DNS in FreeBSD 11

FreeBSD Developer Summit, EuroBSDCon 2013

Danmarks plads på Internettet

Current state

- unbound imported
- ldns imported
- host replacement imported
- drill imported, needs dig shim
- OpenSSH uses ldns for SSHFP checking
- local resolver only
- DNSSEC validating

Wishlist for 11.0

- caching, validating resolver library
- capsicum compartmentalized
- standardized API (get-api (Hoffmann), draft-hayatnagarkar-dnsext-validator-api)
- per user policies
- Caspar integration
- BSD licenced
- low footprint
- fast
- thread safe
-

Ports and package summit

FreeBSD Developer Summit, EuroBSDCon 2013

PCBSD CDN

Allan Jude, ScaleEngine

- rsync --delay-update
- zfs replication
- zfs-snapshot-mgmt
- Automatic mirror selection

Danmarks plads på Internettet

Recent developments

- SSP (Jeremy Le Hen)
  - New SSP_UNSAFE knob
  - Default enabled in 10.x for amd64 and i386
  - Usable amd64/9.x with WITH_SSP_PORT (NOOP on i386)

- Staging (Baptiste Daroussin)
  - Can catch errors earlier
  - NEED_ROOT if needed
  - Improves build farms
  - Catches broken plist
  - No need for most post-install scripts
  - Can improve QA
  - sub-packages
  - Default on, but turned off for all ports individually
    - Start testing and fixing!

Future plans

- Package sets
  - Decoupled from src releases
  - Do we want a security branch?
  - Revive ports-secteam
  - Quarterly releases
  - Weekly updated with security fixes only
  - Can start now with pkg-test

Future plans

Remove pkg_install tools

- Blocks new features
- Easy migration for ports users
  - pkg pkg2ng
  - portmaster/portupgrade will work as before
- pkg has 3rd party support: puppet, chef, ansible, salt, webmin, packagekit
- Ample warning to users
- 8.3-RELEASE does not have pkg, EOL April 2014
- Automatic warnings?

Open tasks

Package naming

- LATEST_LINK is a hack

- Better use of PKGNAMESUFFIX

- Automated checking

- Policy change: PKGNAME unique across categories
  - Options
  - Flavours
  - Sub-packages

Empowering the FreeBSD Project

FreeBSD Foundation Update
EuroBSDCon 2013

Justin T. Gibbs

FreeBSD Foundation Project Roadmap

- Recent
  - IPv6 and Network Stack Performance
  - BSD Licensed Tool Chain
  - Auditdistd
  - NAND Flash File System
  - Unmapped I/O
  - UEFI Bootloader
  - ARM Reference Platform & "Super Page" Support
  - Doc Infrastructure Enhancements
- Active
  - In Kernel iSCSI Target and Initiator (iSER, iSER over iWARP)
  - KMS/GEM/DMA-buf (Modern X Support)
  - Capsicum Enhancements
- Planning
  - Virtual Dynamically linked Shared Objects (VDSO)
  - System/Regression Test infrastructure
  - Event and Fault Management Framework
  - Debugging Profiling Infrastructure (Audit/Dtrace/GDB replacement)
  - Port, Packaging, Installation and Upgrade Improvements

FreeBSD Foundation Staffing Roadmap

- Recent
  - Two full time Technical Staff
    - Internal Projects
    - Release Engineering and Sec-Team Support
  - System Administrator
    - Release engineering and Cluster-Admin Support
  - Director of Technical Project Management
  - Administrative Assistant
- Planned
  - FreeBSD Project Administrative Assistant
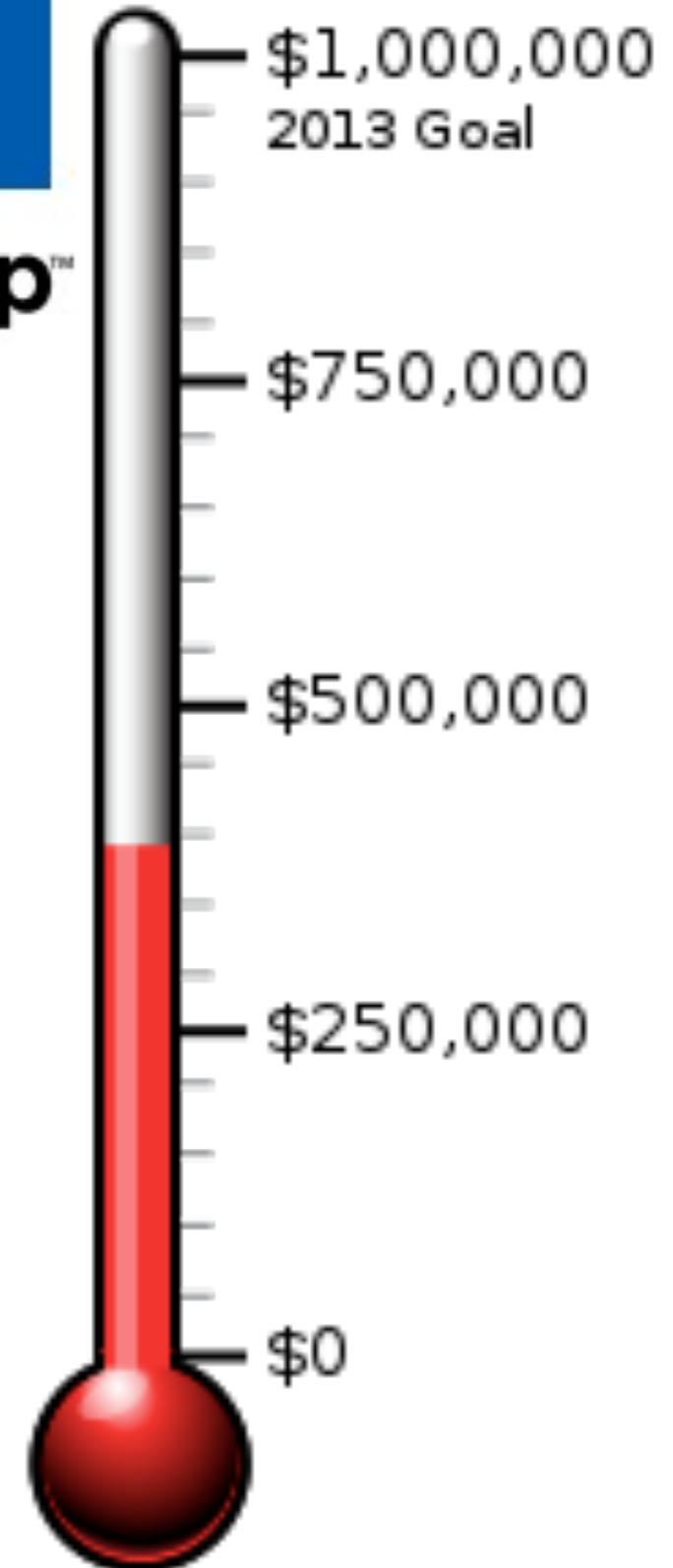 - Marketing/Fundraising

Funding

- 100% donor funded
- $1.5M+ raised in the last 3 years
- Raise $1M spend $1M for 2013

590 Donors

CURRENT $396,908

$1,000,000 2013 Goal

$750,000

$500,000

$250,000

$0

BSD Consulting, Inc.

- In Japan, IT is outsourced
- Japanese software industry is import-dependent.
- Universal Shell Programming Laboratory needed commercial FreeBSD support and consulting
- Unicage Development Method
- Japanese documentation
- HW certification

Discussion

- Infiniband
- Errata backports to -RELEASEs
- nanobsd
- ARM, MIPS as Tier-1 architectures
  - Ports cross-building
  - selfhosting
  - Get started documentation
- More translated documents, Foundation website
  - low hanging fruit
  - infrastructure
- Non-US testimonials
- Documentation
  - BSD for Linux users
  - "How the FreeBSD project works" slidedeck as article
  - press contacts
  - How to debug a kernel core
  - How to file a bug report

Discussion

- PR triage
  - sysdiagnose
  - remote panic/kernel debugging over UDP
- Training
- Hackathons
- Java
- Improve NFS performance
- EC2 images available