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# **FreeBSD VPS v3**

## **Getting Started Guide**

**Second Edition**  
**April 2008**

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# Introduction

Thank you for choosing the FreeBSD VPS v3 product!

This document provides information for basic administration of the FreeBSD VPS v3 (hereafter *VPS*). It provides important information about user, email, subhost (or virtual host), and program management to help you begin using your VPS v3 in minutes.

The VPS product offers the benefits of a managed hosting solution with the flexibility of a dedicated UNIX server. A virtual environment, several VPS accounts occupy the same physical machine. The proprietary virtual technology of the VPS isolates each account securely from other accounts on the same physical machine and divides system resources between the accounts according to plan level. However, each account has full root access to their files and programs.

This guide discusses account management from a shell command line and assumes you understand shell clients and command-line interaction with Unix-style servers. If you do not use shell command line or are not familiar with shell interaction, you can use the CPX: Control Panel Web interface. For more information about CPX, see the *CPX Getting Started Guide*.

Your VPS v3 includes several *v-commands*. These commands, created specifically for the VPS products, allow for easy account administration. Some examples discussed in this guide are `vadduser`, `vrmsuser`, `vaddhost`, and `vinstall`.

## Document Contents

**Note:** This Second Edition includes corrections to format and organization, including the title page, headers, and footers.

The sections of this document include the following:

- “Users” on page 2 describes how to add, remove, or configure account users.
- “Email” on page 4 describes how to add, remove, or configure email addresses, aliases, virtmaps, and catchalls.
- “Subhosts” on page 6 describes how to add, remove, or configure subhosted website configurations.
- “Vinstall and Vuninstall” on page 8 describes how to use the proprietary `vinstall` and `vuninstall` features of your VPS v3 to install or remove programs and features.

# Users

As part of the automatic maintenance provided with VPS products, all new accounts contain several necessary account users by default, such as `root`, `ftp`, `pop`, and the administrative user (created when you ordered the account). You can create additional users and offer them different services, such as FTP, email, or shell access. This section discusses adding, managing, and removing users.

**Note:** When adding, configuring, or removing users, you must be the root user. You can become the root user by typing `su` at the command line and supplying the root user password.

## Adding Users

To add an account user, follow these steps from the command line:

1. Type `vadduser` and press **Enter**.
2. Further instructions and information for `vadduser` will display during this step and throughout the `vadduser` process. Press **Enter** to continue after reviewing the information.
3. **Type** the username for the user and press **Enter**. Usernames consist of alphanumeric characters up to 16 characters. The first character cannot be a number.
4. **Type** the user's password and press **Enter**. Use a password that will not easily be guessed. A combination of uppercase and lowercase letters, numbers, and symbols is an example of a more secure password. If a particularly insecure password is entered, the system will prompt to enter a more secure password. You will need to type the same password twice for confirmation.
5. **Type** the user's full name and press **Enter**. This information will display when using system tools such as `vlist` (used to list all account users).
6. **Type** the user's home directory path and press **Enter**. The `vadduser` command simplifies this step and provides a recommended path for you. You can press **Enter** without typing a path to select this default.
7. **Select** the services to offer the user. This prompt is a toggle-style prompt, with the FTP and email services enabled for the user by default. Available services include `ftp`, `mail`, and `shell`. **Type** the service name at the prompt and press **Enter** to toggle the service on or off. Press **Enter** when done.

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**Caution:**

*Shell access allows control over many aspects of the account. Shell access should only be offered to trusted users. With shell access users can potentially change files or settings affecting your entire account. Use care when offering the shell service to users.*

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8. **Type** the user's allotted filesystem quota in megabytes (MB). The quota must be a whole number. **Enter** 0 to give the user an unlimited quota (up to the free space available for your plan). Press **Enter** to complete the addition of the user.

## Managing and Configuring Users

To list all existing account users, **type** `vlist` at the command prompt.

To change the full name, services offered, or quota for a user, follow these steps from the command line:

1. **Type** `vedituser` and press **Enter**
2. **Type** the name of the user in question and press **Enter**.
3. **Select** the services to offer the user. This prompt is a toggle-style prompt, with the FTP and email services enabled for the user by default. Available services include `ftp`, `mail`, and `shell`. **Type** the service name at the prompt and press **Enter** to toggle the service on or off. Press **Enter** when done.

To change an account user's password, follow these steps from the command line:

1. **Type** `passwd name`, where *name* is the username of the user in question. Press **Enter**.
2. **Type** the new password and press **Enter**. **Type** the new password again for confirmation and press **Enter**. If the two passwords do not match, you will need to type them again.

**Note:** Use a password that will not easily be guessed. A combination of uppercase and lowercase letters, numbers, and symbols is an example of a more secure password. If a particularly insecure password is entered, the system will prompt to enter a more secure password.

## Removing Users

To remove an account user, follow these steps from the command line:

1. **Type** `vmuser` and press **Enter**.
  2. **Type** the username of the user to remove. If the user does not exist, the system will indicate the user does not exist in the password database and exit the removal process.
  3. The system will display the password entry for the user to be removed and ask you to confirm the removal of the user. **Type** `yes` if the information is correct or `no` to exit the process. Press **Enter**.
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**Caution:**

*Use extreme caution when removing the home directory of users (step 4). You will not be warned if Web content or other important information is stored in the user's home directory.*

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4. The system will display the user's home directory and ask if you wish to remove it. **Type** `yes` and press **Enter** to remove the directory and complete the removal of the user, or type `no` and press **Enter** to remove the user, but keep the user's home directory and its contents.

# Email

All user email boxes reside in the `/var/mail` directory by default. The system automatically creates email boxes for account users. If no other email routing settings (such as aliases or virtmaps) are configured, by default the username of each user functions as a valid email for all domains that resolve to the account. For example, if `domain1.com` and `domain2.com` resolve to the account, for the user `bob`, both `bob@domain1.com` and `bob@domain2.com` would deliver email to the `/var/mail/bob` email box. The system checks for matches in email routing and addresses in the following order and delivers to the first match it finds:

- virtmaps
- aliases
- users

This section discusses virtmap, catchall, and alias configurations.

**Note:** To edit the virtmaps and aliases files, you must be the root user. You can become the root user by typing `su` at the command line and supplying the root user password.

## Virtmaps

Virtmaps route the full email address (both sides of the “@”) to a local user, alias, or remote email address, but cannot map to files or programs. Only aliases can route email to a file or program. A virtmap consists of the virtmap and its destination, or mapping. For example, a virtmap for `bob@domain1.com` could be mapped to the user `bob` with the following virtmap entry:

```
bob@domain1.com    bob
```

Virtmaps allow you to create email addresses without the need to create a corresponding user. For example, a virtmap for `bob@domain2.com` could be mapped to `bob@remotedomain.com` with the following virtmap entry:

```
bob@domain2.com    bob@remotedomain.com
```

Specify virtmaps in the `/etc/mail/virtusertable` file, with one virtmap entry per line. The `virtusertable.sample` file provided with each account contains example virtmaps. You can change virtmap settings by editing the `virtusertable` file and then executing the `vnewvirtmaps` command from the command prompt to load the virtmaps into the system.

## Catchalls

### Caution:

*Catchall virtmaps should be used sparingly. Spammers often send many emails to every conceivable address for a domain, often numbering in the thousands. A catchall virtmap would cause the system to receive all of these emails and map them to the recipient.*

A catchall virtmap maps all email not otherwise configured with a virtmap for a given domain to a single recipient. For example, the following catchall virtmap would map all email not configured with another virtmap for the domain `company.com` to the `joe` user:

```
@company.com      joe
```

If no virtmap exists for an email address, and a catchall virtmap is configured for the domain, the system would route all email sent to that address to the catchall virtmap.

## Aliases

Email aliases simply forward email to a user, alias, email address, list of addresses, file, or program. Aliases allow you to create email addresses without the need to create a corresponding user. For example, the following alias would forward email sent to `webmaster@domain.com` to the `stan` user:

```
webmaster:        stan
```

Aliases also allow you to send email to a list or to a program. For example, the following alias would forward email sent to *sales@corporation.com* to the *bob*, *joe*, and *stan* users:

```
sales:      bob,joe,stan
```

For long email lists, place the emails in a file, one address per line, and use the *include* option. For example, the following alias would forward email sent to *promotion@website.com* to all addresses in the `/lists/promotion` file:

```
promotion:      :include:      /lists/promotion
```

Specify aliases in the `/etc/mail/aliases` file, with one alias per line. You configure the aliases by editing the `aliases` file according to your needs. After making changes to the file, execute the `vnewaliases` command from the command prompt to load the aliases into the system.

**Note:** The system only considers the first portion of the email address (before “@”) for aliases. To map an entire email address to a certain recipient, use a `virtmap`.

# Subhosts

The VPS allows you to configure multiple Web sites and domains for your account besides the main domain. The main domain or site for the account is called the hostname. Place the content for this site in the `/usr/local/apache2/htdocs` directory.

You may have configured the hostname during the order process. To aid with configuring and testing your account, all VPS accounts also receive a temporary domain name, or *temp domain*, which resolves to your VPS account. This domain can be used if the hostname is inaccessible or does not yet point to your account.

Other domains or sites hosted by your account are called subhosts. This section explains adding, removing, and configuring subhosts.

**Note:** To execute the `vaddhost` command or edit the `httpd.conf` file, you must be the root user. You can become the root user by typing `su` at the command line and supplying the root user password.

## Adding a Subhost

Subhosts are configured with the Apache `VirtualHost` directive. The system looks for `VirtualHost` entries in the `/usr/local/apache2/conf/httpd.conf` file. The `vaddhost v`-command assists in the creation of the `VirtualHost` tags needed for subhost configuration.

Subhost configuration includes many variables. While separated here into three sections, the entire process includes all three and you must complete all of them to entirely configure the subhost.

To begin the subhost configuration and specify the domain and administrator, follow these steps from the command line:

1. **Type** `vaddhost` and press **Enter**. Instructions and information for `vaddhost` will display during this step and throughout the `vaddhost` process.
2. **Type** the domain for the subhost (*domain.com*, for example), any other variations of the domain (*www.domain.com*, *store.domain.com*, etc), and any other domains used for this subhost, pressing **Enter** after each. Press **Enter** without any text after providing all variations to move to the next step.
3. The system displays the list of domains and variations for verification. **Type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to input the domains again.
4. **Type** the username of the user who will administer the subhost and press **Enter**. (Press **Enter** without any text to display a list of existing users.)
5. Verify the information and **type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to input the username again.

To continue the configuration and specify SSL, administrative email, and document root (web directory) settings, follow these steps from the command line:

1. To enable SSL for the subhost **type** `y` and press **Enter** or **type** `n` and press **Enter** to not enable SSL for the subhost.
2. Verify the information and **type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to input the SSL information again.
3. **Type** the email address of the subhost administrator and press **Enter**.
4. Verify the information and **type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to input the address again.
5. **Type** the path for the subhost web directory, or document root, on the account. The `vaddhost` command simplifies this step and provides a recommended path for you. You can press **Enter** without typing a path to select this default, which will create a subhosted directory in the home directory of the user specified in step 4.
6. Verify the information and **type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to input the path again.

To continue the configuration and specify log and cgi-bin settings, follow these steps from the command line:

1. **Select** an option for the subhost transfer log and press **Enter**.
2. Verify the information and **type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to choose the transfer log configuration again.
3. **Select** an option for the subhost error log and press **Enter**.
4. Verify the information and **type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to choose the error log configuration again.
5. **Select** an option for the subhost cgi-bin and press **Enter**. This will allow the subhost to execute scripts and programs.
6. Verify the information and **type** `y` and press **Enter** to continue or **type** `n` and press **Enter** to choose the cgi-bin configuration again.
7. The system will display the `VirtualHost` entry to be added to the `httpd.conf` file for confirmation. **Type** `y` and press **Enter** to add the entry to the `httpd.conf` file, or **type** `n` and press **Enter** to abort the `vaddhost` process.
8. If you typed `y` to accept the entry, **type** `y` and press **Enter** to restart the Web server and complete the subhost addition.

**Note:** Press `ctrl+c` to exit the `vaddhost` process at any time. This immediately cancels `vaddhost` and any subhost configuration entered during the `vaddhost` process is lost.

## Configuring a Subhost

You may configure a subhost further by editing the `VirtualHost` entries for the subhost in the `/usr/local/apache2/conf/httpd.conf` file. Execute the `restart_apache` command from the command line after editing the file to restart the Web server and make the changes effective.

## Removing a Subhost

The `/usr/local/apache2/conf/httpd.conf` file contains the configuration for subhosts. To remove the subhost configuration from the Web server, follow these steps:

1. **Edit** the `httpd.conf` file and **remove** the `VirtualHost` entries for the subhost in question.
2. After modifying the `httpd.conf` file, **execute** the `restart_apache` command from the command line to restart the Web server.
3. **Remove** any unneeded files or directories for the subhost from the server.

## Vinstall and Vuninstall

Your account contains another feature unique to the VPS products to make configuration of your account easier. The proprietary `vinstall` v-command allows the easy installation and configuration of programs to your account. Programs available for installation through `vinstall` have been configured specifically for the VPS system and allow you to utilize a variety of programs without complicated manual configuration.

The `vuninstall` utility removes files and configurations created by the `vinstall` utility. This section discusses using `vinstall` and `vuninstall` to list available programs, find information about them, install, and/or remove programs.

### Interactive and Non-Interactive

You can execute the `vinstall` utility using interactive commands, or supply the needed information as command-line options to avoid the interactive `vinstall` prompts. Refer to Table 1 for a list of the possible `vinstall` actions you can execute and the interactive and non-interactive commands for each. Substitute `vuninstall` for `vinstall` when removing programs.

**Note:** Certain programs may prompt for further information as part of their own installation process, even when using the non-interactive `vinstall` commands.

**Table 1: `vinstall` command options**

Actions	Interactive Command	Non-interactive Command
Enter interactive mode	<code>vinstall</code>	n/a
List available programs	<code>?</code>	<code>vinstall -l</code>
Find additional information about a program	<code>program</code>	n/a
Enter install mode	<code>install</code>	n/a
Install a program	<code>program</code> (while in install mode)	<code>vinstall program</code>
Exit interactive mode	<code>quit</code>	n/a

**Note:** Press `ctrl+c` at any time to exit the interactive or non-interactive `vinstall` process. Use this option with caution as it immediately cancels `vinstall` and may leave installations and programs incomplete and non-functional.