

FreeBSD 10.0

Without great fanfare, the FreeBSD project keeps pumping out releases. Mike Saunders explores what's new in version 10.

DATA

Web
www.freebsd.org

Developer
The FreeBSD Project

Price
Free under the BSD license

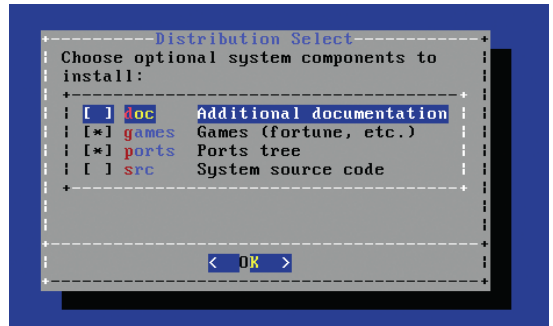
For many of its users FreeBSD is a more traditional operating system than Linux: it's Unix-like, it's free, it's open source, it's reliable, and it carefully integrates new features in a gradual development cycle. The entire FreeBSD source code tree, including the kernel, core libraries and system utilities, is developed as a whole – in contrast to Linux, where one group maintains the kernel, another maintains glibc, and so forth.

FreeBSD 10 is available in various formats, from traditional CD/DVD ISOs to a .img file that can be written to a USB key. The installer is largely unchanged from 9.x; it's a text-mode tool reminiscent of older Linux distro installers, and while it's not pretty it gets the job done quickly, and is much simpler than the plain text OpenBSD installer.

In general use, FreeBSD looks and feels much like a GNU/Linux distribution. Almost all major open source programs have been ported to FreeBSD (often requiring no modification), and there's a fairly reliable Linux compatibility layer to run Linux-only binary programs. As a desktop OS it's close to Linux in features and performance – although hardware support isn't quite as extensive. Under the hood many command options and filesystem locations are different, and the OS expects more prior knowledge than a newbie-oriented Linux distro, but the great documentation makes things clear.

Most notably, GCC is gone from FreeBSD 10's base system, being replaced with LLVM/Clang. The FreeBSD team has wanted to switch to a BSD-licensed compiler for years, and now it has. (GCC is still available to install, though.) ARM support has

FreeBSD's phenomenally stable base system doesn't include anything graphical, but a quick 'pkg install xorg xfce' command will get you a usable desktop.



The installer, bsdinstall, was originally created as a "stop gap" tool but has stuck around since 2011.

been extensively improved, so FreeBSD now runs on the Raspberry Pi, while a new type-2 hypervisor (bhyve) has been added along with support for running on Microsoft's Hyper-V.

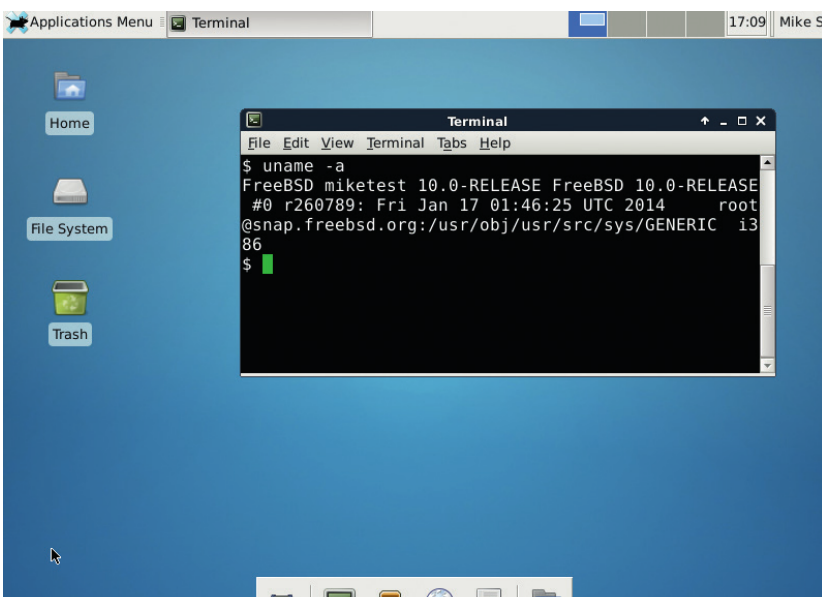
TRIM and LZ4 compression has been added to the ZFS filesystem, and FUSE (filesystem in userspace) is now in the base system, so you can use all of the awesome FUSE drivers that were developed on Linux. Then there's USB audio 2.0 support, wireless networking improvements, and boot time speedups. It's an impressive bunch of enhancements touching almost every area of the OS.

Regrettable slip-ups

A major setback for FreeBSD 10, though, is the embarrassing bugs that have somehow slipped into the final release. Sure, major new versions of software are going to have some flaws, but the issues in FreeBSD 10 should have been caught much earlier. Look at www.freebsd.org/releases/10.0R/errata.html and you'll see alarming examples like this:

"A bug in killall(1) has been discovered. It makes killall -INT deliver SIGTERM rather than the desired SIGINT, and may cause blocking behaviour for scripts that uses it, as -I means 'interactive'."

This is very alarming, and the same can be said of the pw(8) bug, which changes the behaviour of a critical system tool. When an OS prides itself on stability and a conservative development process, for such silly bugs to slip through is awkward. It doesn't mean that FreeBSD 10 is a disaster – far from it – but it's bad for the project's image. ☹



LINUX VOICE VERDICT

Plenty of new features to explore, but the silly bugs let it down. Here's hoping it's just a one-off.

