



**VERIDICOM**  
INTERNATIONAL

**VKI-V User's Guide**

**Revision 1.3.1.2**

## Table of Contents

<b>Introduction</b>	<b>3</b>
<b>Plugging Your VKI Device In</b>	<b>4</b>
<b>Administrator - Enrolling Your Fingerprints</b>	<b>5</b>
<b>Adding New Users</b>	<b>7</b>
<b>Editing a User's Profile</b>	<b>8</b>
<b>Listing Users</b>	<b>9</b>
<b>Deleting a User</b>	<b>11</b>
<b>Updating the Firmware</b>	<b>13</b>
<b>Using the Flash Drive</b>	<b>18</b>



® - Windows, MS-Windows, Internet Explorer, and Windows Explorer are Registered Trademarks of Microsoft Corporation.

® - VPAS, VPAS Standard, 5<sup>th</sup> Sense, VKI-V, and VKI are Registered Trademarks of Veridicom International, Inc.

## Introduction

Welcome and congratulations on your purchase of a VKI-V personal identity device! This document is designed to provide you with the information you need to derive the maximum use from this device. The VKI-V has an FPS200 fingerprint sensor that can be used to enroll yourself and/or other users on your VKI-V or to authenticate yourself to the PC. You can use VPAS to encrypt and decrypt files on your PC or VKI-V, digitally sign e-mails, and store user names and passwords in its secure memory. Once a user has enrolled their fingerprints on the VKI-V device, the flash memory becomes "locked" on the device and will only be "unlocked" after successful authentication. You can manage who is enrolled, upgrades to the built-in software (firmware), and other VKI-V management functions through the VKI-V manager; this utility requires no configuration and does not change any of your registry settings. The first enrollee is by default, an Administrator, other enrollees can be Administrators or regular users – Administrators have more rights than regular users, they can edit or delete other users, and only they can upgrade the firmware or reset the device back to factory settings.

The VKI-V personal identity device comes with 128 MB - 2 GB of flash storage, large enough storage for all of your personal, financial, or corporate data; access to this storage is secured through your fingerprint. If your VKI-V device is ever lost or stolen, no one can view the information on the device but you. And for added security, if you use the VKI-V device with a laptop computer, you can encrypt files on the VKI-V or laptop, files that only you can decrypt. For e-mail security, you can use the on-board RSA certificate to digitally sign e-mails so your recipient knows that it was you that sent the message and not some "hacker" or "phisher" looking for your confidential or private information. With ewallet, you can store credit card information, medical or drug history, or other personal or confidential information on your personal identity device, information that only you have access to – through your fingerprint.

You can use the VKI as a secure flash drive, or you can use the added features of VPAS to protect files on the VKI and on your hard drive. By encrypting files on the VKI or on your hard drive that contain personal, financial, or sensitive information, you can be assured that these files will never be displayed without your authentication. The VKI-V has an on-board cryptographic processor that keeps your files and personal information safe from prying eyes and only allows access to this data through user-based authentication. No user names or passwords to remember; no smart cards to lose or forget.

The first step is to enroll your fingerprint to the VKI-V. Then, as administrator, you can add, modify, or delete other users, update the firmware or reset the VKI-V back to factory settings.



---

**Note:** VKI-V is also sold with **VPAS** (Vericom Personal Authentication Suite), there are additional files on the device – To install VPAS, double-click the VPAS-Setup file and refer to the VPAS Quick Start.pdf or the VPAS User's Guide.pdf file on the VKI device).

---

Once you have enrolled on the VKI device, you can install and enroll your fingerprints on VPAS. Once you are enrolled on VPAS, you can encrypt and share files, digitally sign emails, and logon to Windows with your fingerprint instead of your User Name and Password.

## Plugging Your VKI Device In

1. When you plug in the VKI device, Windows displays a Found New hardware balloon indicating it is sensing a new device; allow the balloon to complete before proceeding. Open Windows Explorer and locate the VKI-V drive, (it displays one folder and two files). The VPAS\Programs folder contains the VPAS-Setup and the KidSafe-Setup files. The VPAS\User Guides folder contains the Quick Start and the User Guides for the VKI device and the VPAS installation. The VKI-V Command Center is started by double-clicking the vkivcc program, a program that allows you to enroll and modify users on the VKI-V device.



Figure 1: vkivcc.exe icon

2. Double-clicking the vkivcc file opens the VKI Command Center and the program will begin searching for the VKI device. A yellow progress bar is displayed; a red progress bar is displayed after 5 seconds.



Figure 2: VKI Command Center - searching for device

Once the device is found, VKI-V is now waiting for you (as Administrator) to enroll your fingerprints. Click the VKI Manager button and click the Add User link to add yourself as a new user. Once you have enrolled to the VKI-V device, every time you connect the device to the computer, the LED will flash green. You will have to authenticate before you can unlock the flash drive, once you authenticate, the LED turns solid green.

## Administrator - Enrolling Your Fingerprints



**Note:** The first user enrolled on the VKI-V device is always an Administrator. Only an Administrator can, add, modify, or delete other users, update the firmware, or reset the device back to its factory settings. Any user can modify or delete their own profile but an Administrator can add users, or modify/delete other users. When you first plug in the VKI-V device to your computer, the device is displayed in Windows Explorer as a flash drive. Once there are a minimum of two Administrative fingerprints enrolled on the VKI-V, the flash memory is "locked" and it is only "unlocked" after successful authentication.

Double-click the vkivcc file to open the VKI Command Center to enroll your fingerprints. Your first step will be to enroll a minimum of two fingerprints as Administrator.

1. When the VKI Command Center opens, click the User Manager button, and click the Add New User link.




Figure 3: VKI Command Center - Add User Option

2. Enter your First and Last Name, Timeout (or leave it at the No Timeout default), and select the hand from which you want to use to enroll your fingerprints. As the first enrolled user, you are automatically the Administrator (this field cannot be changed). **Do not Enable the Sensor at this time**; you can Enable the sensor checkbox after you have completely enrolled your fingers. If you are concerned about "latent" fingerprints, click the Dual Finger Authentication checkbox<sup>1</sup>. If this box is checked, you will have to use two different enrolled fingers to authenticate. When you do authenticate an enrolled dual finger authenticated user, you must present your first finger, the LED turns flashing amber, then present your second finger until the LED turns solid green.
3. Click the fingertip of the first finger you want to enroll and place that finger on the sensor.

<sup>1</sup> Latent fingerprints are caused by the oils on your fingertip. When you press your finger on the sensor, you leave oily residue on the sensor that could be used to allow an unauthorized user access to the device. To remove latent fingerprints, either wipe the sensor with a dry cloth or wipe your fingerprint across the sensor to smudge it.

4. The fingertip is "haloed" and a chart is displayed in the bottom right-hand corner of the window. The chart indicator will move from red to green and the halo disappears after each successful scan. Remove your finger from the sensor when directed to do so then re-place it on the sensor until the finger is verified. Click the fingertip of the second finger to enroll and repeat the process. The Administrator must enroll a minimum of two fingers. You may enroll more fingers, but you must enroll a minimum of two fingers. Additional users may enroll just one finger or more, up to a maximum of 10 fingers (including the Administrator).
5. Once you have enrolled all of your fingers, click the Proceed button. The LED turns from green to orange as it writes the data to the VKI secure memory. The device will reset and the LED turns to flashing green. Place your finger on the sensor until the light turns solid green. You are authenticated.
6. Now you can enable the sensor. Click the User Manager, click the List Users link, and then select yourself. Click the Edit button then click the Enable Sensor checkbox, click the Update button, and then click the Lock button. The device will reset again, so authenticate your finger – the LED is solid green.

---

 **Note:** If you enabled Dual Finger Authentication when you enrolled, you will need to present two of your enrolled fingerprints to authenticate. When you plug the VKI-V in, the device is flashing green, the flash memory is locked, and the device is waiting for you to authenticate. Once you present your first finger, the LED will flash from green to amber and wait for a second enrolled finger. Once your second finger is scanned successfully, the LED turns solid green and the flash memory is unlocked.

---

## Adding New Users

You may want to have other user profiles on the VKI-V device, perhaps share it as a common, secure, portable drive. You may want to have more than one profile on the VKI-V, one profile with the sensor enabled, one profile with the sensor disabled. You may want one profile to have a regular security level with the sensor disabled, and an Administrator level with sensor enabled for high-end security privileges.



**Note:** You can be an Administrator or regular user to add other users, but you must be an already enrolled user.

1. Put your finger on the VKI-V device to authenticate and hold your finger on the device until the LED turns a solid green. You are authenticated.
2. Open Windows Explorer and locate the VKI-V device. Double-click the vkivcc file (depending on your Windows settings, the file name could be vkivcc.exe).
3. When the VKI Command Center opens, click the VKI-V Manager button, and click the Add User link. The Add User screen is displayed.



Figure 4: Add User Option

4. Enter the user's First and Last Names and Timeout (or leave it at the No Timeout default). Specify the hand to use to enroll the fingerprints. If you want to have more than one profile on the device for the same user, use different fingers for each profile. You cannot use the same finger for two different profiles!
5. Specify whether the user is an Administrator on the device, and whether the sensor should be enabled.
6. If you require two fingers to authenticate, click the Dual Finger Authentication checkbox.
7. Click the fingertip of the finger to enroll and hold their finger firmly on the sensor until you are instructed to remove it. Re-place it on the sensor to verify the original fingerprint. Repeat this process for each finger to enroll.
8. Click the Proceed button. The user's profile is written to the VKI-V's secure memory.

## Editing a User's Profile



**Figure 5: Edit User Option**

A user's profile can be edited by clicking the Edit User link, entering or selecting the appropriate data, and clicking the Update link. A confirmation screen will confirm that the data has been changed. You must be the Signed In user to edit your data.

In the following example, a regular user will have their existing profile modified so that their Enable Sensor option is disabled.

1. Log into VPAS as Warren Peace.
2. Click the VKI-V Manager button and click the Edit User link. The Edit User screen is displayed (see above). Note that the Enable Administrator option is not visible because Warren Peace was originally enrolled as a regular user.
3. Uncheck the Enable Sensor check box. If you enable the Dual Finger Authentication, you will need to enroll at least two fingers, you should enroll three or four in case a finger is cut or otherwise damaged.
4. Click the Update button. A message box confirms the profile has been updated. Click the Lock button to reset the device, once the device resets, you will have to reauthenticate.

You can also edit a user's account by clicking the List Users link.

## Listing Users

Once a user has their fingerprints enrolled on the VKI-V device, they have a profile stored in secure memory on the VKI-V device. You can determine who is enrolled on the VKI-V device by clicking the List Users link. When you click this link, a list of enrolled users (profiles) is displayed.



Figure 6: List Users Screen - No user selected

By clicking one of the enrolled users, details about their profile are displayed in addition to a picture of their enrolled fingerprints (see example below).



Figure 7: Warren Peace Profile – Sensor Enabled

Once you have selected a user, you can also use the Edit button at the bottom of the form to modify parts of their profile if you are an administrator. If you are not an Administrator, you can only view the details of someone else's profile; you cannot edit or change them.

In the next example, Warren Peace will disable his Enable Sensor option. Warren Peace is currently the logged on user.

1. Unplug the VKI-V. Plug the VKI-V device back in and have Warren Peace place his finger firmly on the sensor. The VKI Command Center will search for the device and after a few seconds, the LED on the VKI-V will change from flashing green to solid green. The progress bar will indicate the VKI is ready and a "Welcome back Warren Peace" message is displayed. He is now the current logged on user.
2. Click the User Manager button and click the List Users link. A list of enrolled profiles is displayed. Click the Warren Peace link. Details about Warren Peace's profile are displayed.



Figure 8: Warren Peace Profile - Sensor Disabled

3. Click the Edit button at the bottom of the window. Warren Peace's detail screen is displayed. De-select the Enable Sensor option and click the Update button; a confirmation screen indicates the data has been updated. The LED on the VKI turns orange, indicating there is data being written to the secure memory of the device. Click the Lock button to reset the device, once the device resets, you will have to reauthenticate.



**Note:** Because the data must be stored in an encrypted digital token in secure memory, it may take up to 10 seconds to return from solid red to solid green.

## Deleting a User

You may have a user enrolled on the VKI device that you want to remove. You can remove any user from the VKI as long as that person was not the original Administrator. You can remove any other Administrators or users, but not the originally enrolled administrator. The originally enrolled Administrator is displayed in the bottom of the VKI-V screen (see below).



Figure 9: User Manager Options- Administrator Displayed

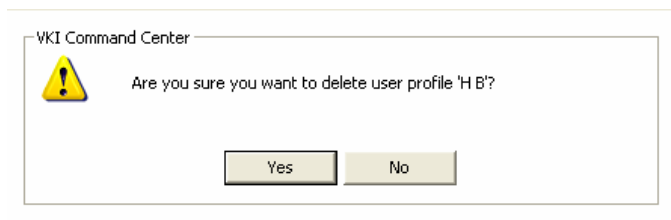
In the example below, a user (HB) will be deleted from the device.

1. Click the **List Users** link. A list of the currently enrolled users is displayed. Select the HB user. Details about this profile are displayed in the right hand side of the window.



Figure 10: List Users Option- HB selected

2. Click the **Delete** key. You are asked to confirm your deletion.



*Figure 11: Confirm Deletion box*

3. Click the Yes button to delete this profile.



**Note:** There is no way to remove the originally enrolled Administrator without removing all of the enrolled users on the device. If you want to delete all users or change the originally enrolled Administrator, click the VKI-V Manager button and the Reset to Factory settings link. After you click the Proceed button, you are asked if you want to reset to factory settings. Once you click Yes, the Administrator must authenticate. After a few seconds, the device will begin to flash Red indicating there is no one enrolled on the device.

## Updating the Firmware

When you first plug in the VKI device the current firmware number is displayed as Version 0X000000XX number where XX represents the latest firmware version. As Veridicom adds features and benefits to the VKI-V device, the internal software that governs how the VKI device works (firmware) must be changed. In order for you to be able to add these changes to your VKI-V device, you will have to download and install the latest version of the firmware. **A normal user cannot upgrade the firmware, only an Administrator can upgrade the firmware!**

**Prior to upgrading the firmware, you should always backup all of the data on the VKI-V device.** Some firmware upgrades may require you to format your device, thereby deleting all of the data on the device, including your VKI-V profile. Formatting the device will also remove your fingerprints from the device so after you have finished formatting the device and recopied your files back to the device, re-enroll your and any others to the device.

Upgrading and installing the firmware will be done over an Internet connection. In the following example, Mike Omand (Administrator) will upgrade the firmware, he is the current user. Since upgrading the firmware may result in having to re-format the VKI-V device, all the files on the VKI-V are going to be copied to a folder on his hard drive.

1. Open Windows Explorer and click on the C: drive (this may have another label other than Local Disk).

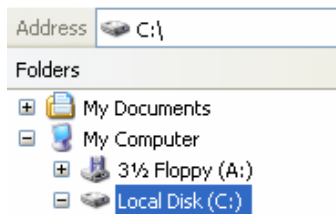


Figure 12: Windows Explorer - Local Hard Drive Selected

2. From the menu, click File, New, Folder, enter a name for the folder (e.g. Backup VKI), and press the Enter key.

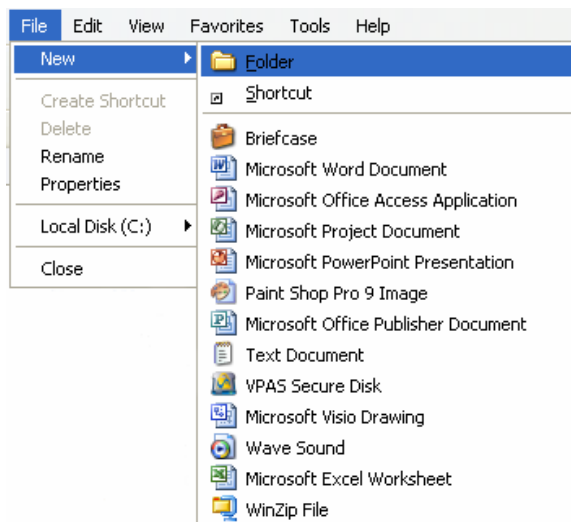


Figure 13: Windows Explorer - File, New, Folder

- The newly created folder is displayed in the left pane.

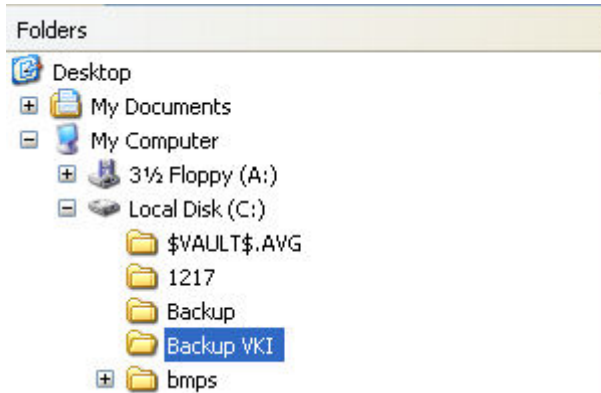


Figure 14: Backup VKI Folder

- Click the VKI device. All of the contents of the device are displayed in the right window pane. In the figure below, an Enrollment folder is also displayed because the user has enrolled their fingerprints to VPAS as well as VKI. The Enrollment folder is normally hidden but is visible in this Figure 15 because Windows has been set up to display hidden files and folders.

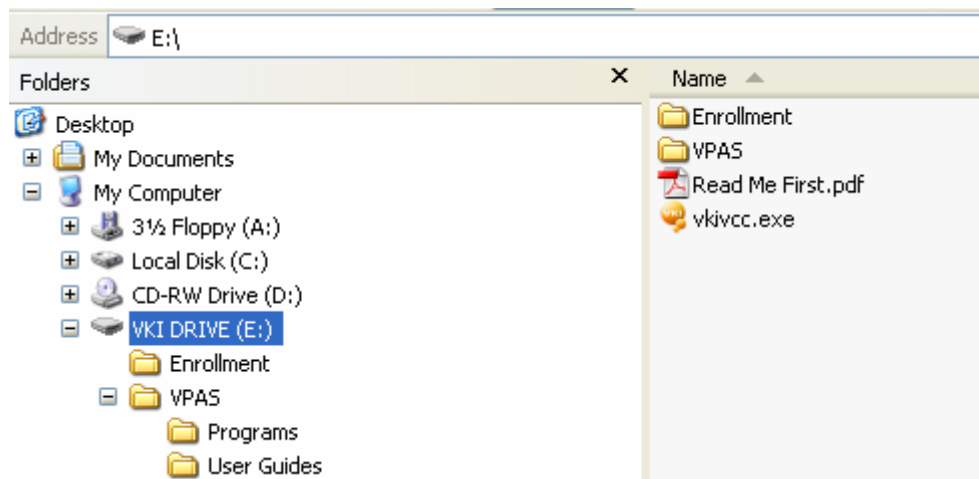


Figure 15: VKI Drive - Contents Displayed

- Click in the right-window pane and select all of the folders and files with Ctrl + A – hold down the Ctrl key and simultaneously tapping the A key (Ctrl + A = Select All). This selects all of the files and folders.

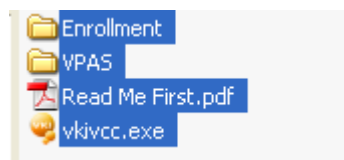
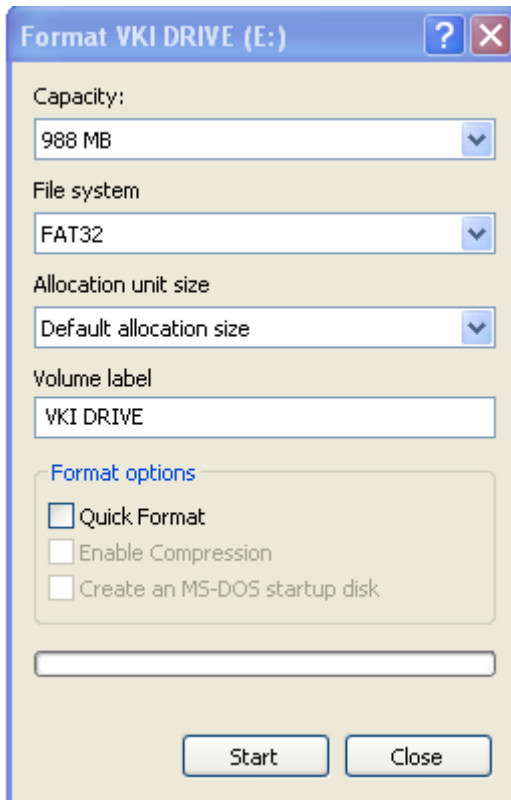


Figure 16: Windows Explorer - Files and Folders Selected

- While these files and folders are selected, press and hold the Ctrl key while simultaneously tapping the C key (Ctrl + C = Copy).
- Click the Backup VKI folder (or whatever you called it) and while holding down the Ctrl key, tap the V key. All the files and folders on the device are now copied to this folder on your hard drive (Ctrl + V = Paste). Now that you have backed up all of

your files, you can format the VKI device. Formatting the device will delete all data on the device.

8. Select your VKI device, right-click, and choose Format. A Windows format screen is displayed.

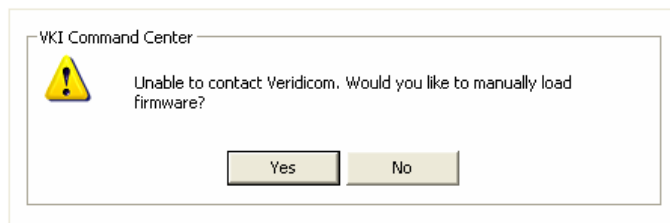


9. Ensure the Volume Label states **VKI Drive** (exactly as shown) and the File System is FAT32 (upper or lower case, doesn't matter). Click the Start button; you are warned that formatting will erase all information off this drive. Click OK.
10. A progress bar informs you of the progress of the format. When it is finished, a window opens showing you the contents of the drive (empty). Close the window. You are informed that the format is complete. Click the OK button. Click the Close button to close the Format window.
11. Double-click the vkivcc/vkivcc.exe file in the Backup VKI (or whatever you called it) folder. The VKI Command Center is displayed.
12. Click the VKI Manager button and click the Firmware link. The Firmware screen is displayed.



**Figure 17: Firmware Upgrade Option**

13. If there is an update, it will automatically be downloaded and installed – a progress bar will display the files as they are copied to your firmware. If there is no update, you are informed that you have the latest version of the firmware.
14. If you have a communication problem connecting to the Veridicom server, you will see the following error message:



**Figure 18: No Update Found box**

15. You are prompted if you manually want to load the firmware, click the Yes button. You will have been sent the latest update via disk or downloaded it via the web; the firmware is a .bin file. Clicking the Yes button displays the Windows Choose VKI firmware update file screen, select the latest Firmware update and click the Open button.

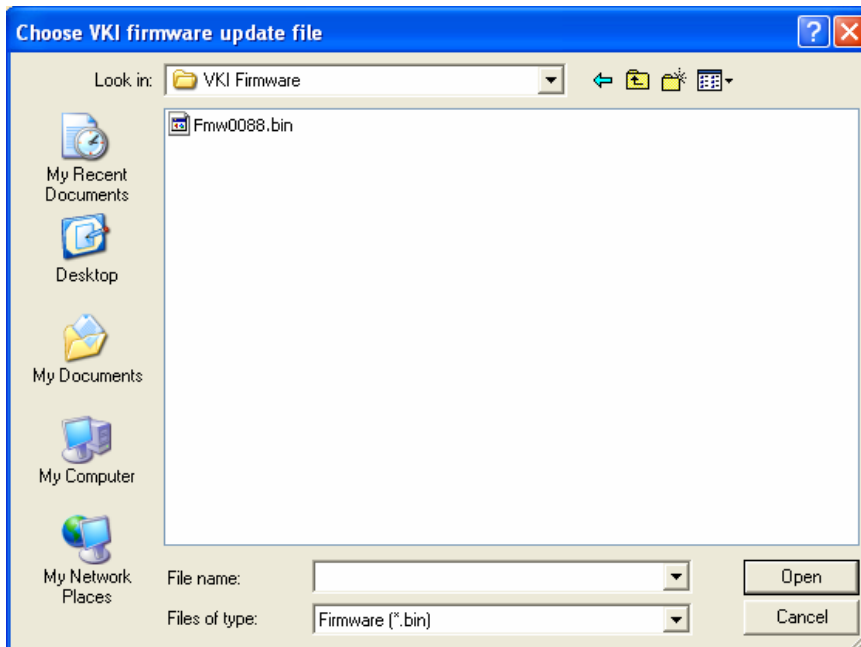


Figure 19: Choose VKI Firmware Update Screen

16. You are informed that the VKI Command Center is attempting to update the device, click Yes to proceed. The firmware will be installed and a progress bar will display the files as they are being installed. If you upgrade the firmware this way, the device will reset so you will have to reauthenticate.

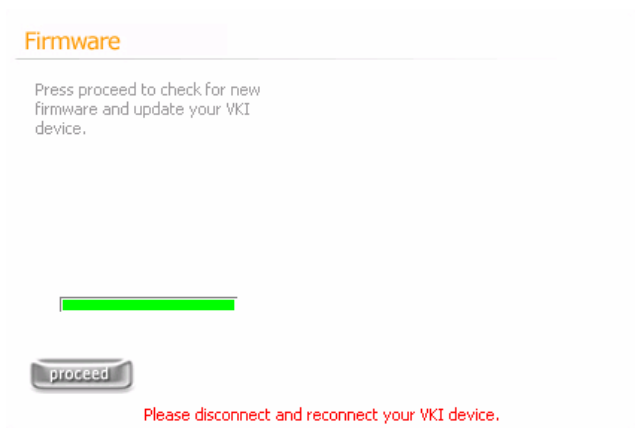


Figure 20: Firmware Disconnect and Reconnect Screen

17. Once the device has reset and you have reauthenticated, copy all of the files in your Backup VKI folder on your hard drive back to the VKI device.

## Using the Flash Drive

When the VKI-V device is first plugged in, anyone can use the flash memory on the device to store files. The flash drive looks and acts like any other Windows drive (see Figure 21 below). This is before someone enrolls their fingerprint.

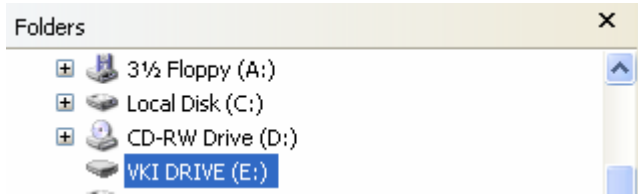


Figure 21: Windows Explorer - VKI-V Removable Disk (F:)

Once the Administrator is enrolled on the device, the flash drive is 'locked' and it can only be 'unlocked' after an enrolled user has authenticated – that person does not have to be the Administrator. When the VKI device is unplugged, the flash memory is locked and will only be accessible after the VKI-V device has been plugged in and an enrolled user has authenticated. If no enrolled user is authenticated, Windows Explorer does not see the flash drive (see Figure 22 below). Notice that the E: drive (representing the VKI-V flash memory) has disappeared. For security reasons to Veridicom, drive G: has been deliberately blurred.

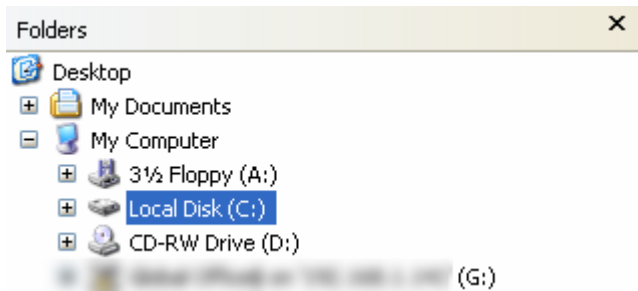


Figure 22: Windows Explorer - VKI-V Removable Disk Not Found

If you have files on the VKI-V device and that device is ever lost or stolen, the contents of the flash memory remain secure because the drive representing the VKI-V device remains invisible to Windows Explorer until the device is authenticated. Once an enrolled user authenticates, the flash memory becomes visible to Windows Explorer once again.



Figure 23: Contents of VKI-V Flash Memory- After User has Enrolled to VPAS

When you create a profile in VPAS, it is stored in the Enrollment folder, which is normally hidden. The Windows settings have been changed for Figure 23 to display all hidden files and folders – therefore, the Enrollment folder is visible. Normally, the Enrollment folder would not be seen.