KubeCon | CloudNativeCon

Europe 2018

# SIG-CLI Intro

Mengqi Yu, Software Engineer, Google
Phillip Wittrock, Engineering Manager, Google

# Topics

KubeCon | CloudNativeCon

Europe 2018

- Mission
- Responsibility
- Roles
- Subprojects
- Ongoing efforts
- How to get involved
- How to contribute

# Mission



- Build kubectl CLI and its friends, e.g. kustomize
  - Support API extensions
  - Have no version skew problem
- Provide SDK to build CLI
- Make kubectl isolated form the core repo
  - Codebase
  - Release

# Responsibility



- Developing the roadmap
- Founding new subprojects
- Maintaining subprojects
  - Fixing bug
  - Ensuring test healthiness

# Roles



- Chairs
  - Governing the SIG
- Current chairs
  - Maciej Szulik (@soltysh), Red Hat
  - Phillip Wittrock (@pwittrock), Google
  - Tony Ado (@AdoHe), Alibaba
- SIG Technical Leads
  - Currently are the same as Chairs.

# Roles



- Members
  - Maintainers (approvers)
  - Reviewers

# Subprojects



- Kubectl
- Kustomize (pending)

Subprojects (all SIGs) can be found at
https://github.com/kubernetes/community/blob/master/sigs.yaml

# Ongoing Efforts



- Make kubectl thinner by moving logic to the server
  - Server-side apply
  - Server-side printing
- Develop libraries to handle unstructured objects
- Make kubectl work with extensions and version skew
  - API extensions
    - Use OpenAPI schema instead of static go structs
    - Use subresources
  - CLI extensions (plugins)

# Ongoing Efforts and Future Plan

Want to learn more?

Go to the **SIG CLI Deep Dive** session!

Hosted by Phillip Wittrock - one of the SIG-CLI leads

Time: Friday, May 4, 11:10 - 11:45

# How to get involved

KubeCon | CloudNativeCon Europe 2018

- Join the slack channel #sig-cli
- Join the email discussion group
  - https://groups.google.com/forum/#!forum/kubernetes-sig-cli
- Attend the bi-weekly SIG meeting
  - 6 PM CEST
  - Introduce yourself in the sig meeting

# Before contributing



Before you start:

- Learn how to write go code
- Sign the CNCF CLA
- Understand k8s basics
- Understand different k8s object management models
  - Declarative vs imperative

# Codebase



Familiarize yourself with the codebase:

- k8s.io/kubernetes/cmd/kubectl is the entry point
- k8s.io/kubernetes/pkg/kubectl is the implementation

# GitHub workflow



Familiarize yourself with the k8s GitHub workflow:

1. Fork the repo
2. Make changes
3. Send PR
4. Reviewed by the SIG reviewers
5. Approved by the SIG maintainers
6. Ensure the pre-submit is passing
7. Merge into upstream

# How to contribute



Issues in kubernetes/kubectl are often labels with size.

Size labels:

- size/S: 4-10 hours
- size/M: 10-20 hours
- size/L: 20-40 hours
- size/XL: 40-80 hours

# How to contribute



Issues in kubernetes/kubectl are often labels with type.

- kind/cleanup
  - Usually some refactoring or small rewrites of code.
- kind/documentation
  - Write doc.go for existing package: overview and examples.
- kind/feature
  - Usually a new package / library.
- kind/bug
- kind/test-coverage
  - Audit tests for a package. Improve test coverage.

# How to contribute



Adopt an issue (new contributors)

- Pick issues labed with “help wanted” or “good first issue”.
- Comment on the issue to tell others you are working on it.
  - Don't do that until you are ready to start working on it
- Let SIG maintainers know.

# How to contribute



Adopt a harder issue (experienced contributors)

- Maybe a feature request
- Maybe a massive code refactoring task

# How to contribute

How to work on a harder issue (feature and massive refactor):

- Write a design doc if necessary
- Present and discuss at the SIG meeting
- Provide at least weekly update on the issue
- Let the maintainers know if you need help

# How to contribute



- Escalate to the teams if needed
  - Sig-cli-api-reviews: API Changes and Reviews
  - Sig-cli-bugs: Bug Triage and Troubleshooting
  - Sig-cli-feature-requests: Feature Requests
  - Sig-cli-maintainers: CLI Maintainers
  - Sig-cli-misc: General Discussion
  - Sig-cli-pr-reviews: PR Reviews
  - Sig-cli-proposals: Design Proposals
  - Sig-cli-test-failures: Test Failures and Triage
  - E.g. @kubernetes/sig-cli-pr-reviews

# How to contribute



Want to do or host a summer intern?

- CNCF + GSoC
- Outreachy program

# How to contribute



Tips to make your PR review faster:

- Multiple small PRs instead of one giant PR
- Write tests (unit, e2e, cmd)
- Write document or comments

# Resources

- Kubernetes Contributor Guide
- Contributor Cheat Sheet
- SIG CLI meeting notes

# Q & A