The NetBSD Project

<pk@netbsd.org>

January 23, 1996

Overview

- What is NetBSD?
- Goals
- Results
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- Organization

What is NetBSD?

- a freely available, portable Unix-like system, derived from the 4.4BSD-Lite distribution from the University of California, Berkeley
- the only free system using the same source tree for many hardware platforms
- distributed with complete source code
- supported by many volunteers

Goals

- provide a complete, stable operating system that both professionals and hobbyists can use
- make more code machine-independent
- support more hardware
- binary compatibility/emulation
- comply more closely with standards (POSIX, RFCs)
- avoid encumbering licenses

Results

- 64-bit support
- emulation architecture
- multicast integration
- MI audio
- generic disk instrumentation
- generalized CCD
- locales
- work started on section 9 man–page section

Results (cntnd)

- new ports this year
  - vax
  - mvme68k
  - sun4
- correct prof. Falken's name in example passwd file.

Current platforms

- alpha (TurboChannel and PCI busses)
- amiga (all machines with a MMU)
- atari (TT and Falcon)
- hp300 (all machines except model 425 and 433 desktops)
- i386/i486/Pentium (PCI, EISA, and ISA busses)
- mac68k (SE/30, II series, some Quadras)
- mvme68k (model 147)
- pc532

Current platforms (cntnd)

- pmax (DECstation 5000 series)
- sparc (Sun 4 and 4c architecture; 4m nearly there; no 4d yet)
- sun3 (Sun 3 architecture; no 3x yet)
- vax (11/750; MicroVAX II; MicroVAX III in progress)
- . . . and more in progress!

Dead platforms

- da30

Current emulations

- BSD/OS
- FreeBSD
- Interactive
- Linux
- SCO
- SunOS
- SVR4
- . . . and more in progress!

- i386–only
  - WINE – natively and under Linux emulation.
  - VM86

Commercial software reported to work

- AFS client
- DOOM
- FrameMaker
- Informix
- Maple
- Matlab
- Mosaic
- Netscape Navigator
- Oxford English Dictionary
- SimCity
- WordPerfect

Future Directions

- see ‘Goals’
- symmetric multiprocessing
- journaled file system
- kernel–level support for threads
- real–time extensions

Organization

- The NetBSD Foundation
  - A framework to:
    * keep track of development
    * receive donations to run the project
    * undertake promotional activities
    * organizing workshops
- The core group
  - system architect
  - runs critical services (e.g. CVS tree, mailing lists, GNATS)
  - point of contact for contributions

- The port masters
  - are responsible for their individual ports
  - review contributions
  - do development
- Mailing lists
  - current-users
    - use the daily source snapshots and provide feedback on recent changes
  - netbsd-bugs (GNATS)
    - keeps track of unresolved issues, including
      - bug reports
      - suggested enhancements
  - netbsd-announce

Releases

- NetBSD 0.8, April 1993
- NetBSD 0.9, August 1993
- NetBSD 1.0, October 1994
- NetBSD 1.1, November 1995
- NetBSD-current, daily
- periodic releases planned

Places to look

- To obtain NetBSD, look in
  - ftp://ftp.netbsd.org/pub/NetBSD
- To get information about, or subscribe to, NetBSD mailing lists, send mail to
  - majordomo@netbsd.org
- To ask questions or send comments about NetBSD, send mail to
  - netbsd-comments@netbsd.org

- To get daily source snapshots
  - by FTP, look in
    - ftp://ftp.netbsd.org/pub/NetBSD/NetBSD-current
  - by SUP, look for directions in
    - ftp://ftp.netbsd.org/pub/sup