EdgeBSD: Status report

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About myself

- Pierre Pronchery
- Freelance IT-Security Consultant
- DeforaOS project as a hobby since 2001
- NetBSD developer since May 2012 (khorben@)
- And now EdgeBSD as well!
Why EdgeBSD?

- NetBSD is a modern (and cool!) Operating System alright
- Full power for R&D (RUMP! Minix!)
- It runs everywhere! (or almost)
- But modern coders no longer use CVS
- In other words, broaden the NetBSD community with freedom to experiment with development (Git!)
So what's up?

- Introduced the project in further details at FrOSCon 2013, FOSDEM 2014, EuroBSDcon 2014 and on BSD Now
- Ongoing election of the project leader
- Only candidate is myself
- Time for introspection obviously
- Preparing the next release
Self-patting in the back

7 official developers (kudos to all!)

- 3 official NetBSD developers
- 1 official FreeBSD developer
- 2 in process of becoming NetBSD developers

<blink>We're hiring :p</blink>
Technical Report #2015-001

• We always want to achieve more...
• Right now edgebsd-6 does not build release for amd64 and i386 (my bad)
• Some processes automated; some still pending, among which:
  • Building releases after pushes
  • Building packages after pull-ups
  • Test infrastructure
  • Better and more communication tools...
Major achievements thus far

- Stable rolling EdgeBSD 6 release
- Extra features compared to NetBSD:
  - ALSR (amd64, i386)
  - SSP (all supported platforms)
  - Signed binary packages (amd64, i386)
  - LTS support (350+ updates)
  - Root filesystem encryption (amd64, i386)
- Not least, Git as the SCM
Working with Git

- Great for access control: (gitolite!)
  - Release control
  - Branch management
  - User groups
- Great for pull-ups and automation
  - Hooks
  - Tool integration
- Great for working offline
Our current limitations of Git

- Repository size (edgebsd-src is > 4 GB)
  - Result of importing objects from force pushes on our upstream
  - We should re-group the netbsd-src and edgebsd-src repositories
- Unclear branching hierarchy and policy
  - I suggest switching to a “directory” per user
- In other words, I am calling for a reset
Git conversions: new possibilities

1. Starting again from joerg's conversion (cherry-picking new commits on the reference branches?)

2. Giving a shot to IIJ's conversion: https://github.com/IIJ-NetBSD/netbsd-src

3. Working with ESR on his conversion: http://esr.ibiblio.org/?p=6406 (thanks kooda@ for the heads-up!)

Back to the drawing board :)
Git conversion: and NetBSD?

• There is an ongoing discussion among developers
• There is an unofficial working group, separate initiative from EdgeBSD
• Of course we are trying to participate, bring our experience and help prepare potential migration plans

Please contact me offline for more details, or use the Q&A session (if I can answer)
Converting NetBSD to Git (1/2)

● First of all, Git may not be the best answer and Mercurial could work too:
  ● http://thechangelog.com/facebook-mercurial/git/
  ● https://code.facebook.com/posts/218678814984400/scaling-mercurial-at-facebook/

● Among concerns:
  ● Working with less performant architectures
  ● Migration period from CVS
  ● Usability...
Converting NetBSD to Git (2/2)

More interrogations:

- Include the whole history?
- Prepend the known history that was removed for legal concerns?
- Include Git in the base system?
- Break down the repository in sub-modules or sub-projects?
- What of the development workflow?

The list goes on...
Towards EdgeBSD 7

- EdgeBSD 7 is based on the netbsd-7 branch:
  - Already possible to test and report bugs
- We are already providing binaries (amd64, i386) ...but not continuously :(  
  - So please check if any bug you may want to report could have been fixed already
- We are still missing dedicated packages (they will be based on pkgsrc 2015Q1)
Release blocker for NetBSD 7.0

- Lua 5.3 (almost there, if not already)
- Most issues related to DRMKMS support
- Full list at http://releng.netbsd.org/pr-list.html
- I won't say any additional regression observed is welcome on the list, but any help spotting and fixing them is :) 

(I won't mention GNATS now; we know)
Changes in NetBSD 7

• And thus in EdgeBSD 7!

• DMSKMS, OSS 4, entropy collection, GCC 4.8, better Xen, more ports, drivers, and much more...

• Full list: http://www.netbsd.org/changes/changes-7.0.

• Fuller list: edgebsd-7 branch, edgebsd-src.git:/doc/CHANGES-7.0
My objectives for EdgeBSD 7

- Cross-compiling packages
- pkg-ng as the package format (but still generated by pkgsrc)
- Strengthen signing support (signify?)
- In the back of my mind:
  - Libressl,
  - shrinking base,
  - Git reset and repository splitting...
Thanks for your attention

I can answer questions now, or the usual:

- IRC Freenode #EdgeBSD
- Mailing-lists at http://lists.edgebsd.org/
- Website at https://www.edgebsd.org/
- Myself directly at khorben@edgebsd.org

Use BSD!