

## Why is NetBSD so special?

Since NetBSD was founded in 1993, it has always been at the forefront of Open Source operating system development. NetBSD has been the complete foundation or reference for other projects. Many advantages of NetBSD are not found in any other open source operating system:

- Support for 55 different hardware platforms today, more will follow: acorn26 acorn32 algor alpha amd64 amiga amigappe are atari bebox cats cesfic cobalt dreamcast evbarm evbmips evbppc evbsh3 hp300 hp700 hpcarm hpcmips hpcsh i386 luna68k mac68k macppc mipsco mmeye mvme68k mvmeppc netwinder news68k newsmips next68k ofppc pc532 playstation2 pmax pmppc prep sandpoint sbmips sgimips shark sparc sparc64 sun2 sun3 sun68k vax walnut x68k xen
- Support for 17 CPU architectures: alpha arm hppa i386 m68010 m68k mipseb mipsel ns32k powerpc sh3eb sh3el sparc sparc64 vax x86\_64
- SMP support for 6 platforms: alpha amd64 i386 macppc sparc vax
- POSIX threads implementation based on Scheduler Activations
- Cross compiling of the kernel and userland supported by the standard toolchain - build NetBSD almost anywhere, out of the box!
- Kernel events notification framework provides a stateful and efficient event notification, including socket, file, directory, fifo, pipe, tty and device changes
- Many security-specific features, including Verified Exec and the systrace framework
- Local, remote and post-mortem kernel debugging
- Complete source, including the history of the development, available via anonymous CVS, rsync, SUP and CVSweb
- Support for various network technologies including ATM, HIPPI, FDDI, HSSI, IEEE 802.11, Token-Ring, ARCnet and Ethernet (up to 10Gbps!)
- First open source operating system to support USB, USB2, and PCMCIA audio
- Many subsystems described in detail in published articles

## Use Your Favorite Tools and Applications

NetBSD contains all the features you would expect in an open source operating system today, including X11, tools for firewalls, and software RAID. With NetBSD's package tools you can install more than 5400 freely available software packages easily. (See "All the software you ever wanted", below)

NetBSD's *binary compatibility* feature lets you run applications compiled for other operating systems (for the same CPU architecture). This includes most applications for Linux, Solaris, SCO, FreeBSD, BSD/OS, OSF/1, and Ultrix; and some for Darwin and IRIX. In fact, testing has shown NetBSD runs the Sun JDK/JRE for Linux as well as Linux itself does.

### Ideal for Embedded Environments

NetBSD is designed to minimize the effort needed to make it run on new hardware. As a result, you are able to concentrate on the development of the hardware.

NetBSD is particularly well suited to embedded environments. It supports many lower-power CPUs, such as ARM, MIPS, PowerPC, Xscale, and Hitachi SH 3/4/5. By removing optional components, NetBSD can be trimmed down to fit comfortably on very small systems. And of course tools are available to do cross-development. Both the toolchain and compilers support cross-compiling. Cross-compiling the kernel and the whole operating system is easily possible, as is cross-building whole distribution sets.

Some of our developers are professional consultants. In case you do need help, you can sign them up at short notice or for bigger projects. A list of these consultants can be found at <http://www.NetBSD.org/gallery/consultants.html>.

Make the decision—joining many Fortune 100 and Fortune 500 companies—to use NetBSD, the world's most portable operating system, for your product.

### Available in all sizes

NetBSD runs on a great variety of hardware platforms, from the VAX 11/750 to the latest PCs and Windows CE palmtops. No matter if you want to give new life to your old dusty machine in the attic or bought the latest technology, NetBSD will be there for you!

## All the software you ever wanted

NetBSD consists of a slim base operating system that can be configured for many uses by adding software from the NetBSD Packages Collection, *pkgsrc*. The collection includes more than 5400 packages of which we have room here to mention but a few:

- Web serving and website development, including Apache (with many modules), PHP, and Jakarta Tomcat
- Network, database, file and print serving, including BIND 4/8/9, Samba, NetAtalk (supporting AppleTalk), INN, MRTG, MySQL, PostgreSQL, Sendmail, SquirrelMail, to mention just a few
- Text processing and office productivity tools, including KOffice, OpenOffice.org, GnomeOffice, Ghostscript, TeTeX, GNU Emacs and Xemacs, VIM, CUPS, DocBook and DocBook XML, GIMP, and SANE
- Multiple desktop environments and GUI tools, including GNOME, KDE, Mozilla Firefox, Netscape Navigator including Flash plugin, Opera, xmms and gqmpeg mp3 players, Afterstep, Windowmaker, fvwm, and mplayer for MPEG and DivX;-) processing
- Games, including Civilization Call To Power (demo version), Quake 1, Quake3-Arena (demo version), Heretic 2 (demo version), FreeCiv, NetHack, and xdoom
- Software development tools and libraries for many languages, including Sun's JDK & JRE, Perl (with more than 230 modules), Python, Ruby, Zope, cscope, gcc, DDD, QT, GTK+, and GNU Smalltalk

Software can be installed from CDs, DVDs, or our FTP server, or—thanks to the NetBSD Packages System—built and installed from source using a simple “make install” command.

## Security for Paranoids

With integrated firewall tools and tools that can be easily installed from our software archives—including IPsec, Kerberos 5, SSH, SSL, and encryption tools such as PGP—you have access to a modern security system.

NetBSD enforces non-executable mappings on many platforms. Stack and heap mappings are non-executable by default, making exploitation of potential buffer overflows harder. NetBSD also supports PROT\_EXEC permission via mmap(2) for all platforms where the hardware differentiates execute access from data access.

In the public forums related to Security issues, such as the Bugtraq mailing list, NetBSD has always had fewer known security problems than the alternative solutions. One more reason security consultants choose NetBSD!

## Truly Open Source

Part of NetBSD (including the entire kernel) is under a Berkeley-style license, part of it under the GPL. Every NetBSD copy you get from us contains the entire source. *Open Source* is no mere buzz phrase for us!

## Help is only an e-mail away!

In case of trouble you can find fast and unbureaucratic help through our mailing lists and the bug-tracking system. For more professional help, you'll find many consultants listed at our website.

There is no phone support but your questions will be certainly answered without wasting time listening to music while on hold.

## Don't miss the connection

NetBSD has been growing for over ten years, longer than any other alternative solutions in the field of open source, and is today stronger than ever. We won't disappear and leave you alone or stop supporting your platform. You can put your mind at ease knowing that the future development of your OS is in the hands of capable experts.

## How can I help?

There are many ways in which you or your company can support NetBSD.

- Mention NetBSD on your website, while talking to your colleagues, or to hardware producers when you buy new systems
- Develop a new driver or support for a special hardware platform, protocol, or API that isn't supported yet
- Get hardware or technical hardware-related documents which we do not already own and send it to us for development and testing
- Politely ask for documentation, repeatedly if need be, from those hardware producers that haven't provided it
- Port your software to NetBSD
- Acquire NetBSD or NetBSD devotionalia from us
- Donate money for buying hardware and promotion for the project

Please email [board@NetBSD.org](mailto:board@NetBSD.org) if you wish to donate (if possible write in English please).

## Where do I get NetBSD?

- WWW: <http://www.NetBSD.org/>
- FTP: <ftp://ftp.NetBSD.org/pub/NetBSD/>
- CVS: [anoncvs@anoncvs.NetBSD.org](mailto:anoncvs@anoncvs.NetBSD.org):/cvsroot
- SUP: [sup.NetBSD.org](http://sup.NetBSD.org)
- Rsync: [rsync.NetBSD.org/](http://rsync.NetBSD.org/)
- CD: <http://www.NetBSD.org/Sites/cdroms.html>

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# The NetBSD Project

“OF COURSE IT RUNS NETBSD!”



## What is the NetBSD Project?

The NetBSD Project gives you a complete Unix/Linux-like operating system that is up to today's Open Source and security standards, supporting industry-standard APIs, communication protocols, and a huge variety of hardware platforms. NetBSD is suited to a wide range of applications, from servers and workstations to PDAs and embedded systems.

NetBSD is often chosen to control newly developed hardware and to drive such products as network computers, single-board computers, internet appliances, firewalls, printers, copiers and even webcams. NetBSD is used in network development all over the world. ISPs use NetBSD because of the wide spectrum of network possibilities, and enthusiasts choose NetBSD for its excellent hardware support.

NetBSD is primarily developed by a community of volunteers. Almost 300 active developers have write access to the source and hundreds more contribute to further developments daily. The NetBSD Project is controlled by the NetBSD core group and the NetBSD Foundation.