VPN Client Manual v4.3

Introduction

This document is in support of DMV's VPN Service Offerings brochure. It will provide the Customer with the necessary information to install, configure, and test the appropriate VPN Client Software on the Customer premise equipment. We include sections on Troubleshooting your VPN Connection and Getting Help when you've exhausted all of your resources. The information in this manual applies only to the VPN Client Access solution outlined in the VPN Service Offerings brochure. We hope this manual answers most of your questions regarding the VPN Solution you've selected however, if you continue to have questions, please contact the SPOC at the number listed in the Getting Help section of this manual.

Intended Audience

This manual is intended to provide the Customer Technical Personnel with the appropriate information to install, configure, test and maintain the Cisco VPN Client Software. This is not intended to be an exhaustive discussion of the intricacies of the VPN Client or the underlying security mechanisms. Those requiring more exhaustive information can request further documentation from the DMV by contacting the Pre-Installation number listed in the Getting Help section of this manual.

Manual Conventions

The following conventions will be utilized consistently in this document.

Double Quoted Bold **"text"** indicates text that should be typed into an interface exactly as it appears

Brackets [ ] indicate a key to be depressed on a keyboard

Angle Brackets < > indicate a variable to be supplied by the end-user

Single Quoted 'text' indicates an item to be clicked or double-clicked with a mouse

Software Acquisition

In this section, we provide the Customer with several options for receiving the VPN Client Software from DMV. At DMV we realize that some of our Customers may have tighter bandwidth restrictions or may lack technical personnel so, we provide you with several options for receiving the DMV VPN Client Software Package. At any rate, DMV will work with you to ensure that the Client is received in a secure manner.

Via FTP

Customers with the ability to download large files may choose to download the file from the Teale Data Center FTP Server by following the simple directions below for your specific situation. Note that your FTP session must be a binary session if you're utilizing a command line FTP Service. If you have any problems with FTP, please contact the DMV at the Pre-Installation Support number in the Getting Help section of this manual.

From DOS or DOS Session

1. At the DOS Prompt, type "**ftp"** [Enter]
This will invoke the FTP Program
2. At the FTP Prompt, type "**open ftp.ca.gov"** [Enter]
This will open a connection to the ftp server at Teale Data Center.
3. At the User Prompt, type "**anonymous"** [Enter]
    This will open a user connection to the ftp server.
4. At the Password Prompt, type <you@youremail> [Enter]
    Where you@youremail is your email address.
5. At the FTP Prompt, type "**bin"** [Enter].
This will put the ftp service in binary mode.
6. Type "**cd pub/vpn"** [Enter].
This will place you in the appropriate download directory.
7. Type "get vpn3-6client525-1.exe" [Enter].
This will begin the download of the file. Make certain you pay attention to the character case as the ftp server *is* case sensitive.
8. When the FTP Prompt returns, the download is complete. Type "**bye"** [Enter].
    This will close the connection to the ftp server and exit the ftp program.
9. Make note of the DOS directory where you are located and type "**exit"** [Enter] to return to Windows.
10. The VPN Client will now be located in the directory where you began the FTP download (you should have made note of the directory in the previous step). Proceed to the Software Installation section of this manual.

From Windows Explorer (All Versions)

1. From the Start Option on the Menu Bar, select the Run Option.
  Note that this is essentially the same procedure as From Internet Explorer.
2. In the command line type "**ftp://ftp.ca.gov**" [Enter]
  This will open Internet Explorer and connect anonymously to the Teale
  FTP Server.
3. When Internet Explorer displays the folder contents, double-click on the 'pub' folder.
This will open the public folder on the Teale FTP Server.
4. Next, double-click on the 'vpn' folder to display its contents.
This will display the contents of the 'vpn' folder, where the client software is located.
5. Single-click the item named 'vpn3-6client525-1.exe'.
This will begin the automatic download procedure.
6. When the File Download screen appears, select the 'Save Program to Disk' radio
Button and select 'Next'.
7. When the Save As screen appears, select from the drop-down box the appropriate directory
to save the program in. Next, select 'Save'.
This will invoke the autosave procedure. Make note of the directory where the file is being
saved.
8. When save is completed, press 'OK' and return to Internet Explorer and close the interface.
Proceed to the Software Installation section of this manual.

From Internet Explorer

1. Start Internet Explorer in the customary manner.
2. In the command line type "**ftp://ftp.ca.gov**" [Enter]
  This will connect Internet Explorer anonymously to the Teale FTP Server.
3. When Internet Explorer displays the folder contents, double-click on the 'pub' folder.
This will open the public folder on the Teale FTP Server.
4. Next, double-click on the 'vpn' folder to display its contents.
This will display the contents of the 'vpn' folder, where the client software is located.
5. Single-click the item named 'vpn3-6client525-1.exe'.
This will begin the automatic download procedure.
6. When the File Download screen appears, select the 'Save Program to Disk' radio
Button and select 'Next'.
7. When the Save As screen appears, select from the drop-down box the appropriate directory
to save the program in. Next, select 'Save'.
This will invoke the autosave procedure. Make note of the directory where the file is being
saved.
8. When save is completed, press 'OK' and return to Internet Explorer and close the interface.
Proceed to the Software Installation section of this manual.

Via USPS

Customers with severe limitation on their Internet connection may request to have the Client Software mailed to them by Registered Letter via the United States Postal Service. While this will increase the time necessary to implement the solution we recognize that certain Customers may prefer this solution for their own reasons. The Customer has but to provide a valid physical mailing address and DMV will arrange for shipment.

Software Installation

When beginning the Software Installation, Customers will need to be certain that they have administrative rights to install software on the PC to be utilized. If you are unsure, contact your LAN Administrative Staff. Additionally, you will need to ensure that you have at least 12MB of free space on your C:\Drive to complete the installation.

The software installation procedure is automated but we will describe each step to be followed to successfully decrypt and install the Client Software. Customers may want to customize the installation to meet their particular situation (i.e. installing to 'D' drive vs. 'C' drive). DMV recommends accepting the default configuration for destination directories, etc. If unsure, please contact The Pre-Installation Support number in the Getting Help section of this manual.

Step 1. Locate the self-extracting executable that you should have received in the Software Acquisition section of this manual.

Step 2. Double-click this file to begin the extraction process.
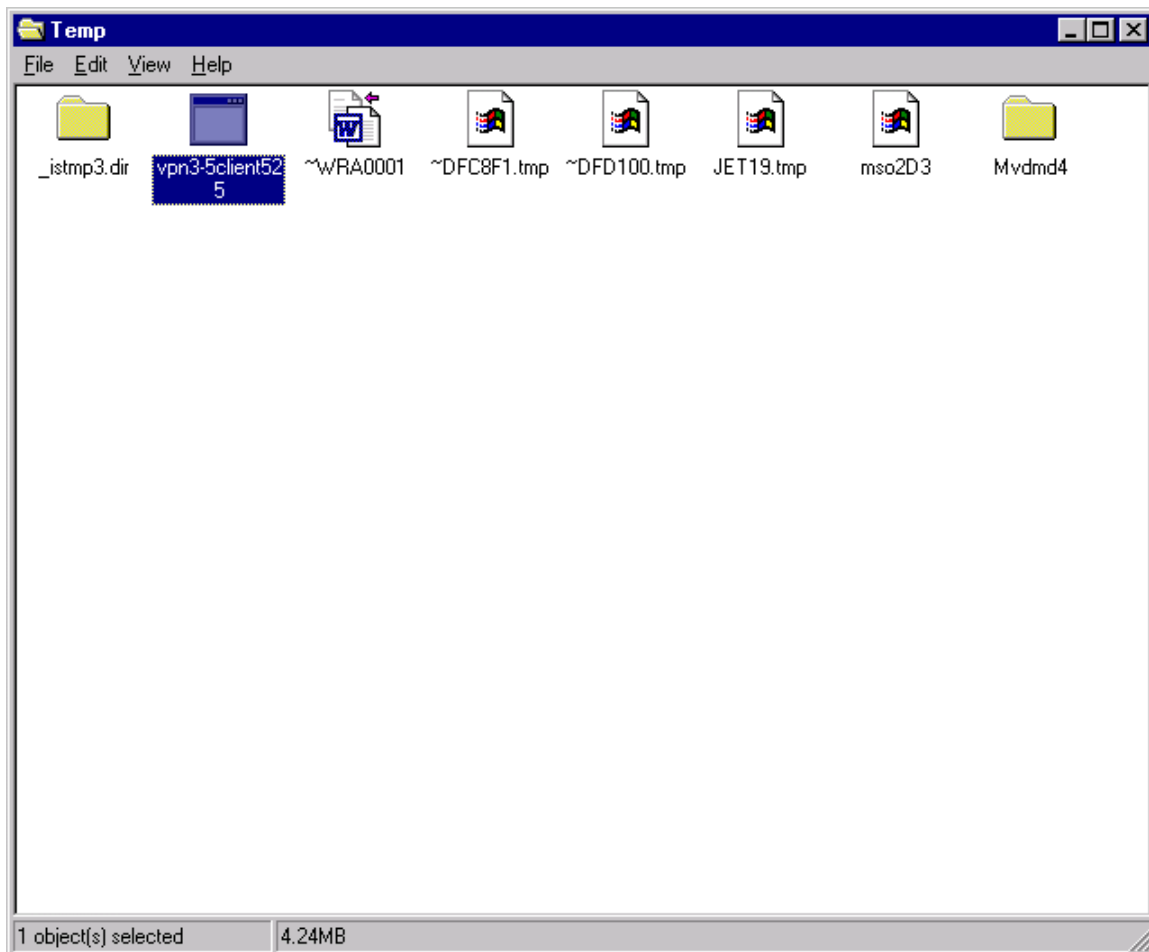
In our example, the file vpn3-5client525.exe is located in the C:\Temp directory.

The PCGuardian Self-Extractor window appears, press Continue to resume operation.

Step 3. Select an appropriate path to unzip the compressed files into. Press Continue to continue the extraction process.
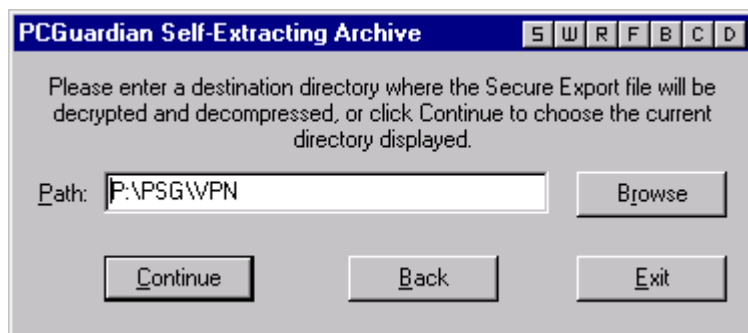
Note: The default directory to place the unzipped setup files in is the directory from where you executed the self-extracting file. You can press 'Browse' to select a different directory, and then press 'OK'.

Step 4. The self-extraction process will prompt you for a password to decrypt and uncompress the file. Your DMV Representative will provide this information to you.

Once the extraction utility completes, it displays the following message.

Secure Export ⊠

⚠ The file(s) was successfully decompressed and decrypted.
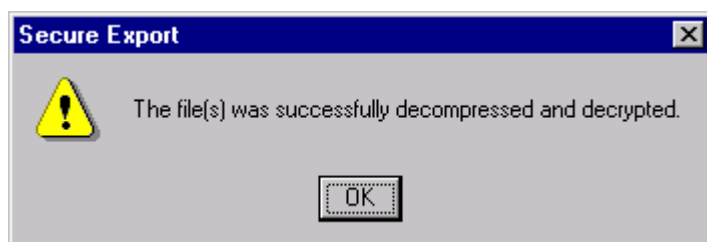
[OK]

Step 4. Press 'OK'. The files have been successfully copied into the selected directory. The extraction utility will now open a Windows Explorer window into the directory where you uncompressed the files.

Step 5. Locate the Setup.exe file and double-click to begin the installation.

Exploring - DMV Client   _ □ ⊠

File Edit View Tools Help

All Folders	Contents of 'DMV Client'
DMV Client	data1
	data1.hdr
	data2
	DelayInst
	DMV VPN Connection
	ikernel.ex_
	layout.bin
	oem
	Setup
	Setup
	Setup
	setup.inx
	vpn3-5client525
	vpnclient

| 14 object(s) | 8.64MB (Disk free space: 3.99GB) |
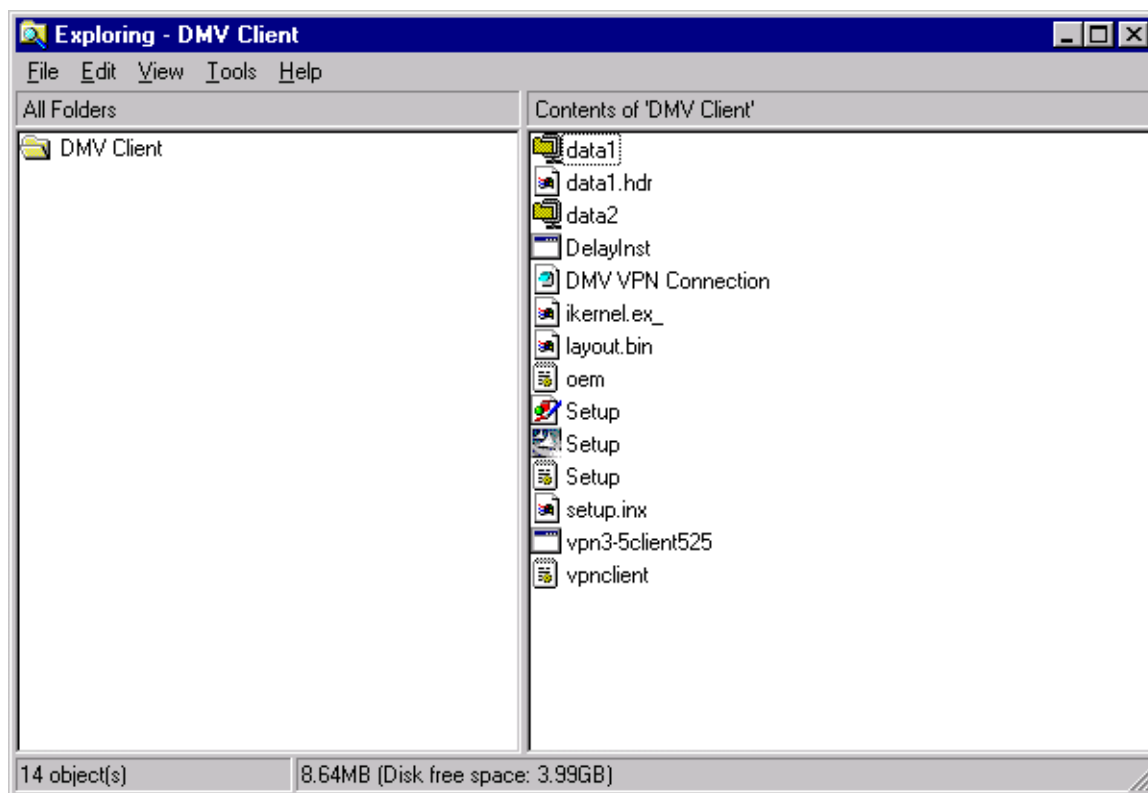
The Cisco Client Installer begins.
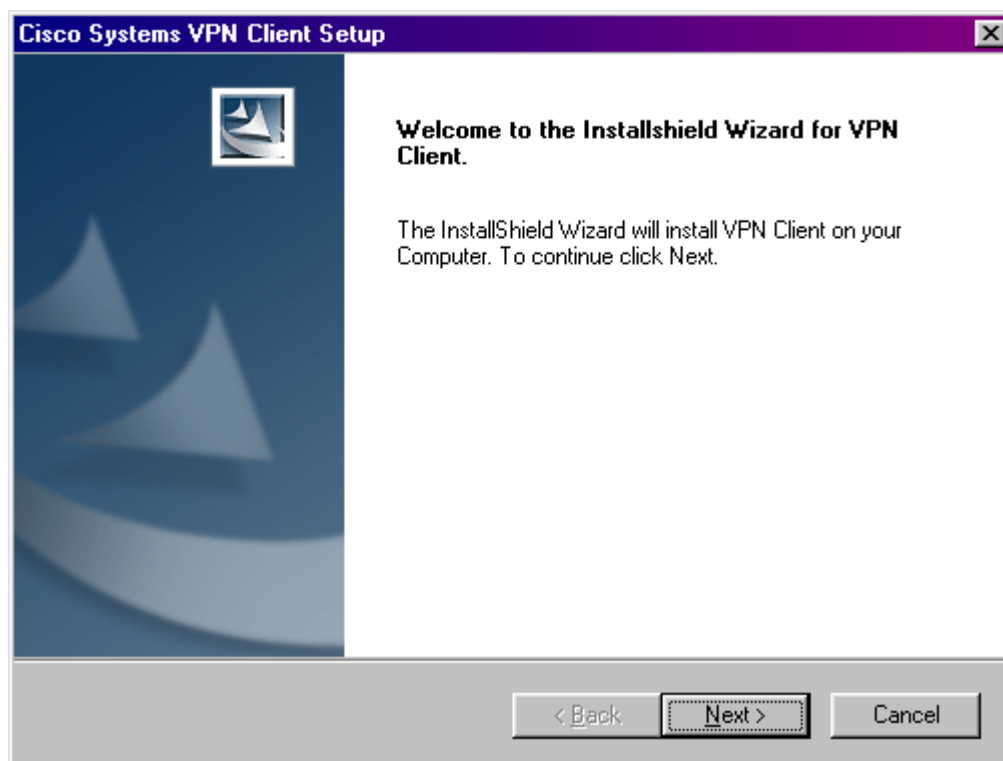
Step 7. Press 'Next' to continue the installation process. The Software License Agreement screen appears.
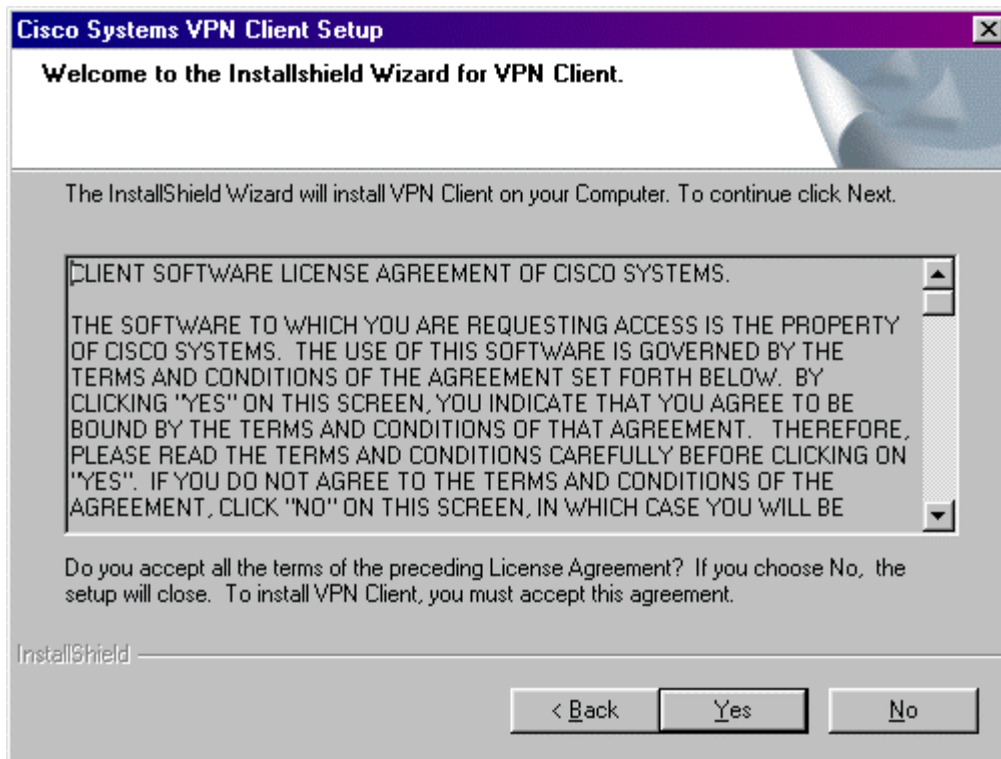
Step 8. Press 'Yes' to agree to the Software License Agreement and continue the installation process. The Client Setup Screen appears.
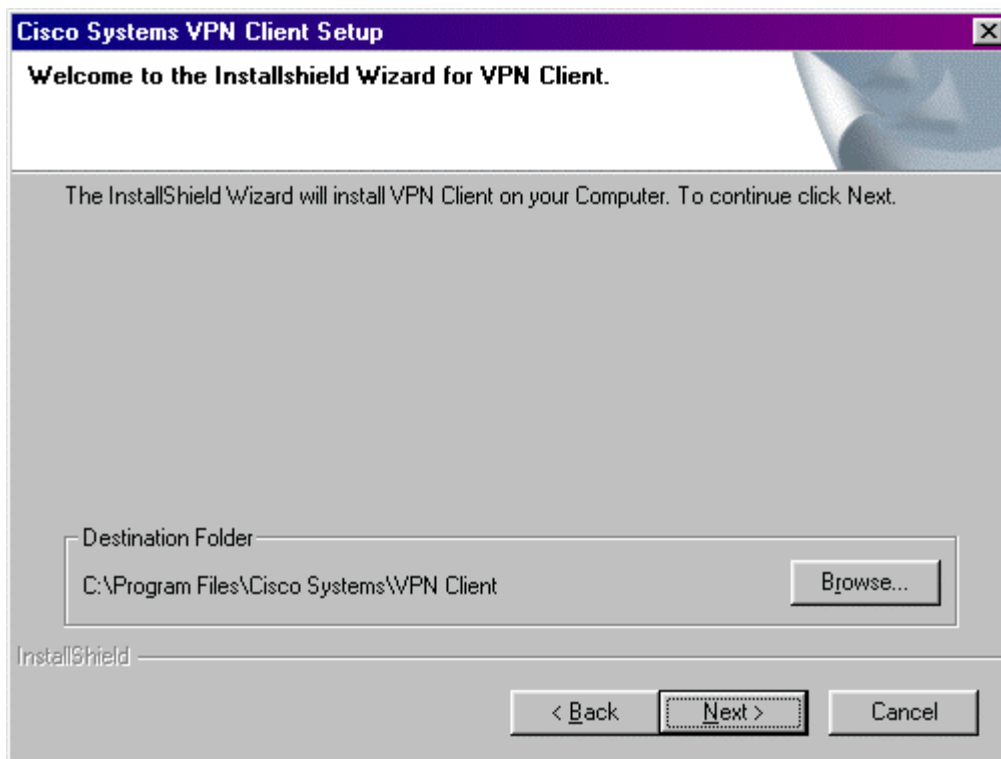
Step 9. Press 'Next' to accept the default installation path. Note: You can press browse to select a new installation path then press Next.
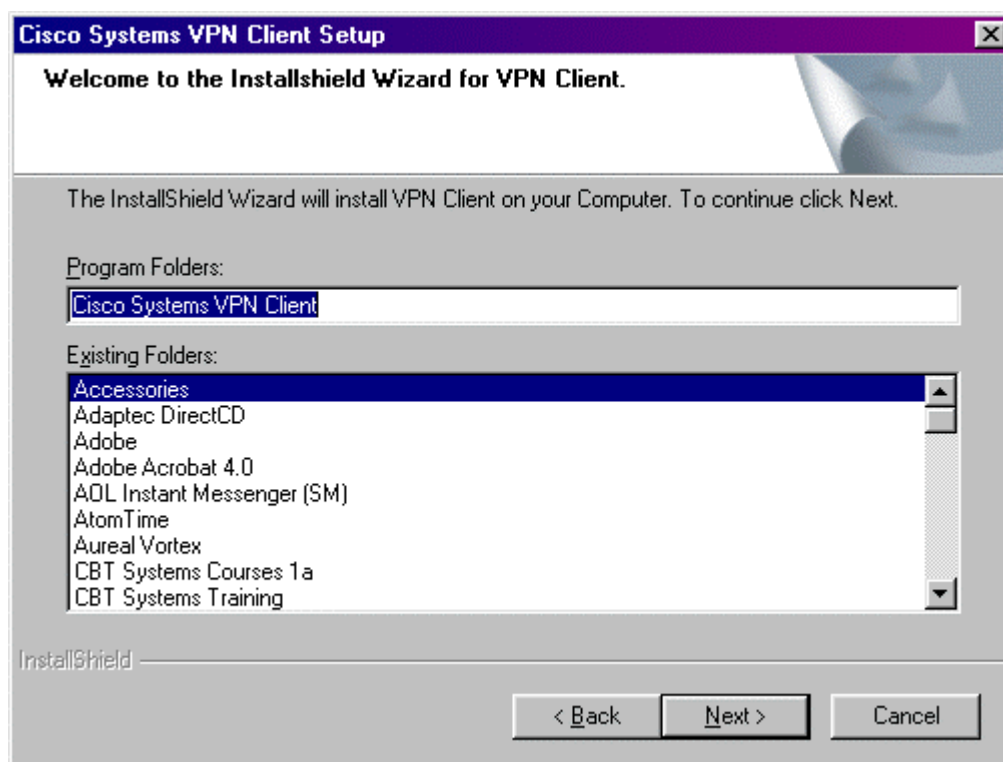
The Installer places the necessary program files in the selected directory.

10. Press 'Next' to accept the default location for the program folder and icons. Note: You may scroll through the list to select an existing folder to install the program icons into.
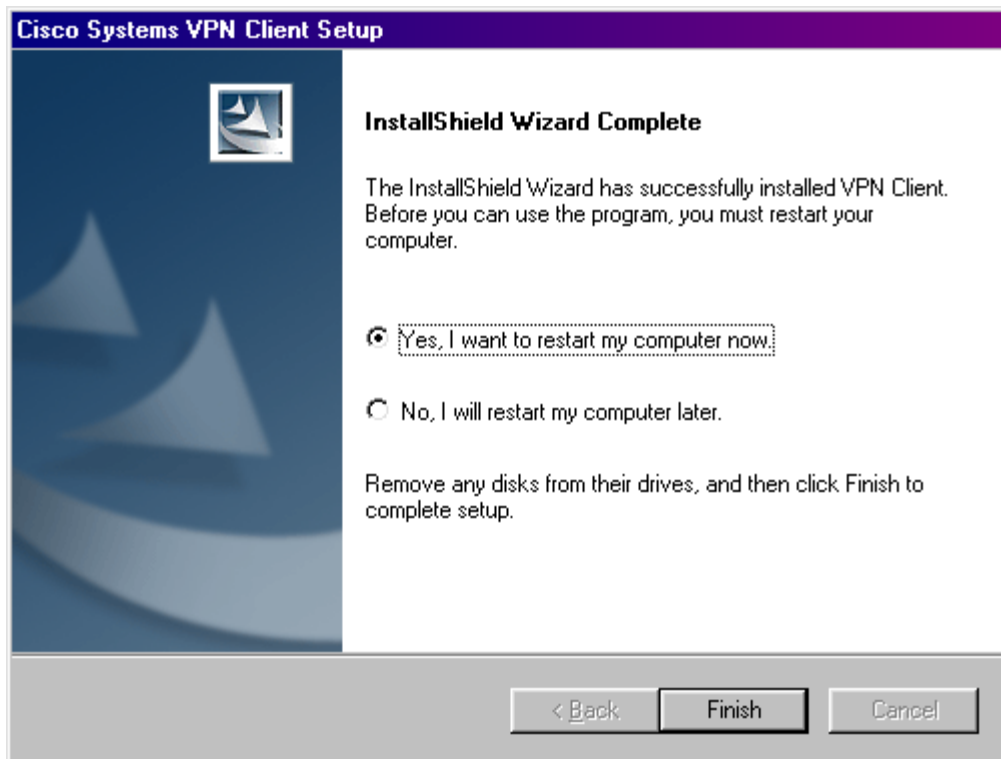
Once the Installation process is complete the following screen appears.

11. Press 'Finish' to have the Installer reboot your computer. Note: You will be unable to use the program until you restart your computer.

This concludes the installation of the VPN Client. Proceed to the Software Configuration section.

Software Configuration

There is no software configuration necessary for the Customer to complete. Once the Software has been loaded on the PC, launch the VPN Dialer by selecting the following on the PC.
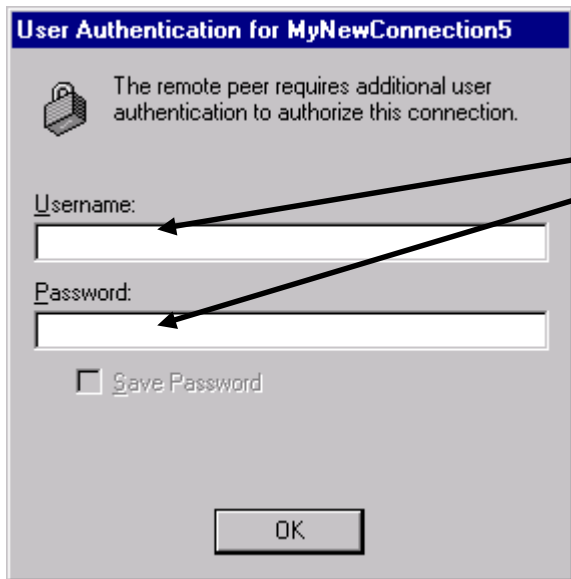
A. Start
B. Programs
C. State of California, DMV VPN Client
D. VPN Dialer

You should get the Cisco VPN 3000 Client screen.
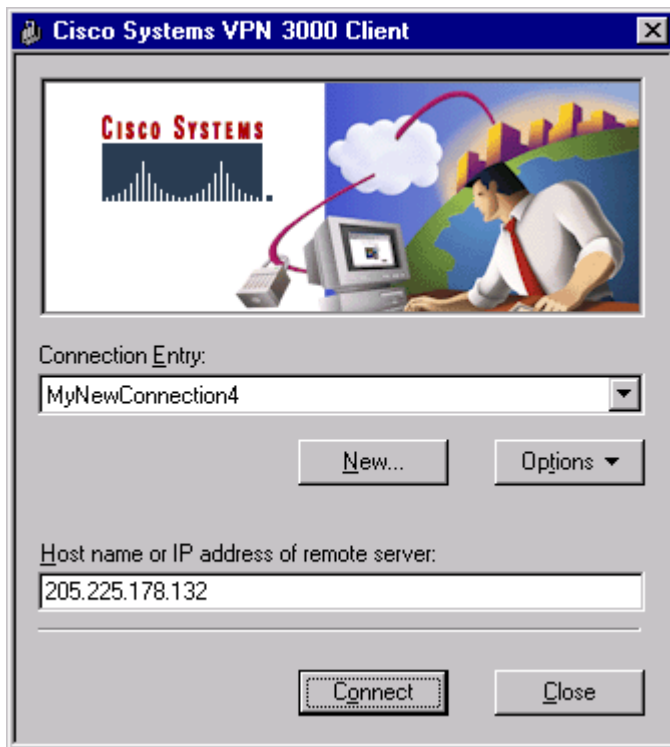
The Dialer is pre-configured to Connect to the Department of Motor Vehicles' VPN Concentrator. Simply press Connect to initiate the VPN Tunnel session to the Concentrator.

You will be prompted for your RADIUS authentication information.

Enter Your RADIUS **Username** and **Password**. Both are case sensitive. Then click the **OK** button.

You are now connected to the Department of Motor Vehicles' VPN Concentrator.

Transfer Procedure

After connecting successfully to the VPN (i.e. establishing the tunnel), the only transport that will be utilized through the connection will be FTP (File Transfer Protocol). This protocol will allow you to upload your files to our host system or download output files from our host system. It does not provide for any type of access beyond the datasets assigned.

Logging in using FTP

Depending on your computer configuration, an FTP session can be started through any of several means. Most users will utilize the DOS (Disk Operating System) version of FTP that accompanies the Windows Operating System. If however, you utilize a GUI (Graphical User Interface) FTP program, the concepts will remain the same.

From Windows
1. Select Start > Programs >Command Prompt <CLICK>.
2. At the Command Prompt type 'ftp' <ENTER> to invoke the ftp program.
3. Open a connection to the host system by typing 'open mvs.teale.ca.gov' <ENTER>.
4. At the username prompt, type your username <ENTER>.
5. At the password prompt, type your password <ENTER>.
6. You will now see an ftp> prompt. Proceed to the section titled "Transferring Files".

Transferring Files

Now that you've connected to the host system, you simply need to send or receive your file(s) depending on the process. Transferring files from the MVS system using FTP requires that the dataset name to which files are being transferred be single quoted (e.g. 'data.set.name' vs. data.set.name). Single quotes are REQUIRED for all versions of FTP from the DOS prompt. Depending on your GUI FTP software, the single quotes may or may not be required.

Note: We assume you know the path and name (i.e. C:\TRAFFIC\ROFILE01.TXT) of the file that you want to upload or download. We will use PATH:\TEXT.FIL in our illustrations to mean a file local to your system.

Sending files to DMV

1. At the FTP> prompt, type "put PATH:\TEXT.FIL 'MV.DATA.SET.NAME' " <Enter> without the double-quotes. MV.DATA.SET.NAME is the dataset name you will be provided with for each process. Note the single quotes around the DMV file name, as these are required.
2. You will receive a message similar to the following:
      200 Port request OK.

125 Storing data set MV.DATA.SET.NAME
　　　　　　250 Transfer Completed
　　　　　　47758 bytes sent in 0.13 seconds (382.06 Kbytes/sec)

3. This lets you know that the transfer was successful. You will receive an email detailing the exact number of records received by DMV usually about 10 minutes after your transfer.
4. Type "bye"<ENTER>
5. Type, "exit"<ENTER> you will now be at your normal Windows session.

Receiving files from DMV

1. At the FTP> prompt, type "get 'MV.DATA.SET.NAME' PATH:\TEXT.FIL " <Enter> without the double-quotes. MV.DATA.SET.NAME is the dataset name you will be provided with for each process. Note the single quotes around the DMV file name, as these are required.
2. You will receive a message similar to the following:
　　　　　200 Port request OK.
　　　　　125 Sending data set MV.DATA.SET.NAME
　　　　　250 Transfer completed successfully
　　　　　42504 bytes sent in 0.28 seconds (151.26 Kbytes/sec)
3. This lets you know that the transfer was successful.
4. Type "bye"<ENTER>
5. Type, "exit"<ENTER> You will now be at your normal Windows session.

Logging off

After transferring files to/from the DMV, you can log-off of your VPN session by right clicking the lock in the systray (lower right-hand corner of the screen on the menu bar) and selecting disconnect. This will terminate the session between your computer and DMV.

Troubleshooting

Events that prevent connection to the VPN Concentrator may be attributed to any number of causative factors. In this section, we will review the most common causes of problems for each of these areas and provide basic solutions for each. In addition, we will provide a flowchart for troubleshooting the VPN Connection as an analytical tool to be utilized prior to contacting the SPOC for assistance.

Common Problem Resolution Table

Symptom	Possible Cause	Solution
Unable to connect to remote peer	Invalid group name	Verify the group name for the connection
Unable to connect to remote peer	Port Firewall Configuration	Verify that port 500 Is allowed to pass to/from IP address for the connection
User authentication failed	Invalid group password	Verify the group password for the connection
User authentication failed	No username exists in the VPN database	Verify that you have the correct username
Unable to negotiate IPSec or peer did not respond	Not using IPSec as a tunneling Protocol for group	Contact SPOC for resolution

VPN Problem Cause Determination

```
                                                    ┌─────────────┐
                                                    │  Software   │
                      YES ──────────────────────────┤   Loads     ├◄──────────────┐
                       │                             │ Correctly?  │               │
                       │                             └──────┬──────┘               │
                       ▼                                    │                       │
              ┌────────────────┐                           │              ┌─────────────────┐
              │ Dialog with    │                           NO ───────────►│    Verify       │
              │ Entry selected?│                                          │ Installation or │
              └───┬──────┬─────┘                                          │   Re-install    │
                  │      │                                                 └─────────────────┘
                  │      YES                                                  YES
                 NO       │                                                    │
                  │       ▼                                                    │
                  │   ┌──────────────────┐        ┌──────────────────┐
                  │   │ Select appropriate│       │  Error Message   │
                  │   │ Entry to Initiate │       │   Displayed?     │
                  │   │ Tunnel - Success? │       └──────────────────┘
                  │   └──────────────────┘  NO          │
                  │                              ▼        │ NO
          ┌───────────────┐         ┌────────────────────┐
          │ Select drop-  │         │ Verifty Group Name/ │
          │ down box or   │         │ Password and re-    │
          │ New to create │         │ initiate - Success? │
          └───────────────┘         └────────────────────┘
                           YES              │
                            │        YES    │      ┌──────────────────┐
                            ▼               │      │ Refer to Common  │
              ┌──────────────────┐          │      │  Messages in     │
              │ Enter Radius     │   NO   ┌─────────────────┐ Manual - Success?│
              │ Name/Password -  ├───────►│ Verify Radius   │ └──────────────────┘
              │ Success?         │        │ Name/Password - │        │ NO
              └──────────────────┘        │ Success?        │        │
                     │                    └─────────────────┘        │
                    YES                            │ NO               │
                     │                             │                  ▼
              ┌─────────────┐                      └──────►┌─────────────┐
              │ VPN Success │                              │ Contact SPOC│
              └─────────────┘                              └─────────────┘
```

Changing your RACF username/password

Your RACF password is an expiring password with a lifetime of 35 days. The procedure below will detail the process you should follow to change your password. If you have exceeded the expiration date on your password, you will need to contact your DMV Representative to have the password reset.

1. Select a new password before beginning this process.
2. Connect via ftp to mvs.teale.ca.gov through an IPSec tunnel.
3. The system prompts for a login username: enter your RACF userid.
4. The system prompts for a password: enter your current password and your new password in the following format, current/new/new and press Enter.
5. The system will log you in normally.
6. Type bye to log out of the system and re-login with your new password.

Getting Help

Pre-Installation

For Pre-Installation Technical Support or for general questions prior to implementation, please contact the following number. Your call will be handled by available personnel and updates to the issue or question will be handled either online or through subsequent calls.

Pre-Installation Technical Support   657-8861
General Questions   657-7581

SPOC (Single Point of Contact) Support Center

After implementation of a VPN Solution, all questions or trouble calls should go to the SPOC Support Center. We will be available during normal working hours and will return your call during non-working hours as soon as possible.

All Questions or Concerns   657-9063
Backup   657-8243