VPN provides users with access to the HQ private network, and the Internet using TCP/IP. Additionally, users will have access to:

- File servers
- Internal Web sites
- NASA search pages

- Employee directories
- Applications available through Internet Explorer

It is not necessary to use VPN to connect to NASA HQ publicly available services.

- Connecting to the NASA HQ Virtual Private Network (VPN) requires a NASA-issued laptop. It cannot be used from a personal or public-access computer. It also requires access to the public Internet.
- The VPN Client automatically disconnects after nine hours, so be sure to save your work within the nine hours of connecting.
- Refer to Known Issues with Accessing HQ Using VPN for details regarding known issues with the VPN method of accessing HQ.

Prior to Working Remotely

Prior to using VPN to work remotely from home or on travel, you must first do the following:

- Log into your computer while connected to a NASA network, using your smartcard.

  Logging in while connected to the NASA network ensures that your smartcard data is stored in your computer and later recognized.

- Open your VPN Client (See sections below for steps.) and verify that **Nasahq** is listed under **Connection Entry**.

  You will not be able to use VPN until it is installed. If you do not see it listed there, contact Enterprise Service Desk (ESD) to request that it be installed. Submit a ticket online at esd.nasa.gov, or call 358-HELP (4357) or 1-866-4NASAHQ (462-7247).

Connecting to the Cisco VPN Client for Windows

You can connect to the Cisco VPN Client using your smartcard:

1. Insert your smartcard/badge into your keyboard card reader, external smartcard reader, or your laptop's integrated card reader.

2. Verify the smartcard is recognized by hovering your cursor over the ActivClient icon in your task bar. You should receive the following message: ActivClient Agent – Smart Card Inserted.

   If you don't see the icon on your main task bar, click **Show hidden icons**, circled at right.
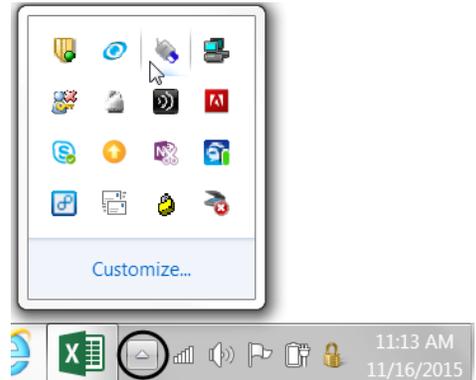
3. Start the Cisco VPN client as follows: From the Start menu, select **All Programs** | **Cisco Systems VPN Client** folder | **VPN Client**.

4. If this is your first time using the Cisco VPN client with your smartcard, proceed with **Step 5** as there is an additional one-time configuration to complete. Otherwise, proceed to **Step 7**.
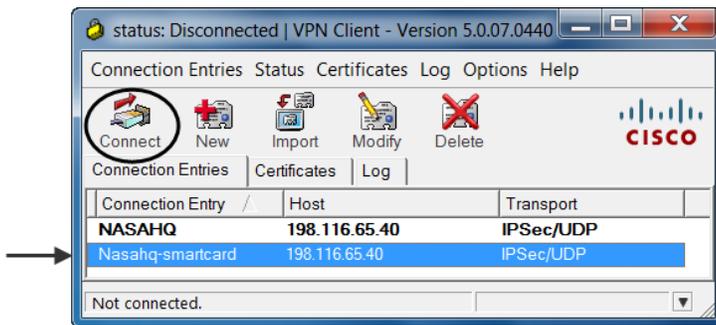
5. Click once on the Nasahq-smartcard option to highlight, and then click the **Modify** button.

6. Under **Certificate Authentication**, from the **Name** menu (shown at right), select your certificate | Click **Save**.
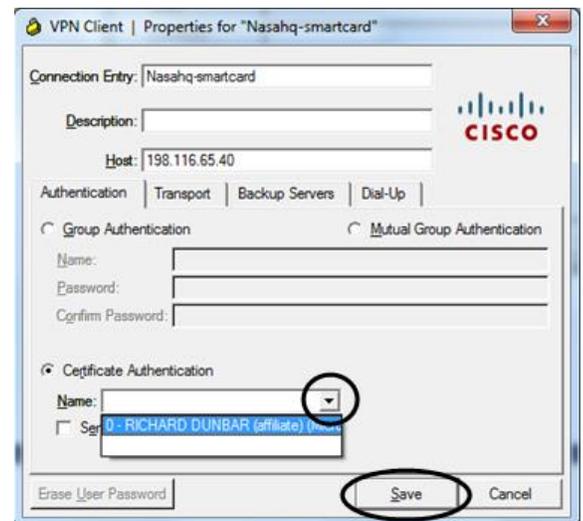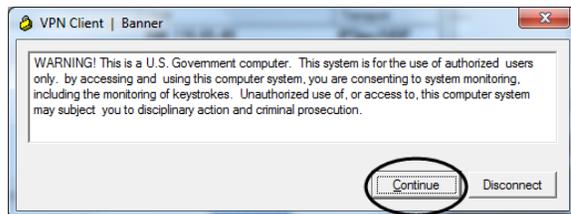
7. On the VPN Client window, under the **Connection Entry** field, click the **Nasahq-smartcard** profile.

8. Click **Connect**.

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9. If you are presented with the **ActivClient Login** window, enter your six to eight-digit smartcard code (token not required). | Click **OK**.

10. Once connected, the **VPN Client | Banner** displays | Click **Continue**.

11. To verify that you are connected to VPN, do one of the following:

    - Click the Show hidden icons arrow   on the toolbar at the bottom of the screen as shown. | Hover your cursor over the VPN icon . It should say, "VPN Client – Connected."
    - Click on the VPN Client icon on the toolbar at the bottom of the screen. | When the VPN Client window appears, the status at the top and bottom should say, "Connected."
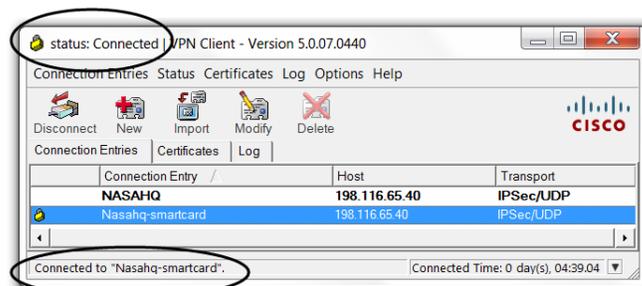
Accessing Network Files - Windows

If you are connecting to the NASA HQ network via VPN while using a NASA-issued laptop, the U:, X:, and other shared drives will be available as usual.

The VPN Client automatically disconnects after nine hours, so be sure to save your work within the nine hours of connecting.

1. Double-click the desired shortcut on your desktop, or double-click the **Computer** icon located on your desktop:

    When the **Computer** window opens, your available network drives should appear as shown at right.

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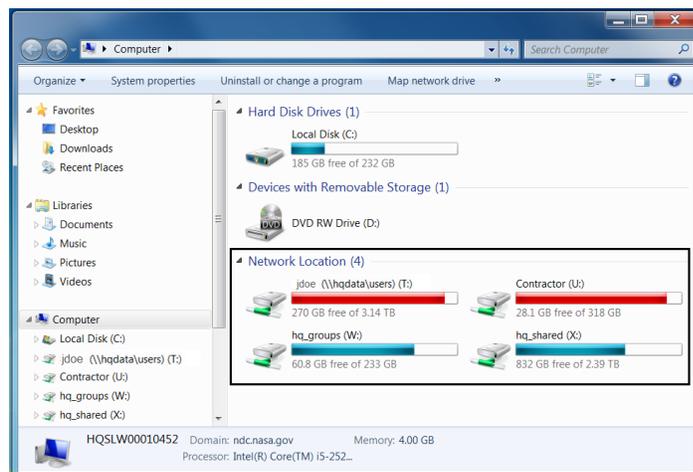
2. Determine if you have access to your network drives:

If	Action
Your network drives do NOT appear as shown above	Continue with step #3.
Your network drives do appear	Double-click the appropriate network drive | Browse to the desired folder or file. You are ready to work.

3. In the **Address** field of the Computer window, type the following: **\\hqdata**

4. Click the Go to arrow as shown below.
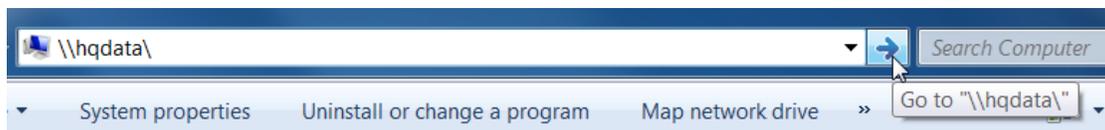
5. Browse to the location of the desired file(s).

> Alternatively, you can create desktop shortcuts to your most frequently used network drives and folders while in the office prior to teleworking. For detailed instructions on creating shortcuts, visit the ITCD Instructions and Guidelines Web page at: http://itcd.hq.nasa.gov/instructions.html.
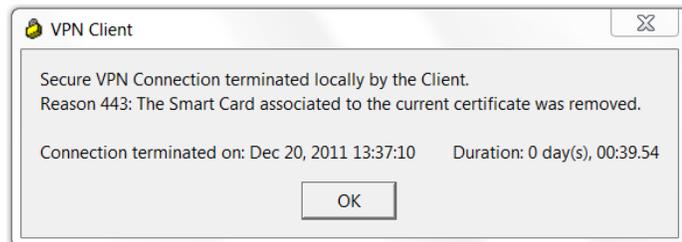
Disconnecting from the VPN Client – Windows 7

Certain actions will cause VPN to disconnect automatically. You also have the option to manually disconnect from VPN.

Automatic Disconnect – Windows 7

The VPN Client automatically disconnects:

- After 9 hours
- When you log off
- When you shut down your computer

Save your work within 9 hours of connecting, or more frequently if the VPN connection is left open.

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Manual Disconnect – Windows 7

To manually disconnect from the VPN:

1. Exit completely out of all open applications.

2. Right-click on the VPN icon 🐝 in the system tray, and select **Disconnect**.
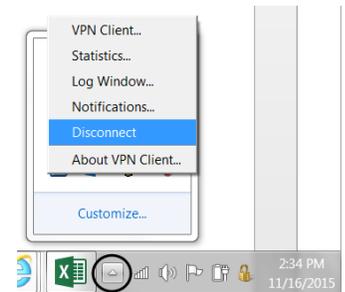
Known Issues with Accessing HQ Using VPN

When connecting your NASA-issued laptop to DSL modems, you may encounter problems obtaining any high-speed Internet connection and will be unable to use Outlook Web Access (OWA) or Virtual Private Network (VPN).

NASA's VPN service requires Dynamic Host Configuration Protocol (DHCP) to assign IP addresses or a known static IP address. Some modems that have been issued over the past few years have varied in type and quality, and a significant proportion of them are not DHCP enabled. While workarounds are often possible, each of the different types of modems requires a different solution. To obtain the correct instructions for your modem, contact your Internet Service Provider (ISP).

If the modem is too difficult to work with, you may invest in an aircard,"available for purchase via ACES Product Catalog (APC), or ESD | Order Services. Aircards are small devices that plug into a computer. They utilize cell phone technology rather than wireless access points and provide a fast, more reliable signal in most urban areas. An aircard would make your laptop Internet-ready in any location where cell phones function.

VPN Issues Using Smartcard

- If you receive an error that the profile can't connect, modify the VPN profile to point to the correct certificate (the one on the smartcard). To do this, follow these steps:

  1. On the Entrust Security Store Login screen, click **Cancel**

  2. In the VPN window with the Nasahq-smartcard profile selected, click **Modify**.

  3. In the lower-left corner of the VPN Client | Properties for "Nasahq-smartcard" screen, under Certificate Authentication, select the other certificate from the menu | Click **Save**.

  4. If you have more than two certificates listed, you may have to repeat this process and try the third one (there is no way to distinguish between the three other than they are numbered 0, 1, and 2).

  5. When you've selected the correct certificate, the PIN entry dialog box appears. Enter your PIN.

- If you are using VPN with your Windows computer and have difficulty accessing certain applications, or are being prompted to provide authentication for applications you don't normally have to, try the following: Press **Ctrl**+**Alt**+**Delete** | Click **Lock this computer** | Press **Ctrl**+**Alt**+**Delete** | Enter your PIN.

- If you receive an error that says, "The card supplied requires drivers that are not present on the system, try another card." This error is received when attempting to change your password after logging in with the smartcard. To continue with changing your password, click **Other Credentials** and select your NDC Domain account.

- If you receive an error that says the context was acquired as silent, this error results from no PIN being entered at smartcard login. Often the **Caps Lock** or **Num Lock** key is in effect, and the PIN is not being recorded as you type it. Try again, and make sure that **Caps Lock** and **Num Lock** are off when your PIN is entered.

For assistance, contact the Enterprise Service Desk (ESD): Submit a ticket online at esd.nasa.gov, or call 358-HELP (4357) or 1-866-4NASAHQ (462-7247).

This document is posted on the ITCD Web site at:
http://itcd.hq.nasa.gov/instructions.html

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