The (im)perfect SRU

Why does it take so long?

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Robie Basak robbie.basak@canonical.com
Stable Release Update

What is an SRU?

The long story:

https://wiki.ubuntu.com/StableReleaseUpdates
We want to fix bugs

Without introducing new ones!

No change in user expected behavior

Don't fix one and break something else

Targeted fix, not version bumps

How severe is it?
We may need new functionality

Support for new hardware
Protocol updates (client/server)
Competing requirements

Why did you change this??

SRU team

No regressions!

I *NEED* this new version!

Fix this critical bug!
Stable Release Update

How the team is organized
## How the team is organized

### Work in shifts

<table>
<thead>
<tr>
<th>Day</th>
<th>SRU Team Member (IRC nick)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Łukasz Zemczak (sil2100)</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Chris Halse Rogers (RAOF), Brian Murray (bdmurray)</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Robie Basak (rbasak)</td>
</tr>
<tr>
<td>Thursday</td>
<td>Andreas Hasenack (ahasenack), Łukasz Zemczak (sil2100 - backup)</td>
</tr>
<tr>
<td>Friday</td>
<td>Timo Aaltonen (tjaalton), Steve Langasek (vorlon - backup)</td>
</tr>
</tbody>
</table>
How the team is organized

Queues

Ex.: jammy unapproved

https://launchpad.net/ubuntu/jammy/+queue?queue_state=1
How the team is organized

Trello board

https://trello.com/b/XgBxtrZ9/sru
How the team is organized

Pending SRU report

https://ubuntu-archive-team.ubuntu.com/pending-sru.html
Stable Release Update

Stages of an SRU
Stages of an SRU

Bug template

SRU Bug Template

[ Impact ]

* An explanation of the effects of the bug on users and
  in the stable release.
* In addition, it is helpful, but not required, to include an
  explanation of how the upload fixes this bug.

[ Test Plan ]

* Detailed instructions how to reproduce the bug
  * These should allow someone who is not familiar with the affected
   package to reproduce the bug and verify that the updated package fixes
   the problem.
  * If other testing is appropriate to perform before landing this update,
   this should also be described here.

[ Where problems could occur ]

* Think about what the upload changes in the software. Imagine the change is
  wrong or breaks something else: how would this show up?

* It is assumed that any SRU candidate patch is well-tested before
  upload and has a low overall risk of regression, but it's important
  to make the effort to think about what 'could' happen in the
  event of a regression.

* This must 'never' be "High" or "Low", or entirely an argument as to why
  your upload is low risk.

* This both shows the SRU team that the risks have been considered,
  and provides guidance to testers in regression-testing the SRU.

[ Other Info ]

* Anything else you think is useful to include
  * Anticipate questions from users, SRU, +1 maintenance, security teams and the Technical Board
  * and address these questions in advance
### Stages of an SRU

Upload to unapproved

<table>
<thead>
<tr>
<th>Package</th>
<th>Version</th>
<th>Component</th>
<th>Section</th>
<th>Priority</th>
<th>Sets</th>
<th>Pocket</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>vim (source)</td>
<td>2.8.2.3995-1ubuntu2.13</td>
<td>main</td>
<td>editors</td>
<td>medium</td>
<td>core i386-wl</td>
<td>Proposed</td>
<td>2023-10-20</td>
</tr>
<tr>
<td>lintian (source)</td>
<td>2.114.0ubuntu1.3</td>
<td>main</td>
<td>devel</td>
<td>medium</td>
<td>core</td>
<td>Proposed</td>
<td>2023-10-20</td>
</tr>
<tr>
<td>virtualbox-hwe (source)</td>
<td>6.1.48-dfsg-1-ubuntu1.22.04.1</td>
<td>multiverse</td>
<td>misc</td>
<td>medium</td>
<td>kernel-dkms</td>
<td>Proposed</td>
<td>2023-10-20</td>
</tr>
<tr>
<td>virtualbox-guest-additions-iso (source)</td>
<td>6.1.48-1-ubuntu1.22.04.1</td>
<td>multiverse</td>
<td>misc</td>
<td>medium</td>
<td></td>
<td>Proposed</td>
<td>2023-10-20</td>
</tr>
<tr>
<td>virtualbox-ext-pack (source)</td>
<td>6.1.48-1-ubuntu1.22.04.1</td>
<td>multiverse</td>
<td>misc</td>
<td>medium</td>
<td></td>
<td>Proposed</td>
<td>2023-10-20</td>
</tr>
</tbody>
</table>
Stages of an SRU

Review by SRU team
Stages of an SRU

Accept into proposed (or reject, or ask questions)

Hello Bryce, or anyone else affected,

Accepted bind-ldbm-ldap into jammy-proposed. The package will build now and be available at https://launchpad.net/ubuntu/+source/bind-ldbm-ldap/3.14.9-Subvert0.22.04.4 in a few hours, and then in the -proposed repository.

Please help us by testing this new package. See https://wiki.ubuntu.com/Testing/EnableProposed for documentation on how to enable and use -proposed. Your feedback will aid us getting this update out to other Ubuntu users.

If this package fixes the bug for you, please add a comment to this bug, mentioning the version of the package you tested, what testing has been performed on the package and change the tag from verification-needed-jammy to verification-done-jammy. If it does not fix the bug for you, please add a comment stating that, and change the tag to verification-failed-jammy. In either case, without details of your testing we will not be able to proceed.

Further information regarding the verification process can be found at https://wiki.ubuntu.com/QATeam/PerformingSRUVerification. Thank you in advance for helping!

N.B. The updated package will be released to -updates after the bug(s) fixed by this package have been verified and the package has been in -proposed for a minimum of 7 days.
Stages of an SRU

Verification

Always according to the agreed test plan!
Stages of an SRU

Release (and almost done)
## Stages of an SRU

### Phased updates


### focal

<table>
<thead>
<tr>
<th>Package</th>
<th>Version (signer, creator)</th>
<th>Update Percentage</th>
<th>Rate Increase</th>
<th>Errors</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>gnome-software</td>
<td>3.36.1-0ubuntu0.20.04.1 (superml, ycheng-twn)</td>
<td>0% of users (was 90%)</td>
<td></td>
<td>dcbb236 2210ee 53f200 ab5486 4f3282</td>
<td>362</td>
</tr>
</tbody>
</table>

### jammy

<table>
<thead>
<tr>
<th>Package</th>
<th>Version (signer, creator)</th>
<th>Update Percentage</th>
<th>Rate Increase</th>
<th>Errors</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>gjs</td>
<td>1.72.4-0ubuntu0.22.04.1 (vorlon, 3v1n0)</td>
<td>0% of users (was 10%)</td>
<td>+3577</td>
<td>6bdc17 9c26e9 5e24ef 5af4de ad86af b9cf68 76fcf4 e7176b d05869 306c66 98b11b 93a1f1 88c026 c01b19 86f570 2e1e7e 4d31eb c5bd86 82f0e9 5b4884 0af062 35d5f8 f861bd c6b83d 883378 c031bc 85a597 b671c5 447b7e 801e71</td>
<td>72</td>
</tr>
</tbody>
</table>
Stable Release Update

Common issues
Common issues

Weak SRU information

[ Impact ]

When run with option -x, <random-app-I-made-up-for-this> fails to clear screen before running.

[ Test Plan ]

Make sure it works.

[ Where problems could occur ]

Nothing expected, the change is upstream and simple.
Common issues

Bad upload

- Missing bug number
- Private bug instead of public
- Bad version
- d/changelog not matching actual changes
- .changes file does not include previous upload

- Missing upload for an affected release
Common issues

Weak or incomplete verification

Did not follow agreed-upon test plan

Vague: "it works now"

Verified Ubuntu release X, flipped tags for all releases

Verified just one Ubuntu release, not the others

Tested with a PPA package

Which version of the package was used
## Common issues

Many flagged in the report

<table>
<thead>
<tr>
<th>Package</th>
<th>-release</th>
<th>-updates</th>
<th>-proposed (signer, creator)</th>
<th>changelog bugs</th>
<th>days</th>
</tr>
</thead>
<tbody>
<tr>
<td>virtualbox-ext-pack</td>
<td>7.0.6-1</td>
<td>7.0.8-1 (None, team=debian-virtualbox)</td>
<td></td>
<td></td>
<td>185</td>
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<tr>
<td>msmtp</td>
<td>1.8.23-1</td>
<td>1.8.23-1ubuntu0.1 (schopin)</td>
<td></td>
<td></td>
<td>173</td>
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<tr>
<td>pipewire</td>
<td>0.3.65-3</td>
<td>0.3.65-3ubuntu1 (seb128)</td>
<td></td>
<td></td>
<td>163</td>
</tr>
<tr>
<td>lttng-modules</td>
<td>2.13.8-1</td>
<td>2.13.8-1ubuntu1 (xnox, roxanaj)</td>
<td></td>
<td></td>
<td>163</td>
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<tr>
<td>python-tz</td>
<td>2022.7.1-3</td>
<td>2022.7.1-3ubuntu0.1 (bdurung)</td>
<td></td>
<td></td>
<td>163</td>
</tr>
<tr>
<td>accel-config</td>
<td>3.5.2-1</td>
<td>4.0.2-ubuntu0.23.04 (xnox)</td>
<td></td>
<td></td>
<td>141</td>
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<tr>
<td>libcups3-filters</td>
<td>2.0-rc1-0ubuntu1</td>
<td>2.0-rc1-0ubuntu1.1 (doko)</td>
<td></td>
<td></td>
<td>115</td>
</tr>
<tr>
<td>v4l2loopback</td>
<td>0.12.7-2ubuntu3</td>
<td>0.12.7-2ubuntu3.1 (bdurung, vicamo-yano)</td>
<td></td>
<td></td>
<td>107</td>
</tr>
<tr>
<td>util-linux</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Regression in autotest for autplan.io (arm64): test log</td>
<td></td>
<td>99</td>
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<td></td>
<td></td>
<td></td>
<td>Regression in autotest for systemd (arm64): test log</td>
<td></td>
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<td></td>
<td>2.38.1-4ubuntu1</td>
<td></td>
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<td></td>
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<td></td>
<td>Regression in autotest for systemd (ppc64le): test log</td>
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<tr>
<td></td>
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<td></td>
<td>2.38.1-4ubuntu1.1 (mko, hypothetical-lemon)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Regression in autotest for systemd (x86_64): test log</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2.38.1-4ubuntu1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Common issues

Not fully verified
Common issues

Missing bug updates

Chris Halse Rogers (raof) wrote on 2023-08-09:

Is someone going to do a Lunar upload for this? I don't see how you can have done a Lunar verification, as there isn't a package in lunar-proposed to test!

Andreas Hasenack (ahassenack) wrote on 2023-08-17:

Still no lunar upload. This is blocking the release to jammy.

Launchpad Janitor (janitor) wrote on 2023-08-26:

Status changed to 'Confirmed' because the bug affects multiple users.

Changed in rtl8812au (Ubuntu Lunar):
status: New → Confirmed

Andreas Hasenack (ahassenack) wrote on 2023-09-21:

Still no lunar upload. This is blocking the release to jammy.
Stable Release Update

Tips
Tips for a great SRU

Bug count

<table>
<thead>
<tr>
<th>1788013</th>
<th>1853306</th>
<th>1977877</th>
<th>2003374</th>
<th>2008745</th>
<th>2015400</th>
<th>2016398</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018566(oem)</td>
<td>2018591</td>
<td>2019040</td>
<td>2020295(oem)</td>
<td>2020319</td>
<td>2020387</td>
<td></td>
</tr>
<tr>
<td>2020391</td>
<td>2020393</td>
<td>2022098</td>
<td>2023224</td>
<td>2023225</td>
<td>2023230</td>
<td>2023233</td>
</tr>
<tr>
<td>2023311</td>
<td>2023320</td>
<td>2023328</td>
<td>2023539(oem)</td>
<td>2023650(oem)</td>
<td>2024265</td>
<td></td>
</tr>
<tr>
<td>2024479</td>
<td>2024900</td>
<td>2025090</td>
<td>2025095</td>
<td>2026028</td>
<td>2026531</td>
<td>2026607</td>
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<tr>
<td>2028408</td>
<td>2028505</td>
<td>2028552</td>
<td>2028701</td>
<td>2028799</td>
<td>2029138</td>
<td>2029401</td>
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<tr>
<td>2030422</td>
<td>2031093</td>
<td>2031182</td>
<td>2032972</td>
<td>2034202</td>
<td>2036370</td>
<td>2036376</td>
</tr>
</tbody>
</table>
Use DEP3 headers in patches

https://dep-team.pages.debian.net/deps/dep3/

Origin: upstream, https://github.com/SSSD/sssd/commit/85c60e525e8e7d4c7f
Bug: https://github.com/SSSD/sssd/issues/6347
Bug-Ubuntu: https://bugs.launchpad.net/ubuntu/+source/sssd/+bug/1989356
Bug-Debian: https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1001377
Document all changes in the changelog

Document what was changed, and all that was changed
Tips for a great SRU

Proper impact and regression assessment
Tips for a great SRU

Have a great test plan

[ Test Plan ]

* detailed instructions how to reproduce the bug

* these should allow someone who is not familiar with the affected package to reproduce the bug and verify that the updated package fixes the problem.

* if other testing is appropriate to perform before landing this update, this should also be described here.
Tips for a great SRU

Unambiguous verification
Tips for a great SRU

Don't forget other Ubuntu releases

20.04 → 22.04 → 23.04 → 23.10 → devel

?? → ??
Tips for a great SRU

SRU Exceptions don't mean a blank-check unlimited credit card
Tips for a great SRU

Great SRUs here!

All the information you need and more!
Stable Release Update

Closing remarks