The State of mentors.debian.net
GSOC and Beyond

Nicolas Dandrimont

2012-11-25
Introduction
- whoami
- What is this talk about

mentors.debian.net
- Sponsoring packages into Debian
- How did we get there?
- Technical stack

Summer of Code work
- Clément Schreiner
- Baptiste Mouterde

The road ahead
- Further integration with the BTS-based workflow
- Catering to packaging teams
- mentors.debian.*org*?

Wrapping up
Plan

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2. mentors.debian.net

3. Summer of Code work

4. The road ahead

5. Wrapping up
Nicolas Dandrimont in Debian

- Package maintainer since 2010
- Debian Maintainer since 2011
- Debexpo victi¬Wmaintainer since early 2012
Nicolas Dandrimont in “Real life”

- Linux sysadmin/“IT guy” in a French “Grande École”
- web-based tools maintenance (drupal, django)
- 320+ client machines running fedora 8 (I know, I’ve only been here three months)
What this talk is not about

- sponsoring is hard
- workflow debate
- salvaging packages
Platform for Debian Package Maintenance newcomers to upload and share their packages
Automated QA analysis of uploaded packages
sponsor - sponsoree connection
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Show of hands

Who here knows how contributing a package to Debian works?
There are three “classes” of package maintainers:

- Debian Developers: can upload any package at any time
- Debian Maintainers: can upload the packages they have been allowed to by DDs
- Sponsored Maintainers: cannot upload by themselves: need to be sponsored by a DD
“newcomer” workflow

Quite a lengthy process:

1. Prepare a package (either NEW or update)
2. Upload it somewhere
3. Find a sponsor
   - File a sponsorship-requests bug / write the debian-mentors list
   - Find a team
   - Prod your previous sponsor
4. Update according to the sponsor’s review, rinse, repeat
5. ?????????
6. Upload!
Why mentors.debian.net?

- A central place for sponsored maintainers to upload and share their packages for review
Why mentors.debian.net?

- A central place for sponsored maintainers to *upload and share* their packages for *review*
- A companion to the debian-mentors mailing-list
- A place for developers of Debian derivatives too (Ubuntu’s “Debian-first” policy comes to mind)
A brief history of mentors.debian.net

- Initiated by Christoph Haas and others long ago
- Replaced by more recent software (debexpo) in 2011
A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)

- Goal: “personal package archive” for Debian

- Languishing project until 2010, when Asheesh Laroia and Jan Dittberner took over (2010/06/22)

- Goal: mentors.debian.net replacement

- Asheesh and Arno Töll make debexpo replace the old mentors.d.n site (2011/08/11)

- UI improvements (debexpo v2, 2012/02/26)

- GSoC 2012 (debexpo v3, 2012/11/25 ?)
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Software stack

- Pylons 1.0
  - mako templating engine
  - “routes” for the routing
  - not supported anymore, superseded by Pyramid
- SQLAlchemy
- webhelpers
- the usual debian-related modules (python-debian, python-apt, ...)

Nicolas Dandrimont ()
The State of mentors.debian.net
2012-11-25 15 / 32
Low-level infrastructure

- hosted on a Wavecon virtual machine (Arno’s workplace)
- Debian Squeeze with a few backports
- Apache and mod_wsgi
- A patched ftp server (allow anonymous uploads without file overwrites)
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Automatic package—sponsor matching

- For a maintainer: finding a sponsor = lengthy process
- For a sponsor: flow of packages to be sponsored = overwhelming
Automatic package—sponsor matching

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- For a sponsor: flow of packages to be sponsored = overwhelming

The goal of the project is two-fold
- giving sponsored maintainers a “list” of potential sponsors to prod
- giving potential sponsors a list of packages to look out for

All this automatically
In the background

- Semantic package analysis: find out “traits” for a package
- Upload history analysis: what did a given DD upload, what are his interests?
- Fuzzy clustering (hopefully with feedback)
Problems encountered

- No proper metadata storage API for packages in debexpo
- Package analysis is heavy: when to do it?
Outcomes

- Rewrite of the metadata storage API to make it easier to query
- Integration of debtags’ package analysis heuristics
- Matching stub
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TODO:
- proper matching
- team integration
Improved package review interface

The issue: Several “competing” platforms for package reviews

- mentors.debian.net “comments”
- debian-mentors mailing-list
- sponsorship-requests bugs
- team mailing-lists
Improved package review interface

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The goal:
- getting all the information in one place: mentors.d.n
- while still allowing the use of the other platforms
- catering for our friends from derivative distributions
A tricky task

- source browser: need to extend our package storage pool to get the flat source
- review interface: need to rework completely the (broken, useless) comment engine
- need to connect to the mailing-list and the BTS properly for three-way integration
Outcomes

- a git-based package storage backend
- a source-code browser with in-line review capabilities
- the basis for a “karma” system
- a connector for mailing-lists, not yet deployed
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The new sponsorship-requests workflow

Tracking sponsorship-requests as bugs is an improvement over just having the history in the debian-mentors archive.
The new sponsorship-requests workflow

Tracking sponsorship-requests as bugs is an improvement over just having the history in the debian-mentors archive.

But mentors.debian.net lacks integration with it.

A nice interface: http://mentors.pault.ag/ (and yes, the queue is loooong). Having such a view in mentors.d.n would be (very) good.
There are more and more packaging teams, each with their own workflow (tracking packages via their SCM on alioth, via their mailing-list, via a PET, ...)

mentors.debian.net needs to take that into account and give teams tools to help with their workflow.

Goal: reducing the number of entry points for newcomers, streamlining the sponsorship process.
Package maintainance is shifting towards teams

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A critical piece of infrastructure, not official yet yet

Half of Debian’s packages are maintained by sponsored maintainers. A lot of the newcomers come through mentors.debian.net, but that service is run off of “personal” resources in an unofficial fashion.

The (main) issue: people are allowed to upload random crap and mentors.d.n distributes it (no NEW queue).
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Solution (thanks to zack and SPI lawyers): disclaim responsibility on user-contributed content by having the users (GPG-)sign an agreement before uploads are allowed.
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A small team with big ideas

Even with the GSoC, we are a small team of very busy people (Arno is working on his Masters Thesis, I just changed jobs, ...), and there are lots to do.

As usual, help is welcome!
How to help?

We don’t really have/use a mailing-list, so your best bet is coming to see us on IRC: #debexpo on irc.debian.org.

You can take a look at our wiki pages: http://wiki.debian.org/Debexpo/Development
Thanks for listening!