Managing the VPN Client

This chapter explains the tasks you can perform to manage connection entries, view and manage event reporting, and upgrade or uninstall the VPN Client software.

This chapter includes the following sections:

To configure properties of connection entries, see "Configuring and Managing Connection Entries."

Note If you are a system administrator, refer to the *VPN Client Administrator Guide* for information on configuring the VPN 3000 Concentrator and preparing preconfigured profiles for VPN Client users.

Note The VPN Client displays Windows Logon Properties only on Windows NT, Windows 2000, and Windows XP systems.

Enabling Stateful Firewall (Always On)

The VPN Client includes an integrated stateful firewall that provides protection when split tunneling is in effect and protects the VPN Client PC from Internet attacks while the VPN Client is connected to a VPN Concentrator through an IPSec tunnel. This integrated firewall includes a feature called Stateful Firewall (Always On).

Stateful Firewall (Always On) provides even tighter security. When enabled, this feature allows *no* inbound sessions from all networks, regardless of whether a VPN connection is in effect. Also, the firewall is active for both encrypted and unencrypted traffic. There are two exceptions to this rule:

- DHCP, which sends requests to the DHCP server out one port but receives responses from DHCP through a different port. For DHCP, the stateful firewall allows inbound traffic.
- ESP - The stateful firewall allows ESP traffic from the secure gateway, because ESP rules are packet filters and not session-based filters. For the latest information on other exceptions, if any, refer to *Release Notes for Cisco VPN Client for Windows*.

To enable or disable the stateful firewall, use the following procedure:

Step 1 Display the Options menu and click **Stateful Firewall (Always on)**. Or right-click the lock icon in the system tray, and choose **Stateful Firewall**.

When the stateful firewall is enabled, you see a check in front of the option. This feature is disabled by default.

Step 2 During a VPN connection, to view the status of this feature, right-click the lock icon in the system tray.

Launching an Application

You can configure the dialer to launch an application automatically before establishing a connection. Some examples of why you would want to use this feature follow:

- You are configured for start before logon and you need to start an authentication application at the logon desktop.
- You want to launch a monitoring application such before each connection.

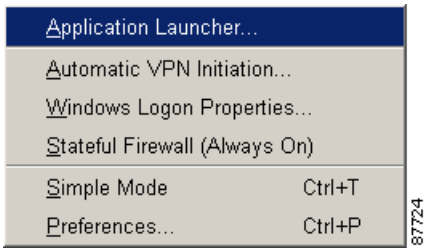
To configure the VPN Client to launch an application from the logon desktop, use the Application Launcher.

The Application Launcher starts the specified application once per session. To launch an application again, you must exit from the VPN Client, restart the VPN Client, and launch the application.

To activate Application Launcher, follow these steps:

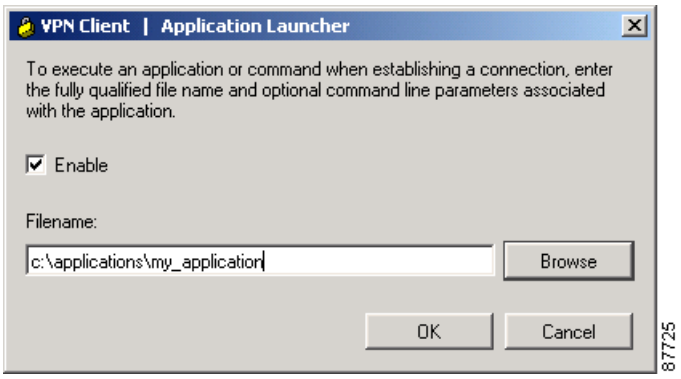
Step 1 Open the VPN Client Options menu (shown in Figure 7-1) and choose **Application Launcher.**

Figure 7-1 Choosing Application Launcher



The VPN Client displays a dialog box prompting for the name of the application. (See Figure 7-2.)

Figure 7-2 Entering the Name of the Application



Step 2 To enable the feature, click **Enable**.

Step 3 Either type the complete pathname of the application or click **Browse** to locate the application. (See Figure 7-2.)

Step 4 Click **Apply** to activate the application or click **Cancel** to cancel the operation.

Turning Off Application Launcher

To disable Application Launcher, follow these steps:

Step 1 Open the Options menu and choose **Application Launcher**.

Step 2 When the Application Launcher dialog box displays, click the **Enable** check box to uncheck it.

Managing Windows NT Logon Properties

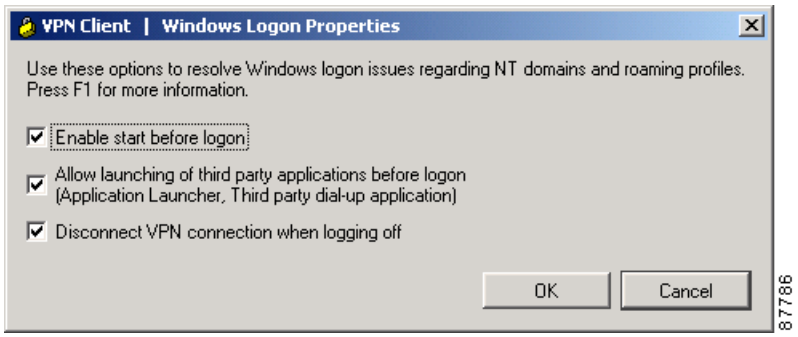
This section describes special logon features for the Windows NT platform, which includes Windows NT 4.0, Windows 2000, and Windows XP. These features include:

- Ability to start a connection before logging on to a Windows NT system
- Permission to launch a third party application before logging on to a Windows NT system
- Control over auto-disconnect when logging off of a Windows NT system

To access the Windows logon properties, open the VPN Client Options menu (shown in Figure 7-1) and choose **Windows Logon Properties**. The VPN Client displays a dialog box containing three parameters. (See Figure 7-3.)

Note The VPN Client displays Windows Logon Properties only on Windows NT, Windows 2000, and Windows XP.

Figure 7-3 Controlling Windows Logon Properties



Starting a Connection Before Logging on to a Windows NT Platform

On a Windows NT platform, you can connect to the private network before you log on to your system. This feature is called *start before logon* and its purpose is primarily to let you log in to the domain and run login scripts.

Your administrator may have set this up for you. Once you establish a VPN connection, your credentials are sent to a domain controller for logging on to your system. If you need to launch an application before you log on, see the section "Launching an Application" for information.

When you have established a successful VPN connection, the VPN Client window closes, and your logon window displays. If the connection is not successful, the VPN Client window continues to display. Your administrator might have set up a banner that lets you know when you have a successful connection.

To activate start before logon, follow these steps:

Step 1 Open the VPN Client Options menu (shown in Figure 7-1) and choose **Windows Logon Properties**.

Step 2 Click **Enable start before logon** and then click **OK** or to cancel the operation, click **Cancel**. (See Figure 7-3.)

What Happens When You Use Start Before Logon

When start before logon is active, the following events occur when your system starts:

- Your system logon dialog box displays. Other messages might display as well, depending on your setup. Wait until you see the VPN Client start.
- The VPN Client starts and displays the connection dialog box over the system logon dialog box.
- You connect to the private network of the VPN Device. The connection dialog box goes away.
- You log on to your system.

Note You can use certificates for authentication with start before logon when your personal certificate, along with the CA or intermediary certificate(s), are in your Cisco certificate store and the Microsoft local machine but not your personal Microsoft store (CAPI certificates). However, to use a CAPI certificate, you can log on using cached credentials, connect using your CAPI certificate, and disable the

"Disconnect VPN connection when logging off" parameter (see "Disconnecting When Logging Off of a Windows NT Platform," following). This action keeps your connection open. Now you can log back on to the system.

For information on enrolling certificates and importing certificates into your Cisco store, see "Enrolling and Managing Certificates."

For information about using start before logon with the Entrust SignOn feature, see "Connecting with an Entrust Certificate."

Turning Off Start Before Logon

To turn this feature off, use the following procedure:

Step 1 Open the VPN Client Options menu (shown in Figure 7-1) and choose **Windows Logon Properties**.

Step 2 Click to uncheck **Enable start before logon** and then click **OK** or to cancel, thus keeping the feature enabled, click **Cancel**.

Step 3 To make these changes take effect, reboot your PC.

Permission to Launch an Application Before Log On

Your system administrator determines whether you can launch applications and third-party dialers before you log on to a Windows NT platform. To protect system and network security, your system administrator might have disabled this feature. If this feature is greyed out, you cannot launch applications and third-party dialers before logging on to a Windows NT platform. You must have system administrator privileges to change this parameter.

Disconnecting When Logging Off of a Windows NT Platform

This parameter controls whether your VPN Client connection automatically disconnects when you log off your Windows NT system.

To always automatically terminate your connection when you log off, check this parameter. This parameter is checked by default.

To disable auto-disconnect while logging off, uncheck this parameter. When you uncheck the parameter, the VPN Client displays the warning message shown in Figure 7-4.

Figure 7-4 Auto-disconnect Warning Message

Disabling this parameter allows your connection to remain up during and after log off, which allows profiles or folders to be synchronized during log off. You would disable this parameter when using the Windows roaming profiles feature.

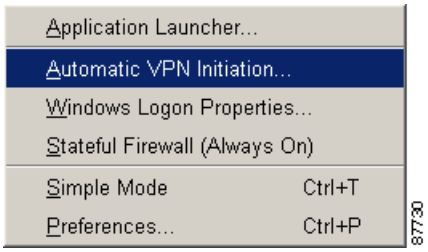
Note With this feature disabled, you must completely shut down your system to disconnect your VPN Client connection.

Managing Automatic VPN Initiation

When your network administrator has configured your VPN Client for automatic VPN initiation (by including it in the vpnclient.ini file), the Options menu includes the option Automatic VPN Initiation (auto initiation). (See Figure 7-5.) When you select this option, the VPN Client displays a dialog box that lets you enable/disable auto initiation and change the setting of the retry interval. Disabling auto initiation in this way does not remove it from your configuration. If you need to enable auto initiation after you have disabled it, you can return to this dialog box and enable it again. The only way you can remove auto initiation from your configuration is through editing the vpnclient.ini file.

For complete information on auto initiation, see "Using Automatic VPN Initiation".

Figure 7-5 Choosing Automatic VPN Initiation

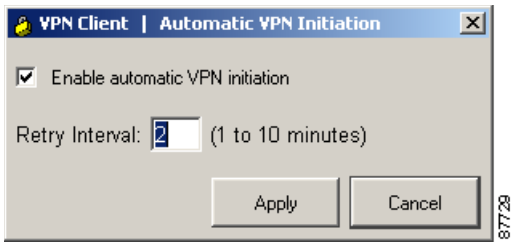


To disable or enable auto initiation, follow these steps:

Step 1 Choose **Automatic VPN Initiation** from the Options menu.

The VPN Client displays the Automatic VPN Initiation Dialog Box (Figure 7-6).

Figure 7-6 Automatic VPN Initiation Dialog Box



Step 2 To enable auto initiation after it has been disabled, click **Enable automatic VPN initiation** (or to disable auto initiation, click to uncheck **Enable automatic VPN initiation**).

Step 3 To change the setting of the retry interval, enter the new value (1 to 10) in the **Retry Interval** box.

Step 4 Click **Apply**.

Step 5 If you are enabling auto initiation, you then must close the VPN Client. The authentication dialog then prompts you to enter your authentication information.

Note You can also enable/disable, resume, and suspend auto initiation from the right-click menu, depending on the state of your connection.

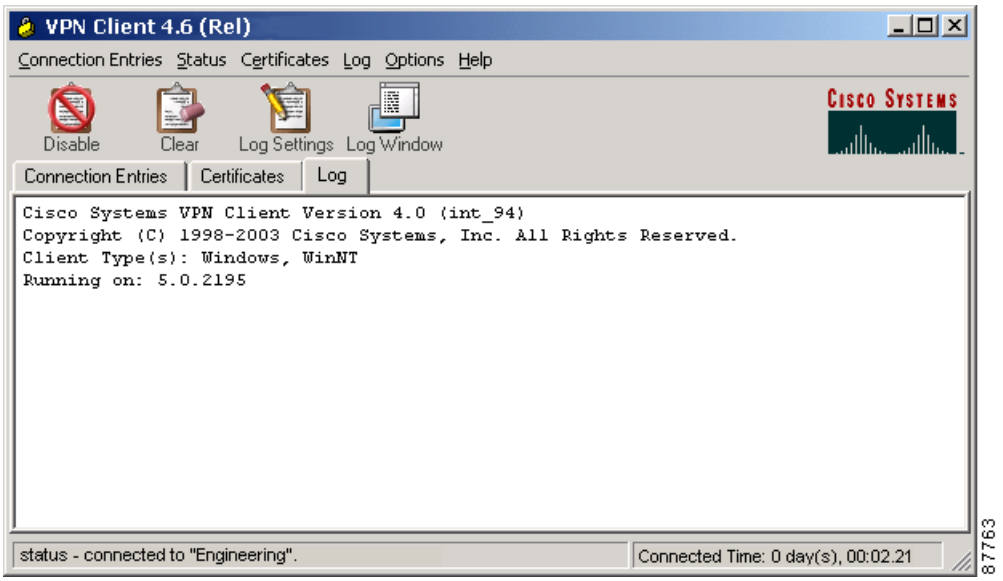
Viewing and Managing the VPN Client Event Log

When you start the VPN Client and enable logging, the VPN Client creates a new, empty log file for your session. The log collects event messages from all processes that contribute to the client-peer connection. Examining the event log can often help a network administrator diagnose problems with an IPSec connection between a VPN Client and a peer device. During a session, you can view the log from the Log tab and the Log Window. You can also view a saved log file with a text editor. This section shows how to use the log to retrieve and manage this information.

The Log Tab

You can manage and also view the log from the Log tab (Figure 7-7).

Figure 7-7 Viewing and Managing Events using the Log Tab



This window lets you

- View the log in the Log tab screen
- Enable or disable logging events
- Clear the log display in both the Log tab screen and the Log Window
- Change the log filtering settings
- Display the complete log in the log window and within the window perform the following actions:
  - Search the log
  - Save the messages to the log file
  - Change log filter settings
  - Clear the log display

Enabling or Disabling the Log

Enabling and disabling the log does not clear the events from the log file. To control the flow of information logged, use the following procedure. You can also control the amount of information collected by changing the log filtering settings.

Step 1 To start collecting event messages into the log file, you must enable the log in one of the following ways:

- Click **Enable** on the toolbar above the Log tab
- Display the Log menu and choose **Enable**

The log is disabled by default.

Step 2 To end collecting event messages into the log file, you must disable the log in one of the following ways:

- Click **Disable** on the toolbar above the Log tab

- Display the Log menu and choose **Disable**

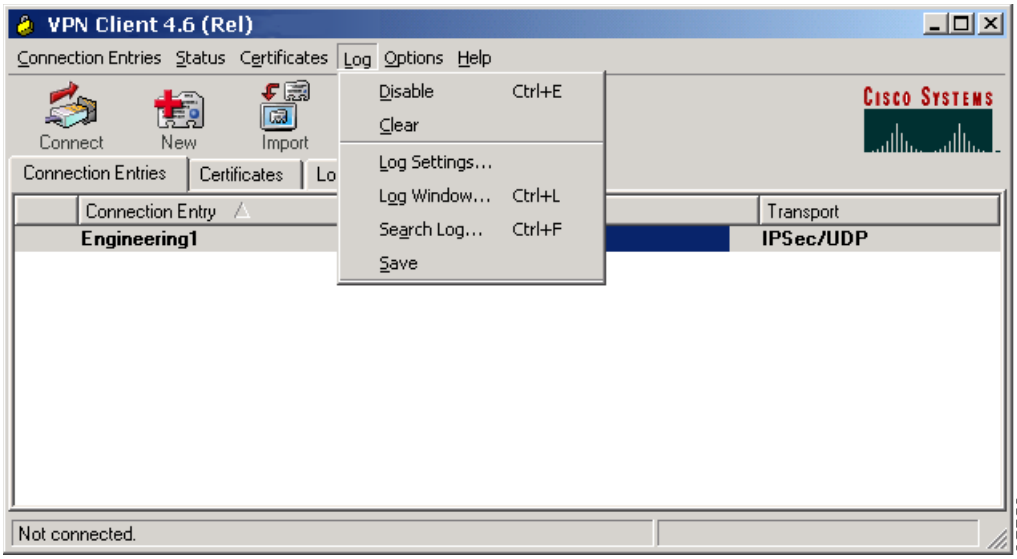
Displaying the Log Window

You can see a complete view of the log file by using the Log Window, which is scrollable.

Step 1 Display the Log Window in one of the following ways:

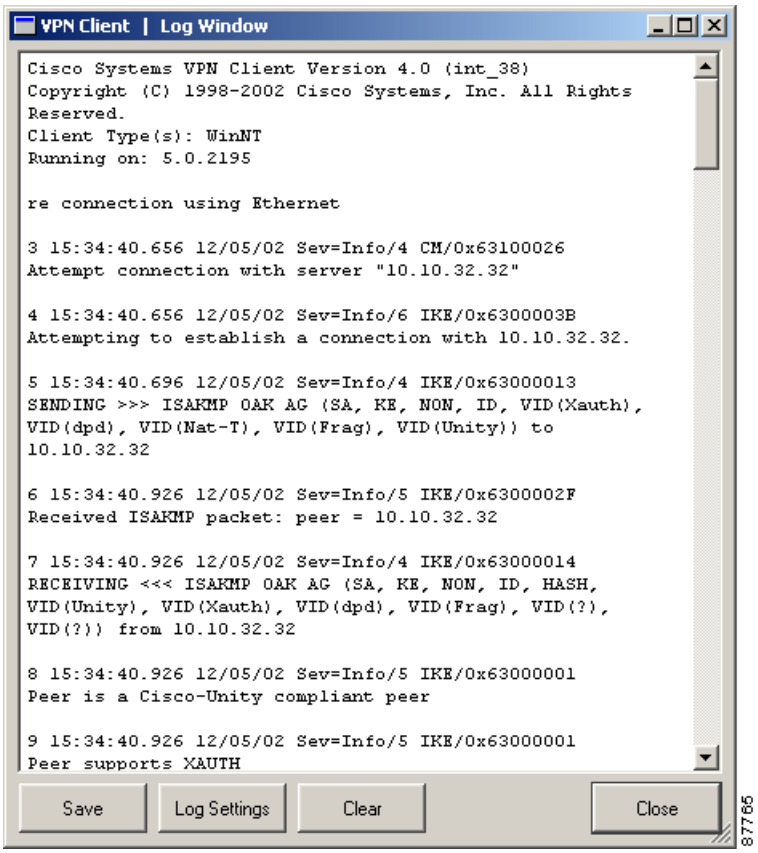
- Display the Log menu and choose **Log Window** (Figure 7-8)
- Press **Ctrl-L**
- Click the **Log Window** icon on the toolbar above the Log tab(Figure 7-7)

Figure 7-8 Displaying Log Messages from the Log Menu



The Log Window appears on the screen. (See Figure 7-9.) By default, the filter is set to low, so you might not see any events displayed in this window (see "Filtering Events").

Figure 7-9 Log Window



Each message in the log file comprises at least two lines containing the following fields:

```
Event# Time Date Severity/type/level EventClass/MessageID
Message text
```

Table 7-1 describes the fields in an event message. Table 7-2 describes Event types and severity levels.

Table 7-1 Fields in an Event Message

Field	Meaning
Event#	The first field shows the event number. Events are numbered incrementally and never reset.
Time	The Time field shows the time of the event: *hour:minutes:seconds*. The hour is based on a 24-hour clock. For example `15:25:09` identifies an event that occurred at 3:25:09 PM.
Date	The date field shows the date of the event: *MM/DD/YYYY*. For example, `2/03/2003` identifies an event that occurred on February 3, 2003.
Severity/type/level	This field reports the severity type and level of the event; for example, `Sev=Info/4`, which identifies an informational event, severity level 4. identifies event types and severity levels

Table 7-1 Fields in an Event Message

Field	Meaning
Event Class/Message ID	This field shows the module or source of the event and the message identifier associated with the module. For example, `IPSEC/0x63700012`.
Message Text	A brief message describing the event. Usually, this message is no more than 80 characters. For example, `Delete all keys associated with peer 10.10.99.40`. In a message containing arrows, the arrows indicate the direction of the transmission: >>> for sending and <<< for receiving.

Table 7-2 Event Types and Severity Levels

Type	Level	Meaning
Fault	1	A system failure or nonrecoverable error.
Warning	2 - 3	Imminent system failure or a serious problem that may require user intervention.
Informational	4 - 6	Level 4 provides the most general type (high level) information. Levels 5 and 6 provide more detailed information about the connection.

Filtering Events

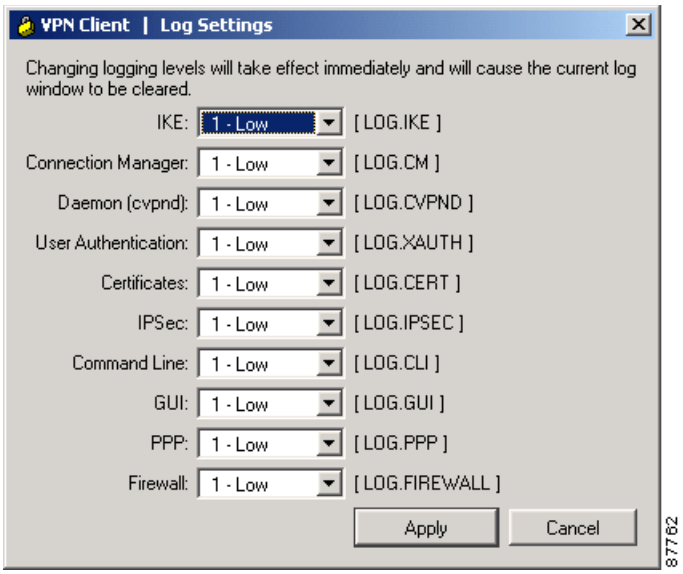
To control the amount of information collected in the log, use the following procedure:

Step 1 To change logging settings do one of the following:

- Display the Log menu and choose **Log Settings**
- Click the **Log Settings** icon in the toolbar above the Log tab
- Click **Log Settings** on the Log Window

The VPN Client displays the log settings dialog box (See Figure 7-10.)

Figure 7-10 Displaying and Changing Log Settings



To change the filter level, do the following:

Step 2 For each of the logs you want to change, click the down arrow and choose from the following options that the Log Settings dialog box displays:

Disabled—Inhibits event reporting for the chosen class.

Low—Provides the least amount of information. This choice includes severity levels 1 through 3 (all faults and warnings). Low is the default for all classes.

Medium—Includes severity levels 1 through 4; all in Low plus the first level informational events, which provide general information about the connection. Note that a first level informational event is level 4 and appears in the event display as Info/4.

High—Includes severity levels 1 through 6, thus adding two levels of informational events (Info/5 and Info/6). This setting can lower the performance of all applications on your system, so use it only when your network administrator or a support engineer suggests that you do so.

Step 3 After making your changes, click **Apply** to save or **Cancel** to cancel your changes.

Table 7-3 defines the classes (modules) that generate events.

Table 7-3 Classes That Generate Events in the VPN Client

Class Name	Definition
CERT	Certificate management process (CERT), which handles getting, validating, and renewing certificates from certificate authorities. CERT also displays errors that occur as you use the application.
CLI	Command Line Interface, which lets managers start and end connections, get status information and so on through a command line rather than using the VPN Client graphical user interface.
CM	Connection manager (CM), which drives VPN connections. (CM dials a PPP device, configures IKE for establishing secure connections, and manages connection states.

Table 7-3 Classes That Generate Events in the VPN Client (continued)

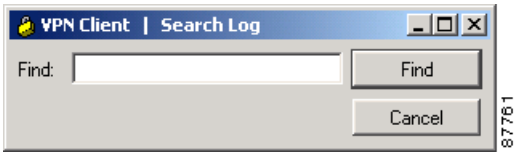
Class Name	Definition
CVPND	Cisco VPN Daemon (main daemon), which initializes client service and controls messaging process and flow.
GUI	Windows-only component, which handles configuring a profile, initiating a connection, and monitoring it.
FIREWALL	Firewall component, which generates events related to connections through a firewall.
IKE	Internet Key Exchange (IKE) module, which manages secure associations.
IPSEC	IPSec module, which obtains network traffic and applies IPSec rules to it.
PPP	Point-to-Point Protocol.
XAUTH	Extended authorization application, which validates a remote user's credentials.

If you change the log filter levels, the change takes effect immediately for the events shown in both the Log Window and the Log tab, but while this change clears the events display on the Log tab, it does not clear the events in the log file.

Searching the Log File

You can search the log file for the occurrence of a string of characters. From the Log menu, select Search Log. This displays a dialog box (Figure 7-11) into which you enter the exact string to be matched.

Figure 7-11 Log Search Dialog Box



The search string is not case-sensitive, and wildcards are not supported. Search terms are highlighted only on the log tab display, not in the log window, even if the log tab was not the active tab.

Saving the Log File

To save the currently displayed events in the log file on your hard drive, use the following procedure:

Step 1 Either display the Log menu and choose **Save**, or click **Save** on the Log Window.

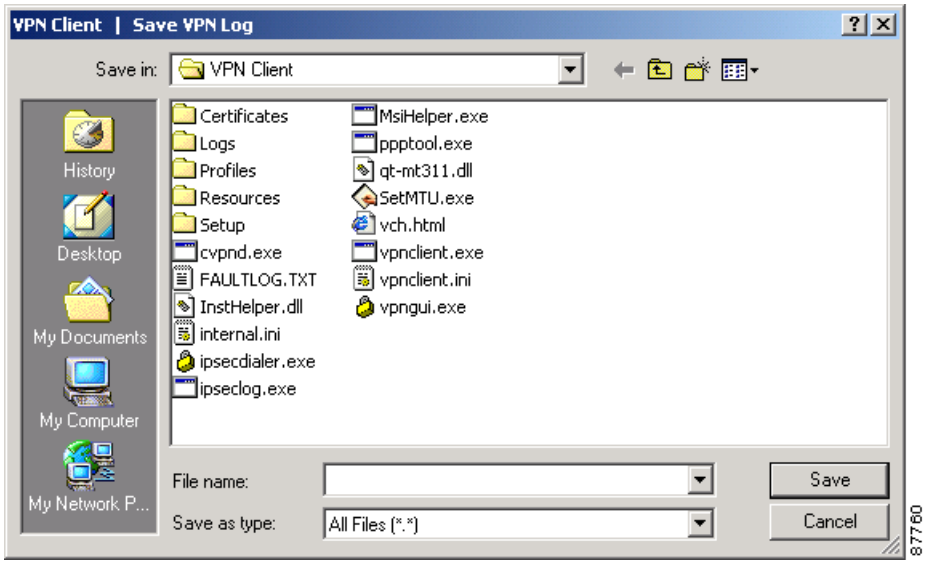
The VPN Client saves the information to the Client install directory, which by default is the pathname Program Files\Cisco Systems VPN Client\VPN Client\Logs. The default file name includes the word "LOG" and is based on the date and time (in 24-hour format) that the log file was created; for example, LOG-yyyy-MM-dd-hh-mm-ss.txt. This new format complies with the ISO 8601 extended specification for representations of dates and times and avoids issues with localization.

The new log file names have a chronological order that is the same as their alphanumeric order. This provides for a method of enumerating only the log files generated by the GUI.

Note You can save the contents of the present log to a different directory and filename, but you cannot change the default log directory and filename. (See Figure 7-12.)

Step 2 After typing in the name of the file, click **Save** or **Cancel**.

Figure 7-12 Saving a Log File



Clearing the Events Display in the Log Window and Log Tab

To eliminate all the events currently displayed in the Log Window and the Log tab, do one of the following:

- Click the **Clear** icon in the toolbar above the Log tab
- Open the Log menu and choose **Clear**.
- Click **Clear** on the Log Window.

Clearing the log display does not reset event numbering, nor does it clear the log file itself.

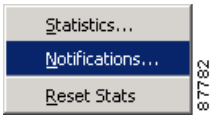
Receiving Notifications From a VPN Device

The VPN device (secure gateway) through which you connect to the private network at your organization can send you notifications. You can receive a notification from your network administrator when it is time to update the VPN Client software, when the VPN device detects that a required firewall is not running, or when the VPN Client receives a disconnect-with-reason notification. Other notifications are essentially documentary and can include connection history, client disconnect notices, and an administrator-defined banner. A notification showing the login sequence typically appears when you start your dialer connection.

Step 1 To display notifications, do one of the following:

- Open the Status menu, and click **Notifications**. (See Figure 7-13)

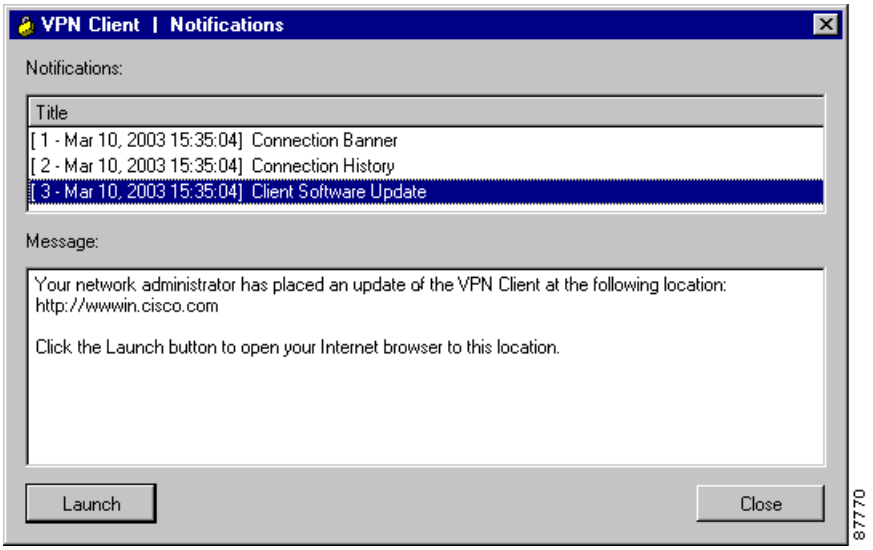
Figure 7-13 Displaying Notifications from the Status Menu



- While connected, right-click the VPN Client icon in the system tray, and click **Notifications**.

Figure 7-14 shows the Notifications dialog box.

Figure 7-14 Displaying Notifications



Firewall Notifications

If the VPN Client and VPN Concentrator firewall configurations do not match, the VPN Concentrator notifies the VPN Client while negotiating the connection. The notification includes the policy that the VPN Concentrator requires. The message states that the policy required is AYT and the firewall required is any Zone Labs product.

Disconnect-with-Reason Messages

In addition, in Release 4.0, when a VPN 3000 Concentrator disconnects the VPN Client and tears down the tunnel, the VPN Client displays a popup window showing the reason for the disconnect and also logs a message to the Notifications log and the IPSec log file. For IPSec deletes that do not tear down the connection, the event message appears only in the log file. These disconnect events include:

- Administrative disconnect.

- VPN 3000 Concentrator shutdown or reboot.
- Idle-time disconnect.
- Maximum connection time disconnect.

For a shutdown or reboot scheduled at a future time, the VPN 3000 Concentrator sends the disconnect notification at the time of the actual shutdown or reboot. This feature does not provide advanced or early notification of a future event; for example, it does not send messages such as "The Concentrator is going to shut down in 30 minutes."

The disconnect-with-reason feature is enabled by default, but an administrator can configure the VPN 3000 Concentrator to turn off these disconnect notifications. This feature is not configurable on the VPN Client. When this feature is enabled, the VPN 3000 Concentrator and the VPN Client negotiate whether to display these messages.

Upgrading VPN Client Software

There are several ways to update VPN Client Software. For all Windows platforms, you can update software manually, using either the MSI installer or the InstallShield installer. If you are on a Windows 2000 or Windows XP system, updating VPN Client software and profiles occurs automatically. This section supplies instructions for all the various ways you can upgrade your software.

All Windows Platforms

If you are using a Windows 95, Windows 98, or Windows NT platform, you must update the VPN Client software manually. Generally, an administrator sends a notification to inform you that you must upgrade.

Upgrade Notifications

Remote users receive a notification message when it is time to upgrade the VPN Client software. The notification includes the location where the remote user can obtain the upgrade. When you receive an upgrade notification that includes a URL, click **Launch** to go to the site and retrieve the upgrade software. You will receive an upgrade notification every time you connect until you have installed the upgrade software. For an example of an upgrade notification, see Figure 7-14.

Upgrading the VPN Client Software Using MSI

Upgrading the VPN Client software using MSI in this recommended way retains existing connection entries and their parameters. You must remove any version of the Cisco VPN Client or any other VPN Client before upgrading the Cisco VPN Client with MSI.

To install an upgrade of the VPN Client to replace an existing version on your system, use the following procedure.

Step 1 Remove any existing version of the VPN Client software through the Add/Remove available from the Windows Control Panel.

Step 2 Install the VPN Client using the MSI installer (vpnclient_en.msi).

Step 3 Reboot your PC.

Upgrading the VPN Client Software Using InstallShield

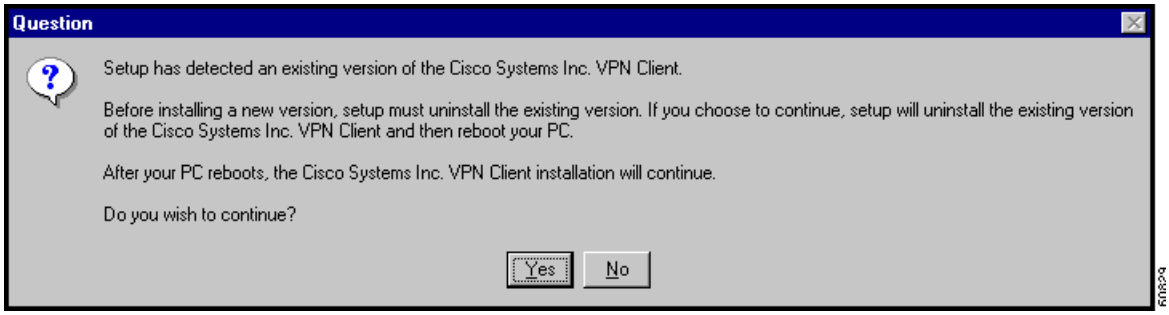
Upgrading the VPN Client software using this method retains existing connection entries and their parameters.

To install an upgrade of the VPN Client over an existing version on your system, use the following procedure, which first uninstalls the existing version, and then reboots your PC and installs the new version.

Step 1 To begin the procedure, follow the instructions in the"Installing the VPN Client Through InstallShield" I in Chapter 2.

When it starts, the installation wizard detects the existing version and asks you to confirm that you want to remove that version and reboot your PC. (See Figure 7-15.)

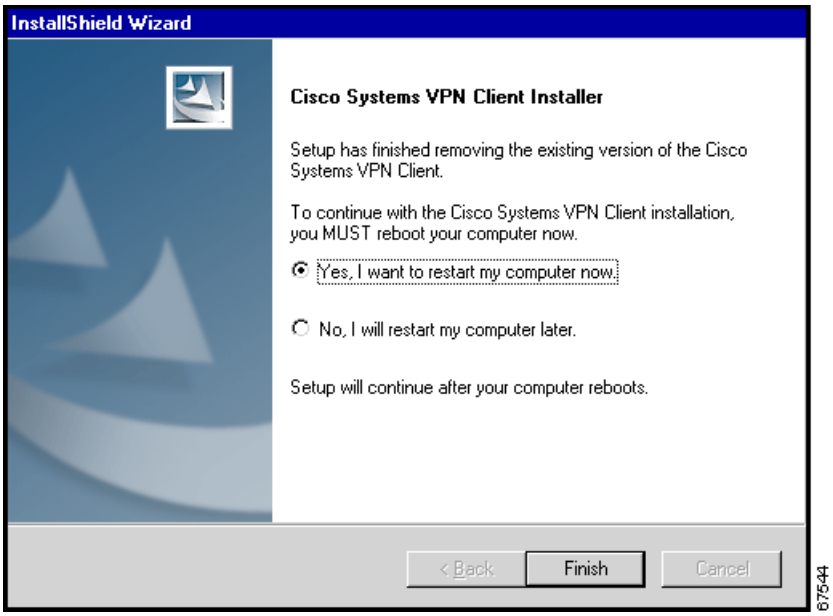
Figure 7-15 Uninstalling an Existing Version



Step 2 To continue, click **Yes**.

The installation program removes the old version and asks you to confirm the system restart. (See Figure 7-16.)

Figure 7-16 Confirming the System Restart



Be sure to remove any diskette from its drive before you restart your system.

If you are installing from diskettes, reinsert Disk 1 after your system restarts and displays the Windows logo screen, but *before* the desktop appears.

Step 3 To restart your system, click **Yes, I want to restart my computer now** (the default) and click **Finish**.

The installation wizard restarts your system. Once your system has restarted, installation continues automatically.

Step 4 Follow the instructions as if you were installing for the first time. See "Installing the VPN Client Through InstallShield."

Uninstalling the VPN Client with the Uninstall Application

This option is available only if you have installed the VPN Client via InstallShield. Uninstalling the VPN Client means completely removing all VPN Client software from your computer. For example, if you are changing or upgrading your PC, you might want to uninstall the VPN Client. Also, if you are getting ready to install Cisco VPN Client 4.0 using Microsoft Windows Installer (MSI), you can run the Uninstall application to remove previous versions of the Cisco VPN Client.

Note Do not attempt to uninstall or upgrade the VPN Client software from a mapped network drive.

Before you run the uninstall program, make sure you have closed all of your remote access (Dial-Up Networking) connections and all VPN Client applications. Then use the following procedure. (See Figure 7-17.)

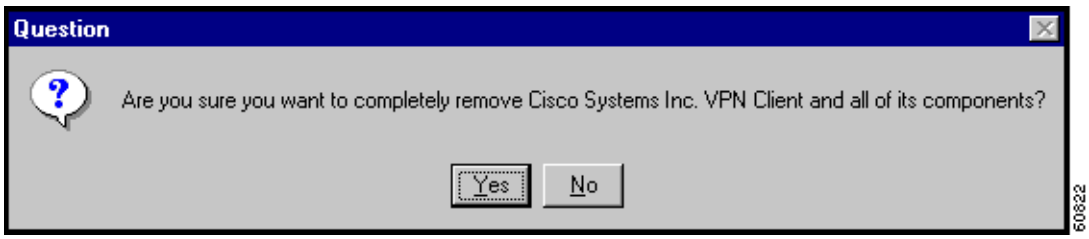
Note If you installed the VPN Client via the Microsoft Windows Installer, the Cisco Systems VPN Client menu does not include the Uninstall VPN Client option. Remove a previous version with Add/Remove Software.

Step 1 Choose **Start > Programs > Cisco Systems VPN Client > Uninstall VPN Client**.

Figure 7-17 Running the Uninstall Program

The Uninstall Wizard runs and asks if you want to really want to remove the VPN Client applications. (See Figure 7-18.)

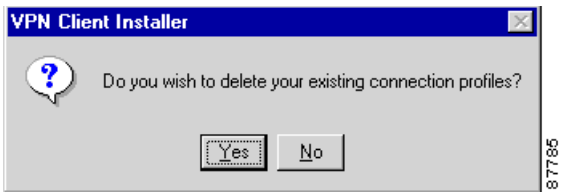
Figure 7-18 Confirming Uninstall



Step 2 To completely remove the VPN Client software from your system, click **Yes**. Otherwise, click **No**.

Next, the Uninstall Wizard asks if you want to delete your connection profiles. (See Figure 7-19.)

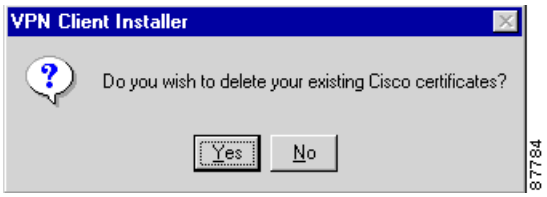
Figure 7-19 Confirming Your Connections



Step 3 To preserve your connection profiles (which contain configured connection entries), click **No**.

Then the Uninstall Wizard asks if you want to delete your certificates. (See Figure 7-20.)

Figure 7-20 Confirming Your Certificates



Step 4 To keep your certificates, click **No**.

Finally, the Uninstall Wizard prompts you to restart your system. To complete the uninstallation, you must restart your system.

Step 5 To restart your system, click **Yes** (the default) and then click **Finish**.

The installation program restarts your system.

Be sure to remove any diskette from its drive before you restart your system.

Note When you uninstall the VPN Client software and you have clicked yes to remove your certificate and profile directories, the vpnclient.ini and log files remain on your system. Since these files were generated after you installed the software, they are not removed when you uninstall the software. You must remove them manually.

Updating the VPN Client Software Automatically—Windows 2000 and Windows XP Systems

Beginning with VPN Client Release 4.6, the VPN Client software can install new releases, updates to releases, and new or modified profiles automatically on Windows 2000 and Windows XP systems. For information on how to manage this feature, refer to *VPN Client Administrator Guide*. Autoupdate can reduce or eliminate the need for rebooting during installation. For MSI installation, autoupdate removes the old version of the VPN Client software automatically and then resumes installation (in the same manner as InstallShield).

When a new version or update is available, the autoupdate program displays a dialog (for an example, see Figure 7-21) that lets you choose to install it right away, install it later, or not to install the package at all. In the later case, however, every time you connect to the VPN Concentrator you see the dialog asking you to install the update until you finally install it. If an administrator requires that you install the update, your choices are limited to Install Now or Install Later.

Figure 7-21 Automatic Installation—Full Install

There are three types of automatic installs: Full Installation, minor update, profile update.

Full Installation

For a major update, you do a full installation. Full installations can be either optional or required. Major updates require a reboot.

- An optional full installation—The update package is a new major release. Figure 7-21 shows your choices: Install Now, Install Later, Don't Install.
  - To install the update, close all programs and choose **Install Now**.
  - To install the update when you exit from the VPN Client, select **Install Later**.
  - To reject the installation, choose **Don't Install**. If you choose Don't Install, autoupdate prompts you again next time you start the VPN Client.
- A required full installation—The update package is a major update. You can choose from only two options, Install Now or Install Later.
  - To install the update, close all programs and choose **Install Now**.
  - To install the update when you exit from the VPN Client, select **Install Later**. If you choose Install Later, when you exit from the VPN Client, autoupdate installs the update.

Minor Update

The update is a minor release (a point release or a patch release). Minor updates can be optional or required. They may or may not require a reboot.

- An optional minor update— The update package is not a new major release. Figure 7-22 shows your choices: Install Now, Install Later, Don't Install.

Figure 7-22 Automatic Installation—Minor Update

  - To install the update, close all programs and choose **Install Now**.
  - To install the update when you exit from the VPN Client, select **Install Later**.
  - To reject the installation, choose **Don't Install**. If you choose Don't Install, autoupdate prompts you again next time you start the VPN Client.
- A required minor update—The update package is a minor update. You can choose from only two options, Install Now or Install Later.
  - To install the update, close all programs and choose **Install Now**.
  - To install the update when you exit from the VPN Client, select **Install Later**. If you choose Install Later, when you exit from the VPN Client, autoupdate installs the update.

Profile Update

Profile updates distribute new and/or modified user profiles and can also contain updated software. Profile updates can be either optional or required. They may or may not require a reboot.

- An optional profile update—The profile update distributes new or modified profiles. Figure 7-23 shows your choices: Install Now, Install Later, Don't Install.

Figure 7-23 Automatic Installation—Profile Update

  - To install the update, close all programs and choose **Install Now**.
  - To install the update when you exit from the VPN Client, select **Install Later**.

  - To reject the installation, choose **Don't Install**. If you choose Don't Install, autoupdate prompts you again next time you start the VPN Client.

- A required profile update—The profile update distributes new or modified profiles. You can choose from only two options, Install Now or Install Later.
  - To install the update, close all programs and choose **Install Now**.
  - To install the update when you exit from the VPN Client, select **Install Later**. If you choose Install Later, when you exit from the VPN Client, autoupdate installs the update.

If the update does not succeed, autoupdate displays an error message identifying the problem.

Figure 7-24 Automatic Installation—Error Message

When this happens, click **Finish** and then contact your system administrator.