Finch: Streamlining Container Development with an Open Source stack

Ziwen Ning - Software Engineer, AWS
Kyle Davis - Senior Developer Advocate, AWS
Container Development

• Most container development targets Linux, while most of development environments are macOS or Windows.

• Virtualization is the popular way to run Linux env in macOS or Windows

• Legacy approach: users directly use virtualization tools to manage the Linux VM by themselves

• E2E solutions: the solution manages virtualization layer for users
What is Finch?

• an E2E open-source solution for container development
• a new command line client for building, running, and publishing Linux containers
Values

- Open source & work in the open
- Wheel creation is rare
- Stick to muscle memory and standards
- Keep it small and focused, but give room to extend
Open Source

github.com/runfinch
Apache 2.0 Licensed
Multiple Disks in Lima

lima-vm/lima#1065

- lima#722
- Adds disk to lima
- Finch OS updates w/o losing data
Customizable early boot

lima-vm/lima#1094

- Adds configurability to Lima through yaml configuration
- Finch deterministic & self-contained
- Related (pending): #1105, #1123
Configurable host gateway

containerd/nerdctl#1978

- Pass in a host gateway or fall back to container gateway
- Adds feature parity with docker
Notation signing & verification

containerd/nerdctl#2035

- Adds notation signing option in addition to cosign
Roadmap

- More platforms
- Extensions

github.com/orgs/runfinch/projects/2
What’s next?

• Talk to us in #finch on the cncf slack
• Check out Finch (runfinch/finch)
• Drop us an issue
• Contribute to nerdctl, containerd, BuildKit, Lima, or Finch
Q&A

Ziwen Ning
ningziwe@amazon.com
Twitter/Github/Linkedin: @ningziwen

Kyle Davis
kyledvs@amazon.com
Github: @stockholmux
Mastodon: @linux_mclinuxface@fosstodon.org