
VERIO

Migrating to FreeBSD VPS v3

**First Edition
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Introduction

Note: At the time of this release, Verio Migration Scripts and tools are designed to successfully copy the content of your FreeBSD VPS v2 (*original*) account to a special migrations directory of on a newer, FreeBSD VPS v3 (*shadow*) account. It is your responsibility to configure the content on your newer account. Verify the configuration of the following critical or important applications before you terminate your original account and complete your successful migration to FreeBSD VPS v3:

- Antivirus package: ClamAV
- Databases: MySQL, PostgreSQL
- E-Commerce: ShopSite
- Mail Services: Aliases, Lists, POP, IMAP, SpamAssassin
- Multimedia: Shockwave Flash, Podcasting, WordPress blog
- Server Access: CPX:Control Panel, Secure Shell (SSH), Root
- Statistics Packages: Urchin, The Webalizer
- Web development tools: PHP Hypertext Processor (PHP) Miva Empresa, Java
- Web services: Apache HTTP Server, Common Gateway Interface (CGI) binaries,

Using the instructions included in this document and by applying your FreeBSD Virtual Private Server experiences, you can conduct a successful migration to FreeBSD VPS, version three (FreeBSD VPS v3). By means of a structured and guided migration, you can conduct this on your own and without extensive technical support.

After this process is completed, you can expect that the content and users, email, SSH keys and SSL certificates from FreeBSD VPS v2 will be copied to a newer, FreeBSD VPS v3.

Executive Summary

Support for FreeBSD VPS v3 began in October 2006. Since that time, account owners and their clients have utilized the enhanced control, flexibility, and secure isolation provided by this version. For example, this version adheres closely to the UNIX-style FreeBSD operating system. This ensures that knowledge an administrator has about other FreeBSD operating system environments transfers seamlessly.

This version provides you with support for newer features and enhancements. This is true not only for the features which enable you to manage users and content but also for external, open source database, scripting, mail, and Web analytics. Improvements to the process of moving to this version decrease the time an administrator must invest to learn a customized operating system.

Overview of the Migration

The migration begins when you request a duplicate (or *shadow*) account. For the duration, you will have two accounts. At the end, it is your FreeBSD VPS v2 (or *original*) account which terminates. At that point, your shadow account becomes your updated, FreeBSD VPS v3 account. And it is that account which utilizes all of the features of the newer version.

Request your migration from the Web Hosting Backroom (or *the Backroom*). Within 24 hours after you have successfully requested a shadow account, you receive an activation notice by email. Your shadow account includes all content from your original account configuration.

This document provides you with information about options included in the Backroom of your account. It also describes the special purpose directories, files, and commands included in your shadow account.

Process Timeline

The standard duration of your migration is up to 21 days. You can complete the migration in less time than that and you can, if necessary request an extension. During the migration, there are up to four sets of tasks to perform, as follows:

- Configure content
- Test all content,
- Update domain name service (DNS)
- Complete your migration

Following an activation email, you receive additional email notifications to remind you of these tasks, seven and fourteen days after you initiate your shadow account.

After you and test all content, you update DNS for all domains associated with your original account and serviced by the `secure.net` name servers such as `ns1.secure.net` and `ns2.secure.net`.

Note: If `secure.net` does not service your domain names, you must update your DNS to point to the IP address of your shadow account. You will receive email notifications to remind you of these tasks.

At any time after you have successfully requested a shadow account and conducted the migration, you can complete the process. Completing it terminates your original account. You receive email notifications to remind you to complete it 7, 14, and 20 days after you start the process. On the twenty-first day, the process is automatically completed without your intervention. You will receive a notice that the shadow process has been completed (shadow account is now live and original account is being terminated).

Communications and Reminders

As your migration to FreeBSD VPS v3 progresses, you can expect to receive several communications and reminders:

- Shadow Activation Notice – This communication is to be delivered to you by email as soon as you have initiated the process. It helps you set expectations and understand the tasks you'll be expected to complete (and test).
- Reminder Notice #1 – Unless you intervene to cancel (or speed up) the migration. This reminder notice comes by email seven (7) days after you have activated a shadow account and begun the migration to FreeBSD VPS v3. It recapitulates the information provided in the activation notice.
- Reminder Notice #2 – This reminder notice comes by email fourteen (14) days after you have activated a shadow account. It recapitulates, once again, the information provided in the activation notice.
- DNS Reminder #1 – This reminder notice comes by email seventeen (17) days after you have activated a shadow account. It provides an overview of information specific to DNS.
- DNS Reminder #2 – This reminder notice comes by email eighteen (18) days after you have activated a shadow account. It provides a more urgent overview of information specific to DNS.
- DNS update has occurred – This communication comes by email nineteen (19) days after you have activated a shadow account. It lets you know that the DNS for your

account has occurred. That is, DNS services are ready and available for your newer, FreeBSD VPS v3 account.

- Shadow Completion – This communication comes by email twenty-one (21) days after you have activated a shadow account.

Regarding Specialized Configurations

The automated portion of the process copies content to your shadow account and enables you to begin the process of configuring your new account. This document does not address issues associated with a highly customized VPS account configuration including significant changes to the file and naming structures as well as services of a VPS account. As the capabilities of the VPS account allow for multiple configuration options. After you have initiated the migration process, you will need to perform additional steps. In fact, whether you have a near-default or a highly-customized configuration, you must plan time to manually configure features you will utilize.

Prior to Requesting a Shadow Account

This section familiarizes you with the migration and the FreeBSD operating system. It also provides you with an overview of shadow-related options available in the Backroom.

Becoming Familiar With FreeBSD VPS v3

Familiarize yourself with the following customer documentation, offered at no extra charge and as a feature of FreeBSD VPS v3, prior to beginning your migration:

- *FreeBSD VPS v3 Firewall Supplement*
- *FreeBSD VPS v3 Getting Started Guide*
- *FreeBSD VPS v3 IPv6 Supplement*
- *FreeBSD VPS v3 New Feature Supplement* (for Multiple IP Address support)
- *FreeBSD VPS v3 Release Notes*
- *FreeBSD VPS v3 User's Guide*
- *FreeBSD VPS v3: Frequently Asked Questions* (available on the Web)

You might also refer to the following documentation offered on the Web by the FreeBSD Documentation Project (<http://www.freebsd.org/docs.html>):

- *Frequently Asked Questions for FreeBSD 5.x and 6.x*
- *FreeBSD Handbook*
- *FreeBSD Hypertext Man Pages* (or *Manual Pages*)

Note: For more information about how to access the FreeBSD General Commands Manual, see “Accessing the FreeBSD Manual Pages” on page 7.

Reacquainting Yourself with FreeBSD

This section provides you with information about using the FreeBSD directory structure and user permissions. In addition, this section refers you to additional resources to know more about FreeBSD.

FreeBSD Files and Directories

Your shadow account, just as your original account, utilizes a file structure that follows that of FreeBSD, a UNIX-style operating system. It mounts all directories from a *root* directory appearing as a single forward slash character (/). The operating system provides mount points, directories where you add additional file systems onto the root file system.

Initiating a shadow account creates the following files and directories on your shadow account:

File/Directory	Description
/.migrate	Directory where the process automatically places content and data from your original account. Caution: Do not edit the content of the /.migrate directory.
/.migrate/ <i>accountname</i>	A subdirectory of .migrate containing a copy of the file system from your original account.
/.migrate/bin	A subdirectory of .migrate containing binary files from your original account. User utilities fundamental to both single-user and multi-user environments.

Table 1: Files Created on Your Shadow Account

FreeBSD User Permissions

UNIX provides a basis for FreeBSD, a multi-user operating system. FreeBSD enables several users to work simultaneously on unrelated tasks. The operating system enables you to configure your VPS account so that these users' requests can share hardware devices, peripherals, memory and processing capacity.

The FreeBSD directory uses a directory structure that includes control of the permissions you grant to *users*, *groups*, and *everyone else* (neither users nor groups). The structure enables you to configure permissions for users and groups. Control user access by configuring permissions to your precise needs.

The following table describes user permission bits and the abilities they specify for each user.

Permission Bit	Specifies
r	User can read files
w	User can write to files
x	User can execute files.
en dash (-)	A null value, no permission granted for the ability.

Table 2: User Permission Bits

The following table provides you with a guide to permission combinations you can issue to users, groups, and users.

Permission	Directory listing
No read, no write, no execute	---
No read, no write, execute	--X
No read, write, no execute	-w-
No read, write, execute	-wX
Read, no write, no execute	r--
Read, no write, execute	r-X
Read, write, no execute	rw-
Read, write, execute	rwX

Table 3: User Permission Bit Combinations

Following is an example of a typical setup for permissions on a user file, including group permissions:

`rw-r--r--`

In the previous example, `rw` specifies read (*r*) and write (*w*) permissions for the owner of the file. The group and others have read and null permissions (`r--`). This way, the group and others cannot write to the owner's file.

Use the `ls -l` command line argument to see a directory listing including a column with information about a file's permissions for the owner, group, and everyone else. Issuing an `ls -l` command line argument in a directory may show results as in the following:

```
% ls -l
total 530
-rw-r--r-- 1 root  wheel    512 Sep  5 12:31 myfile
-rw-r--r-- 1 root  wheel    512 Sep  5 12:31 otherfile
-rw-r--r-- 1 root  wheel   7680 Sep  5 12:31 email.txt
...
```

You can use the `chmod` utility to change permissions. For more information about the `chmod` utility, refer to the *FreeBSD Manual Pages*.

Accessing the FreeBSD Manual Pages

You can access a version of the FreeBSD *Manual Pages* several ways. You can run the `man` command on your account command prompt, as follows:

```
yourv3 > man command
```

```
BUILTIN(1)                FreeBSD General Commands Manual
BUILTIN(1)
```

NAME

alias, alloc, bg, bindkey, break, breaksw, builtins, case, cd, chdir, command, complete, continue, default, dirs, do, done, echo, echotc, elif, else, end, endif, endsw, esac, eval, exec, exit, export, false, fc, fg, filetest, fi, for, foreach, getopts, glob, goto, hash, hashstat, history, hup, if, jobid, jobs, kill, limit, log, lo88gin, logout, ls-F, nice, nohup, notify, onintr, popd, printenv, printf, pushd, pwd, read, readonly, rehash, repeat, sched, set, setenv, settc, setty, setvar, shift, source, stop, suspend, switch, telltc, test, then, time, trap, true, type, ulimit, umask, unalias, uncomplete, unhash, unlimited, unset, unsetenv, until, wait, where, which, while - shell builtin commands

SYNOPSIS

```
builtin [-options] [args ...]
```

DESCRIPTION

Shell builtin commands are commands that can be executed within the running shell's process.

You might also refer to the documentation offered on the Web by the FreeBSD Documentation Project as well as other locations on the Web.

Using the Backroom

Note: There is no other way to initiate your shadow account (s). There are not any supported commands, functions, or scripts available from the root directories that provide an equivalent to these options in the Backroom.

The Shadow Selected Account option, available in the Backroom, creates a shadow account you can configure as a new, FreeBSD VPS v3 account. Select one or more accounts to shadow as well as a physical location where your shadow account resides. Your shadow accounts provide you with a 21-day period in which to configure your FreeBSD VPS v3 accounts without down-time.

Using Your Shadow Account

The Backroom of your shadow account provides you with several shadow-related options. Your shadow account also enables you to issue a specific set of commands and functions. These commands and functions place the configuration information from your original account to the correct directories and files of your FreeBSD VPS v3 account.

This section provides information about initiating your shadow account, using the Backroom of your shadow account, connecting to your shadow account, controlling access to your shadow account, managing groups, using a custom installation utility (or *vininstall*) for add-ons, and Perl modules.

Initiating Your Shadow Account

The Backroom includes a Shadow Selected Account option which initiates a migration for the VPS account(s) you select. After you initiate the migration, look for an email including the login name, server host, and IP address for a special-purpose VPS account (also called a *shadow account*).

Follow these steps to locate the Shadow Selected Account option and to initiate a shadow account:

1. Start your Web browser to access the Backroom.
2. Type the correct username and password and then press **Log in**.
3. Verify your account contact email address is correct. If it is not, correct it immediately.
4. Select the FreeBSD VPS v2 account(s) you wish to migrate to FreeBSD VPS v3.
5. Select **Review**. The Account Information Interface appears.
6. Select a FreeBSD VPS v3 server location. For example, you can select *VPS v3 Standard – Dulles, VA FreeBSD VPS v3*.
7. If you have not done so previously, select the link titled “Learn More About Migrating to FreeBSD VPS v3.”
8. Select **Shadow Selected Account**.
9. Look for email confirming the following information for your shadow account(s):
 - *login name*
 - *server host*
 - *IP address*

Using the Backroom of Your Shadow Account

The Backroom of your shadow account provides you with options you can use to recopy content from your original account, to update DNS on your shadow account, to return to original DNS settings, to complete the migration, and to cancel your shadow account. This section provides information about using the Backroom of your shadow account.

The following table provides an overview of migration-related options located in the Backroom of your shadow account.

Option	Purpose
Recopy Content	Copies all content from your original account and places the copy in a <code>/.migrate</code> directory on your shadow account. For details, see “Recopying Content to Your Shadow Account” on page 10.
Update DNS	Update DNS is a time-sensitive option. It provides functions which would otherwise occur automatically and without your input. If you never select this option, you receive an email notification when the update is going to occur. And if you do not need to speed up (or slow down) the migration, you can simply wait for your migration to make the update automatically. For details, see “Changing DNS Settings” on page 10.
Revert DNS	This option reverses DNS updates you initiated the last time you used Update DNS. For details, see “Reversing Changes to DNS Settings” on page 11.
Complete Shadow	This option concludes the migration. All content is removed from your original account and the account is terminated. Once you select this option, you cannot revive the original account or return to that configuration. For details, see “Completing the Migration” on page 11.
Cancel Shadow	Use this option to cancel your shadow account and end the migration. This option cancels it and does not begin or finish any further shadow tasks. As this option terminates your shadow account, any configuration on that account is lost. For details, see “Canceling the Migration” on page 11.

Table 4: Backroom Options Available in Your Shadow Account

Recopying Content to Your Shadow Account

The Recopy Content option, located in the Backroom of your shadow account, copies all content from your original account and places the copy in a `/.migrate` directory on your shadow account.

Note: Before you select Recopy Content, verify that you have sufficient disk space available. If you previously copied all content then migrated that content to the correct directories, selecting Recopy Content means that you are utilizing as much as two times the disk space your original account required. When you select Recopy Content you could potentially overwrite modifications you made to the configuration of your shadow account. Any changes you made to customize the mail, Web content, or databases on your shadow account are lost when you select this option.

Note: Rather than overwriting mail files from the time you first initiated your shadow account, the Recopy Content option adds current `users` information in the `/.migrate` directory and appends it with a marker (`_v2`). Each subsequent time you use the Recopy Option, the information from the time you initiated your shadow account continues to be retained this way. Only user information appended with the `_v2` marker is ever overwritten.

Regarding IMAP

Note: The default configuration for FreeBSD VPS v3 currently utilizes the `mbox` format. However, the `maildir` format (and Dovecot) is supported by means of a `vinstall`. The examples included in this document refer to the `mbox` format only.

If your original account is configured to utilize IMAP exclusively, the mailbox on that account is a file named as in the following example:

```
/var/mail/username
```

In addition, mailbox information is located in the following files:

```
/usr/home/username/mbox
```

```
/usr/home/username/mail/saved-messages
```

```
/usr/home/username/mail/my-favorites
```

```
/usr/home/username/mail/other_names_of_choice
```

Notes: On your original account:

- IMAP clients can automatically empty the contents of `/var/mail/username` and add it to `/usr/home/username/mbox` when the IMAP client begins to run.
- You have additional mailbox files, each file is located in the following location:
`/usr/home/username/mail`.
- Some IMAP clients change the `/usr/home/username/mail` directory.

Changing DNS Settings

Note: Do not update your DNS within the first 72 hours of initiating a shadow account. It can take up to 72 hours for a 10 second time-to-live (or *TTL*) setting change to take affect. If you do select the option to update your DNS before the first 72 hours then wait at least a day to verify the changes. After you allow 72 hours and your shadow account's *TTL* setting are at 10 seconds, you might still encounter propagation concerns. For example, the settings on your accounts can only influence Internet (and other) service providers which accept them. Any connector who overrides your account's *TTL* settings receives the new DNS information only when they refresh their cache.

The Update DNS option is a time-sensitive one. It provides functions which would otherwise occur automatically and without your input.

If you never select this option, you receive an email notification when the update is going to occur. And if you do not need to speed up (or slow down), you can simply wait for your shadow account migration to make the update automatically. It automatically updates all DNS settings 48 hours (two days) before the completion deadline (21 days).

No less than 72 hours after you initiate your shadow account, you can select this option. Before you do so, you must have previously completed all of the migration tasks, as well as configured and tested all aspects of your shadow account.

This option updates DNS for all domains associated with your original account using `secure.net` name servers (for example, `ns1.secure.net`, `ns2.secure.net`) as the authoritative name servers. This option updates DNS with the IP address of your shadow account.

The correct TTL setting for domains on the `secure.net` is 10 seconds. This means that on your shadow account, when you update DNS, the changes take affect within 10 seconds. This enables you to verify the change is successful within a much shorter period of time.

If you use this option and subsequently request an extension of the migration, changes to the DNS and TTL settings should not occur. Your request for an extension overrides this option.

Reversing Changes to DNS Settings

The Revert DNS option, located in the Backroom of your shadow account, reverses DNS updates you initiated the last time you used Update DNS. This option changes DNS using the IP address of your original account. This means all Website traffic is routed to your original account rather than your shadow account. If you have allowed 72 hours since you initiated your shadow account, this change can occur within 10 seconds since TTL settings remain set to 10 seconds your migration is complete.

Note: TTL settings on your shadow account can only influence Internet (and other) service providers which accept them. Any connector who overrides your account's TTL settings receives the new DNS information only when they refresh their cache.

Completing the Migration

The Complete Shadow option concludes the migration by terminating your original account. Your shadow account becomes your live, active VPS account.

Note: This option removes all content from your original account. Once you select this option, you cannot revive the original account or return to that configuration.

Verify you perform the following tasks before you use Complete Shadow:

- Manually configured your shadow account for all configurations.
- Verified executable files and other contents located in the `cgi-bin` directory.
- Test your shadow account to ensure it is functioning properly.
- Update the DNS to point to the IP address of your shadow account using Update DNS.

Canceling the Migration

Use this option to cancel your shadow account and stop the migration to FreeBSD VPS v3. This option simply cancels the migration. It does not begin or finish any further shadow-related tasks. Since this option terminates your shadow account, any configuration on that account is, potentially, lost.

Note: There are no email notifications sent to confirm your cancellation. Once you select Cancel Shadow, your shadow account is terminated and cannot be reinstated. You cannot

have an extension of the standard 21 day migration period on the accounts for which you select Cancel Shadow and then reinitiate a shadow. Selecting Cancel Shadow for one account, however, does not affect your eligibility for an extension on other VPS accounts you own.

If you have previously updated the DNS to point to the IP address for your shadow account, the DNS is automatically pointed again to the IP address for your original account. This option cancels the migration and does not begin or finish any further shadow tasks. As this option terminates your shadow account, any configuration on that account is lost. Initiate and then cancel the migration only once. If you cancel the migration and then begin another, you may no longer have an option to cancel. There are no email notifications sent to confirm your cancellation.

Connecting to Your Shadow Account

Note: When you connect to your shadow account to perform shadow tasks, you must first connect as the Admin User. Use the IP address of your shadow account. Once connected, use the `su` command to access the root user profile.

Connecting to your shadow account is only slightly different than connecting to your original account. Your shadow account has both an Admin User and a root user. This section includes information about using Secure Shell (SSH) and File Transfer Protocol (FTP) to connect to your shadow account.

Using SSH to Connect

In a UNIX-style operating system, a root user (also called *super user*) has unlimited abilities including the ability to execute commands that the Admin User cannot. You make most of the changes on your server as the root user, not as a user with administrative permissions. As a security measure, you cannot use a Secure Shell (SSH) client to connect directly to the server as the root user even when you use a correct password.

Instead, you must use an SSH client to connect to the server as the Admin User and after you have performed the necessary task, use the `su` command to become the root user. Do this to assure your root password is secure, to execute the commands you need, and to navigate from the Admin User to become the root user.

After you connect using the new IP address of your shadow account with the Admin User password authentication, run the `su -l root` command to become the root user. After issuing the command, enter the root password which is the same as the Admin User password.

As the Admin User you have a limited set of privileges, compared to the root user. For most administrative tasks, you will need to `su` to the root user. As Administrative User you can do some simple administrative tasks such as adding users and Web administration. The `sudo` command enables you to perform the following commands:

adduser	vadduser	vedituser	pw	rmuser
vruser	vlistuser	vlist	edquota	quota
restart_apache	apachectl	vaddhost	su webadmin	su -l
webadmin				

The following example shows how to add a user using `vadduser` with the `sudo` command:

```
% sudo vadduser
```

By default, you can perform the above commands without a password; however, `sudo` can be set to require a password for additional security. To add additional functionality to the `sudo` command, edit the `/usr/local/etc/sudoers` file as root. For more information on `sudo` see the `sudo` man pages:

```
% man sudo
```

```
Examplev3 >
```

As you navigate, you can verify the user with which you logged in most recently by issuing the `whoami` command, as in the following example:

```
Examplev3 /home/examplev3# whoami
root
examplev3 /home/examplev3#
```

Using FTP to Connect

Your shadow account includes an assigned virtual host (appears as *VirtualHost*) for each user. All files under each *VirtualHost* directory have the same ownership as the user to which it was assigned. When you connect as a user you read, write, and execute only the files owned by the user. *VirtualHost* files appear in the *Web* (*www*) directory. When you connect as the Admin User, you read only the files owned by that user, including any user's *VirtualHost* files. However, an Admin User cannot write to any other user's *VirtualHost* files. Only the root user modifies the Apache configuration file (`www/conf/httpd.conf`) on your shadow account.

Controlling Access to Your Shadow Account

As with your original account, your FreeBSD VPS v3 account enables each user to own files and directories. Users can change permissions to specific files or directories that they own.

Your new account provides you with the option to assign shell access to user permissions. They also automatically assign new users to a group when you do not. Once configured, users with shell access can directly connect to their home directory on the server, work with files, and run commands.

The `/www/htdocs` directory on your shadow account is assigned to the `webadmin` user. The `webadmin` user is a part of a standard, FreeBSD configuration. If your main Website is migrated to the main `/www/htdocs` directory, you cannot log in with as Admin User and edit those files. Instead, change the ownership of the `htdocs` directory or set up the Main domain as a *VirtualHost*.

Managing Groups

Note: In most cases, you do not need to manually edit the `/etc/group` file. Use the `vadduser` command to add users.

Your FreeBSD VPS v3 account automatically assigns all users to a group. A group consists of users identified by their user name or by their group identification (GID). Groups appear in the `/etc/group` file. When users are migrated they keep the same permissions as they did on the original account. For example, if a user had FTP access on your original account, they are automatically placed in the FTP group (in `/etc/group`) on your shadow account.

Vinstall Add-Ons

Since your shadow account is a new one, use `vinstall` for additional programs that you may have installed on your original account. There may not be a `vinstall` for some of the programs that you previously installed in your FreeBSD VPS v3 account with `vinstall`. If this is the case, install the program using FreeBSD ports collection. For information on how to install programs using the ports collection refer to the customer documentation for your account.

Perl Modules

If you are using Perl and you have installed modules that you use, install these modules on your FreeBSD VPS v3 account as well. Instead, FreeBSD VPS v3 uses the default Perl method of installing modules. To install a module using Comprehensive Perl Archive Network (CPAN), type the following at the shell prompt:

```
% perl -MCPAN -e shell
```

The first time you run CPAN, you are prompted for your preferences regarding where to download your modules and other settings. For most settings, just accept the default. When you select your mirror preferences, select from four to five mirrors.

Note: You do not have to know anything about the mirror sites or where they are located. They serve your account just as well if you simply choose the first five (1, 2, 3, 4, and 5) as any others.

Configuring your CPAN settings rarely require reconfiguration, making this a one-time task, in general. From a CPAN command line (`cpan>`), to install a module type the following command in order to get and install the module:

```
cpan> install <Module_name>
```

To save space on your account, be sure to do a clean of the module after your installation by typing the following at the CPAN command line to delete all unnecessary files the server used during installation:

```
cpan> clean <Module_name>
```

Before Terminating Your Original Account

As noted previously in this document (as in “Completing the Migration” on page 11), you must perform a series of verification tasks prior to the end of the 21-day period allowed for your shadow account or before you use the Complete Shadow option located in the Backroom. This section provides guides to verifying Website configurations, email setup, and Urchin Web analytics. This section also provides you with descriptions of how to move your digital certificate and, finally, how to terminate your original account and make your shadow the active, FreeBSD VPS v3 account.

Verifying Website Configurations

Verify the following areas of your Website configurations before you point DNS to the new IP address and direct your traffic to the Websites:

- Website access is unobstructed
- All Web content saved from your original account to a local computer
- All necessary Web content uploaded to your shadow account
- Virtual hosting operates correctly
- Common Gateway Interface (CGI) scripts run without conflict

Before you verify Website configurations, ensure you have access to the correct IP address for your shadow account. Email notifications begin once you establish a shadow account. Those emails include the address. Also, the Shadow Details page located in the Backroom includes the address. Refer to either recourse to ensure you have the correct address.

The following table provides you with verifications and guidelines for your recently migrated Website configurations:

Verifications	Guidelines
Website access is unobstructed	Use your Web browser to verify your main Website functions correctly. The correct URL for this task does not include a Web resource identifier (<i>www</i>) in the URL. Access your main Website by using the IP address of your shadow account.
Virtual hosting functions correctly	<p>Always test a virtual host before moving DNS services to your shadow account. Access the virtual host by using an Web address you compose of the following elements: <i>ip.add.re.ss/user_name/</i></p> <p>Notes:</p> <ul style="list-style-type: none"> • The IP address of your shadow account (<i>ip.add.re.ss/</i>) • The user that the virtual host is under (<i>user_name/</i>) <p>This address provides an index of sites under <i>user_name</i> or a listing of <i>/home/user_name/www directory</i>. Click the domain that you want to test to show the results for the Website you are testing.</p>

Verifications	Guidelines
<p>CGI scripts run without conflict</p>	<p>Check active scripts, including CGI scripts, for any conflicts. For example, the original account stores a virtual host's CGI information in the following directory: <code>/www/cgi-bin</code></p> <p>For a shadow account, move CGI scripts to <code>cgi-bin</code> directory for the VirtualHost on your shadow account. By default, the migration assigns a <code>cgi-bin</code> directory for each VirtualHost directory. Following is an example of the directory path: <code>/home/userid/www/example.com/cgi-bin</code></p> <p>If a virtual host had its own <code>cgi-bin</code> directory on the original account then any scripts in that <code>cgi-bin</code> directory are moved to the correct <code>cgi-bin</code> directory automatically.</p>

Table 5: Verifications and Guidelines for your Website

Verifying your Email Settings

Check the following files to verify you have configured them correctly; they affect email delivery.

```

/etc/mail/aliases
/etc/mail/virtusertable
/etc/mail/access
/etc/mail/local-host-names

```

Maintaining Your Digital Certificate

By default, both FreeBSD VPS v2 and FreeBSD VPS v3 accounts utilize a shared `*.securesites.net` digital certificate. If you use a shared `*.securesites.net` certificate, you do not need to make any changes on your shadow account. Your migration request automatically maintains the standard certificate and the IP addresses associated with the shared certificate. This is a built-in aspect of the FreeBSD VPS v3 platform.

Initiating the migration process does not move any custom or multiple digital certificates to your shadow account. Follow these steps to copy your custom digital or multiple certificates:

1. Copy the certificate and private key files to the `/etc` directory from the `.migrate` directory of your shadow account as follows:

```

%cp /.migrate/account_name/etc/ssl.cert /etc
%cp /.migrate/account_name/etc/ssl.pk /etc

```
2. Add the following lines to the Apache configuration file (`usr/local/apache/conf/httpd.conf`) outside of all Apache directives:

```

SSLCertificateFile /etc/ssl.cert
SSLCertificateKeyFile /etc/ssl.pk

```
3. Restart Apache run the following command as root from the command line:

```

%restart_apache

```

Finalizing the Migration

The duration of your shadow account is up to 21 days. At the end of that period, the migration completes and your original account terminates automatically. Prior to that time, you can choose to finish (or *complete*) the migration. The option to complete the migration is available as an option in the Backroom of your shadow account. By selecting this option, you terminate your original account as well as its shadow. After selecting the Complete Shadow option, you have only one, active VPS account, one that utilizes FreeBSD VPS v3 features rather than those offered by your original account.

Prior to the conclusion of the 21 day period or before you complete the migration, verify you have configured and tested all content, settings, and applications. Also, verify and test time-sensitive aspects of your shadow account such as DNS, mail, and database configurations.

Caveats

The following table provides information about special concerns regarding FreeBSD VPS v3 accounts and the migration:

Topic	Special Concerns
Manual configuration changes	Once you initiate a shadow account, changes you make to the configuration of your original account do not automatically become part of your shadow account configuration. During the migration, any changes you manually perform for your original account, you must also perform for your shadow account.
Disk space	If you have added additional disk space to your original account the additional space is added to your shadow account also. You cannot remove the additional space until after the migration is complete. Once you complete the migration, you can then remove additional disk space from the Web Hosting Backroom.
Databases	By default, FreeBSD VPS v3 is configured to utilize version 5.0.x of MySQL. You can configure your account to utilize the default version (5.0.x) or you can use the provided vinstall to configure your new account to utilize the legacy version of MySQL (4.1.x). Since FreeBSD VPS v2 includes support for version 4.1.x by default, you must take action: verify the configuration of your databases for the newer version, or configure your FreeBSD VPS v3 account to support the legacy version. For PostgreSQL, be aware that your original account supported version 7.4.x where FreeBSD VPS v3 supports version 8.2.x by default. There is not a vinstall to assist you with a configuration of FreeBSD VPS v3 to support a legacy version of PostgreSQL.
CPX:Control Panel	If you use the CPX: Control Panel, refer to release notes and other guides, available from the FreeBSD VPS v3 Documentation Library, to verify the versions of Web development tools, Web services, and databases supported by CPX: Control Panel.
Web development tools	The default configuration of your FreeBSD VPS v3 server includes an installation of PHP Hypertext Processor (PHP), version 5.2.x where FreeBSD VPS v2 includes version 4.4.x.
Web services	The default configuration of your FreeBSD VPS v3 server includes an installation of Apache HTTP Server, version 2.2.x where FreeBSD VPS v2 includes version 1.3.x.

Table 6: Caveats