
FreeBSD VPS v3

Release Notes

Third Edition
April 4, 2008

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Introduction

Important: The technical content of this document is current as of April 4, 2008. Bugs, features, and considerations may be introduced after the creation of this document. FreeBSD Virtual Private Server, version three (*FreeBSD VPS v3*) customers and users should consult the product and support Web pages for the most current information.

The FreeBSD VPS v3 product includes upgrades from FreeBSD Virtual Private Server, version two (*FreeBSD VPS v2*) for several core services and programs. This document provides general information about the FreeBSD VPS v3, including what's new, differences between FreeBSD VPS v3 and the previous version, and known issues.

Overview of the Documentation Library

This document provides an update to the following print-ready customer documentation which is published to the Web and is included, at no cost, as a feature of your account:

- *FreeBSD VPS v3 Multiple IP Supplement*
- *FreeBSD VPS v3 Firewall Supplement*
- *FreeBSD VPS v3 Getting Started Guide*
- *FreeBSD VPS v3 IPv6 Supplement*
- *FreeBSD VPS v3 User's Guide*

There are also Web site resources such as Web articles and Frequently-Asked Questions (FAQ).

Overview of this Document

Note: This Third Edition includes corrections to word choice, format and organization, including the title page, headers, and footers. It also provides updates to the software and packages which are installed, by default, for FreeBSD VPS v3.

In addition to this introduction, this document includes two more sections:

- “What's New?” on page 2.
- “What's Different?” on page 4.

What's New?

The FreeBSD VPS v3 offers a large amount of disk space and contains many improved features, including upgrades to the operating system and file system, improvements in core services, programs and available installations, and improved Java support. The FreeBSD VPS v3 is available in three levels, or plans: Basic, 1000, and 2000.

Disk Space

The disk space of FreeBSD VPS v3 plans has been increased to the following quotas:

- FreeBSD VPS v3 Basic – 10 GB
- FreeBSD VPS v3 1000 – 20 GB
- FreeBSD VPS v3 2000 – 40 GB

Operating System

The introduction of FreeBSD VPS v3 upgrades the operating system controlling the server from FreeBSD 4.7 to FreeBSD 6.2. Advantages of FreeBSD 6.2 include the following:

- An improved system scheduler (based on ULE). This provides more comprehensive fair share technology and greater user isolation.
- Better threading support, allowing native threading for programs such as MySQL and freeing many system processes for other needs.
- Improved support for many applications, such as Apache 2.2.8 and the FreeBSD Ports Collection.
- Support for the latest Java implementations.
- Better support for the FreeBSD packages library.
- Better operating system support from the FreeBSD community.

File System

The file system of FreeBSD VPS v3 also moves from UNIX File System 1 (UFS1) to UNIX File System 2 (UFS2). This move increases speed, performance, and stability of the file system in general. Other advantages to UFS2 include the following:

- Support for variable-sized blocks.
- Extended flag fields.
- Extended attribute support.

Core Services

Noteworthy changes to and information about core services include the following:

- Apache 2.2.8 comes installed as the default Web server. Support for Apache 1.3.41 continues through a vinstall.
- Telnet is disabled by default.
- SSH is controlled by inetd and requests are throttled to control DOS-style attacks.

Programs and Available Installations

Most programs currently available for installation on FreeBSD VPS v2 are available for FreeBSD VPS v3. Noteworthy changes and issues with programs and available installations include the following:

- PHP 5.2.5 is the default version of PHP.
- MySQL 5.0.51a is the default version of MySQL installed when you execute `vinstall mysql`.
- Perl 5.8.7 is the default Perl version supported. You may install other versions through the FreeBSD Ports Collection.
- The SoftCart shopping cart software is not available for FreeBSD VPS v3.
- The Urchin 3 Web analytics tool is not available. Urchin version 5 is supported.

Java

The FreeBSD VPS v3 includes support for the most current Java Developer's Kit (`jdk`) and Java Runtime Engine (`jre`). These features are available as `vinstalls` (`java_jdk` and `java_jre`) on FreeBSD VPS v3 2000 plans. The `vinstall` gives instructions for downloading the FreeBSD installation files from the FreeBSD Foundation Web site, and then uploading them to the VPS account.

The Tomcat Web application server is also available with the FreeBSD VPS v3. Available through a `vinstall`, the Tomcat server can support several different kinds of Java applications, including servlets and JSP pages. Tomcat requires the installation of the Java Runtime Engine or the Java Developer's Kit and is available on FreeBSD VPS v3 2000 plans.

What's Different?

This section includes a brief list of differences between FreeBSD VPS v3 and the previous version. It discusses the most used and popular elements of the VPS server, including the Apache Web server, PHP, MySQL, and vinstall library, including updates to the WordPress vinstall.

The FreeBSD VPS v3 is a significant upgrade to the VPS products. Because FreeBSD VPS v3 includes upgrades to the operating system and the file system, almost all programs and services on the server vary technically in some way from other VPS products. Accordingly, interaction with frequently used and common elements of the server may change.

However, the FreeBSD VPS v3 operating system and file system perform almost identically to FreeBSD VPS v2. This means your interaction with most wrappers, scripts, services, and programs on FreeBSD VPS v3 should not change. For example, your usage of command-line wrappers such as `vadduser` or `vaddhost` does not change.

Web Server

The FreeBSD VPS v3 comes with the Apache Web server version 2.2.8 installed by default. This new version performs faster and executes requests in a more optimized fashion than previous versions. The Apache 2.2.8 Web server also provides native support for the increasingly popular IPv6 protocol. For more information about changes in version 2.x, visit the following Web page:

http://httpd.apache.org/docs/2.0/en/new_features_2_0.html

For more information specifically about changes in version 2.2.x, visit the following Web page:

http://httpd.apache.org/docs/2.2/en/new_features_2_2.html

PHP

PHP (PHP: Hypertext Preprocessor) version 5.2.5 is compiled specifically for Apache 2.2.8 on FreeBSD VPS v3. PHP 4.4.8, available through a vinstall, is compiled specifically for Apache 1.3.41. Attempting to use either version of PHP with a different version of the Apache Web server may cause scripts and programs to function incorrectly.

PHP 5.2.5 adds several new extensions and improved support for popular technologies such as XML, SOAP, MySQL, object oriented programming, and others. For more information about changes in PHP 5.2.5, visit the following Web page:

<http://www.php.net/ChangeLog-5.php>

MySQL

The new operating system of the FreeBSD VPS v3 permits the MySQL database server to use native threading, instead of Linux threading as used with previous VPS implementations. MySQL for FreeBSD VPS v3 uses less (sometimes 30 or more) processes than MySQL on other VPS products!

MySQL 5.0.51a is the default version installed when executing `vinstall mysql` or `vinstall mysql5` from the command line. MySQL 4.1.22 is also available by executing `vinstall mysql4.1` from the command line.

MySQL 5.0.51a includes many new controls, elements and features, improving performance and functionality. For more information about changes in MySQL 5.0.51a, visit the following Web page:

<http://dev.mysql.com/doc/refman/5.0/en/mysql-5-0-nutshell.html>

Vinstall Library

The FreeBSD VPS v3 introduces several new vinstalls, such as Tomcat and java_jdk. Old or deprecated programs in the vinstall library are no longer offered. The vinstalls offered on the previous version which are not supported on FreeBSD VPS v3 include the following:

- cybozu
- mysql3-oldstyle
- mysql3
- mysql4.0
- perl5.6.1
- perl5.8.4
- perl5.8.6
- postgresql-oldstyle
- procmail (available with procmail-lda)

WordPress

The vinstall for WordPress for FreeBSD VPS v3 installs the latest WordPress version 2.3.3. The vinstall also provides additional command-line options when installing WordPress. To obtain a full list of these options, connect to your server through SSH and execute the following from the command prompt:

```
# vinstall wordpress --help
```

An example of these new options is you can specify the installation of a language pack for WordPress during the vinstall. For example, the following installs the Japanese language pack:

```
# vinstall wordpress --lang='ja'
```

Known Issues

This section contains information about backward compatibility of core services and the interaction of popular applications with the versions of those services available for FreeBSD VPS v3, and corresponding applications available for FreeBSD VPS v2. It also contains considerations when migrating from the previous version to FreeBSD VPS v3 and other existing issues.

Backward Compatibility

With the introduction of new versions of Apache, MySQL, and PHP, some elements of these new versions may not be compatible with older versions available with other VPS products, such as the FreeBSD VPS v2. Considerations for these services and programs follow.

Apache

With Apache 2.2.8, the module interface has completely changed. Because of this, modules used with Apache 2.2.8 differ from their Apache 1.3.41 counterparts. Scripts and programs written to interact with modules in Apache 1.3.41 may not perform as they did previously, especially when they interact with the corresponding module for Apache 2.2.8. For example, Apache 2.2.8 includes support for `mod_perl2` instead of `mod_perl`, the default for previous VPS implementations. Compatibility modules may be available for a specific Apache 1.3.41 module. Consult the documentation for the module in question for further information about backwards compatibility of that module.

Apache 2.2.8 also introduces some configuration directives changes. For more information about directives changes, refer to the Web addresses mentioned in “Web Server” on page 4.

MySQL

SQL syntax used in 4.x should function correctly in MySQL 5.0.51a. However, it is always best to perform a full database dump on the system running under 4.x and then import the information in the 5.x system to ensure data is not corrupted. Other considerations when moving between MySQL versions 4.x and 5.x include the following:

- The format of the standard “mysql” database (which keeps user and other essential information) has changed.
- Support for some old types of tables has been discontinued.
- Multi-byte support changed with 4.1x and may be significantly different.

For more information about changes in MySQL 5.0.51a, refer to the Web address mentioned in “MySQL” on page 4.

PHP

Most scripts and programs created for PHP 4.4.8 should function with PHP 5.2.5. Verify that scripts and programs function correct when moving from a PHP 4.4.8 environment to PHP 5.2.5.

The short tags configuration is disabled by default for PHP 5.2.5. This can be enabled in the `/usr/local/lib/php.ini` file.

Migration Considerations

Automated scripts to move sites or content from a different VPS product to the FreeBSD VPS v3 will be available at a later date. Customers interested in migration for their sites and content must create any such scripts or perform such activities themselves at this time.