Tails - Bug #11820

Synaptic displays and installs 64-bit packages by default

09/21/2016 08:18 AM - jzakiya

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<td>Tails_2.7</td>
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<td>bugfix/11820-synaptic-vs-multiarch</td>
<td>Spent time:</td>
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Description

I am able to install Tail 2.6 on my laptop (new System76 Gazelle, i7, 16GB) from USB, and then install apps from synaptic, and run them, such as htop.

I also have installed Tail 2.6 on the same laptop in VirtualBox 5.1.6 (latest) but installed apps will not run. (I have never encountered this problem before.)

Example:

I installed htop from synaptic and get the following error in the terminal.

```
amnesia@amnesia:~$ htop
bash: /usr/bin/htop: cannot execute binary file: Exec format error
```

In get a similar problem when I installed and ran Ruby.

Associated revisions

Revision b2faa4ff - 09/25/2016 06:44 PM - intrigeri

Disable the amd64 foreign architecture once we're doing doing stuff with amd64 packages.

Rationale: Synaptic does not handle well the multiarch use case, at least in Jessie.

Note that we previously had APT::Architectures configured in two different places. Now we only enable the amd64 architecture only when needed, for most of the config/chroot_local-hooks duration, and in one single place, to make it possible to disable it afterwards (one can't use a chroot_local-hook to delete /etc/apt/apt.conf, since live-build would copy it back in place from config/chroot_apt/apt.conf during a later stage of the build).

Also, we have to explicitly set APT::Architectures to include only i386: otherwise, apparently APT relies on dpkg's list of architectures, that includes amd64 since we cannot do "dpkg --remove-architecture amd64" as we have amd64 packages installed, that we don't want to remove.

refs: #11820
So, you say this didn't happened with Tails 2.5?

Can you try:

Install the packages with `sudo apt install <package>` and see if the problem persists.

Run synaptic from the command line and tell us if there are any errors in the console.

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Like I said, this is the first time I've not been able to install apps via synaptic. I rechecked installing apps in 2.5, and it continues to work there.

In 2.6, I tried `sudo apt install htop` and it failed to take my password. I then did a `sudo -s` and got a root prompt with my password, and tried again, and it failed again.

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I reproduced the bug.

Synaptic is installing an amd64 version of e.g. htop, even if a 32-bit VM is being used. Installation of htop via `apt install htop` an i386 version, which is working then.

When an amd64 VM is being used in VirtualBox, the correct architecture version of the package is installed and is working then.

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When an amd64 VM is being used in VirtualBox, the correct architecture version of the package is installed and is working then.

Thanks!
So this is a problem with multiarch support in Synaptic. I doubt it affects only VirtualBox, so raising priority. I'll have a look.

#5 - 09/25/2016 04:57 AM - intrigeri
- Subject changed from installing apps from synaptic fails in VirtualBox to Synaptic installs 64-bit packages

#6 - 09/25/2016 05:47 AM - intrigeri
- Subject changed from Synaptic installs 64-bit packages to Synaptic displays and installs 64-bit packages by default
- Status changed from Confirmed to In Progress
- % Done changed from 0 to 10

In a libvirt/qemu VM, be it with a 64-bit CPU + 64-bit kernel, or with a 32-bit CPU + 32-bit kernel: Synaptic reloads package lists just fine (including both i386 and amd64 ones), but displays and installs only amd64 packages. I think it's a bug in Synaptic, that I've reported upstream. But it would be nice to fix this in Tails 2.7, so we need some solution that does not rely on waiting for a fix being available in Debian stable.

To display i386 packages, one can to click the "Architecture" button, and then both i386 and amd64 packages are shown. One can pre-select this view using the ViewMode "5" option in /root/.synaptic/synaptic.conf. But still, even if we did that, chances are that users are confused and install the wrong (amd64) package too often.

The best short-term fix might be to disable the amd64 architecture via config/chroot_local-hooks/. I'll try that.

#7 - 09/25/2016 11:18 AM - intrigeri

intrigeri wrote:

The best short-term fix might be to disable the amd64 architecture via config/chroot_local-hooks/. I'll try that.

Sadly, this does not work out-of-the-box: if APT::Architectures is not explicitly configured, apparently APT relies on dpkg's list of architectures, and we cannot do "dpkg --remove-architecture amd64" as we have amd64 packages installed, that we want to keep. So I'll try setting APT::Architectures explicitly to include i386 only.

#8 - 09/25/2016 01:13 PM - intrigeri
- Assignee changed from intrigeri to bertagaz
- % Done changed from 10 to 50
- QA Check changed from Dev Needed to Ready for QA
- Feature Branch set to bugfix/11820-synaptic-vs-multiarch

#9 - 09/30/2016 04:46 AM - bertagaz
- Status changed from In Progress to 11
- Assignee deleted (bertagaz)
- % Done changed from 50 to 100
- QA Check changed from Ready for QA to Pass
Indeed fixes the issue, so it's merged, congrats!

#10 - 11/15/2016 06:23 PM - bertagaz
- Status changed from 11 to Resolved