >

Authenticating to the VPN Using the Dartmouth Name Directory

How Do I Configure My VPN Connection?

- Click **Start, Programs, Cisco Systems VPN Client**, then **VPN Client**.
- In the VPN Client window, click **New**. In the **Connection Entry** field, enter **Dartmouth via VPN**. In the **Host** field, enter **vpn.dartmouth.edu**.
- The **Authentication** tab is selected by default in a new entry. On the **Authentication** tab, the **Group Authentication** radio button is the default. Information entered in the fields on the **Authentication** tab is case sensitive.
- In the **Name** field, enter **Dartmouth College**. In the **Password** and **Confirm Password** fields, enter **Hanover**. Make sure you enter the information exactly as shown here. Click **Save**.
- You will return to the VPN Client window.

How Do I Start the VPN Client?

From the VPN client window, select the **Dartmouth via VPN** connection, then click **Connect** to start sending all your network traffic via the VPN. The first time you run this, it may take a few seconds to make the connection. When prompted for a **user name** and **password**, enter your DND **user name** and **password**.

01/25/05

[Previous](#) | [Next](#)

Last Updated: 1/27/05

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) > [VPN](#) >

How Do I Use the VPN?

< [Previous](#) | [Next](#) >

Note: Starting the VPN Client will disconnect any currently running network applications, such as *BlitzMail* or *Oracle Calendar* (a.k.a. *CorporateTime*). Stopping the VPN client will also disconnect these applications. In these cases, you will need to quit the application and restart it.

The Network Control Panel will now show a local area connection option called **VPN Adapter Connection**. Once a VPN connection has been made, go to this Control Panel item, right-click it, then select **Properties**. Double-click **Internet Protocol (TCP/IP)** from the list of items this connection uses, then click the **Advanced** button. Select the **WINS** tab and make sure the **NetBIOS** settings are set to **Default**.

Once you have the VPN client installed, configured, and connected, everything should work the same as if you were physically connected via a wire to the campus network. The one thing you should be aware of is that your computer is now on the Dartmouth network, so if you are installing this on a home computer, Network neighborhood will show only those computers that are also connected to the VPN, not other computers on your home network.

Once the VPN software is started, everything you access on the Internet will flow through that VPN connection. When you start the VPN client, a **yellow lock** icon appears in the system tray. When your data is going through the VPN, the lock is closed to indicate your data is secure. When your data is not going through the VPN, the lock is open.

To verify that your data is flowing via the VPN connection, right-click the **VPN lock** icon in the system tray, then select **Statistics**. The packets information shows the number of packets going via the VPN. The discarded information shows multi-cast sessions on the network that are not for your computer, so they have been discarded and the bypass packets are those being sent to the VPN server to verify you are still connected.

To disconnect from the VPN, right-click the **lock** icon in the system tray, then click **Disconnect**.

< [Previous](#) | [Next](#) >

01/31/05

Last Updated: 2/1/05

[Computing](#) > [Support](#) > [Library](#) > [Connect Off-Campus](#) > [VPN](#) >

What If I Have a Problem?

< [Previous](#)

Are You Installing the VPN Software on a Home Computer?

If you are installing the VPN client on a home network that has Windows **Connection Sharing** turned on, you may need to specify certain ports that should be open. To do this, from the Network Control Panel on your computer that has the physical connection to the Internet - the one where **Connection Sharing** is enabled - right-click the connection to the Internet, then select **Properties**. Select **Internet Connection (TCP/IP)** from the list of items that this connection uses. Click the **Properties** button, the **Advanced** button, then the **Options** tab. Click the **Properties** button. If there's a check in the **Enable TCP/IP filtering** field, remove it.

Back in the **Connection Properties** window click the **Advanced** tab, then **Settings**, then **Add**. In the **Description of Service** field, enter **VPN**. In the **Name or IP address of the computer hosting this service on your network** field, enter **vpn.dartmouth.edu**. In both the **External port** and **Internal Port** fields, enter **500**. Select **UDP**. Save your changes and restart your computer.

Do You Have a Valid Network Connection?

Click **Start**, then **Run**. In the **Open** field, enter **cmd**, then click **OK**. A black text window will appear. In this window, enter **ping vpn.dartmouth.edu** and press the **[Enter]** key. If you receive a message other than "Reply from," there is a problem with your network connection.

Do You Have a Firewall Turned On?

Many firewalls have a setting for allowing **IPSEC** or **VPN**. Make sure the checkbox is checked. Many companies, hotels, etc., don't allow VPN usage specifically, or are behind a firewall, so if you are traveling or at a conference, this could be the problem.

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< [Previous](#)

01/31/05

Last Updated: 2/1/05