## Tails - Feature #15281

### Stack one single SquashFS diff when upgrading

02/05/2018 03:45 PM - anonym

<table>
<thead>
<tr>
<th>Status:</th>
<th>Resolved</th>
<th>Start date:</th>
<th>04/13/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>High</td>
<td>Due date:</td>
<td></td>
</tr>
<tr>
<td>Assignee:</td>
<td>segfault</td>
<td>% Done:</td>
<td>100%</td>
</tr>
<tr>
<td>Category:</td>
<td>Installation</td>
<td>Estimated time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Target version:</td>
<td>Tails_4.2</td>
<td>Spent time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Type of work:</td>
<td>Code</td>
<td>Affected tool:</td>
<td>Upgrader</td>
</tr>
<tr>
<td>Blueprint:</td>
<td><a href="https://tails.boum.org/blueprint/Endless_upgrades/#single-squashfs-diff">https://tails.boum.org/blueprint/Endless_upgrades/#single-squashfs-diff</a></td>
<td></td>
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</tr>
</tbody>
</table>

### Description

That is, address a number of UX problems in our upgrade process with a hopefully cheap and temporary solution.

### Subtasks:

- **Feature # 15279:** Refresh Tails signing key before each upgrade check - Resolved
- **Feature # 15282:** Add a prompt right before applying an IUK - Resolved
- **Feature # 15283:** Implement the "one single SquashFS diff" scheme in Tails Upgrader - Resolved
  - **Feature # 6876:** Have the incremental upgrade process use less RAM - Resolved
  - **Feature # 17152:** Port tails-iuk to a more lightweight set of dependencies - Resolved
- **Feature # 15284:** Adapt release process for the "one single SquashFS diff" upgrade scheme - Resolved
- **Feature # 15285:** Adapt incremental upgrade manual test for the "one single SquashFS diff... - Resolved
- **Feature # 15286:** Adapt automated test suite for the "one single SquashFS diff" upgrade ... - Resolved
- **Feature # 15290:** Reduce IUK size - Resolved
- **Bug # 15407:** Prevent system user uid:s and gid:s from changing between releases - Resolved

### Related issues:

- Related to Tails - Feature #11131: Endless automatic upgrades
- Related to Tails - Feature #15291: Remove less popular packages that users co... - Resolved 04/17/2018
- Related to Tails - Feature #15277: Update our survey of non-NIH system upgrad... - Confirmed 02/03/2018
- Related to Tails - Feature #11679: Rethink the installation process and upgra... - Resolved 08/20/2016
- Related to Tails - Feature #7499: Extend the upgrader to allow full (self) up... - Confirmed 07/06/2014
- Related to Tails - Feature #15287: Make it possible to reproducibly generate ... - Resolved 02/05/2018
- Related to Tails - Feature #15288: Document tricks for power users vs. bigger... - Confirmed 02/05/2018
- Related to Tails - Bug #17398: Follow-up to "Stack one single SquashFS diff w... - Resolved
- Blocks Tails - Feature #16209: Core work: Foundations Team

### Associated revisions

**Revision 7ddb1dae - 02/07/2018 09:47 PM - anonym**

Patch tails-iuk and tails-perl5lib adding the "one single SquashFS diff" feature.

It imports the changes in the feature/15281-single-squashfs-diff branch in the tails-iuk and tails-perl5lib repos.

Refs: #15281
Revision 690c9ebc - 02/16/2018 10:00 AM - anonym
Import new snapshot of tails-iuk for #15281.
Now it imports the 'feature/15281-single-squashfs-diff' branch to commit bc36507314773db64a84f0b424e85a77ef18, meaning that old SquashFS diff files now should be cleaned up.
Refs: #15281

Revision a3537f89 - 02/23/2018 12:47 PM - anonym
Import new snapshot of tails-iuk for #15281 and #15282.
For #15281 we should now not remove kernel+initrd from ./live, and the prompt for #15282 has been added.
Refs: #15281, #15282

Revision ef629160 - 11/24/2019 04:29 PM - intrigeri
Endless upgrades: draft deployment plan (refs: #15281)

Revision 70b434d4 - 12/22/2019 09:33 PM - intrigeri
WIP: adjust to perl5lib being imported into tails.git (refs: #7036)
This also updates the iuk.git snapshot (refs: #15281) with patches come from iuk.git:feature/15281-single-squashfs-diff at commit 38ee60cc71761a5b6024e81a52e1c36be051c1ec.

Revision 415ef146 - 12/22/2019 09:37 PM - intrigeri
Adjust to perl5lib being imported into tails.git (refs: #7036)
This also updates the iuk.git snapshot (refs: #15281) with patches come from iuk.git:feature/15281-single-squashfs-diff at commit 38ee60cc71761a5b6024e81a52e1c36be051c1ec.

Revision e5e98537 - 01/05/2020 04:02 PM - segfault
Merge branch 'feature/15281-single-squashfs-diff' into stable (Closes: #15281, #15279, #15283, #15286)

History
#1 - 02/05/2018 03:46 PM - anonym
- Related to Feature #11131: Endless automatic upgrades added

#2 - 02/05/2018 03:47 PM - anonym
- Related to Feature #8415: Migrate from aufs to overlayfs added
We might be able to pull this off in time for Tails 3.6. Let's see!

- Blocked by Feature #15282: Add a prompt right before applying an IUK added

- Blocks Feature #15288: Document tricks for power users vs. bigger downloads for automatic upgrade added

- Related to Feature #15290: Reduce IUK size added

- Related to Feature #15291: Remove less popular packages that users could install themselves added

- Feature Branch changed from https://tails.boum.org/blueprint/Endless_upgrades/ to feature/15281-1bigiuk
  - Blueprint set to https://tails.boum.org/blueprint/Endless_upgrades/

- Related to Feature #6876: Have the incremental upgrade process use less RAM added

- Related to Feature #15277: Update our survey of non-NIH system upgrade solutions added

- Related to deleted (Feature #8415: Migrate from aufs to overlayfs)

- Blocks Feature #8415: Migrate from aufs to overlayfs added

- Feature Branch changed from feature/15281-1bigiuk to feature/11131-endless-upgrade, iuk:feature/11131-endless-upgrade, perl5lib:feature/11131-endless-upgrade

- Blocked by deleted (Feature #15282: Add a prompt right before applying an IUK)

- Related to Feature #11679: Rethink the installation process and upgrade process added

- Description updated
- Subject changed from Switch to the 1BigIUK upgrade scheme to Stack one single SquashFS diff when upgrading


- Description updated


- Status changed from Confirmed to In Progress


Some of the design doc changes on feature/11131-endless-upgrade were relevant but are not on the new branch.

- Target version changed from Tails_3.6 to Tails_3.7

- Target version changed from Tails_3.7 to Tails_3.8

- Blocks Feature #15139: Core work 2018Q2: Foundations Team added

- Target version changed from Tails_3.8 to Tails_3.10.1

- Blocks deleted (Feature #15139: Core work 2018Q2: Foundations Team)

- Blocks Feature #15334: Core work 2018Q3: Foundations Team added

- Target version changed from Tails_3.10.1 to Tails_3.11

- Blocks deleted (Feature #15334: Core work 2018Q3: Foundations Team)

- Blocks Feature #15506: Core work 2018Q4: Foundations Team added
segfault, I've taken over most subtasks. I expect some of them can be reassigned to you (depending on how much of #8415 you take) but I have to take a look at the current status first.

#35 - 10/11/2018 09:14 AM - intrigeri
- Related to deleted (Feature #6876: Have the incremental upgrade process use less RAM)

#36 - 11/05/2018 02:45 PM - intrigeri
- Target version changed from Tails_3.11 to Tails_3.12

#37 - 11/06/2018 03:04 PM - intrigeri
- Target version changed from Tails_3.12 to Tails_3.13

#38 - 12/02/2018 09:55 PM - intrigeri
- Blocks Feature #15507: Core work 2019Q1: Foundations Team added

#39 - 12/02/2018 09:55 PM - intrigeri
- Blocks deleted (Feature #15506: Core work 2018Q4: Foundations Team)

#40 - 01/25/2019 04:32 PM - intrigeri
- Target version changed from Tails_3.13 to 2019

#41 - 02/06/2019 02:08 PM - intrigeri
- Blocks Feature #16209: Core work: Foundations Team added

#42 - 02/06/2019 02:08 PM - intrigeri
- Blocks deleted (Feature #15507: Core work 2019Q1: Foundations Team)

#43 - 04/05/2019 04:07 PM - intrigeri
- Assignee deleted (intrigeri)

#44 - 08/31/2019 04:11 PM - intrigeri
- Description updated

#45 - 11/24/2019 08:48 AM - intrigeri
- Blocks deleted (Feature #8415: Migrate from aufs to overlayfs)

#47 - 11/24/2019 11:39 AM - intrigeri
intrigeri wrote:

Some of the design doc changes on feature/11131-endless-upgrade were relevant but are not on the new branch.

I've salvaged these changes except those that are about the IUK format v2, which I'll salvage later as part of #6876.
I could definitely use some help on the non-Perl subtasks, but since most of the work is on my plate, I want to have the parent ticket clearly on my radar.

Most of this has to be completed in January 2020, as per contract.

Hi @segfault! As a heads up:

- I'm done with the bulk of the work here (see subtasks).
- The corresponding automated tests pass locally already.
- I'm only waiting for Jenkins results before sending onto your plate for review.
- You can now start your review whenever you have time for it. The deadline for merging in Jan 5.
- I'll try to implement the testing strategy that anonym & I came up with on #15283, if time allows.

(I've moved out of this ticket the subtasks that don't necessarily have to be done in time for 4.2, so it's easier to track here what the blockers are for 4.2 and merging.)

Applied in changeset tails/e5e98537e7415b7c6a2c5e7ab1beb4f656333814.
Note that I did not review:

- The commits by anonym from February 2018, because I assumed that intrigeri already reviewed those.
- The code in config/chroot_local-includes/usr/src that was imported from iuk.git and perl5lib.git.

I will create a follow-up ticket for the few remarks I have.

- Related to Bug #17398: Follow-up to “Stack one single SquashFS diff when upgrading” added