



Flatcar Container Linux Monthly Community Meeting

13 July 2021

Agenda

Welcome

Spotlight: Release process

Status update: ARM64

NEW: Release planning

Q&A / Discussion



Welcome!
(please say “hi”)

**FLAT
CAR**

Most Flatcar Pro features to go mainline!

Note that sources to these were always public

Features will be merged into regular community images

Features

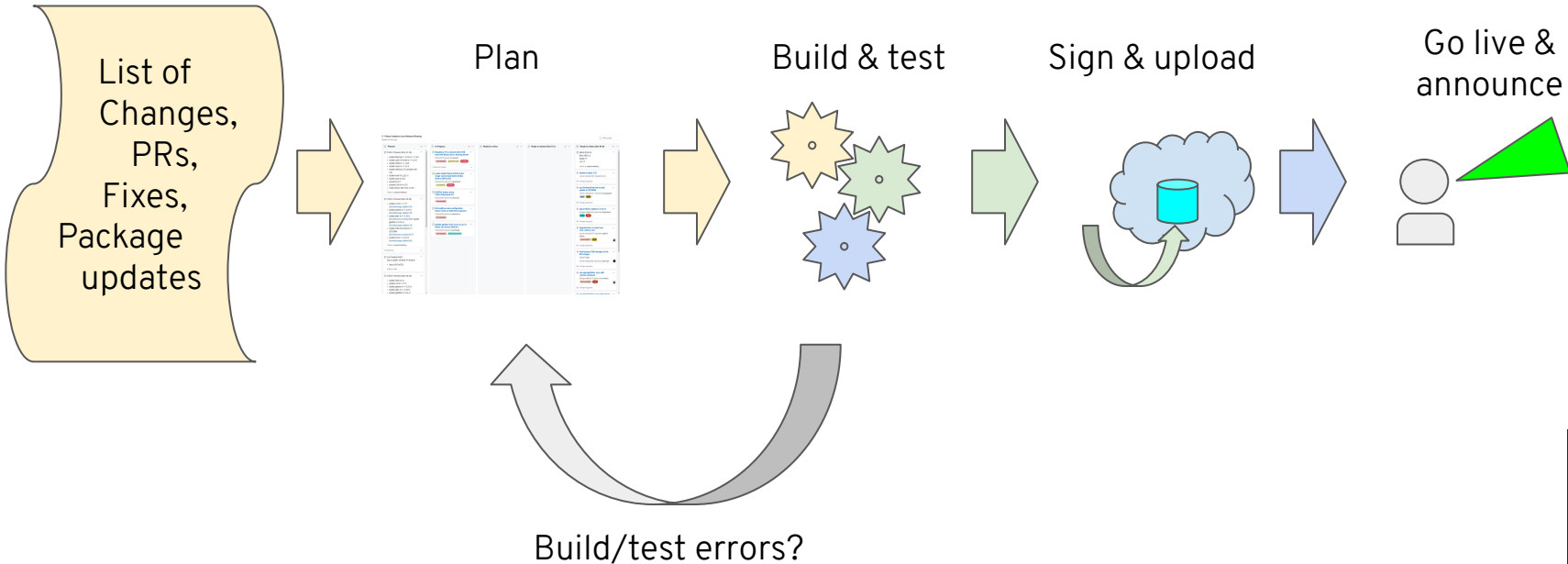
- Enhanced Azure + AWS
- NVIDIA GPU support out of the box



Flatcar Release Process



Release process bird's eye view



Release Planning

- Every 2 weeks
- Review PRs, fixes, updates; decide what to pull in
- Organised on [Release Planning](#) board
- Will be public as of today - your input wanted!
 - Initially part of Community call, plus separate meeting 14 days after community call

Build + Test

- New major Alpha: Full SDK build
 - SDK is built / bootstrapped first. SDK includes all architectures (ARM64 + AMD64)
 - **Toolchains** are built *from the new SDK*. Toolchains are arch specific.
 - **OS image binary packages** are built *from the new toolchain*. Arch specific.
 - **The base OS image** is compiled from binary packages. Arch specific.
 - **The cloud images** are converted from the base OS, Arch + target env specific.
- Beta, Stable or Minor Alpha: based on existing SDK
 - Toolchains and OS image binaries are built with SDK from latest major Alpha
 - ⇒ New SDKs are introduced only by new major Alpha releases (w/ rare exceptions)
- Tests: had a spotlight in the June meeting



Sign, Upload, Announce

- All Images are cryptographically signed
- Update payloads use different key
 - Update payloads are signed in an air-gapped environment
 - Public key is baked into /usr partition
- Images uploaded to HTTP server (w/ CDN)
- Update payloads uploaded + activated in Nebraska
- Announce via
 - release notes (html + RSS + JSON)
 - email lists
 - twitter

Nightly and PR Builds

- Image building and testing can also be done for nightly developer builds or custom PR builds
- Currently manually started on Jenkins
- Code for the jobs is under `flatcar-scripts→jenkins`, the plan is to also set up a PR CI from this (Concourse?) and also document local usage



Status update: ARM64

Failing Tests

- Test Harness Oddities
 - cl.basic, cl.internet, cl.update.payload, coreos.ignition.security.tls, coreos.ignition.resource.local
- SELinux
 - rkt.base, docker.usersns, coreos.selinux.enforce
- seccomp
 - docker.btrfs-storage, docker.base/docker-info
- etcd
 - Google.kubernetes.basic.docker.v1.14.10, coreos.tls.fetch-urls, cl.etcd-member.etcdctlv3, cl.flannel.udp?
- ???
 - cl.flannel.vxlan, cl.flannel.udp, coreos.ignition.resource.s3.versioned



Status and WIP items

- Polkit: replace spidermonkey with duktape
 - Polkit uses javascript to describe policies
 - Newer versions of polkit require recent Spidermonkey which is big (brings in LLVM for the JIT, just a huge mess)
 - Existing third-party patchset adding duktape as a JS interpreter, we're investigating incorporating this.
- Get your hands dirty!
 - Ping me on IRC/Matrix, nick "wrl"



Release Planning

Current Release

July 2nd, 2021

- Alpha
 - Major Release: **2920.0.0**
 - Includes patch level updates to Linux kernel
 - Planned Package upgrades for **lz4, curl, gptfdisk, gettext** and **intel-microcode**.
 - Few hiccups with glibc, iptables update.
- Beta
 - Minor Release: **2905.1.0**
 - Includes patch level updates to Linux kernel
 - NVIDIA GPU Support added in the AWS Pro images



⇒ Planning Board



Jump aboard!

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Calls to Action

Spread the word

Become a contributor (github.com/kinvolk/Flatcar)

Join the community ([IRC/Matrix, email list](#))

Join us for the next community call

Share your feedback - how can we better support and grow the community? What should we cover in future community calls?



Q&A / Discussion

Thank you!

Github: [kinvolk/flatcar](https://github.com/kinvolk/flatcar)

Twitter: [flatcar_linux](https://twitter.com/flatcar_linux)

