Debian and Ubuntu

Lucas Nussbaum
lucas@{debian.org,ubuntu.com}
Why I am qualified to give this talk

- Debian Developer and Ubuntu Developer since 2006
- Involved in improving collaboration between both projects
- Developed/Initiated: Multidistrotools, ubuntu usertag on the BTS, improvements to the merge process, Ubuntu box on the PTS, Ubuntu column on DDPO, ...
- Attended Debconf and UDS
- Friends in both communities

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What’s in this talk?

- Ubuntu development process, and how it relates to Debian
- Discussion of the current state of affairs
- "OK, what should we do now?"
The Ubuntu Development Process
Linux distributions 101

- Take software developed by upstream projects
  Linux, X.org, GNOME, KDE, ...

- Put it all nicely together
  - Standardization / Integration
  - Quality Assurance
  - Support

- Get all the fame
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Ubuntu has one special upstream: Debian
Ubuntu’s upstreams
Ubuntu’s upstreams

Not that simple: changes required, sometimes

- Toolchain changes
- Bugfixes
- Integration (Launchpad)
- Newer releases
Ubuntu’s upstreams

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different agendas (freezes),
Ubuntu’s upstreams

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changes required, sometimes

- Toolchain changes
- Bugfixes
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- Newer releases

Often not possible to do work in Debian first

different agendas (freezes),
different focus (quality vs having stuff done)
Ubuntu Packages Workflow

Upstream projects

Debian

Patch

Ubuntu
Ubuntu Packages Workflow

- Ubuntu Lucid
- Excluding specific packages: `language-(support—pack)-*, kde-l10n-*, *ubuntu*, *launchpad*`
- Missing 4%: Newer upstream releases: Based on the Debian version or fully repackaged?
Newer upstream releases (main)

akanadi alacarte alsa-driver alsa-lib alsa-plugins alsa-utils amarok anthy aptdaemon arora at-spi atk1.0 attica axis2c bluez
bogofilter brasero byobu cheese choqok clutter-1.0 clutter-gtk-0.10 compiz compiz-fusion-bclop compiz-fusion-plugins-main
compizconfig-backend-gconf computer-janitor corsync desktop-file-utils desktopcouch devhelp digitam ecreptfs-utils eglibc
eigen2 empathy enchant eog espeak euca2ools eucalyptus evince evolution evolution-data-server evolution-exchange file-roller
foo2zjs foomatic-db foomatic-db-engine foomatic-filters freeglut freespacenotifier gcalctool gconf gconf-editor gdm gedit geogl
geronimo-ejb-3.0-spec geronimo-interceptor-3.0-spec geronimo-jacc-1.1-spec geronimo-jms-1.1-spec geronimo-jpa-3.0-spec
gfxboot ghostscript glade-3 glib2.0 gnome-applets gnome-blue-tooth gnome-desktop gnome-doc-utils gnome-games
gnome-keyring gnome-mag gnome-media gnome-menus gnome-netto gnome-orca gnome-panel gnome-pilot
gnome-power-manager gnome-python-desktop gnome-screensaver gnome-session gnome-settings-daemon gnome-system-tools
gnome-terminal gnome-themes gnome-user-share gnome-utils goocanvas gtk+2.0 gtk-doc gtk2-engines gtk2-engines-murrine
gtkhtml3.14 gtksourceview2 guicharmap gutenprint gvfs gwirel gwt hal indicator-applet indicator-messages intel-gpu-tools intlttool
json-glib k3b kde4libs kdeaccessibility kdeadmin kdeartwork kdebase kdebase-runtime kdebase-workspace kdebindings kdeedu
kdegames kdegames kdegraphics kdemultimedia kdenetwork kdepim kdepim-runtime kdepimlibs kdeplasma-addons kdesdk kdesudo
kdeutils kdeutils kdewebdev kipi-plugins konq-plugins ldm lensfun libbonobo libbonoboui libcompizconfig libdbusmenu
libdbusmenu-qt libgnome libgnome-keyring libgnome-macbook libgnomekbd libglyph libgphoto2 libgpm libgtop2 libgweather libindicate
libindicator libjibx-java libmail-dkim-perl libmsn libnova libobs libs libpam-radius-auth libpst librsasq librsap2.4 liblwnc libxklavier lirc
llvm lsb ltsf ltsfs makedumpfile maximus metacity modernmanager mouseemu mouseetweaks mvel nautilus nautilus-sendto
net-snmp network-manager network-manager-applet network-manager-pptp notify-osc nss nss nvidia-settings obexd open-iscsi
openlnks openjdk-6 openldap open oxygen-icns pango1.0 papyon pitivi plasma-widget-networkmanagement pmn2ppa poppler
portaudio19 powertop ppp pulseaudio pygobject pygoocanvas pygtk pygtksourceview python-bsdde3 python-configglue
python-cups python-defauIts python-oauth python-qt4_t4 python-stdlib-extensions python3-defaults python3.1 qemu-kvm qscintilla2
qt4-x11 quassl radeontool rampart rhythmbox sabayon Schroedinger seabios seahorse seahorse-plugins silo simple-scan sip4-qt3
soprano speech-dispatcher strigi system-config-cluster system-config-printer system-tools-backends taglib telepathy-gabble
tomboy totem totem-pl-parser transmission ttf-machufont ufw util-linux vala valgrind vinagre vino virtuoso-opensourc vte
window-picker-applet wss4j xdg-user-dirs xf86-input-wacom xserver-xorg-video-nouveal yelp zenity
Still newer in Ubuntu Lucid

Compared to Squeeze from a few days ago

Main :
amarok compiz desktop-file-utils foo2zjs gdm ghostscript glade-3 gnome-desktop gnome-keyring
gnome-panel gtk2-engines-murrine gtkhtml3.14 gwibber intel-gpu-tools libgphoto2 libnova
libpam-radius-auth libpst libwnck lirc llvm lsb mouseemu nautilus notify-osd opie
plasma-widget-networkmanagement pnm2ppa portaudio19 powertop pulseaudio python-cups
schroedinger ufw valgrind window-picker-applet xf86-input-wacom

Universe :
alexandria basket bzr-explorer ccbuild dkim-milter exaile ffprobe foolscap gentoo glfer
gnome-launch-box goocanvasmm gtk-nodoka-engine gui-ufw isdnutils italc kflickr kio-gopher
kmldonkey kmobiletools kradio kwave lcdproc libsmbios libticables libtfiles llvm-gcc-4.2
lxde-icon-theme lxsession-edit magyarispell mingw32-runtime mkvtoolnix msn-pecan muse
network-manager-openconnect ocempgui opendkim openrpg pgpool2 phpsysinfo picard plotutils
popfile portmidi prismstumbler pygame python-musicbrainz2 python-pcs rutilt scanssh specto
swac-explore swac-get tap-plugins thunar-media-tags-plugin tilp2 tolua++ valknut zope.traversing
Managing the divergence

Keeping local changes in Ubuntu:

► Requires a lot of manpower
► Need to merge them when Debian package updated

→ Strong incentive to push changes upstream (or to Debian)
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3 channels to push changes to Debian:
  ▶ Bug reports
  ▶ Direct interactions within teams / with maintainers
  ▶ Patch available in Packages Tracking System and DDPO
# Ubuntu box on the PTS

## Overview of nmap source package

### General information

**Latest version:** 4.68-1  
**Maintainer:** LaMont Jones  
**Conforms to:** 3.7.2.2  
**Priority:** extra  
**Section:** net  
**VCS:** Git  

### Available versions

- **Oldstable:** 4.11-1  
- **Stable:** 4.62-1  
- **Testing:** 4.68-1  
- **Unstable:** 4.68-1  

### Source package

Files: `.dsc .orig .diff`

### Binary packages

- `nmap` (27 bugs: 0, 12, 9, 6)

### Todo

Lintian reports 8 warnings about this package. You should make the package lintian clean getting rid of them.

mentors.debian.net has version 4.76-1 of this package, you should consider sponsoring its upload.

The package should be updated to follow the last version of Debian Policy (Standards-Version 3.8.2 instead of 3.7.2.2).

The BTS contains patches fixing 1 bug, consider including or untagging it.

### Latest news [RSS](#)

- 2009-02-16: nmap 4.68-1 MIGRATED to testing  
  (Britney)  
- 2008-08-01: Accepted 4.68-1 in unstable (low)  
  (LaMont Jones)  
- 2008-06-27: nmap 4.62-1 MIGRATED to testing  
  (Britney)  
- 2008-06-14: Accepted 4.62-1 in unstable (low)  
  (LaMont Jones)  
- 2008-04-25: nmap 4.53-3 MIGRATED to testing  
  (Britney)  
- 2008-04-04: Accepted 4.53-3 in unstable (low)  
  (LaMont Jones)

### Bugs count

- **All bugs:** 29 (32)  
  **RC bugs:** 0  
  **I&N bugs:** 13 (14)  
  **M&W bugs:** 12  
  **F&P bugs:** 4 (6)

### PTS subscription

Subscribers count: 5

Subscribe your email [Send](#)

### Other links

- Changelog / Copyright  
- Build: logs, more, exp, ports  
- Lintian report (0, 8)  
- Popcon stats

### Ubuntu ...

Version: 4.76-0ubuntu4  
Patch for version 4.76-0ubuntu4  
13 open bugs
Improvements to packages are not the only thing to take back...
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Bugs
(and Bug Reports)
Bugs

Ubuntu users have the choice:

- File bug upstream → might get flamed
- File bug in Debian → quite likely to get flamed
- File bug in Launchpad → very likely to get ignored

Many users → many bug reports

Not enough Ubuntu developers for bug triaging and squashing

Lack of expertise for many packages
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Why collaborate on bugs?

- Niche packages that rarely receive bugs reports in Debian
- More users of Ubuntu → more opportunities to run into bugs
- Slightly different environment in Ubuntu (newer toolchain, X) → we are likely to run into the same issues in Debian later
- Solving bugs = improving Free Software (That’s what really matters, no?)
Collaboration on bugs, today

- Some bugs get filed in Debian by Ubuntu developers
  - origin-ubuntu and ubuntu-patch usertags
  - 250-400 per Ubuntu release cycle
    Mostly upstreaming of Ubuntu patches to reduce divergence

- Ubuntu box on the PTS, but:
  - Data imported using a hack
  - Doesn’t include private bugs

- Bugs email forwarded to PTS (opt-in)
  (see developer-reference for details)
State of the Debian - Ubuntu relationship

Disclaimer :
Based on my perception
(which I hope is quite fair)
Feelings on the Debian side, in the past

Historically: many DDs were unhappy about Ubuntu

▶ Feeling of being stolen

▶ Public claims of "giving back", difficult to back with reality

▶ Problems with some Canonical employees tend to reflect on Ubuntu as a whole
Feelings on the Debian side, now

Things have improved considerably
Most DDs see some good points in Ubuntu
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  Barry deFreese, Scott Kitterman, Luca Falavigna, Emilio Pozuelo Monfort, Albin Tonnerre
- Serves as a technological playground
  dash as /bin/sh, boot improvements, debug packages, hardening GCC flags, ...
Feelings on the Ubuntu side

- Culture: contributing to Debian is The Right Thing to do
- Many Ubuntu developers contribute to Debian

However:
- Often not a lot to contribute back (on the package level)
- Many bugfixes are just workarounds
- Canonical is a company
  - Contributes back when it benefits them
  - Don’t expect many free “gifts” to Debian

Banner on ubuntu.com for Debian 15th birthday; DebConf sponsorship
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Ubuntu’s consequences for Debian

- Debian user-base (or at least market share) decreased
  - Ubuntu won the desktop/laptop market
  - Slowly makes a place on the server

For many new Linux users, Linux = Ubuntu
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- Recent innovations usually happen in Ubuntu
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- As a result, Debian becomes less relevant
  Even if Debian is now the basis of a major distribution
Problem: loss of relevance of Debian

Debian needs to be relevant

- Fights for important values
- Takes position on technical and political issues
Problem: loss of relevance of Debian

Debian needs to be relevant

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But collaborating with Ubuntu (and improving it) is the right thing to do for Free Software world domination

How do we make Debian relevant again and still help Ubuntu?
Behave like a good Upstream

→ Improve collaboration with Ubuntu:

- Improve relationships with Ubuntu developers
- More cross-distribution packaging teams
- Help Ubuntu maintain our packages
- Notify them of important transitions
- Bug triaging/fixing directly in Launchpad?
- Acknowledge that some high-quality work is done in Ubuntu
  - Import it into Debian, create collaboration around it
  - The packages import doesn't have to be one-way only!
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Communicate on why Debian is better
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Yes, Debian is better!
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Communicate on why Debian is better

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Communicate on why Debian is better

Yes, Debian is better!

- OK, maybe not for everybody
- But we often fail at communicating that
- Let’s try!
Debian is better.

Better values :

- Debian :
  - Volunteer-based project. Decisions taken in the open.
  - Advocates the Free Software philosophy since 1993
Debian is better.

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- Debian:
  - Volunteer-based project. Decisions taken in the open.
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- Ubuntu:
  - Project controlled by Canonical. Some decisions imposed.
    Ubuntu One, switch from Google to Yahoo! to Google for search
  - Advocates proprietary web services (UbuntuOne)
  - Installer recommends to add proprietary software
  - Copyright assignment to contribute to Canonical projects
Debian is better.

Better distribution:

- Debian:
  - All packages are maintained except orphaned packages
  - Many maintainers are experts
  - Emphasis on quality

Ubuntu:
- Most packages are just synced from Debian
- No real knowledge about many packages

Debian testing: the perfect distribution for your laptop?
- Recent software, few problems (but interesting/useful ones)
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Conclusion

- We can’t ignore Ubuntu

- We can’t fight Ubuntu (Would not be the right thing to do)

Ubuntu is a chance for Debian:

- We should leverage it to get back in the center of the FLOSS ecosystem

- Work with Ubuntu (like a good upstream)

- Be vocal about Ubuntu problems (but be constructive)

- Can also help improve Ubuntu (and Free Software)

- Find our own ways to bring innovation in the Free Software world (Debian rolling?)
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