

Packit: Bridging the Gap Between Fedora and openSUSE

František Lachman (Red Hat)
Dan Čermák (SUSE)

introduction and agenda

comparison of services between openSUSE and Fedora

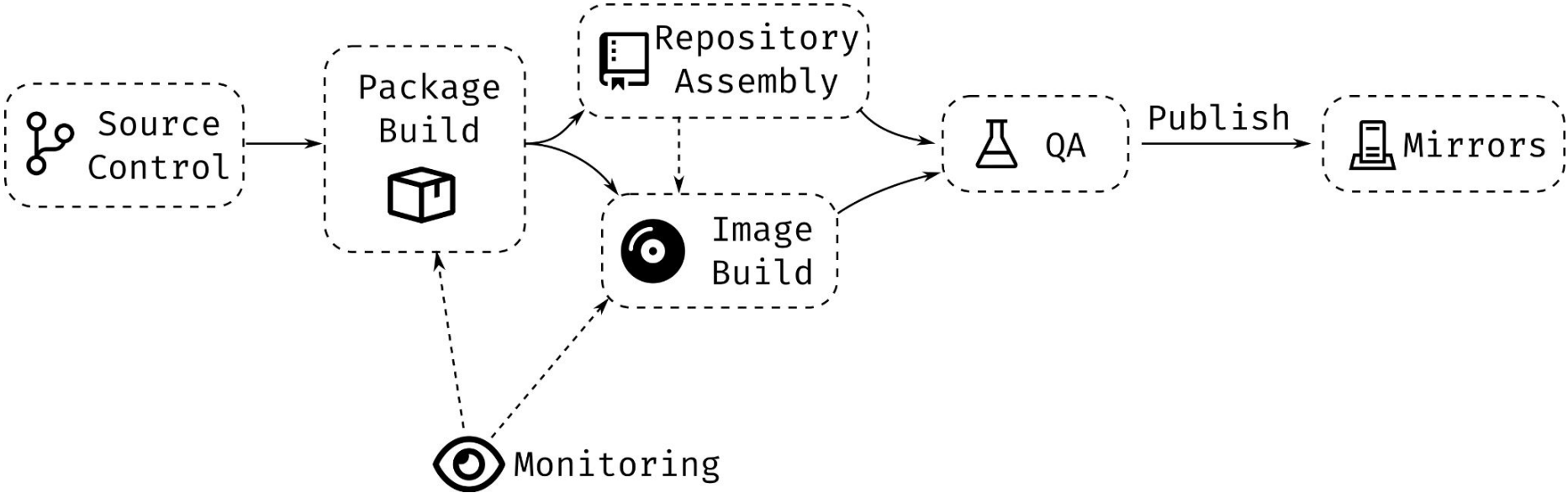
introduction into Packit project

history lesson

the current solution

plans and how you can get involved

Distribution structure



Fedora

Forgejo



Koji

Package Build



Repository Assembly

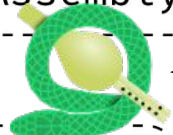


Image Build



openQA



QA

Publish



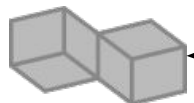
Mirrors



Copr build system



Monitoring



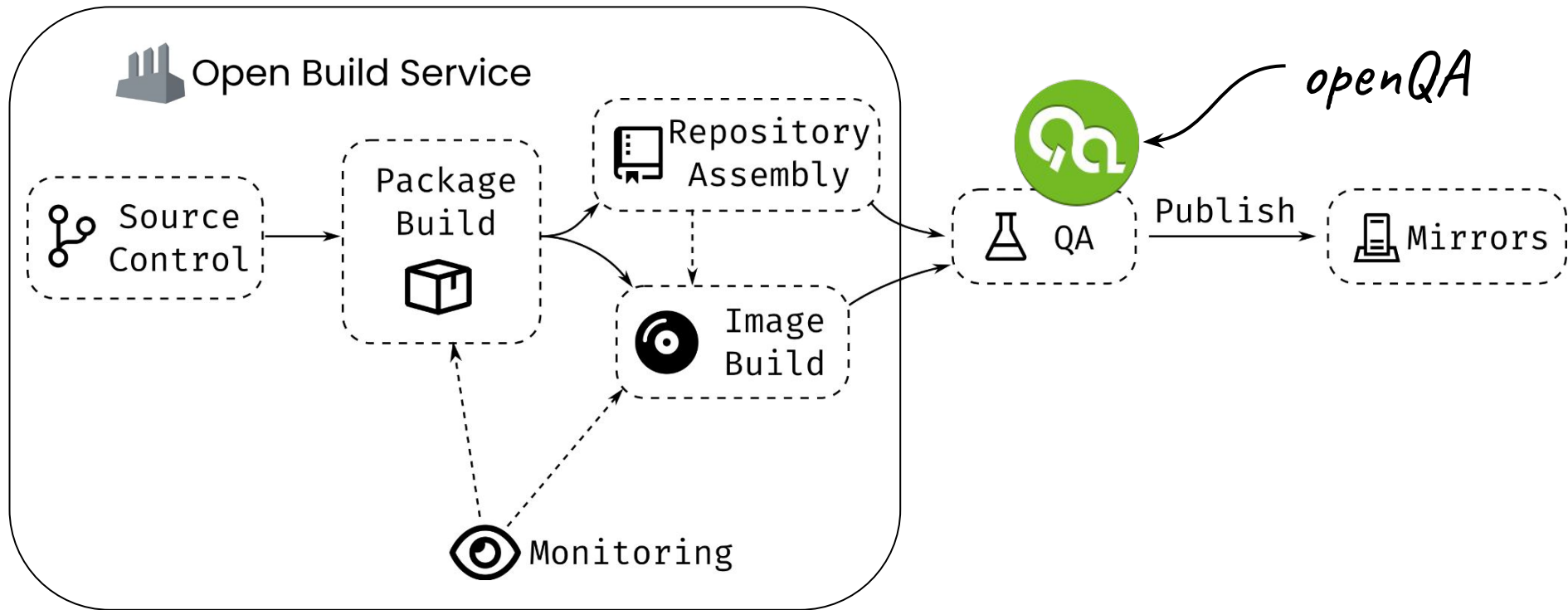
Koschei



Bodhi

Pungi

openSUSE



What to do about all this?



The Monolith versus The Swarm

A comparison of openSUSE's and Fedora's build infrastructure

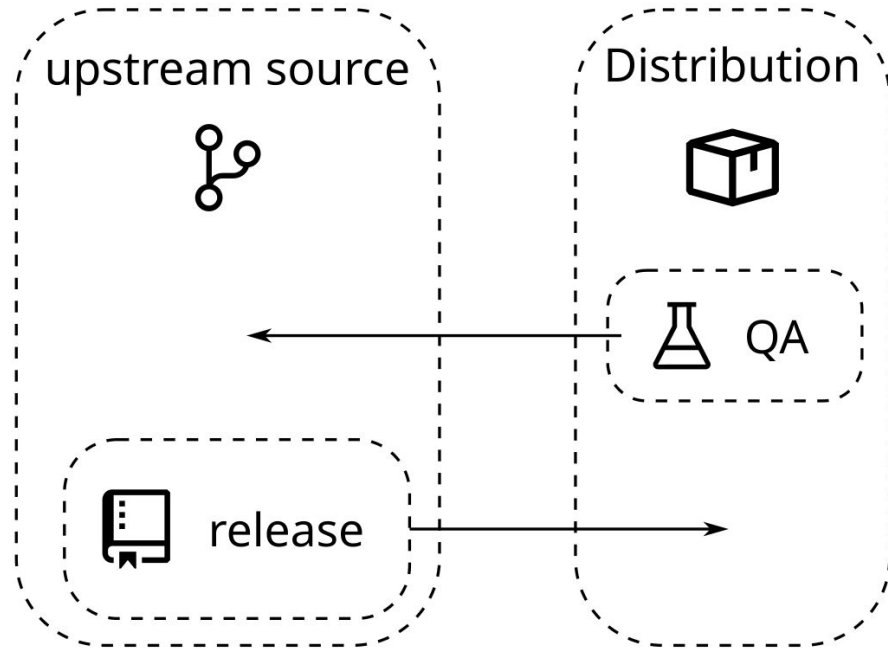
Dan Čermák



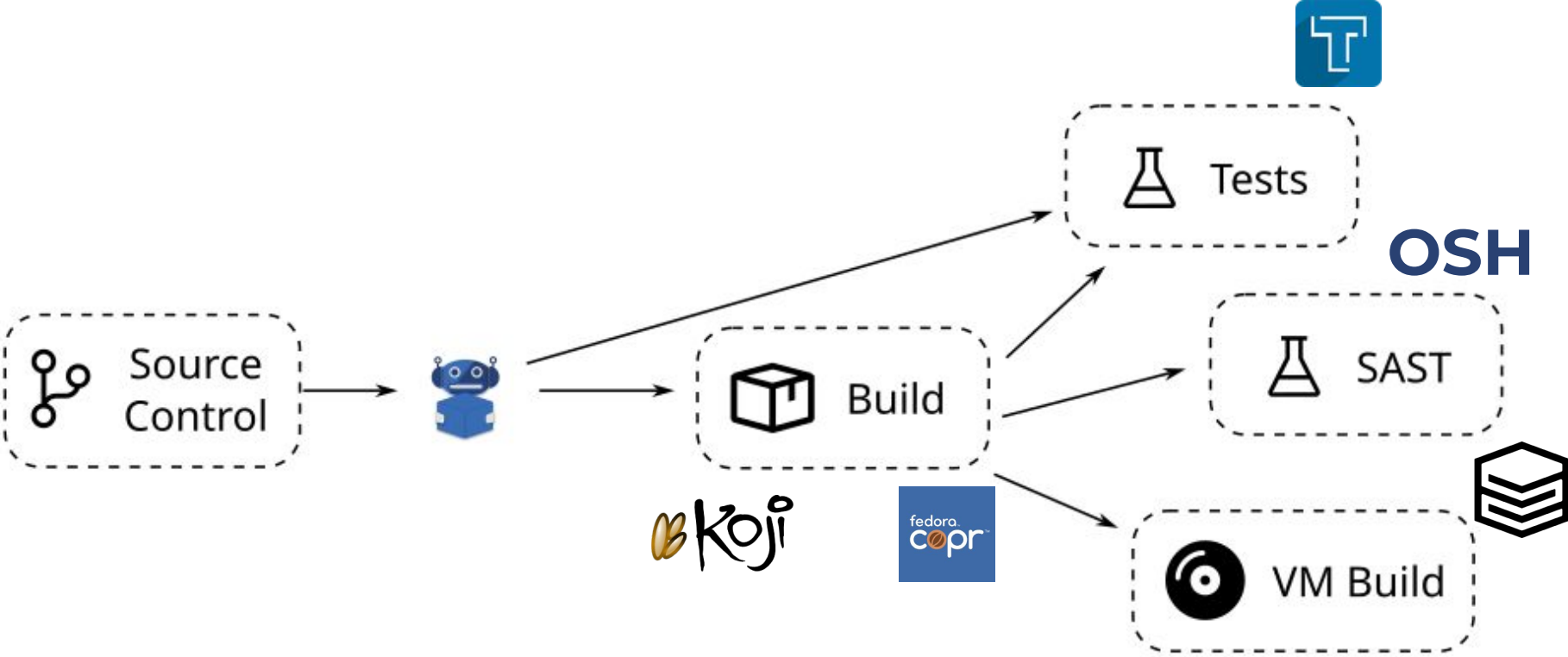
CC BY 4.0 



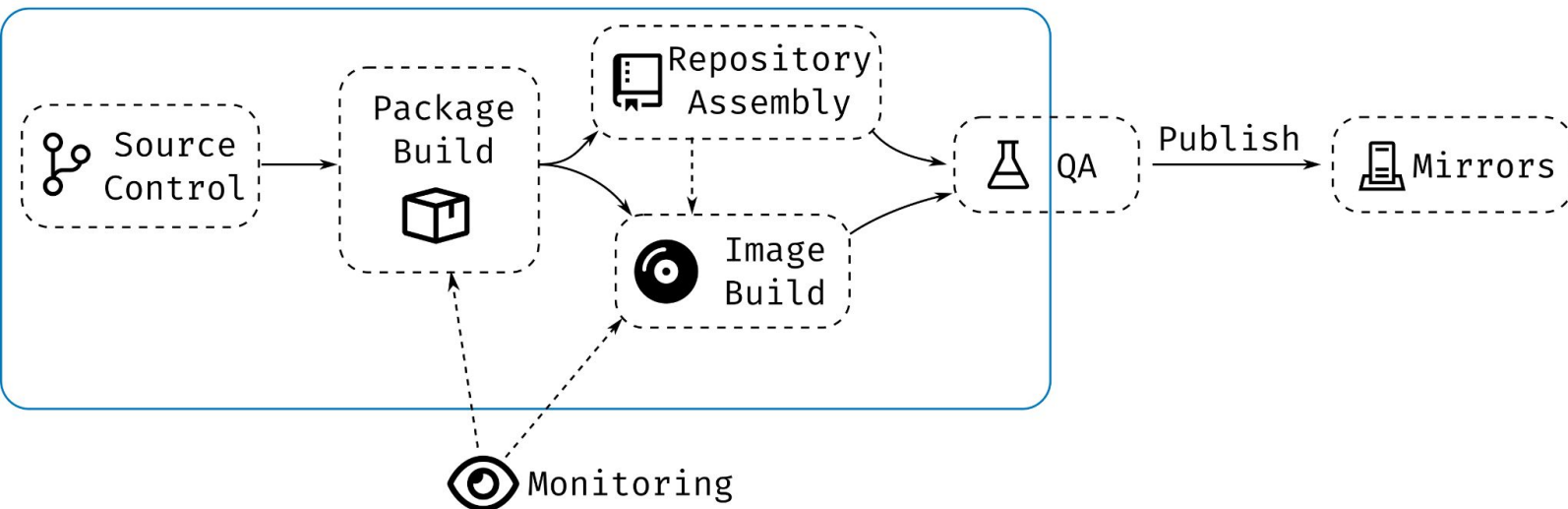
Packit



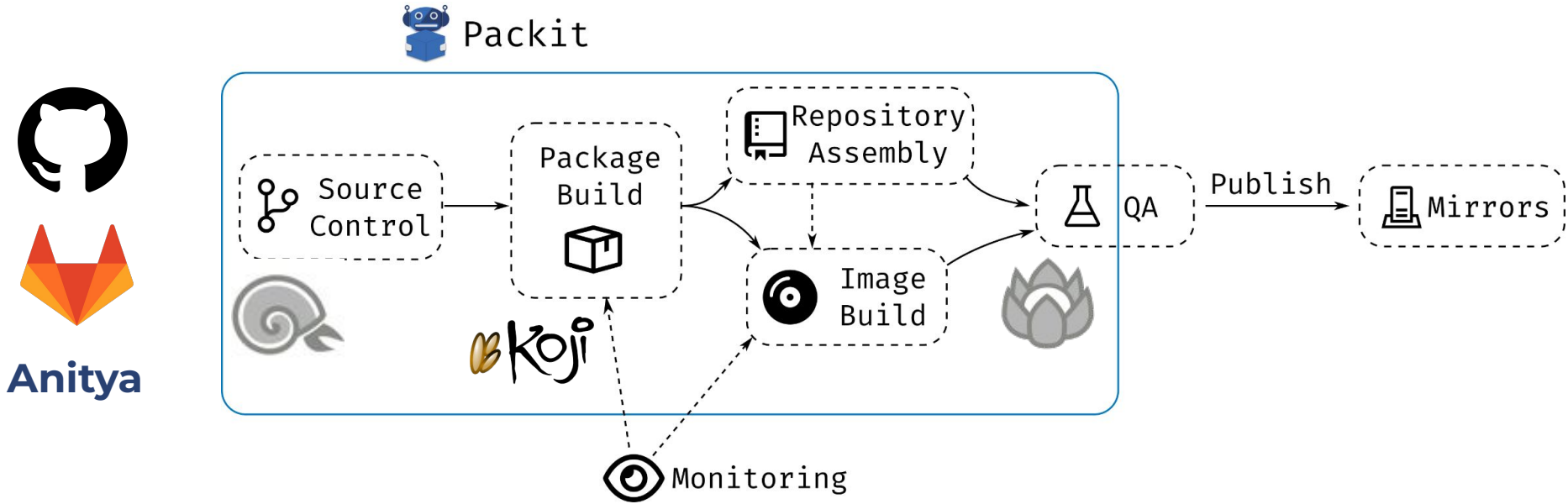
Packit Upstream Workflow



Packit Fedora automation



Packit Fedora automation



But what about
openSUSE?



2024

Differing packaging formats

some of the distributions are monopolists and don't want to make it easy!

Tarballs FTW

Just support the most popular ones ↗

Who says we don't? We use Flatpak

Snap™

Build a standalone static binary

Use OBS, it supports all the distros



11



Challenges

- > OBS has its own version control
- > No global buildroot.
- > Everything is much more configurable & flexible.
- > XML API

So why bother?

-> OBS supports more distros & package formats.

-> OBS can build VMs & containers.

History I

Conversation 80

Commits 6

Checks 27

Files changed 11



dcermak commented on Sep 6, 2023 • edited ▾

Contributor ...

This is a very much WIP support for building rpms in the open build service. I have so far tested it only on packit via `packit build in-obs --targets fedora-rawhide-x86_64,fedora-rawhide-aarch64,opensuse-tumbleweed-x86_64,opensuse-tumbleweed-aarch64` which created this package: <https://build.opensuse.org/package/show/home:dancermak:packit/packit> (it is unresolvable because my obs wrapper is not packaged).

TODO:

- Write new tests or update the old ones to cover new functionality.
- Update doc-strings where appropriate.
- Update or write new documentation in `packit/packit.dev`.
- ⋮ Implement waiting for package builds
- Find the right obs abstraction library (currently it's using my wrapper [py-obs](#) but that one is not packaged anywhere, however osc is rather inconvenient to use as a lib). cc [@dmach](#)
- probably much more

History II



dcermak commented on Sep 8, 2023

Contributor

Author



Please don't spend too much time on reviewing this yet, I will migrate away from using py-obs to osc, but that will change the looks of the code drastically.



dcermak force-pushed the `obs-build-support` branch from `7e1150b` to `db3f509` 2 years ago

[Compare](#)

16 hidden items

[Load more...](#)

History III



Ibarcziowa reviewed on Jan 17, 2024

[View reviewed changes](#)

Ibarcziowa left a comment

Member ...

thanks a lot for working on this!

just a few comments



History IV

Hi Dan, openSUSE is
participating in GSOC
this year, right?..;-)

History V

2024 Program | openSUSE Project

Contributor

rxbryan

Packit support for OBS

Mentors

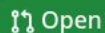
Organization

Dan Čermák

openSUSE Project

History VI

feat: add obs build support #2343



Open

rxbryan wants to merge 1 commit into

[packit:main](#)

from

[rxbryan:packit-rxbryan/obs-build-support](#)



Conversation

135



Commits

1



Checks

24



Files changed

10



rxbryan commented on Jul 2, 2024 • edited by lachmanfrantisek ▾

Contributor

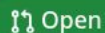


Adds support for building rpms in the open build service. This pr builds off the work done by [@dcermak #2067](#).

I somehow broke the branch I used for the previous pr [#2337](#)

History VII

feat: add obs build support #2343



Open

rxbryan wants to merge 1 commit into [packit:main](#) from [rxbryan:packit-rxbryan/obs-build-support](#)



Conversation 135



Commits 1



Checks 24



Files changed 10



rxbryan commented on Jul 2, 2024 • edited by lachmanfrantisek ▾

Contributor



Adds support for building rpms in the open build service. This pr builds off the work done by [@dcermak #2067](#).

I somehow broke the branch I used for the previous pr [#2337](#)

12 hidden items

[Load more...](#)

History VIII

Hi Dan, there is
FOSDEM CFP open,
right?..;-)

History IX



dcermak force-pushed the `obs-build-support` branch 2 times, most recently from **53f3553** to **e978085**

2 months ago

[Compare](#)

History XI



lachmanfrantisek commented 8 hours ago

Member ...

I am going to merge and release this -- if you have any more questions, feel free to improve this in the form of a separate issue or pull request.

Huge thanks [@dcermak](#) and [@rxbryan](#) 🚀



lachmanfrantisek added the **mergeit** label 8 hours ago



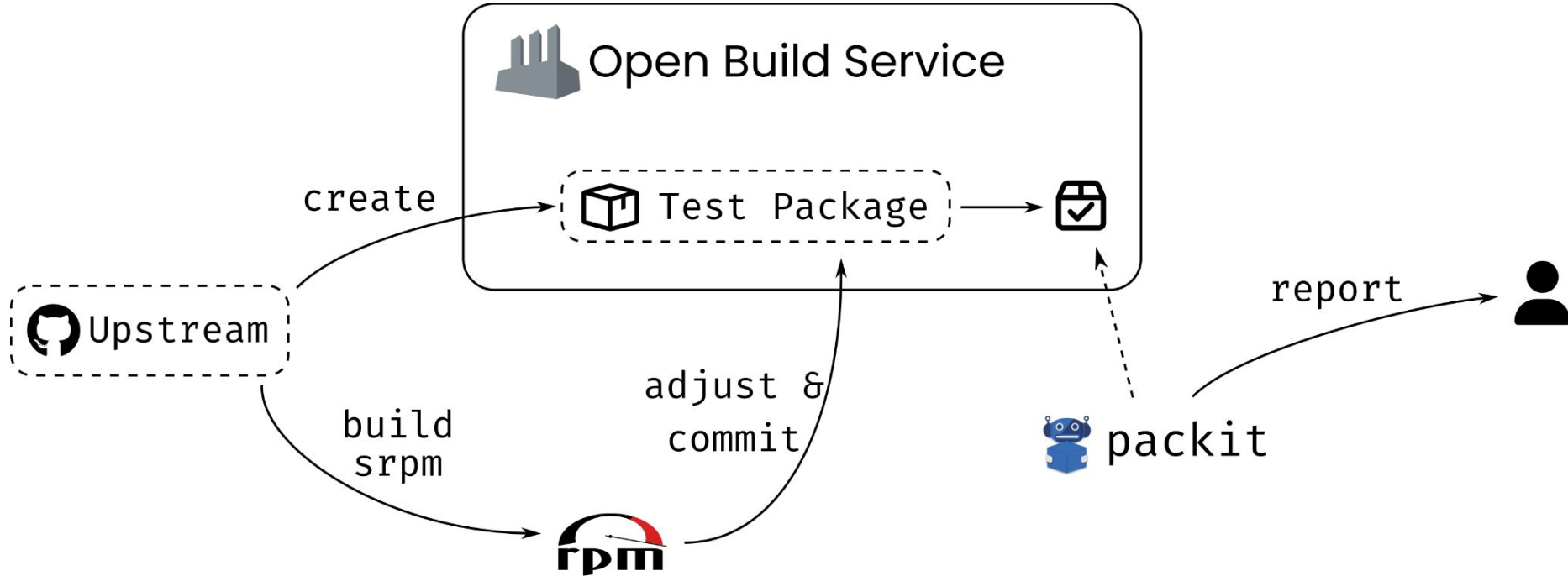
lachmanfrantisek merged commit **9fe3ca7** into [packit:main](#) 8 hours ago
28 of 29 checks passed

[View details](#)

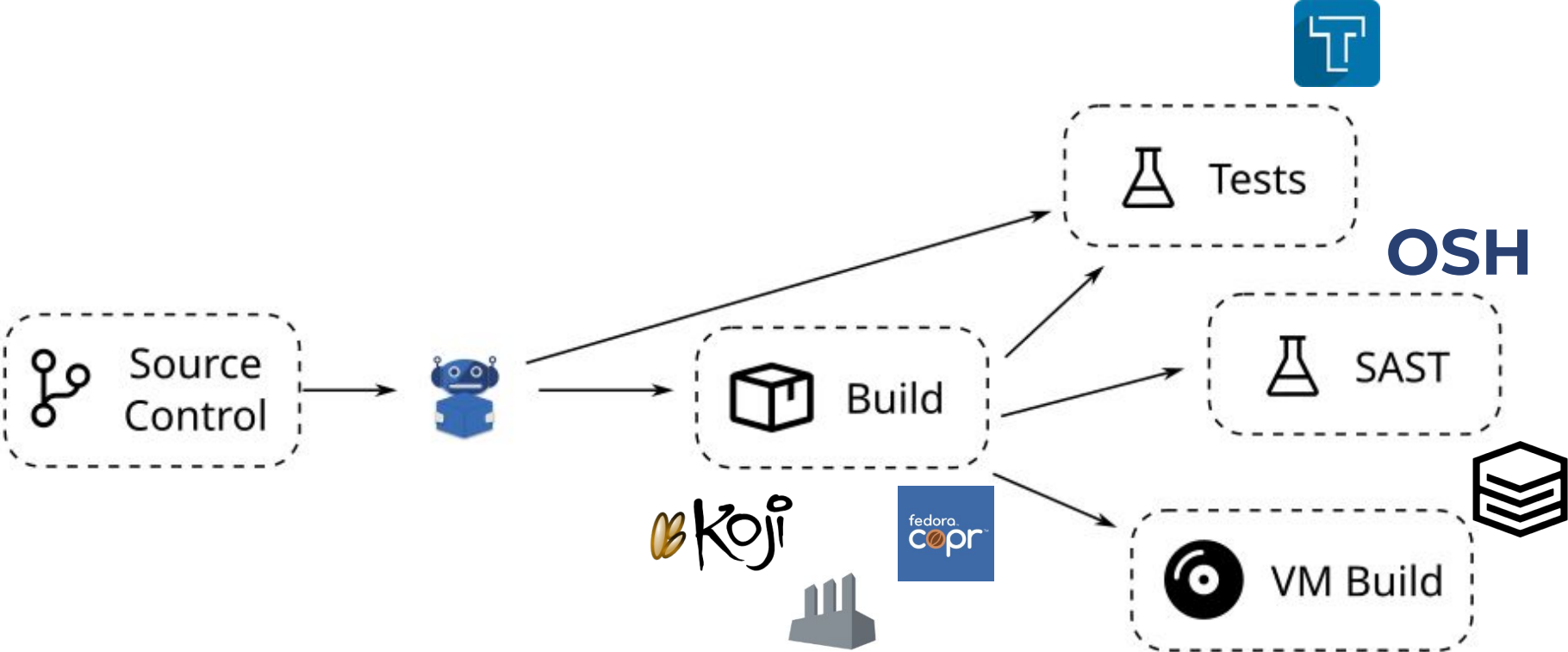
[Revert](#)

But how it works?

Implementation



Packit Upstream Workflow



Let's do demo!

Maybe rather not...

[x] Install latest greatest packit
from packit/packit-releases Copr repository

1.1.0 Latest Compare

usercont-release-bot released this now 1.1.0 b038051

- Thanks to the work of [Bryan Elee](#) (as part of his Google Summer of Code work) and [Dan Čermák](#), there is a new `packit build in-obs` CLI command to trigger a build in [OBS](#). ([#2067](#))

▼ **Assets** 2

Source code (zip)	3 minutes ago
Source code (tar.gz)	3 minutes ago

[x] have a Packit setup
(packit.dev/docs/guide)

[x] have OBS account configured
in `~/.config/osc/oscrc`

Usage: packit build in-obs [OPTIONS] [PATH_OR_URL]



Build selected project in OBS

Before Running this command, your opensuse user account and password needs to be configured in osc configuration file ~/.config/osc/osrc. This can be done by running `osc`.

Options:

- owner TEXT OBS user, owner of the project. (defaults to the username from the osrc)
- project TEXT Project name to build in. It will be created if does not exist. It defaults to home:\$owner:packit:\$pkg
- targets TEXT Comma separated list of chroots to build in. (defaults to 'fedora-rawhide-x86_64')
- description TEXT Description of the project to build in.
- upstream-ref TEXT Git ref of the last upstream commit in the current branch from which packit should generate patches (this option implies the repository is source-git).
- wait / --no-wait Wait for the build to finish
- p, --package TEXT Package to build, if more than one available, like in a monorepo configuration. Use it multiple times to select multiple packages. Defaults to all the packages listed inside the config.
- h, --help Show this message and exit.

What now?

Changelog creation less hacky

Implement submit requests

Automated builds & submissions from Packit Service

Debian/Arch builds?

What does this
mean for me?

I am project developer and care about users.

-> Setup Packit CI for you project.

I want to have RPM repositories for my project.

-> Use copr_build for commits/releases. Try OBS locally and let us know.

I am a Fedora maintainer.

-> Setup Packit automation for your Fedora package.

I am an openSUSE maintainer.

-> Try using Packit OBS functionality locally and let us know so we know it makes sense to continue our work.

I am a maintainer of another distribution.

-> Get in touch.

Open Build Service support #2515

lachmanfrantisek started this conversation in General



lachmanfrantisek 1 minute ago Maintainer

Thanks to the work of [Bryan Elee](#) (as part of his Google Summer of Code work) and [Dan Čermák](#), there is a new `packit build in-obs` CLI command to trigger a build in [OBS](#). ([#2067](#)). Please, try it and let us know what you think.

Are you interested in having this in Packit service?

This discussion is here to track progress and seek for feedback and interest.



feedback, +1, ...

github.com/packit/packit/discussions/2515



Huge thanks to Dan
for finishing this!

František Lachman (Red Hat)
@lachmanfrantisek@mastodonczech.cz

Dan Čermák (SUSE)
@Defolos@mastodon.social

packit.dev
packit:fedora.im
@packit@fosstodon.org

