

OPERATING SYSTEM

OPEN BSD

OpenBSD is a security-focused, free and open-source, Unix-like operating system based on the Berkeley Software Distribution (BSD). Theo de Raadt created OpenBSD in 1995 by forking NetBSD. The OpenBSD project emphasizes portability, standardization, correctness, proactive security, and integrated cryptography.

The OpenBSD project maintains portable versions of many subsystems as packages for other operating systems. Because of the project's preferred BSD license, which allows binary redistributions without the source code, many components are reused in proprietary and corporate-sponsored software projects. The firewall code in Apple's macOS is based on OpenBSD's PF firewall code, Android's Bionic C standard library is based on OpenBSD code, LLVM uses OpenBSD's regular expression library, and Windows 10 uses OpenSSH (OpenBSD Secure Shell) with LibreSSL.

The word "open" in the name OpenBSD refers to the availability of the operating system source code on the Internet, although the word "open" in the name OpenSSH means "OpenBSD". It also refers to the wide range of hardware platforms the system supports. OpenBSD supports a variety of system architectures including x86-64, IA-32, ARM, PowerPC, and 64-bit RISC-V.

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USES

OpenBSD features a robust TCP/IP networking stack, and can be used as a router or wireless access point. OpenBSD's security enhancements, built-in cryptography, and packet filter make it suitable for security purposes such as firewalls, intrusion-detection systems, and VPN gateways.

Several proprietary systems are based on OpenBSD, including devices from Armorlogic (Profense web application firewall), Calyptix Security, GeNUA, RTMX, and .vantronix.

Other operating systems

Some versions of Microsoft's Services for UNIX, an extension to the Windows operating system to provide Unix-like functionality, use much of the OpenBSD code base that is included in the Interix interoperability suite, developed by Softway Systems Inc., which Microsoft acquired in 1999. Core Force, a security product for Windows, is based on OpenBSD's pf firewall. The pf firewall is also found in other operating systems: including FreeBSD, and macOS.

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Personal computers

OpenBSD ships with Xenocara, an implementation of the X Window System, and is suitable as a desktop operating system for personal computers, including laptops:xl As of September 2018, OpenBSD includes approximately 8000 packages in its software repository, including desktop environments such as Lumina, GNOME, Plasma, and Xfce, and web browsers such as Firefox and Chromium. The project also includes three window managers in the main distribution: cwm, FVWM (part of the default configuration for Xenocara), and twm.

Servers

OpenBSD features a full server suite and can be configured as a mail server, web server, FTP server, DNS server, router, firewall, NFS file server, or any combination of these. Since version 6.8, OpenBSD has also shipped with native in-kernel WireGuard support.

History

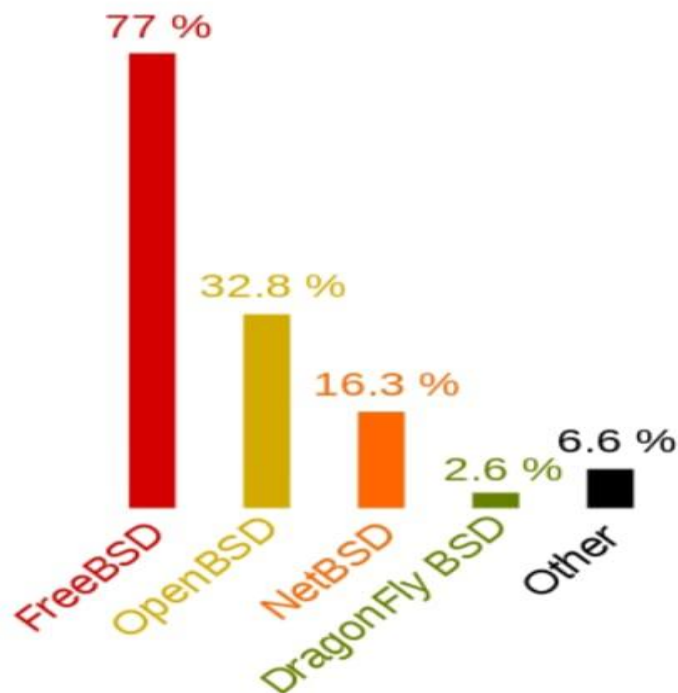
In December 1994, Theo de Raadt, a founding member of the NetBSD project, was asked to resign from the NetBSD core team over disagreements and conflicts with the

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other members of the NetBSD team. In October 1995, De Raadt founded OpenBSD, a new project forked from NetBSD 1.0. The initial release, OpenBSD 1.2, was made in July 1996, followed by OpenBSD 2.0 in October of the same year. Since then, the project has issued a release every six months, each of which is supported for one year.

On 25 July 2007, OpenBSD developer Bob Beck announced the formation of the OpenBSD Foundation, a Canadian non-profit organization formed to "act as a single point of contact for persons and organizations requiring a legal entity to deal with when they wish to support OpenBSD."

Usage statistics



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Bar chart showing the proportion of users of each BSD variant from a 2005 BSD usage survey of 4330 users.

It is hard to determine how widely OpenBSD is used, because the developers do not publish or collect usage statistics.

In September 2005, the BSD Certification Group surveyed 4330 individual BSD users, showing that 32.8% used OpenBSD, behind FreeBSD with 77%, ahead of NetBSD with 16.3% and DragonFly BSD with 2.6%. However, the authors of this survey clarified that it is neither "exhaustive" nor "completely accurate", since the survey was spread mainly through mailing lists, forums and word of mouth. This combined with other factors, like the lack of a control group, a pre-screening process or significant outreach outside of the BSD community, makes the survey unreliable for judging BSD usage globally.

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Developer	Theo de Raadt et al.
Written in	C, assembly, Perl, Unix shell
OS family	Unix-like (BSD)
Working state	Current
Initial release	July 1996; 27 years ago
Latest release	7.4 (16 October 2023; 2 months ago)
Repository	cvsweb.openbsd.org/cgi-bin/cvsweb/
platforms	Alpha, x86-64, ARMv7, ARMv8 (64-bit), PA-RISC, IA-32, LANDISK, Loongson, Omron LUNA-88K, MIPS64, macppc, PowerPC, 64-bit RISC-V, SPARC64
Kernel type	Monolithic
Userland	BSD
Default user interface	Modified pdksh, X11 (FVWM)
License	BSD, ISC, other permissive licenses
Official website	www.openbsd.org
Package manager	OpenBSD package tools

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