Kubernetes Upstream Training

その前に

TODO - 1

事前課題として以下のページを参照いただくよう連絡があったと思います。
実施されてない人は以下を参照して実施しておいてください。
https://github.com/kubernetes-sigs/contributor-playground/blob/master/japan/assets/attendee-prerequisites.md

以下を使えるようにしておいてください

- git

CLAのサインをしておいてください

- https://github.com/kubernetes/community/blob/master/CLA.md

TODO - 2

Kubernetes Slackへの参加

- #jp-mentoring , #jp-dev チャンネル

Fork and Clone kubernetes-sigs/contributor-playground

- Fork the repo into your github account
- Clone your account repo into your laptop PC

はじめに

New Contributor Workshop

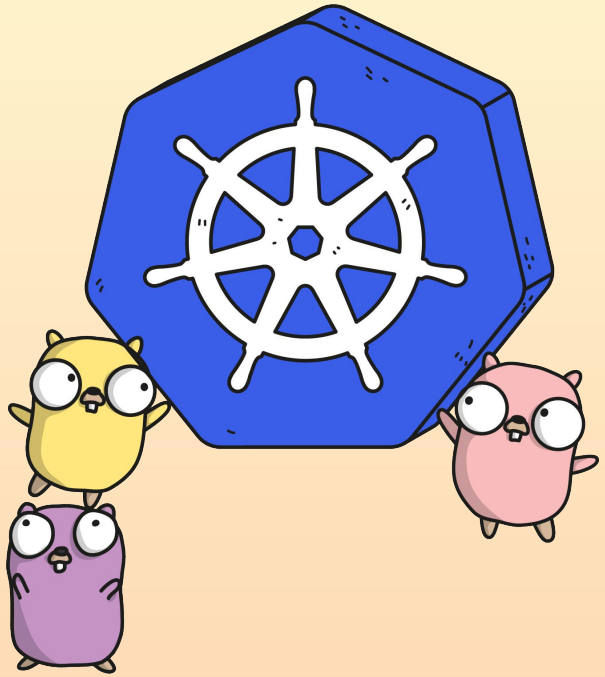
※本資料は、Kubernetes Contributor Summit SanDiego 2019のNewContributorWorkshopの資料をベースに構成を変更したものです。

Welcome on board!

Schedule

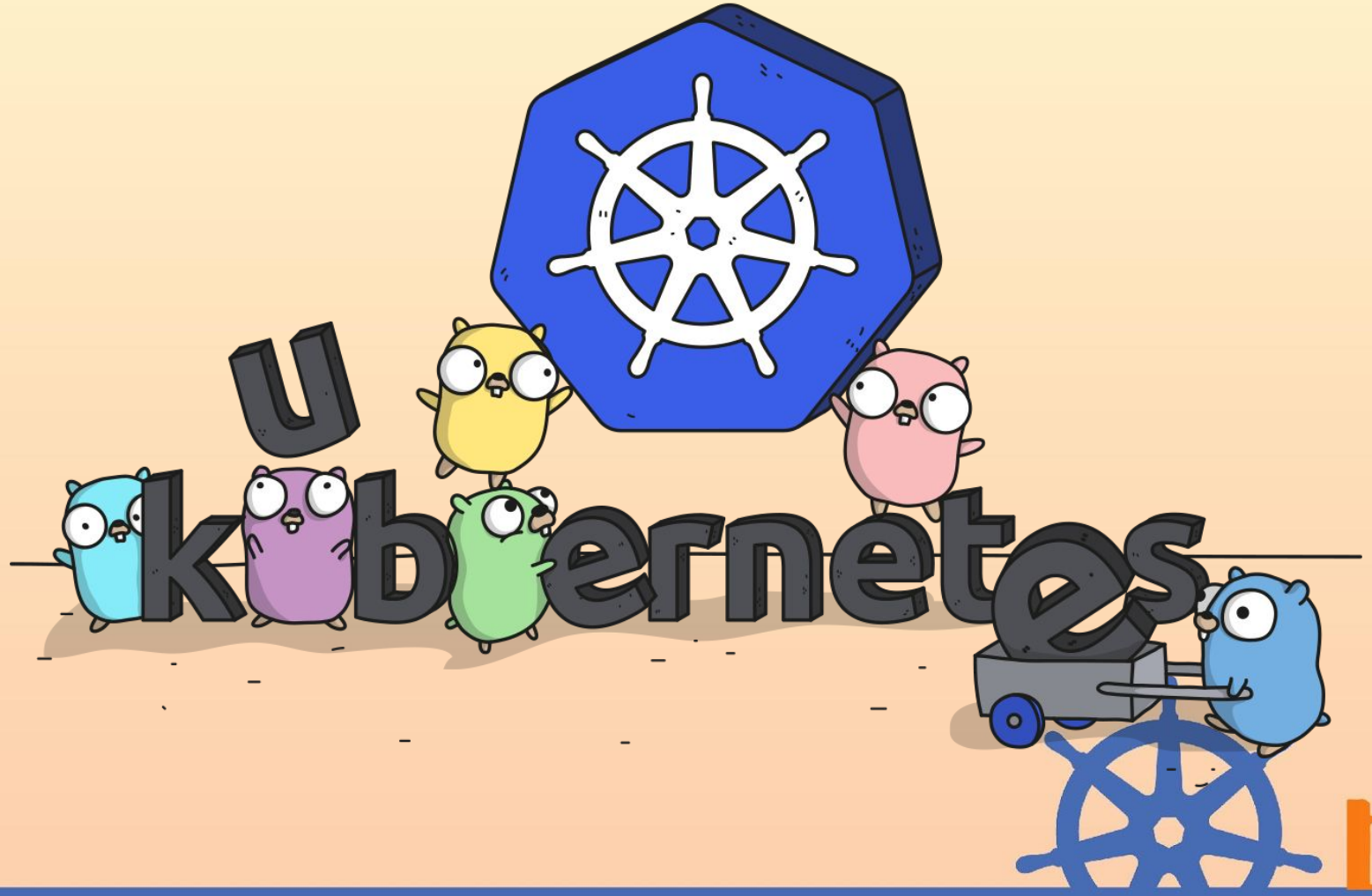
- Kubernetes コミュニティ (40min)
    - Break(10min)
- コントリビューション実践 (30min)
- コミュニケーション (20min)
    - Break(10min)
- ハンズオン (90min)
    - Break(10min)
- Kubernetes 開発環境 (40min)
- Q&A (10min)
- クロージング (10min)

Total:4h30m



Credit Ashley McNamara and github.com/ashleymcnamara/gophers for Kubernetes Gophers image.
Credit Renee French for the original gopher concept and design.

Who can contribute to Kubernetes?



Credit Ashley McNamara and github.com/ashleymcnamara/gophers for Kubernetes Gophers image.
Credit Renee French for the original gopher concept and design.

Why contribute to Kubernetes?

The Kubernetes Contributor Patch

$1,000.00

Quantity

- 1 +

Add to Cart

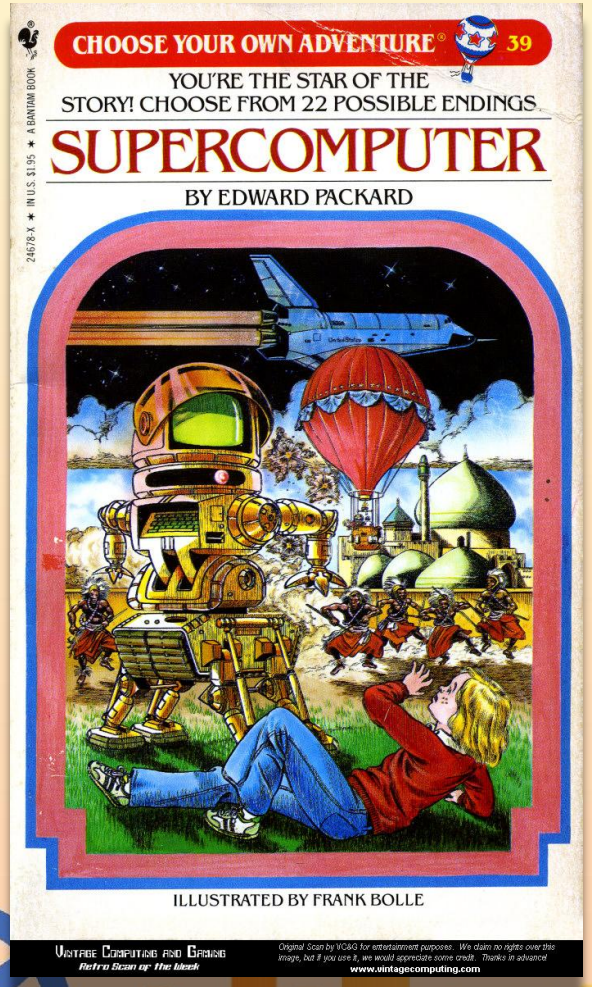
This is an exclusive item only recognized contributors can earn. You must be awarded a purchase code to get this badge of honor.

https://store.cncf.io/products/copy-of-kubernetes-decal

Fitting Contributions Into Your Job

Choose Your Own Adventure

Figuring out where to contribute



Kubernetes コミュニティ

Community Values

Distribution is better than centralization

Automation over process

Community over product or company

Inclusive is better than exclusive

Evolution is better than stagnation

"Culture eats strategy for breakfast."
-- Peter Drucker

git.k8s.io/community/values.md

コミュニティ構成

Community Group Types

Special Interest Groups (SIGs)

Persistent open groups that focus on a part of the project.

Working Groups (WGs)

Temporary groups that are formed to address issues that cross SIG boundaries.

User Groups (UGs)

Groups for facilitating communication and discovery of information

Committees

Sets of people that are chartered to take on sensitive topics.

Community Governance

- Special Interest Groups (SIGs)
  - Primary organizational unit
  - Topic specific (Networking, Doc, etc.)
  - Subprojects
    - Work in SIGs divided into one or more subprojects
    - Every part of Kubernetes must be owned by subproject
- Working Groups (WGs)
  - Short-lived rallying point
  - Work spanning multiple SIGs

Community Governance

- User Groups
  - Facilitate communication between users and contributors
  - Topics include usage of, extension of, and integration with Kubernetes and Kubernetes subprojects
  - Examples:
    - Big Data
    - VMware Users

Community Governance

- Committees
  - Don't have open membership
  - Don't always operate in the open (Security or Code of Conduct)
  - Formed by Steering Committee
  - Committees:
    - Steering
    - Security Response
    - Code of Conduct

Special Interest Group

Kubernetes is a big project

Many contributors(43,000+) in one pool would be too noisy

A SIG is a sub-community; these are you K8s people

Special Interest Group

Charter:

- Code ownership
  - Scope/area
  - Binaries
- Governing processes
- Subprojects
- Working Groups

Mailing List:

- Communications with SIG members

Types of SIGs

- Project
- Horizontal
- Vertical
  - Applications
  - Resource Management
  - Infrastructure

Community Groups Overview

Committee
SIG
Work group
User group

Project

Committees: Code of Conduct, Security Response, Steering

SIGs: Architecture, Contributor Experience, Docs, Release, Testing, Usability, K8s Infra

Work groups: Naming

Horizontal

SIGs: API Machinery, Auth, CLI, Instrumentation, Multicluster, Scalability, UI, Windows, Security

Work groups: API Expression, Structured Logging, Multitenancy, Policy, Reliability

Vertical

Applications

SIGs: Apps, Service Catalog

Work groups: IoT Edge, Data Protection

User groups: Big Data, VMware Users

Resource Management

SIGs: Autoscaling, Network, Node, Scheduling, Storage

Infrastructure

SIGs: Cloud Provider, Cluster Lifecycle

Project SIGs

sig-architecture
sig-contributor-experience
sig-docs
sig-release
sig-testing
sig-usability
sig-k8s-infra

Horizontal SIGs

sig-api-machinery
sig-auth
sig-cli
sig-instrumentation
sig-multicluster
sig-scalability
sig-ui
sig-windows
sig-security

Vertical SIGs: Applications

sig-apps
sig-service-catalog

Vertical SIGs: Resource Management

sig-autoscaling
sig-network
sig-node
sig-scheduling
sig-storage

Vertical SIGs: Infrastructure

sig-cloud-provider
sig-cluster-lifecycle

Subprojects

- Focus areas for SIGS
- Own Code, Issues

kubernetes / sig-release

Unwatch 68 | Unstar 134 | Fork 151

Code | Issues 48 | Pull requests 4 | Actions | Projects 0 | Security | Insights

Branch: master | sig-release / release-team / | Create new file | Upload files | Find file | History

hasheddan ci signal handbook: update failing and flaky test issue naming strategy ··· Latest commit ca76cd3 12 days ago

..		
role-handbooks	ci signal handbook: update failing and flaky test issue naming strategy	12 days ago
OWNERS	Update OWNERS	8 months ago
README.md	update release-team documentation	5 months ago
release-team-onboarding.md	Remove references to the milestone burndown Google Group	7 months ago
release-team-selection.md	Merge pull request #652 from claurence/master	5 months ago
shadows.md	Incorporated Claire's feedback on the text.	2 months ago

README.md

Kubernetes Release Team

- Overview
- Specific responsibilities
- Kubernetes Release Team roles
- Other activities of the Release Team
- Release Team Selection
- Milestone Maintainers

Working Groups

Working Groups: Inter-SIG efforts

For specific:

- Goals (ex. Code Cleanup)
- Areas (ex. multi tenancy)

Project Working Groups

~~wg-k8s-infra~~ -> sig-k8s-infra

wg-naming

Horizontal Working Groups

wg-api-expression

~~wg-component-standard~~ -> 2021/09 解散

wg-multitenancy

wg-policy

wg-reliability

wg-structured-logging -> 2021/04 新設

Vertical Working Groups

Applications

wg-iot-edge

wg-data-protection

Picking the right community group

Find a specific project/area to work on

Picking the right community group

Find out which SIG (or working group) owns your topic

a. Look on the SIG list to find SIG info and charters
b. Ask on #sig-contribex
c. Attend the SIG Meet-and-Greet at conference
d. Go to the SIG intros at conference(KubeCon+CloudNativeCon)
   - Slide:
     - Search with “Intro” at Here, and click session.
     - Download a slide from session page

How Do I Join A Community Group?

1. Join the specific mailing list.
   (This is open to anyone.)
2. That's it! You've joined!
   You will get a calendar invite to the meeting.

Quick reference

Governance reference

git.k8s.io/community/governance.md

Project Group List

git.k8s.io/community/sig-list.md

Tour of Repositories

Core Repository

kubernetes/kubernetes

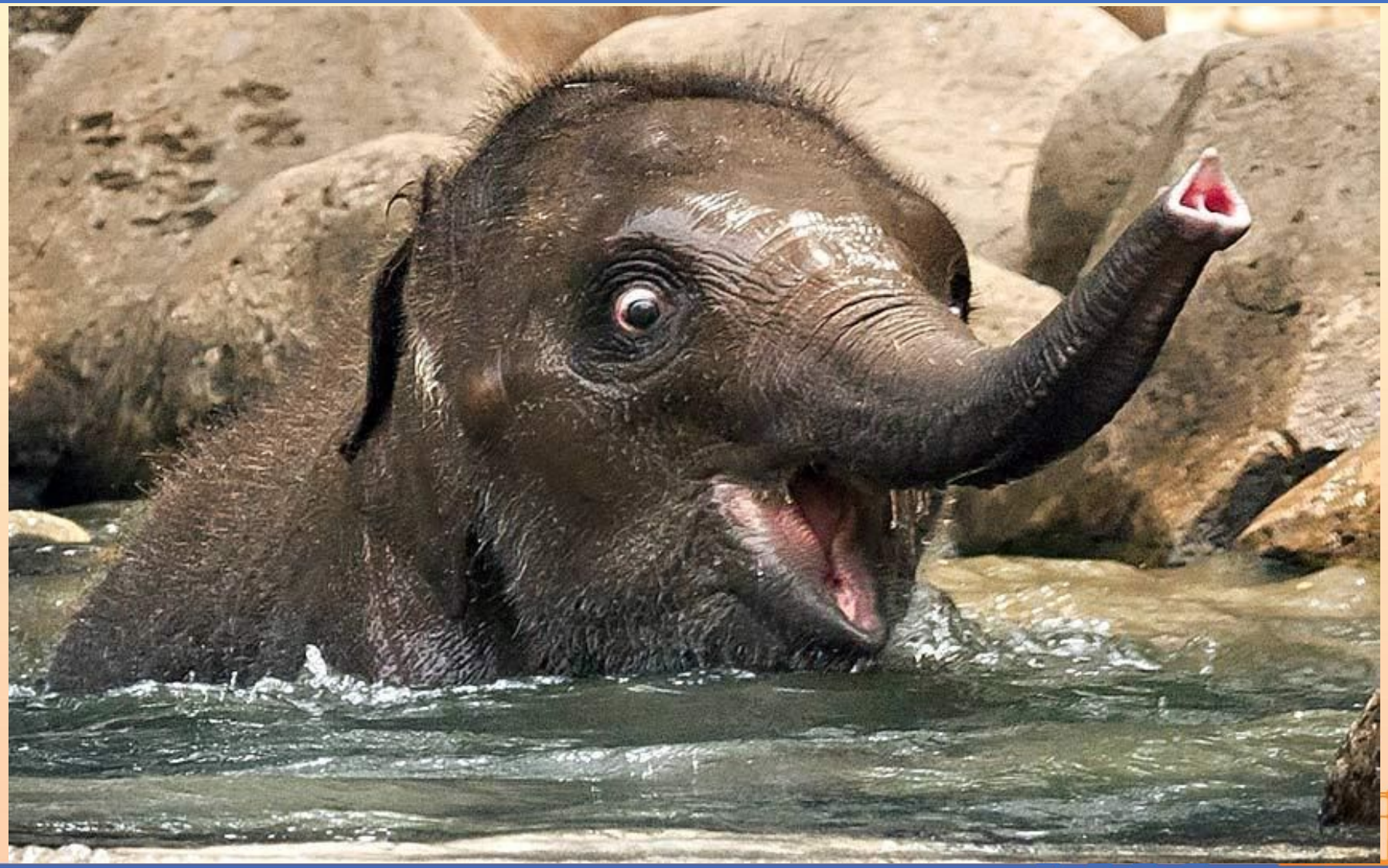
Most SIGs are stakeholders in the monolith.
Areas of SIG ownership can be found in
https://git.k8s.io/community/sigs.yaml

My repository, my rules

Repos can have different:

- Ownership
- Approval workflows
- Merge workflows
- Release cycles

Ready to jump right in?



Reference links, again

- kubernetes.io/community
- discuss.kubernetes.io
- slack.k8s.io
- groups.google.com/forum/#!forum/kubernetes-dev
- git.k8s.io/community/events/community-meeting.md
- git.k8s.io/community/events/office-hours.md
- git.k8s.io/community/mentoring/programs/meet-our-contributors.md

Engaging Community

SIGs, Areas, Issues: Engaging

What's next for you?

SIGs, Areas, Issues: Engaging

Community Contributions

- Filing Issues
- Answering Questions on StackOverflow
- Github Repo Management
- Blogging, Evangelism, and Promotion
- Event Management and Volunteering
- Visual Communication
- User Experience Feedback and Surveys
- Helping Manage Youtube Recordings
- ...and more!

SIGs, Areas, Issues: Engaging

Mentoring Opportunities

- Meet-Our-Contributors
- Group Mentoring
- Release Team Shadow
- 1-on-1 ad-hoc mentoring
- GSOC/Outreachy/KubeCon Speed Mentoring

SIGs, Areas, Issues: Engaging

Kubernetes Tutorials

- As an operator
- As an app developer
- As a kubernetes developer

https://kubernetes.io/docs/tutorials/

SIGs, Areas, Issues: Engaging

at KubeCon!

- Sessions
- SIG Intros
- SIG Deep Dives
- Hallway Track

KubeCon

NorthAmerica 2019 videos

Europe 2020 Virtual videos

NorthAmerica 2020 Virtual videos

Europe 2021 Virtual videos

NorthAmerica 2021 videos

Please check up CNCF on Youtube

SIGs, Areas, Issues: Engaging

Mentoring Links

https://git.k8s.io/community/mentoring/programs/meet-our-contributors.md
https://git.k8s.io/community/mentoring/programs/google-summer-of-code.md
https://git.k8s.io/community/mentoring/programs/outreachy.md
https://git.k8s.io/community/mentoring/

Technical Help and Tutorials

https://git.k8s.io/community/events/office-hours.md
https://kubernetes.io/docs/tutorials/

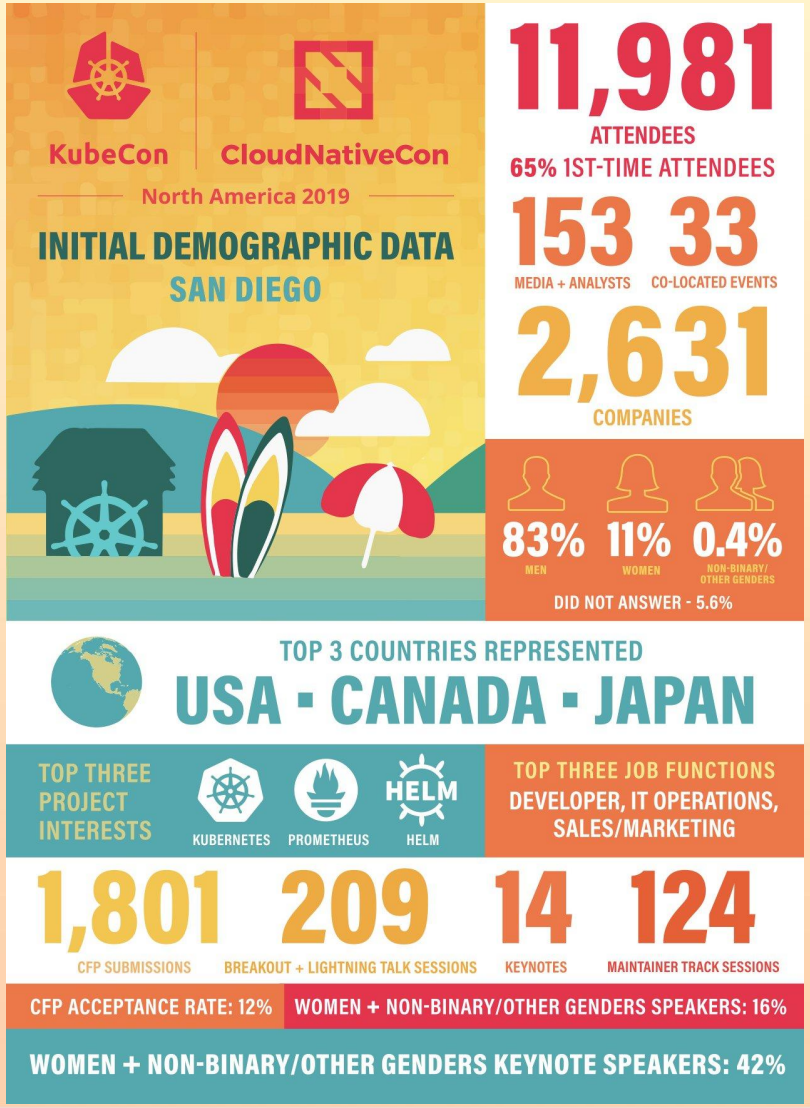
Contributor Guide

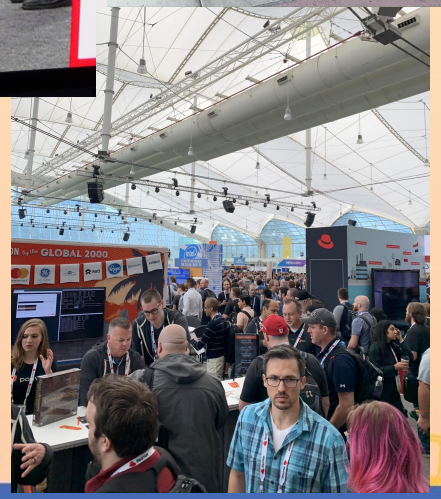
https://git.k8s.io/community/contributors/guide/README.md

Developer Guide

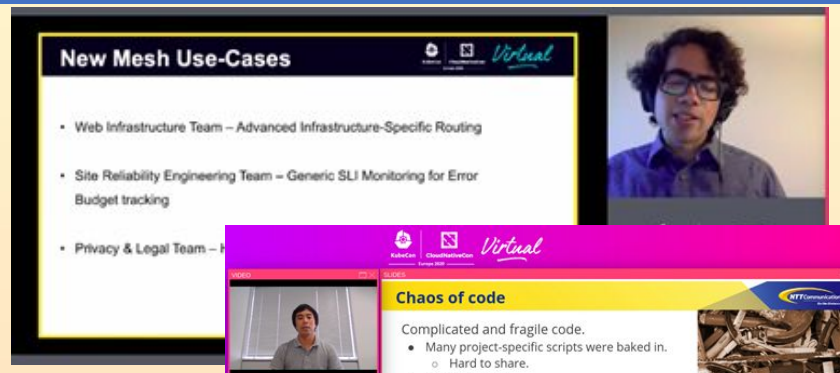
https://git.k8s.io/community/contributors/devel/README.md

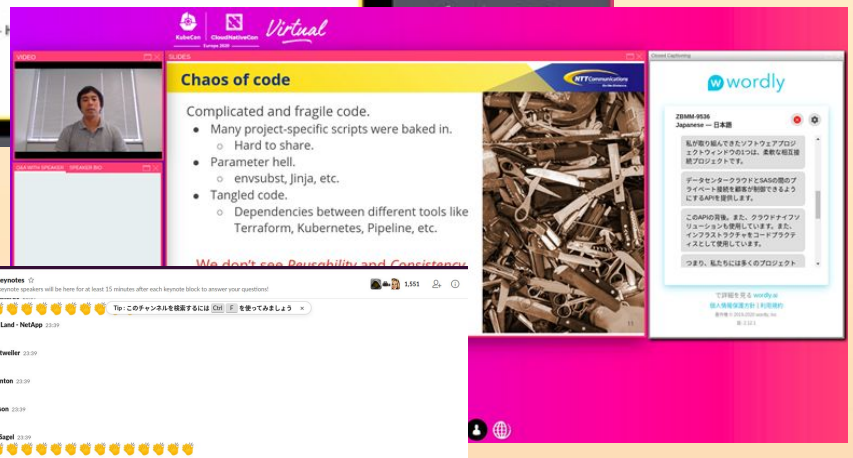
KubeCon + CloudNativeCon NA 2019 について

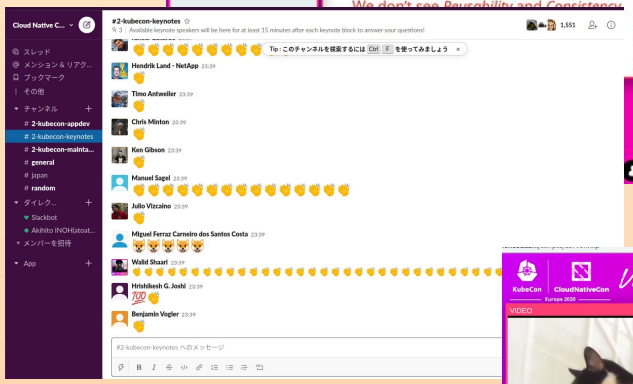


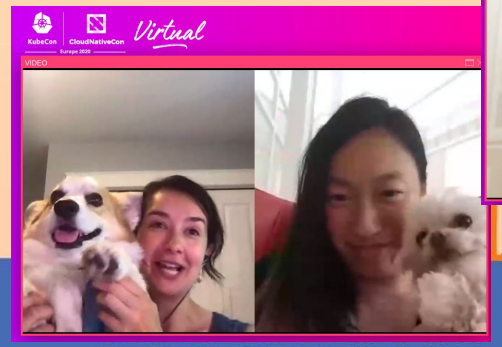


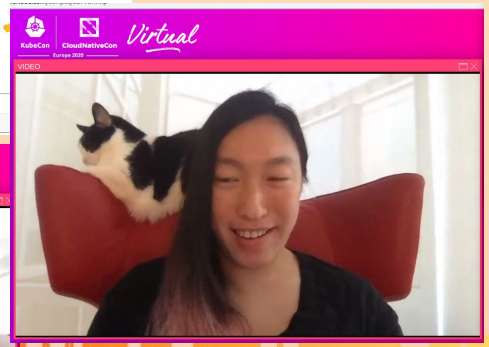
KubeCon + CloudNativeCon EU 2020 Virtual について





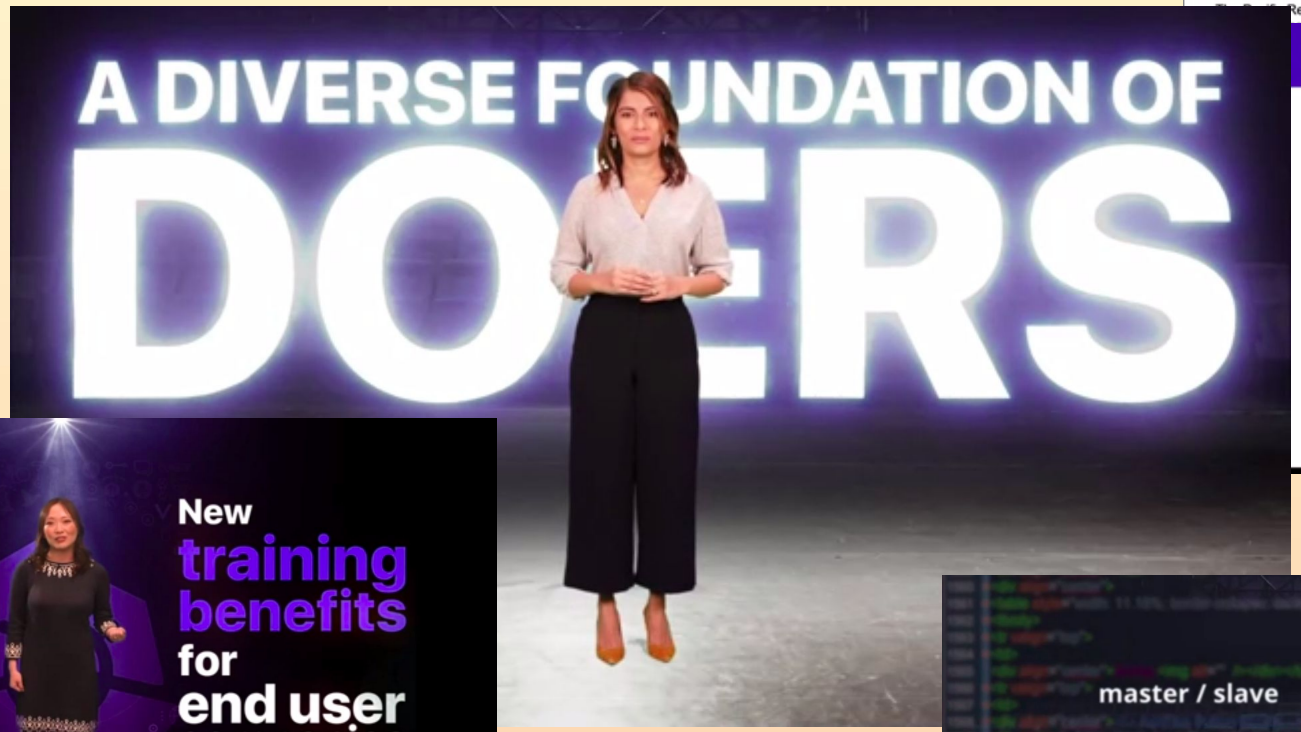


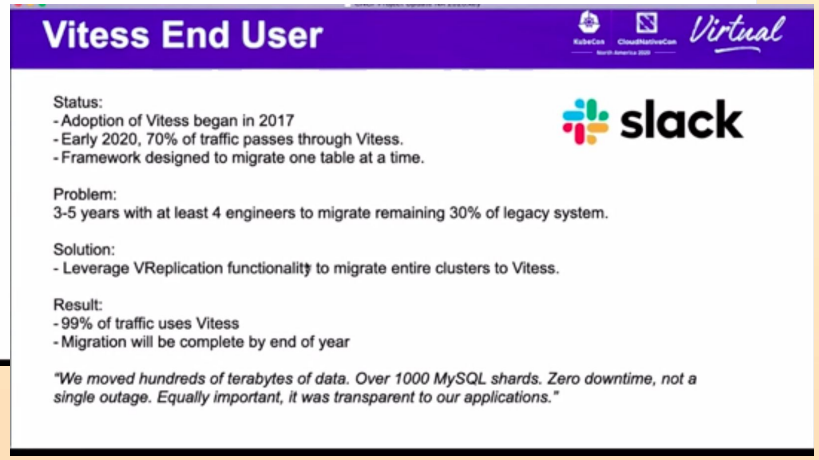


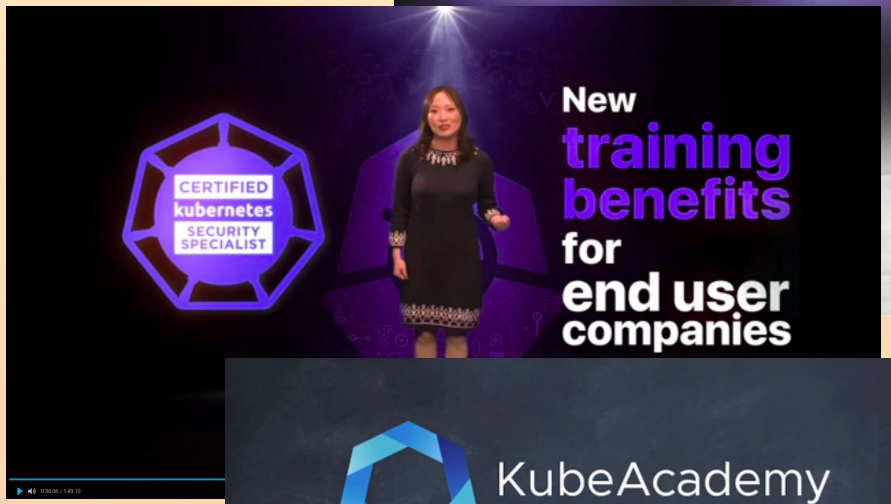


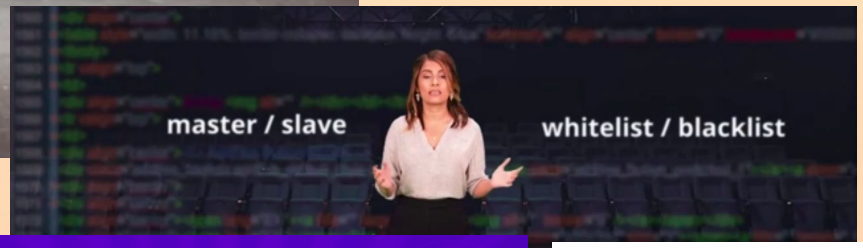
CONTRIBUTOR SUMMIT
SAN DIEGO 2019

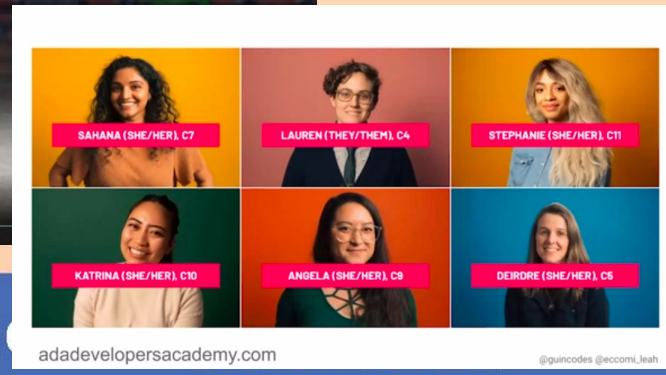
KubeCon + CloudNativeCon NA 2020 Virtual について











Attend a Meetup

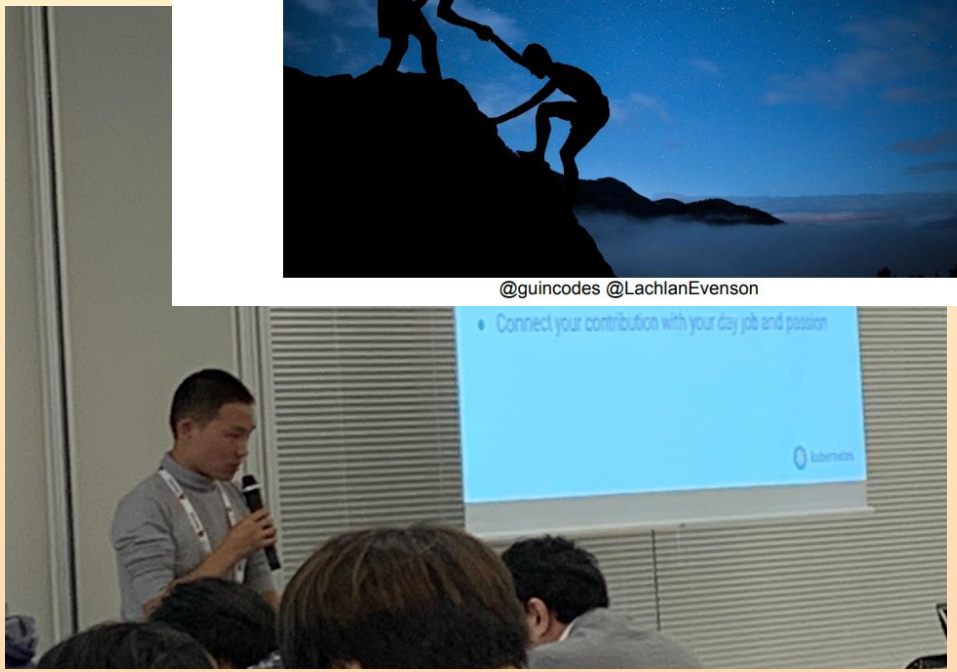
Attend a Meetup

- Kubernetes Meetup Tokyo
  - https://k8sjp.connpass.com/
- CloudNative Meetup Tokyo
  - https://cloudnative.connpass.com/

Attend a Meetup

コミュニティ活動をしていると人との接点が多くなります。
こういった経験もOSSの活動ならではだと思います。

2019/11 Kubernetes Contributor Summit にて
サンディエゴでの我々の発表セッションのファシリテーションをしてくれたYang Li さん



2019/12 Kubernetes Meetup Tokyo #26にて
日本のMeetupにて発表しているYang Li さん

Collected links

- kubernetes.io/community
- discuss.kubernetes.io
- slack.k8s.io
- groups.google.com/forum/#!forum/kubernetes-dev
- git.k8s.io/community/events/community-meeting.md
- git.k8s.io/community/events/office-hours.md
- git.k8s.io/community/mentoring/programs/meet-our-contributors.md

Break - 10 minutes

コントリビューション実践

Open Source Interactions

Open Source Interactions

me
implementation
centralized
implicit
assumptions

Photo by John Schnobrich on Unsplash

Open Source Interactions

~~me~~
~~implementation~~
~~centralized~~
~~implicit~~
~~assumptions~~

we
collaboration
decentralized
explicit
shared theories

Open Source Interactions

functionality
code

Open Source Interactions

functionality
code

docs
tests
integrations
releases
security

Open Source Interactions

HUMAN / SOCIAL:

functionality
code
docs
tests
integrations
releases
security

Photo by You X Ventures on Unsplash

Open Source Interactions

Be good people!

Mutual respect is a prerequisite for healthy collaboration.

git.k8s.io/community/code-of-conduct.md

https://github.com/cncf/foundation/blob/master/code-of-conduct-languages/jp.md

Open Source Interactions

Goal: Get a change into project

Photo by Alexander Muzenhardt on Unsplash

Open Source Interactions

Goal: Get a change into project

Path:

- Visibility, transparency, proactive communication
- Code, plus documentation, plus test cases
- Presence in meetings, Slack, mailing list
- Reviewable code

Open Source Interactions

Reviewable code:

- demonstrates sound ***IDEA***...through words
- demonstrates reasonably architected solution...through words
- polished implementation
  - coding style
  - quality standards
  - https://chris.beams.io/posts/git-commit/

Open Source Interactions

Reviewable code:

- demonstrates sound ***IDEA***...through words
- demonstrates reasonably architected solution...through words
- polished implementation
  - coding style
  - quality standards
  - https://chris.beams.io/posts/git-commit/

Make the reviewer's job easy:

- commit subject line **summarizes** in **"Do foo for bar"**
- commit body details **what & why**

Open Source Interactions

Timing:

- expect things you ***CARE*** about to take time
- quality vs. speed
- decentralized consensus forming
- conversations wrap the globe
- is it code freeze right now or merge time?

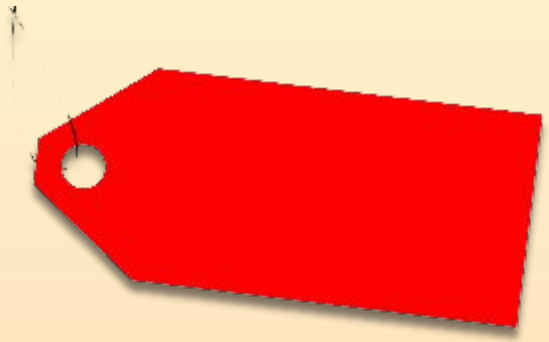
Open source is fast in aggregate, but:

- **idea** → months → alpha → 1+ release → beta → 1+ release → **stable**
- **...9-24 months**

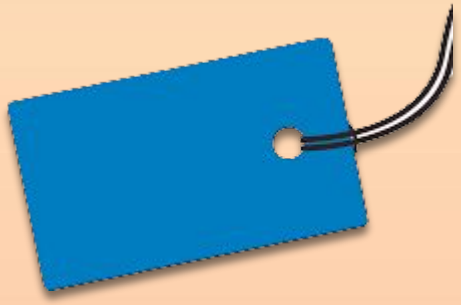
Open Source Interactions

Labels

SIGs, Labels, Issues: Overview



How to talk to the Kubernetes community and automation



k8s-ci-robot commented 14 days ago

Owner

Thanks for your pull request. Before we can look at your pull request, you'll need to sign a Contributor License Agreement (CLA).

📝 **Please follow instructions at https://git.k8s.io/community/CLA.md#the-contributor-license-agreement to sign the CLA.**

It may take a couple minutes for the CLA signature to be fully registered; after that, please reply here with a new comment and we'll verify. Thanks.

- If you've already signed a CLA, it's possible we don't have your GitHub username or you're using a different email address. Check your existing CLA data and verify that your email is set on your git commits.
- If you signed the CLA as a corporation, please sign in with your organization's credentials at https://identity.linuxfoundation.org/projects/cncf to be authorized.
- If you have done the above and are still having issues with the CLA being reported as unsigned, please email the CNCF helpdesk: helpdesk@rt.linuxfoundation.org

▶ Details

k8s-ci-robot added the **cncf-cla: no** label 14 days ago

k8s-ci-robot requested review from **idvoretskyi** and **tpepper** 14 days ago

k8s-ci-robot added the **needs-ok-to-test** label 14 days ago

guineveresaenger

Labels

- approved
- area/contributor-guide
- cncf-cla: no
- lgtm
- needs-rebase
- sig/contributor-experience
- size/XS

Projects

None yet

Milestone

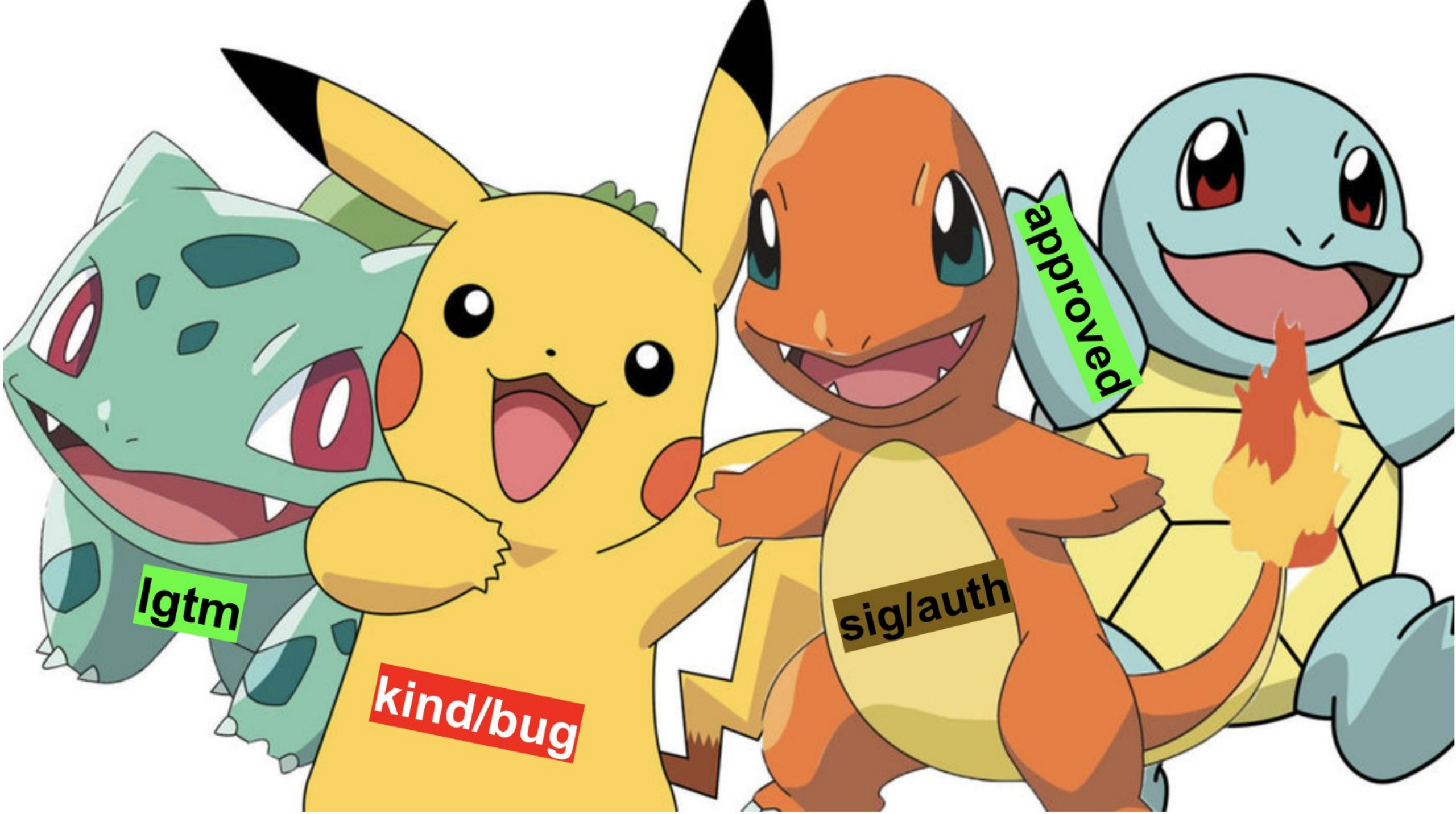
No milestone

Notifications

Unsubscribe

You're receiving notifications because you were mentioned.

7 participants

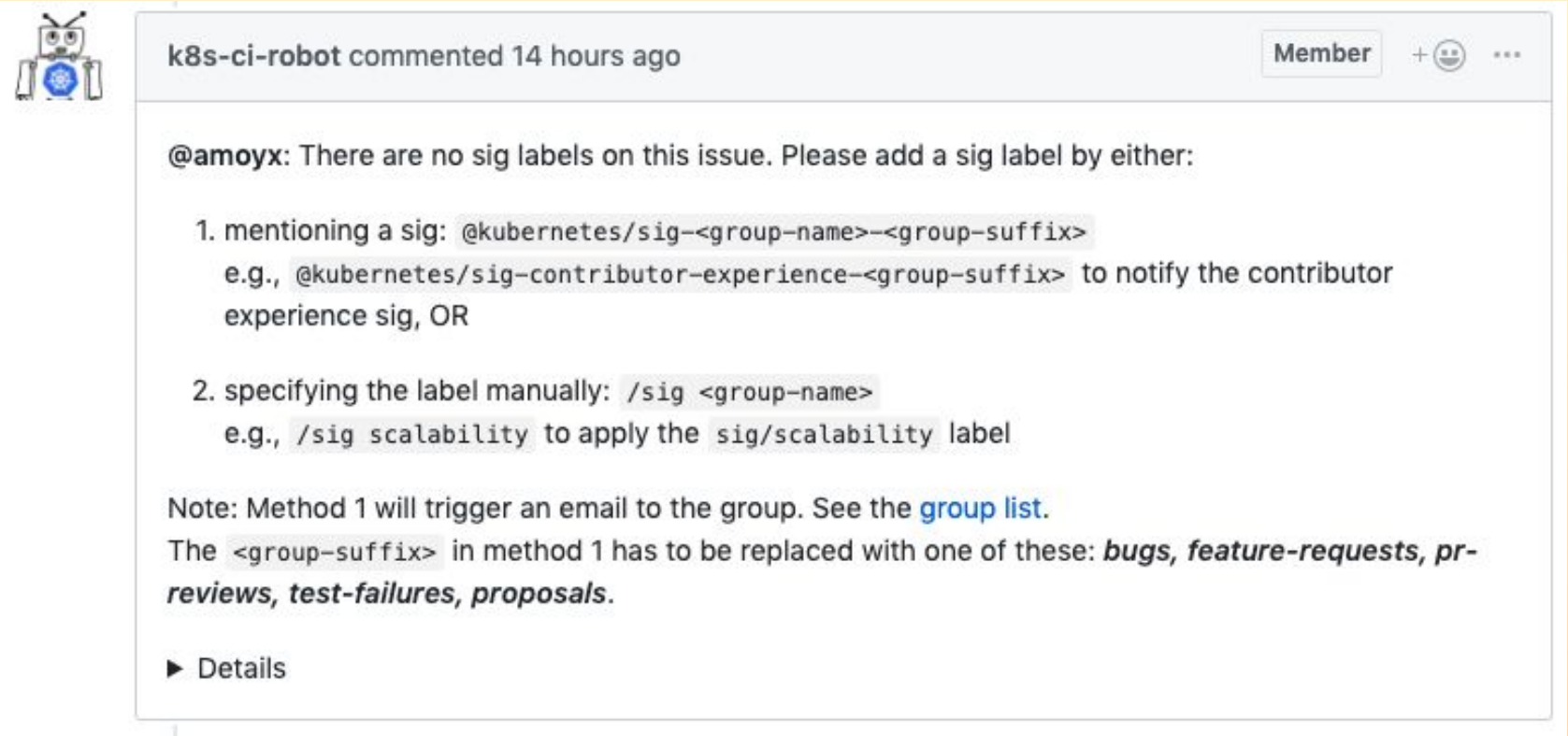

lgtm
kind/bug
sig/auth
approved

Required Labels for Issues

On creation:

sig/

kind/



k8s-ci-robot commented 14 hours ago

Member

@amoyx: There are no sig labels on this issue. Please add a sig label by either:

1. mentioning a sig: `@kubernetes/sig-<group-name>-<group-suffix>`
   e.g., `@kubernetes/sig-contributor-experience-<group-suffix>` to notify the contributor experience sig, OR
2. specifying the label manually: `/sig <group-name>`
   e.g., `/sig scalability` to apply the `sig/scalability` label

Note: Method 1 will trigger an email to the group. See the group list.
The `<group-suffix>` in method 1 has to be replaced with one of these: ***bugs, feature-requests, pr-reviews, test-failures, proposals***.

▶ Details

https://prow.k8s.io/command-help

The SIG Label

Label	*Bot command*
sig/auth	/sig auth
sig/testing	/sig testing
sig/api-machinery	/sig api-machinery
sig/node	/sig node

Adding a label

guineveresaenger commented on Dec 14, 2017 Member

/sig contributor-experience

The Kind Label

kind/bug

kind/feature

kind/documentation

kind/design

kind/failing-test

kind/flake

kind/cleanup

Example bot command: /kind feature

The Area Label

area/kubectl
area/api
area/dns
area/platform/gce

Often, the area label is the name of a SIG subproject.

The Priority Label

priority/critical-urgent

priority/important-soon

priority/important-longterm

priority/backlog

priority/awaiting-evidence

Example bot command: /priority critical-urgent

The Triage Label

triage/duplicate

triage/needs-information

triage/support

triage/unreproduceable

triage/unresolved

はじめての
コントリビューション

Find an Issue

kubernetes / kubernetes

Watch 3.1k | Star 59.9k | Fork 21.1k

Code | Issues 2,245 | Pull requests 1,108 | Actions | Projects 9 | Security | Insights

Filters | is:open label:"help wanted" label:"good first | Labels 187 | Milestones 9 | New issue

Clear current search query, filters, and sorts

16 Open | 32 Closed | Author | Labels | Projects | Milestones | Assignee | Sort

- Port parsing can overflow (TOB-K8S-015: Overflows when using strconv.Atoi and downcasting the result) area/security good first issue help wanted kind/bug priority/important-soon sig/cli sig/network wg/security-audit
  #81121 opened on Aug 7 by cji — 19
- Add unit tests for Scheduler framework good first issue help wanted kind/feature sig/scheduling
  #80272 opened on Jul 17 by liu-cong — 11
- Different Webhook with same name have same label-value in metric webhook_admission_duration_seconds good first issue help wanted kind/bug lifecycle/rotten sig/api-machinery sig/instrumentation
  #79832 opened on Jul 5 by answer1991 — 12
- Support UDP with AWS NLB area/provider/aws good first issue help wanted kind/feature sig/cloud-provider
  #79523 opened on Jun 28 by kirrmann v1.17 — 29
- Connect lower level traces to surrounding request handling trace good first issue help wanted kind/feature sig/api-machinery
  #79209 opened on Jun 19 by jpbetz — 16

- good first issue
- help wanted

https://github.com/kubernetes/kubernetes/issues?utf8=%E2%9C%93&q=is%3Aopen+label%3A%22good+first+issue%22+label%3A%22help+wanted%22

Help Wanted: First PR Ideas

- Search for good first issue & help wanted issues
- Search by SIG & Area labels to match your interest
- Discuss at tables ideas for contributing

...carry this discussion into the SIG Meet & Greet

コードだけではないコントリビューション

- Issue登録
  - バグ報告／機能要望
- ドキュメントの修正
  https://kubernetes.io/docs/home/
  https://github.com/kubernetes/website
  - ドキュメントバグ
  - 実装に沿った最新化
- 日本語訳の貢献
  - kubernetes.io の英語ドキュメントの和訳
  - Kubernetes Dashboard の和訳

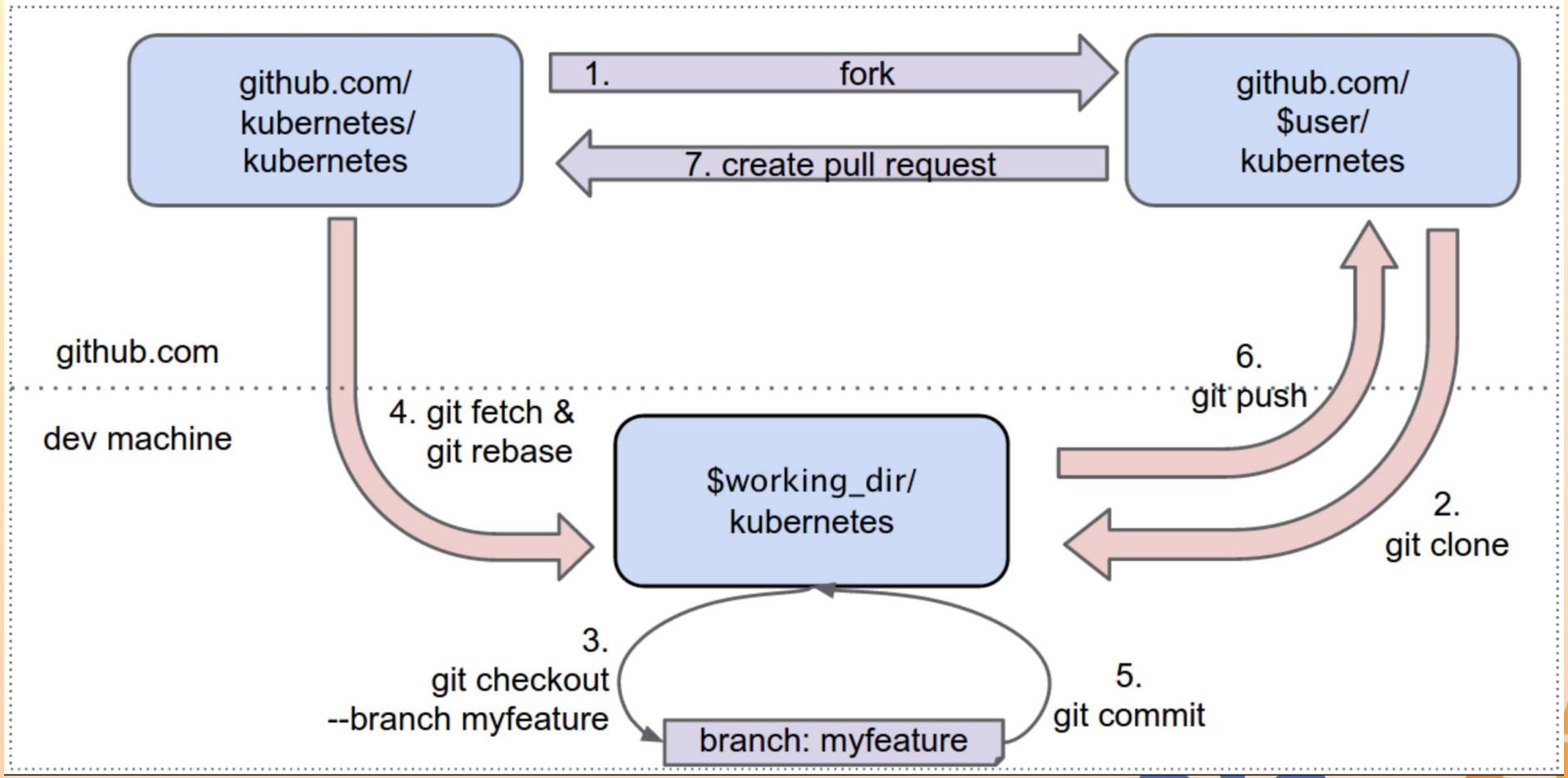
PR投稿

Do Not Boil The Ocean

Smaller is better

Write good commit messages

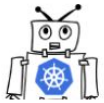
PRs and Bots: GitHub PR Flow



PR Workflow on GitHub

1. You submit Pull Request (PR) using the template
2. You add labels & notes
3. Bots validate and comment on the PR
   release-note cncf-cla: no needs-ok-to-test needs-kind needs-sig
4. You add more labels & notes & resolve review comments
5. SIGs & OWNERS review and /approve → approved
6. Other contributors /lgtm → lgtm
7. Tests pass
8. *Tide* merges the PR

PRs and Bots: Reviewers/Approvers



k8s-ci-robot commented 7 minutes ago Member

[APPROVALNOTIFIER] This PR is **NOT APPROVED**

This pull-request has been approved by: *ksubrmnn*
To fully approve this pull request, please assign additional approvers.
We suggest the following additional approver: **rosti**

If they are not already assigned, you can assign the PR to them by writing `/assign @rosti` in a comment when ready.

The full list of commands accepted by this bot can be found here.

The pull request process is described here

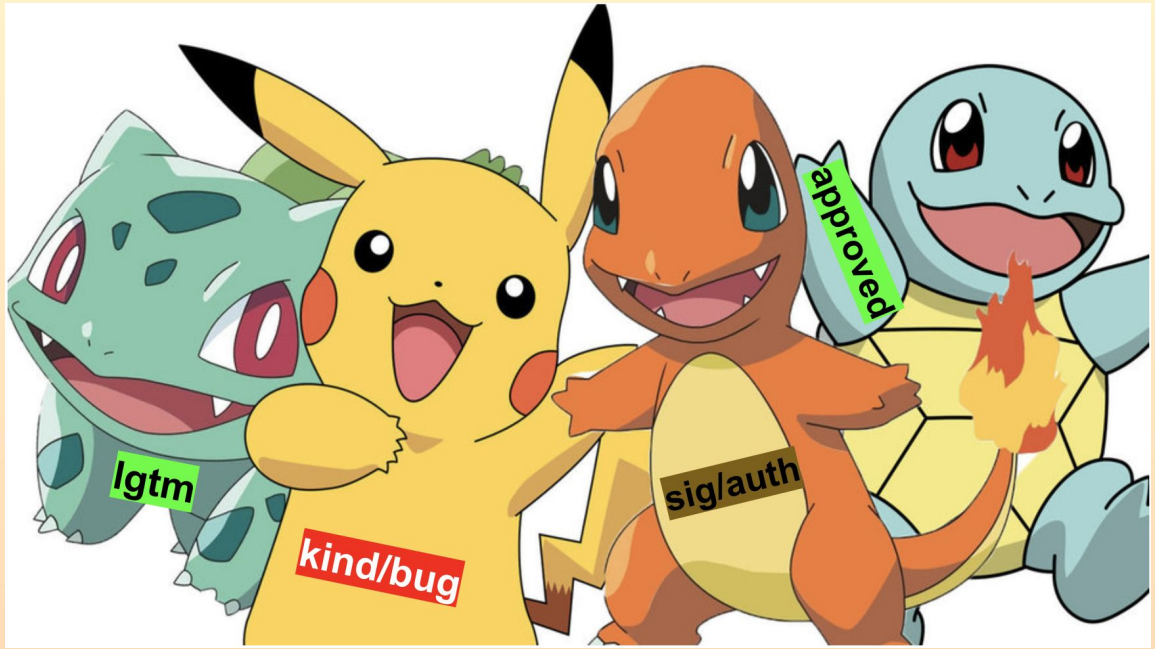
▼ Details
Needs approval from an approver in each of these files:

- **cmd/kubeadm/OWNERS**

Approvers can indicate their approval by writing `/approve` in a comment
Approvers can cancel approval by writing `/approve cancel` in a comment

レビューアの自動アサイン

Bot Commands

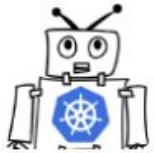


https://prow.k8s.io/command-help

PRs and Bots: Useful Commands

Command	Result
/assign @username	Assigns a Reviewer
/retest	Reruns failed tests
/close	Closes PR
/cc @username	Tags a user

Watch Tests



k8s-ci-robot commented 2 minutes ago

Member

@ksubrmnn: The following tests **failed**, say `/retest` to rerun them all:

Test name	Commit	Details	Rerun command
pull-kubernetes-e2e-gce	`0a1251a`	link	`/test pull-kubernetes-e2e-gce`
pull-kubernetes-e2e-gce-device-plugin-gpu	`0a1251a`	link	`/test pull-kubernetes-e2e-gce-device-plugin-gpu`

Full PR test history. Your PR dashboard. Please help us cut down on flakes by linking to an open issue when you hit one in your PR.

▶ Details

PRs and Bots: Following Up

Answer questions

Resolve:

- Bot messages
- Code comments
- Test failures

Contributor Ladder

Contributor Ladder

Owner
- Set priorities and approve proposals for subproject
- Responsibility and leadership for entire repository/directory

Approver
- Approve contributions for acceptance
- Highly experienced reviewer and contributor in subproject

Reviewer
- History of reviewing; reviews frequently
- Authorship in subproject

Member
- Active contributor to the project
- Sponsored by two Reviewers

Non-member Contributors

Contributor Ladder: Membership

k8s-ci-robot commented on Dec 14, 2017 Owner

Hi **@guineveresaenger**. Thanks for your PR.

I'm waiting for a kubernetes member to verify that this patch is reasonable to test. If it is, they should reply with `/ok-to-test` on its own line. Until that is done, I will not automatically test new commits in this PR, but the usual testing commands by org members will still work. Regular contributors should join the org to skip this step.

I understand the commands that are listed here.

▶ Details

k8s-ci-robot added the **needs-ok-to-test** label on Dec 14, 2017

Contributor Ladder: Membership

http://git.k8s.io/community/community-membership.md

Contributor Ladder

Role	Responsibilities	Requirements	Defined by
member	active contributor in the community	sponsored by 2 reviewers. multiple contributions to the project.	Kubernetes GitHub org member.
reviewer	review contributions from other members	history of review and authorship in a subproject	OWNERS file reviewer entry.
approver	approve accepting contributions	highly experienced and active reviewer + contributor to a subproject	OWNERS file approver entry
subproject owner	set direction and priorities for a subproject	demonstrated responsibility and excellent technical judgement for the subproject	sigs.yaml subproject OWNERS file *owners* entry

OWNERS and SIG Leads

OWNERS files sprinkled all through the repos, eg:

https://github.com/kubernetes/kubernetes/blob/master/OWNERS

https://github.com/kubernetes/kubernetes/blob/master/docs/OWNERS

SIG Leads:
https://github.com/kubernetes/community/blob/master/sigs.yaml

Ask For Help

Finding A Reviewer

- Follow Bot Prompts
- Ping Issue author
- Attach /sig label
- Contact OWNERS or SIG (k/community/sigs.yaml)
  - send email to list
  - ask Slack
  - attend SIG meeting
- #pr-reviews on k8s Slack

Membership

Community Groups

Code Contributions

Docs

Mentorship

reviewing

http://git.k8s.io/community/community-membership.md

Refer to the contributor guide

http://git.k8s.io/community/contributors/guide

A Beautiful First-Time Pull Request

Let token create help with joining a master #84591

Edit

Merged k8s-ci-robot merged 1 commit into `kubernetes:master` from `TheLastProject:feature/print-join-as-admin-command` 5 days ago

Conversation 30 | Commits 1 | Checks 0 | Files changed 2 | +26 −9

TheLastProject commented 13 days ago • edited — Contributor

What type of PR is this?
/kind feature

What this PR does / why we need it:
The `kubeadm token create --print-join-command` command is very helpful, but doesn't help with adding more masters to your cluster. This adds a `--for-master` flag which does setup and gives instructions for letting a master join.

Special notes for your reviewer:
This is the first time I am writing any Go code and I am still pretty new to Kubernetes, so this may be very ugly. I am also having trouble actually building Kubernetes on my device:

```
$ make WHAT=cmd/kubeadm
go/build: importGo k8s.io/kubernetes: exit status 1
can't load package: package k8s.io/kubernetes: cannot find module providing package k8s.


+++ [1031 12:54:41] Building go targets for darwin/amd64:
    ./vendor/k8s.io/code-generator/cmd/deepcopy-gen
go: finding k8s.io/kubernetes/vendor/k8s.io/code-generator/cmd/deepcopy-gen latest
go: finding k8s.io/kubernetes/vendor/k8s.io/code-generator/cmd latest
go: finding k8s.io/kubernetes/vendor/k8s.io/code-generator latest
go: finding k8s.io/kubernetes/vendor latest
```

Reviewers
- neolit123
- ereslibre ✓
- fabriziopandini ●

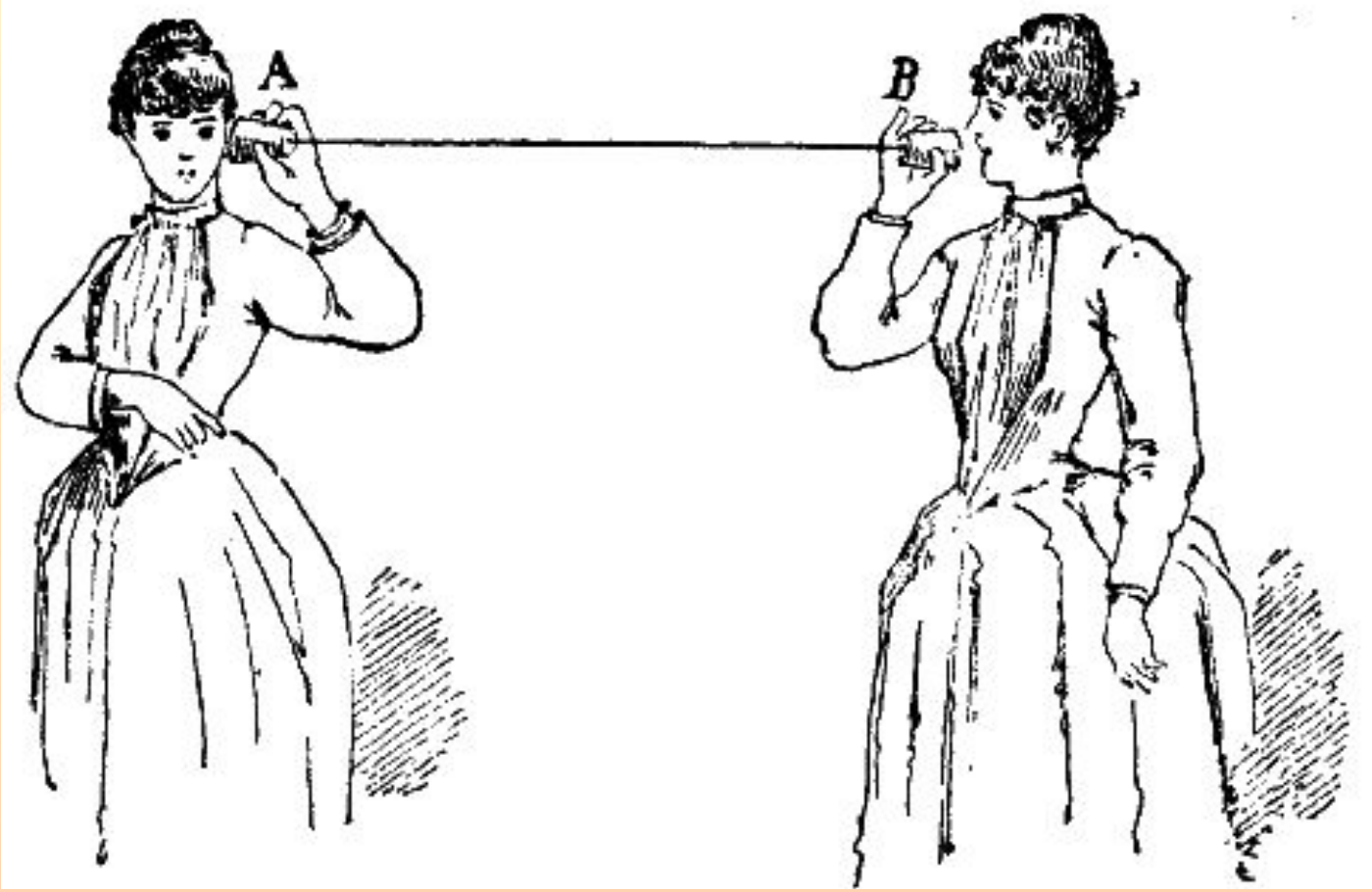
Assignees
- ereslibre

Labels
- approved
- area/kubeadm
- cncf-cla: yes
- kind/feature
- lgtm
- ok-to-test
- priority/backlog
- release-note
- sig/cluster-lifecycle
- size/M

https://github.com/kubernetes/kubernetes/pull/84591

コミュニケーション

Let’s Talk



Communication in the Kubernetes Community

When you're chill with everyone

Standards of Communication

aka: Why is everyone so nice?

We believe that mutual respect is a prerequisite for healthy collaboration.

git.k8s.io/community/code-of-conduct.md

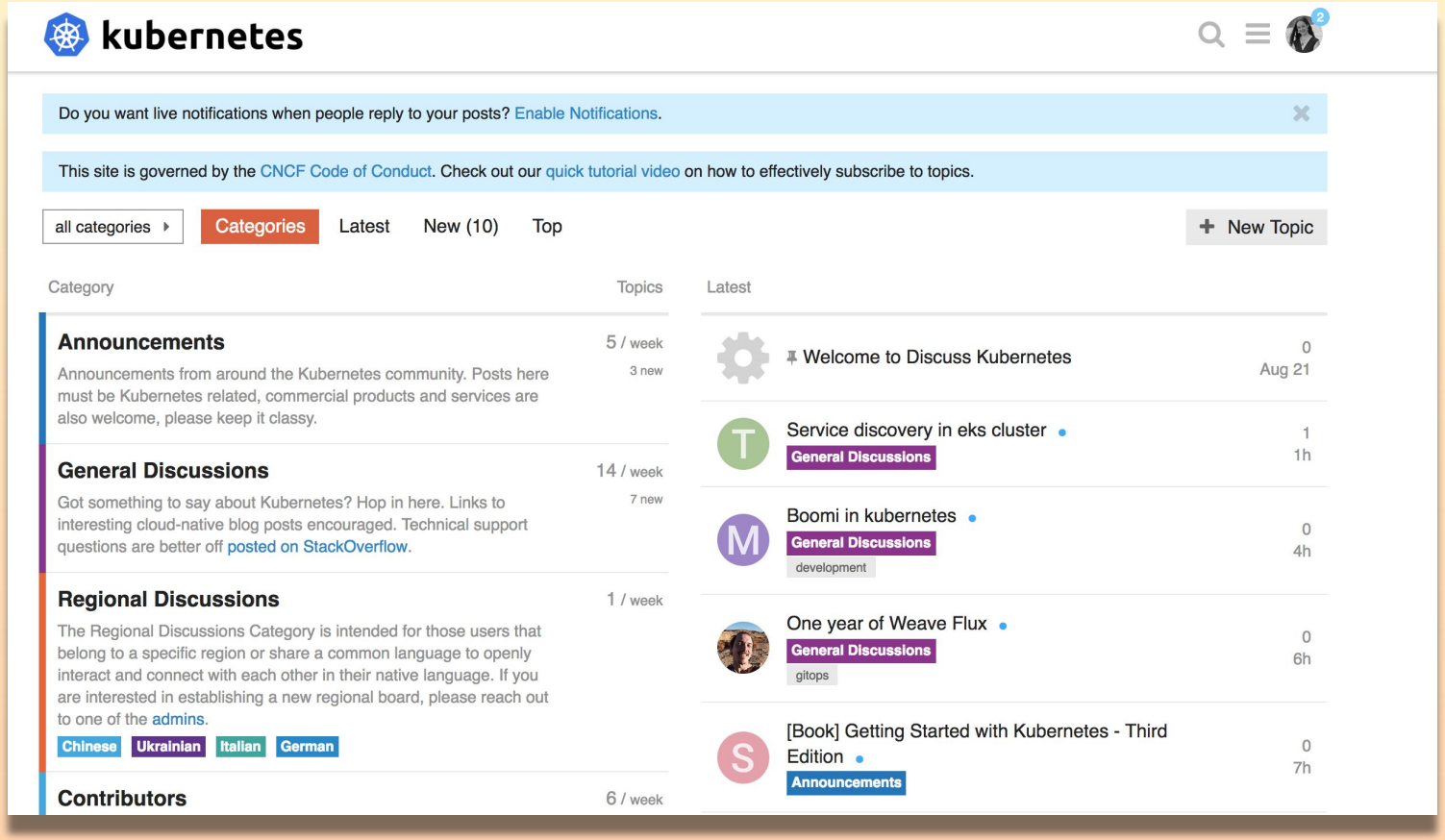
Where to ask Technical Questions

Slack

Register here: slack.k8s.io

User Focused	Contributor Focused	日本人向け
• #kubernetes-users	• #kubernetes-dev	• #jp-dev
• #kubernetes-novice	• #meet-our-contributors	• #jp-mentoring
• #office-hours	• #pr-reviews	• #jp-users
	• #sig-contribex	• #jp-users-novice
	• #jp-dev	• #jp-events
		• #kubernetes-docs-ja

Discuss



Want more long-form discussions?

Head over to: discuss.kubernetes.io

Planning and Discussion

Mailing lists

- One per SIG/WG
  - Some have more for large subprojects.
- Run on Google Groups
- You need to join:
  - kubernetes-dev
  - **Required for Org Membership!**

GitHub

Issues
Features
Pull requests

Break up and Refactor test/e2e/framework/utils.go #77095

New issue

Open andrewsykim opened this issue 4 days ago · 21 comments

andrewsykim commented 4 days ago • edited Member

What would you like to be added:
There are a lot of methods in `test/e2e/framework/util.go` that can be cleaned up or moved into it's own package for easier consumption/discovery. In #76206 there were some discussions for how to break up this file. The proposed package structure was:

test/e2e/framework/

- [ ] kubectl/ (@alejandrox1)
  - builder.go
  - runner.go
- [ ] log/ (@WanLinghao)
  - logger.go
- [ ] pod/ (@alejandrox1)
  - wait.go
  - resource.go
- [ ] node/ (@alejandrox1)
  - wait.go
  - resource.go
- [ ] service/ (@draveness)
  - resource.go
- [ ] endpoints/ (@draveness)
  - resource.go
- [ ] resource/ (@draveness)
  - runtime.go
- [ ] lifecycle/ (@WanLinghao)
  - versions.go
  - state.go
  - restart
- [ ] wrappers.go (@MorrisLaw)
- [ ] providers.go (@MorrisLaw)

I think each package & top level file can be it's own task. Pick a package above, go through each method in `test/e2e/framework/util.go` and move it to that package/file if it makes sense. The above is just a guideline, feel free to introduce new packages/files where it makes sense.

Why is this needed:
This is a part of #76206 & #75601

Assignees
No one assigned

Labels
area/e2e-test-framework
kind/feature
sig/testing

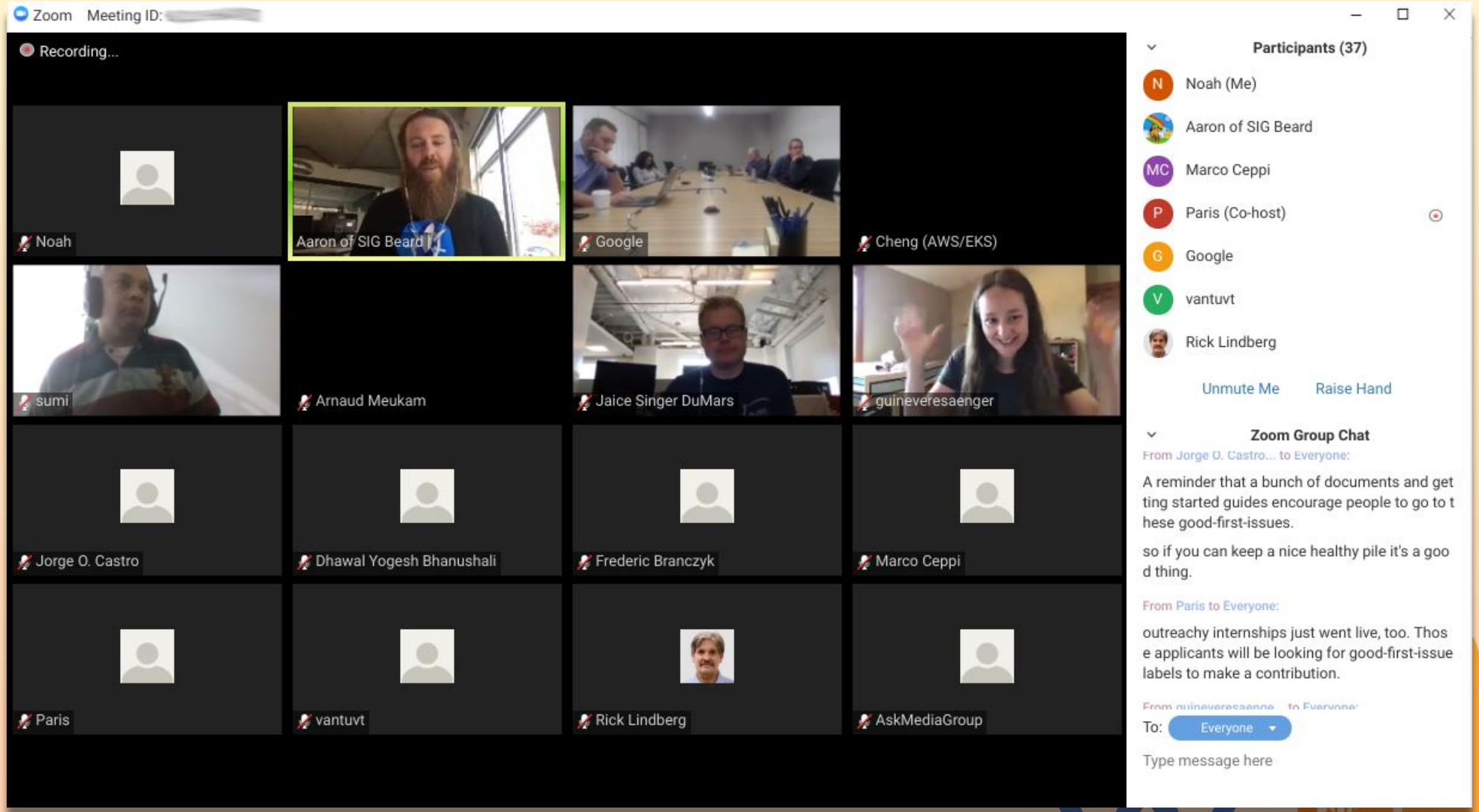
Projects
None yet

Milestone
No milestone

Notifications
Subscribe
You're not receiving notifications from this thread.

8 participants

Zoom Meetings



Zoom Meetings

Schedule is on the community calendar

- SIG Meetings
- Kubernetes Weekly Community Meeting
  - Overview of community activities, release info, and governance updates.
- Special meetings
- Code of Conduct always applies

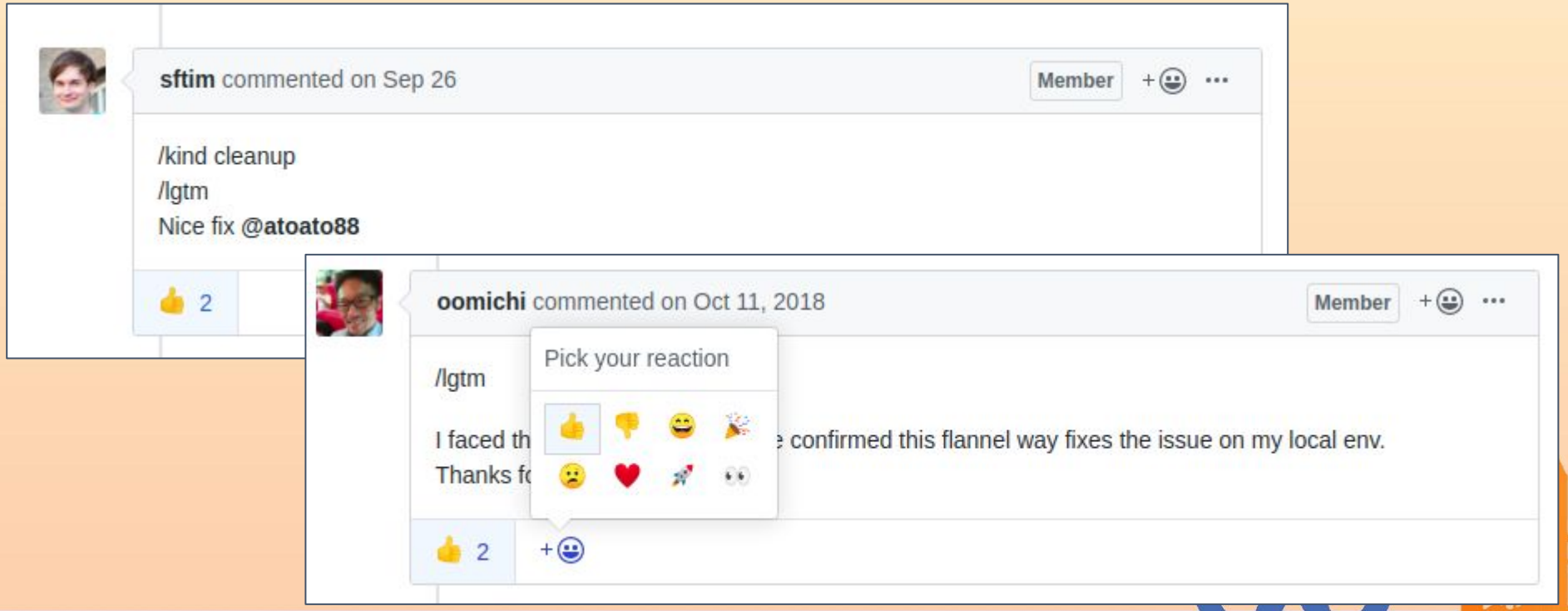
Other Communications

- kubernetes.io/community
  - Links to everything community related can be found here
- Meet Our Contributors
  - Monthly live video discussion with contributors
- Office Hours
  - Monthly live video panel to ask technical questions
- KubeCon + CloudNativeCon
- Face-to-Face SIG meetings
- Meetups

コミュニケーションのTips

コミュニケーションのTips

- 絵文字によるアクションもあります。
  - 文章を考えるまでもない同意など表現を1クリックで行えるので便利です。



コミュニケーションのTips

- Google翻訳を使っていきましょう。
  - GithubやSlack、MLなどコミュニケーションの大半は基本的に英語で行われます。
  - Google翻訳は比較的精度も高く、英文を作るのにとても有用です。
  - 目的は意思疎通をすることです。ツールは便利に使って、積極的に目的を果たしましょう。

コミュニケーションのTips

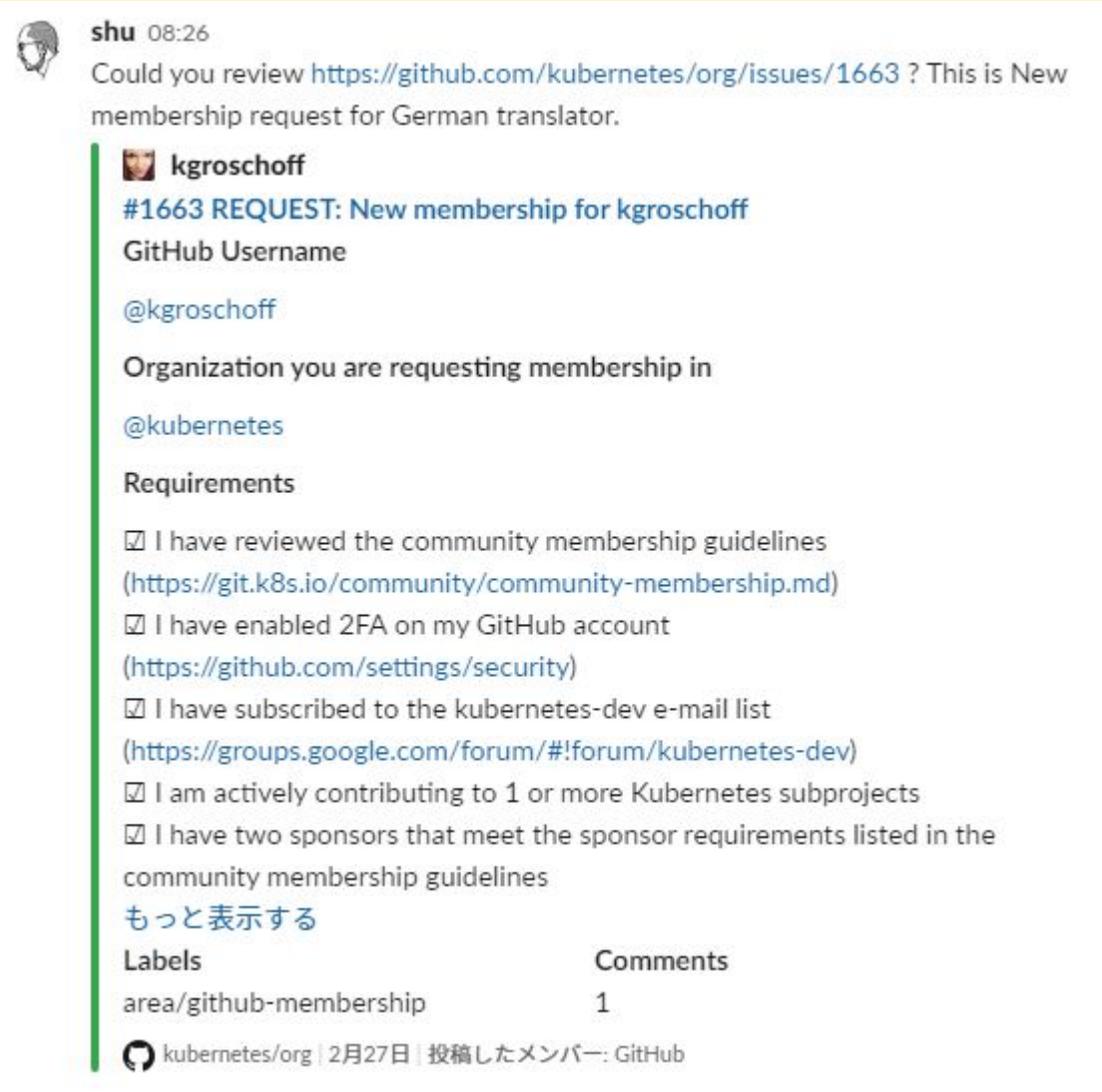
- 比較的使われる英語表現を列挙します。
  - I’m facing the same issue. / 私も同じ問題を経験しています
  - ditto / (既に指摘した部分に続いて、) 同上です
  - nits / 細かい指摘だけど
  - nit: … / 細かい指摘ですが …
  - PTAL (Please take another look) / 見直して下さい
  - WDYT (What do you think?) / どう思いますか？
  - LGTM (Looks good to me) / 大丈夫だと思います。
  - SGTM (Sounds good to me) / いいと思います。いいね。
  - SG (Sounds good) / いいと思います。いいね。
  - FYI (For your information) / 参考までに
  - ¯_(ツ)_/¯ (shrug) / 肩をすくめる
  - IMHO (In my humble opinion) / つまらない意見ですが、私に言わせていただければ
  - TBH (To Be Honest) / 正直に言うと、はっきり言って

コミュニケーションのTips

- １文は短めに。
  - 英語を書こうとすると、長く、読みにくくなりがちですが、伝わりやすさを重視した、短めの文章を心がけましょう。

コミュニケーションのTips

- Issue や PR を作ったら GitHub 上でレビュー依頼を出しますが、反応が少ないようであれば Slack で連絡を出すと良いです。
- Slack の #jp-dev や #jp-mentoring も活用してみてください。



Break - 10 minutes

Hands On

Playground Exercise

Your turn!!!

https://sigs.k8s.io/contributor-playground

Playground Exercise

https://sigs.k8s.io/contributor-playground

1. Fork and clone
2. Make changes in “japan/<EVENT-NAME>/workdir/” directory *change <EVENT-NAME> with event name you joined (e.g. cndt-2020).
3. Pull request
4. Review/comment/rebase
5. Pay attention to labels and bot prompts

Playground Exercise - Ask reviews

Ask reviews on #jp-dev

example:

@Shu Muto Please review
https://github.com/kubernetes/kubernetes/pull/79695

Reviewers list on k8s slack

@akihito-inou(atoato88)
@YuikoTakada
@Shinji Kawamura (s-kawamura-w664)
@Shu Muto
@inukai

Playground Exercise

```
$ git clone https://github.com/foo/contributor-playground
$ cd contributor-playground
$ git remote add upstream https://github.com/kubernetes-sigs/contributor-playground
$ git remote set-url --push upstream no_push

$ git remote -v
origin  https://github.com/foo/contributor-playground (fetch)
origin  https://github.com/foo/contributor-playground (push)
upstream        https://github.com/kubernetes-sigs/contributor-playground (fetch)
upstream        no_push (push)
```

*change foo with your github account

Playground Exercise

```
$ cd japan/<EVENT-NAME>/workdir/
```

*change <EVENT-NAME> with event name you joined (e.g. cndt-2020).

```
$ git checkout -b add_foo_md
$ vi foo.md
$ git add foo.md
$ git commit -m "Add foo.md"

$ git fetch upstream
$ git rebase upstream/master
$ git push origin add_foo_md
```

Playground Exercise

access https://github.com/kubernetes-sigs/contributor-playground

create PR

ask reviews on slack #jp-dev

Playground Exercise

- ハンズオンで実行したコマンド
  https://github.com/kubernetes-sigs/contributor-playground/blob/master/japan/assets/hands_on.md

- ご質問は、slack の #jp-mentoring まで

- PR のレビュー依頼は、slack の #jp-dev まで
  @akihito-inou(atoato88)　　@Shu Muto
  @YuikoTakada　　@inukai
  @Shinji Kawamura (s-kawamura-w664)

Break - 10 minutes

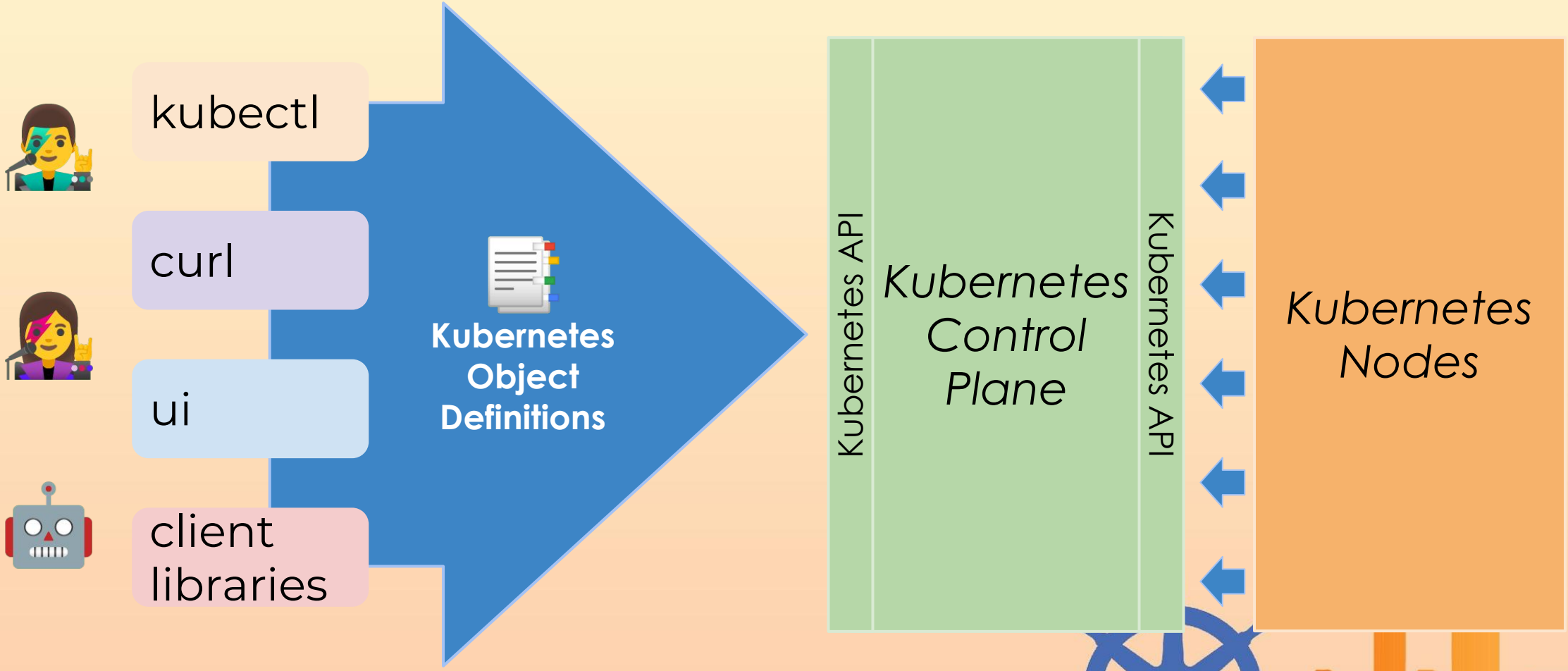
Let us know if you need any additional hands on help.

Kubernetes 開発環境

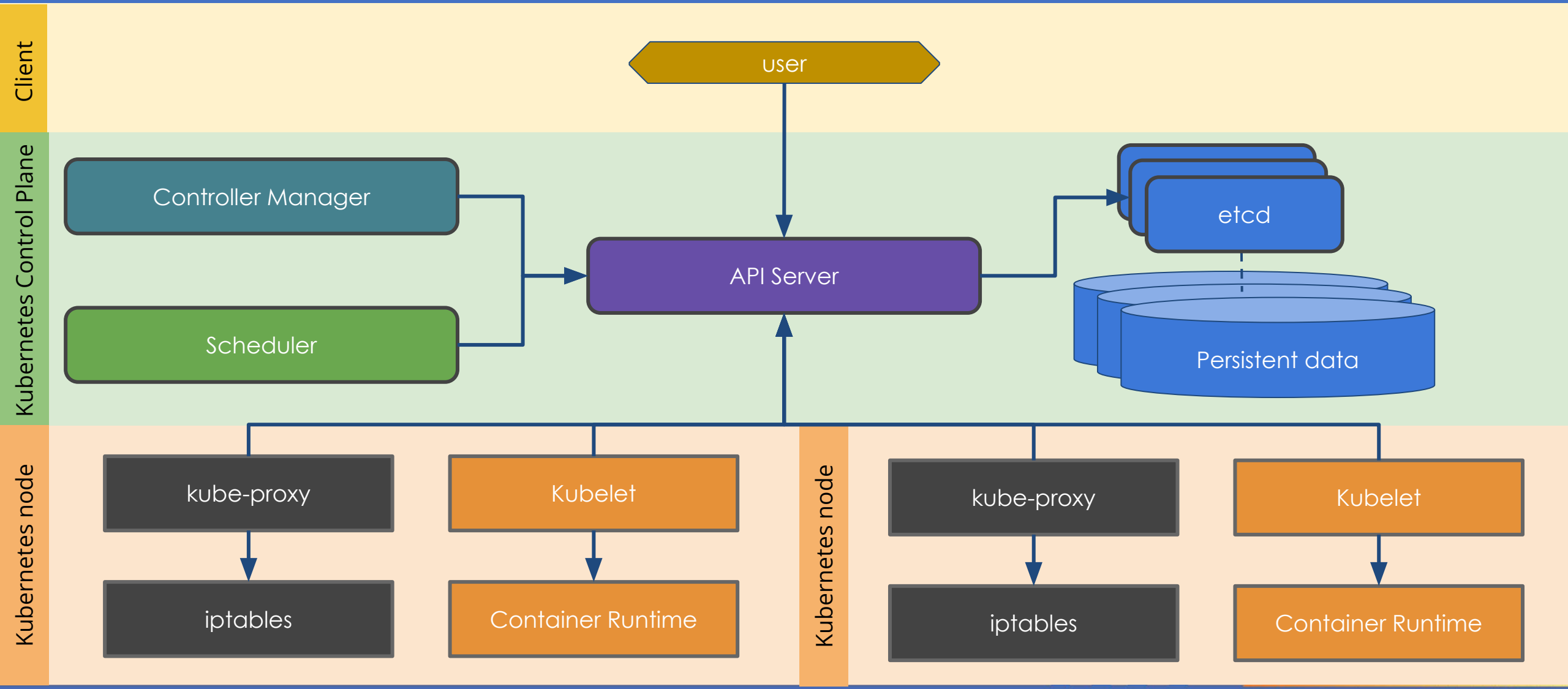
kubernetes CONTRIBUTOR SUMMIT
SAN DIEGO 2019

Kubernetes 概要

Kubernetes Architecture Overview



Kubernetes Primitives



Basic Repo/Code Tour

kubernetes / kubernetes

Watch 3.1k | Unstar 59.4k | Fork 20.9k

Code | Issues 2,278 | Pull requests 1,076 | Actions | Projects 9 | Security | Insights

Production-Grade Container Scheduling and Management https://kubernetes.io

kubernetes go cncf containers

84,806 commits | 40 branches | 0 packages | 576 releases | 2,339 contributors | Apache-2.0

Branch: master | New pull request | Create new file | Upload files | Find file | Clone or download

k8s-ci-robot Merge pull request #84553 from ahg-g/ahg-nodeinfo ... Latest commit b6bf0d6 1 hour ago

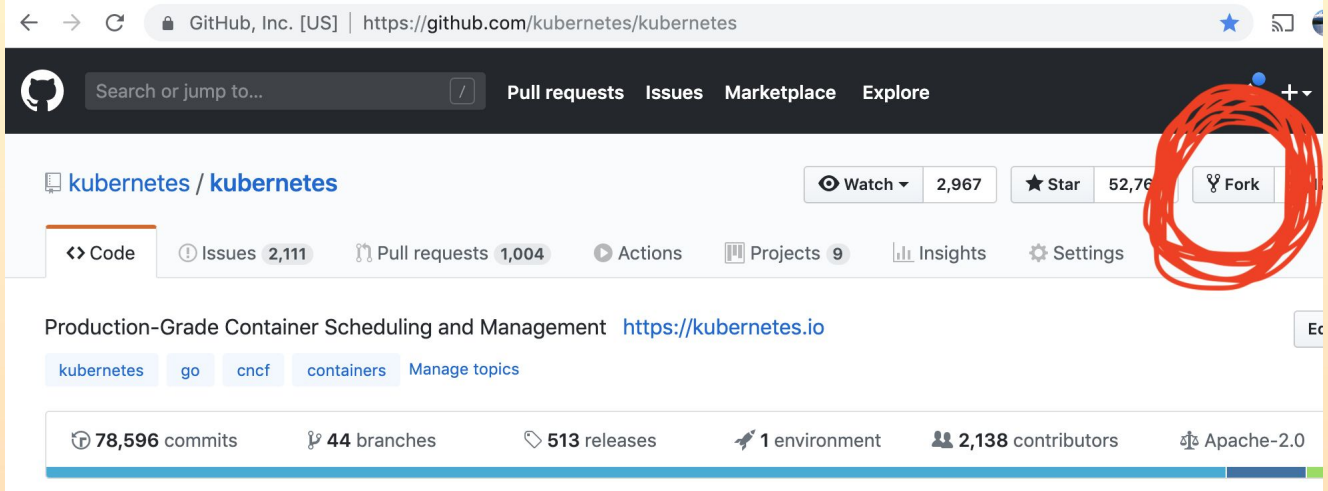
.github	Fix incorrect whitespaces plural	6 days ago
Godeps	Pin dependencies and update vendors	6 days ago
api	Kubernetes version v1.18.0-alpha.0 openapi-spec file updates	yesterday
build	Merge pull request #84329 from jingyih/update_etcd_server_to_3.4	7 hours ago
cluster	Merge pull request #84329 from jingyih/update_etcd_server_to_3.4	7 hours ago
cmd	Merge pull request #84329 from jingyih/update_etcd_server_to_3.4	7 hours ago

Dev Environment: Pre-Requisites

- Lots of RAM/Disk/CPU
- Linux, Mac, Windows basic dev tools
- Docker (for Mac/Win dedicate **6GB RAM**)
- Golang 1.16 latest and $GOPATH set
- GitHub:
  - Account and SSH key configured
  - Fork github.com/kubernetes/kubernetes

https://www.flickr.com/photos/vestman/3900877043/
By Vestman (vestman) [CC BY 2.0], via flickr

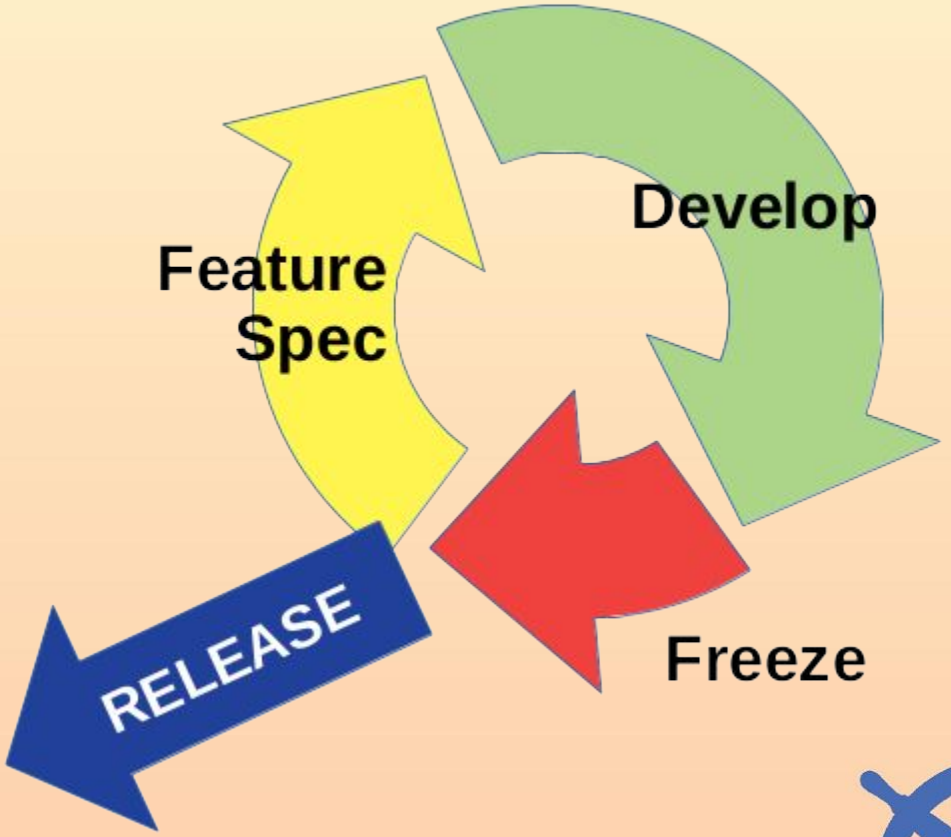
Dev Environment: Initialization



- mkdir -p $GOPATH/src/k8s.io/ && cd $GOPATH/src/k8s.io/
- git clone git@github.com:$YOUR_USER/kubernetes.git && cd kubernetes
- git remote add upstream https://github.com/kubernetes/kubernetes.git
- git remote set-url --push upstream no_push
- git fetch upstream
- git checkout master

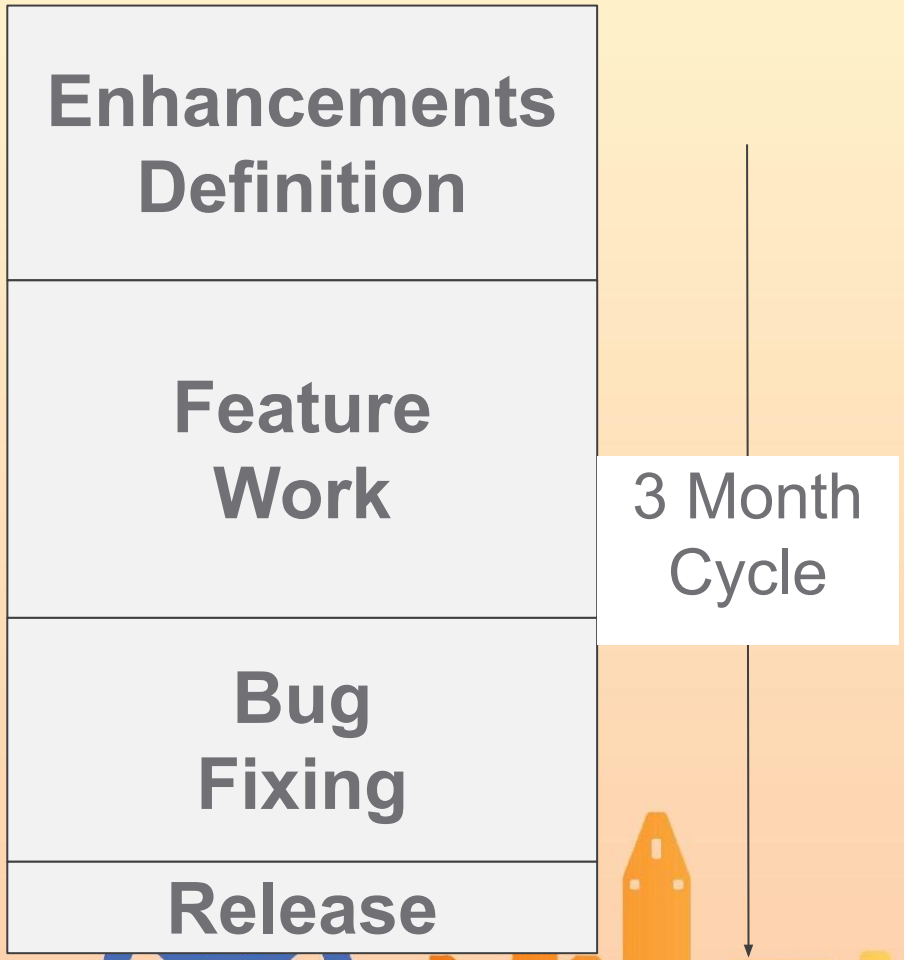
リリースサイクル

The 4-month Release Cycle



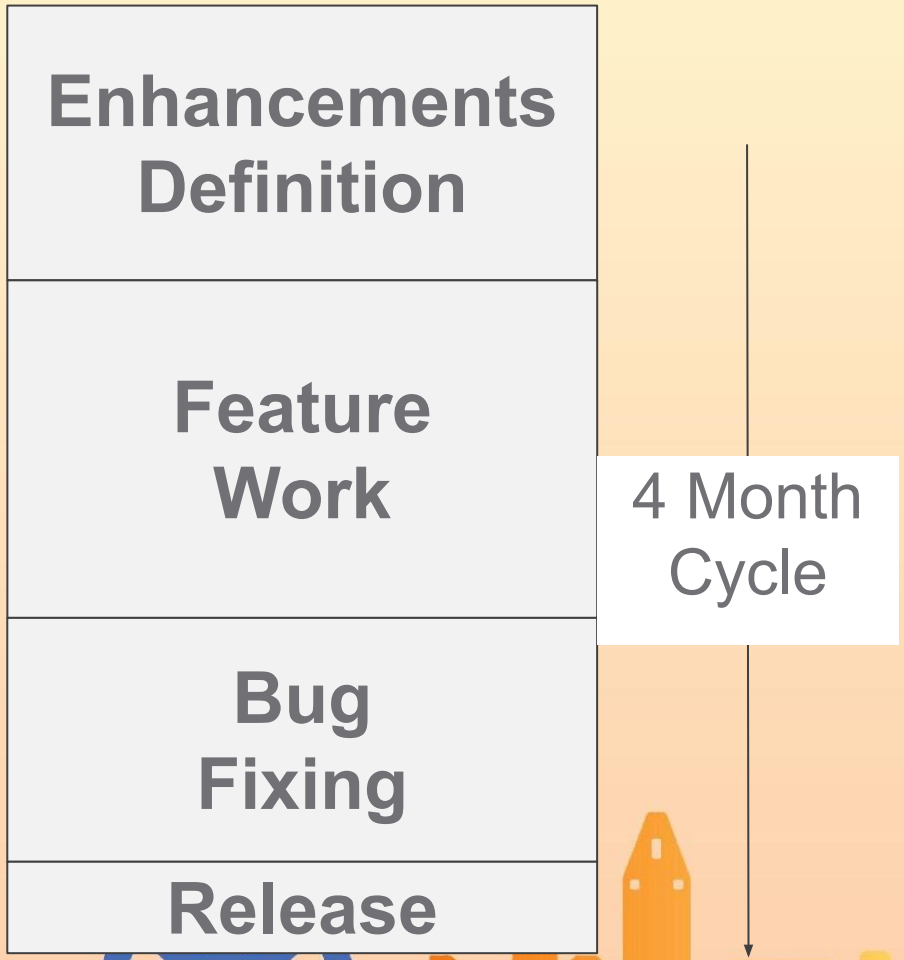
Release Process (- v1.21)

Enhancements Discussion (per SIG):	ongoing
Enhancements Freeze:	week ~4
Release Branch Creation:	week ~7
Code Freeze:	week ~8
...bugs, testing, bugs, fixing, bugs, ...iterating	
End Code Freeze:	week ~12
Release:	week ~13

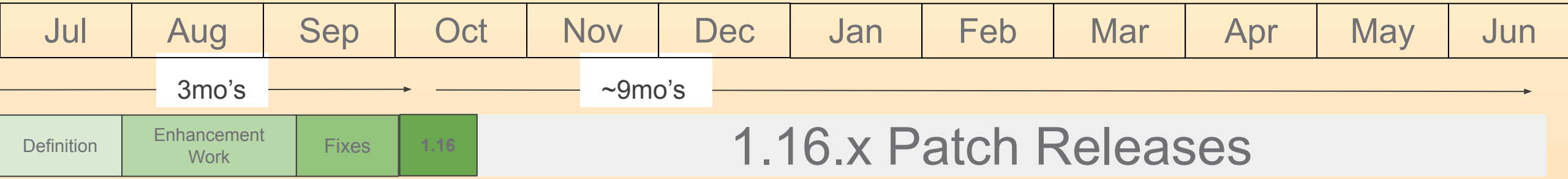


Release Process (v1.22 -)

Enhancements Discussion (per SIG):	ongoing
Enhancements Freeze:	week ~3
Code Freeze:	week ~13
...bugs, testing, bugs, fixing, bugs, ...iterating	
Release Branch Creation:	week ~14
End Code Freeze(Thaw):	week ~16
Release:	week ~16

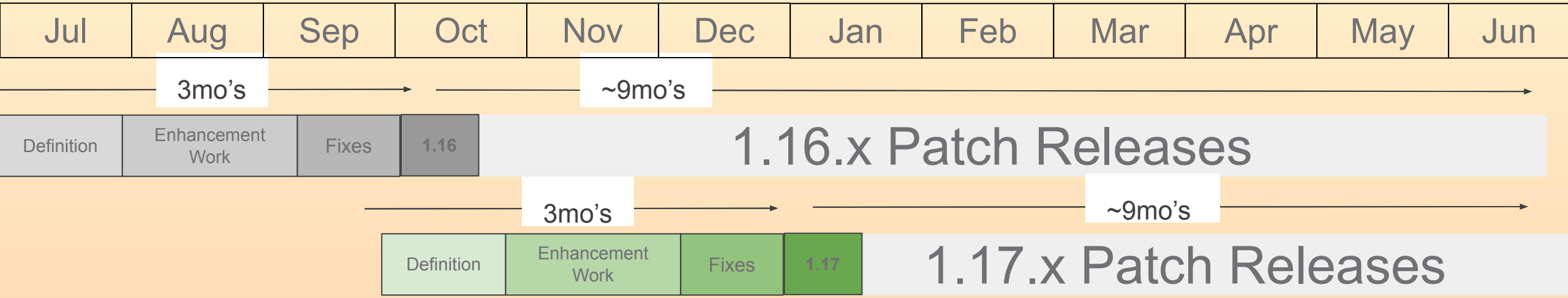


Release Lifecycle



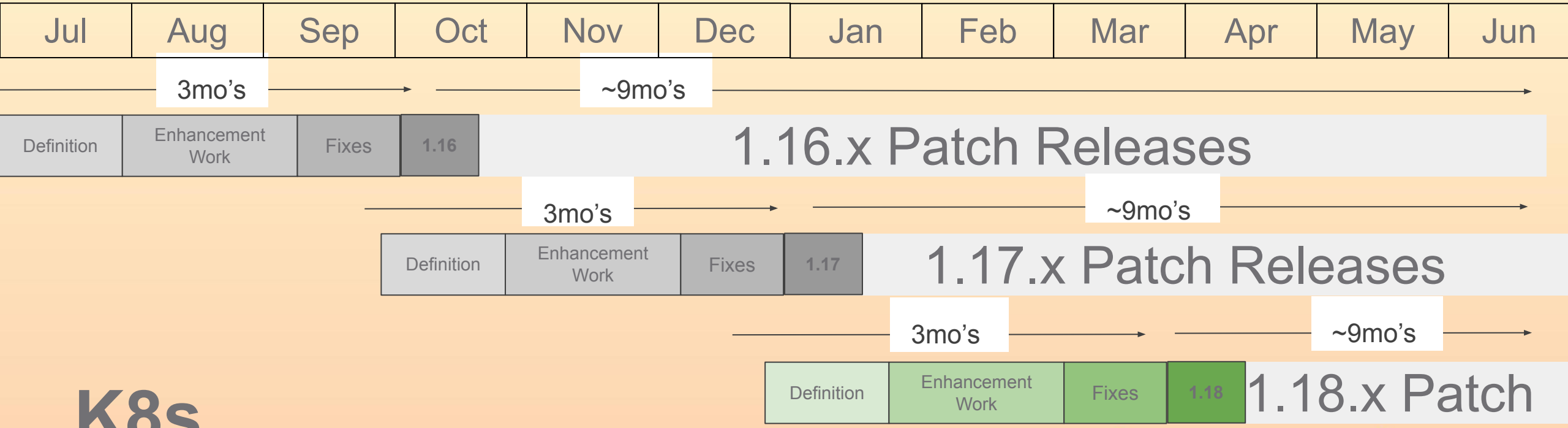
K8s Releases

Release Lifecycle



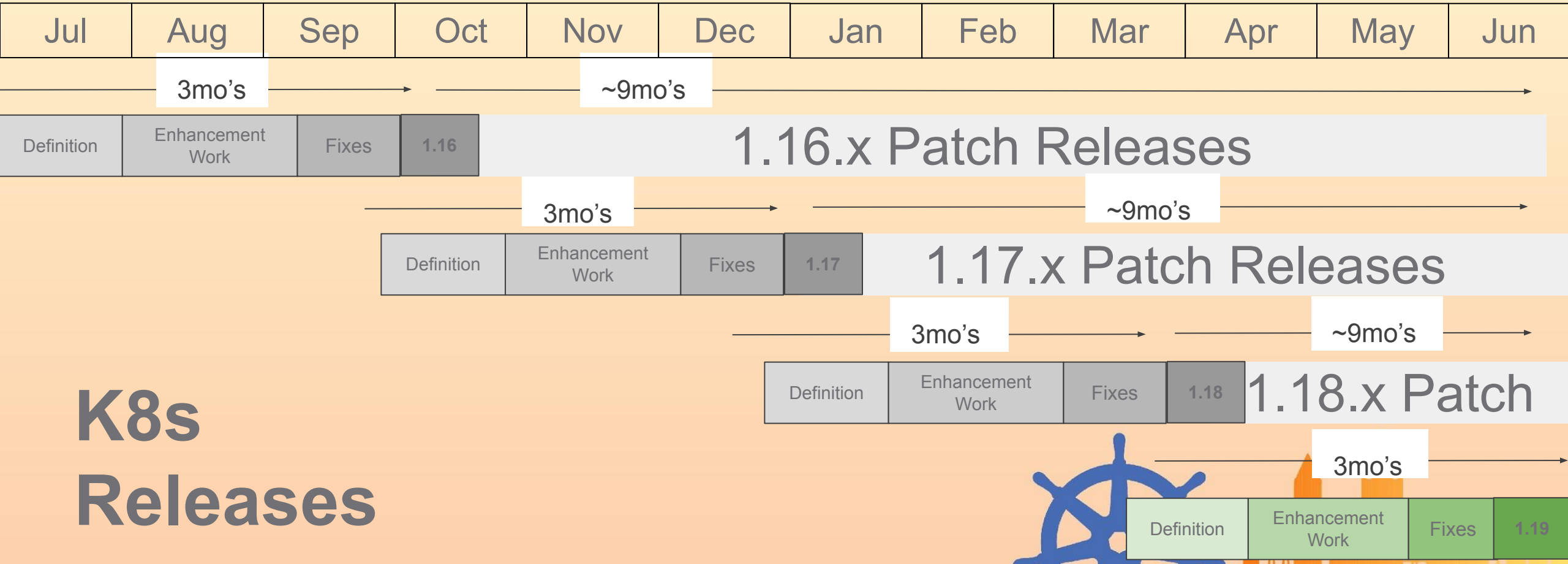
K8s Releases

Release Lifecycle



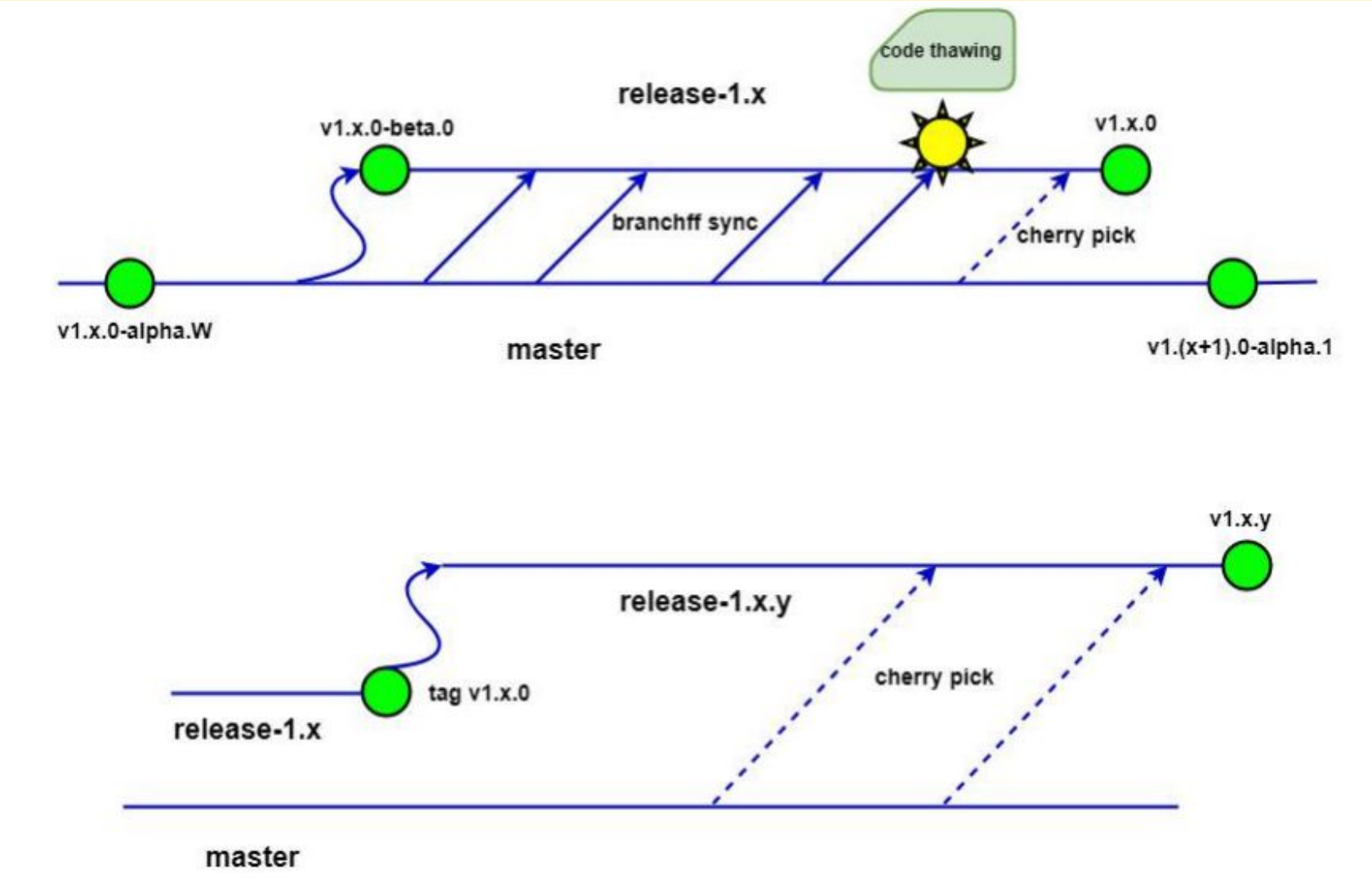
K8s Releases

Release Lifecycle



K8s Releases

Branch Management



開発環境構築

Build System(s)

- local OS
  or
- container based

- go build
- make
- ~~bazel build~~

https://git.k8s.io/kubernetes/build/README.md

Make Targets

- **‘make’**: go build of host OS/arch-specific core binaries
- **‘make release’**: (don’t do this)
  - containerized build of client/server/node binaries
  - Window, MacOS, Linux
  - x86/386, x86_64/amd64, arm, arm64, ppc64le, s390x
- **‘make quick-release’**:
  - containerized build of core binaries
  - defaults to linux/amd64

Testing

- **Unit**: test via native golang
- **Integration**: test package or component interactions
- **End-to-end** ("e2e"): tests overall system behavior and coherence on a fully integrated cluster
- **Conformance**: subset of e2e, tests SIG Architecture approved to define the core set of interoperable features

https://git.k8s.io/community/contributors/guide/contributing.md#testing

Testing: Unit Tests

- Simple native golang
- Example: run kubectl's unit tests
- cd pkg/kubectl; go test ./…

```
ok      k8s.io/kubernetes/pkg/kubectl   5.525s
?       k8s.io/kubernetes/pkg/kubectl/apply [no test files]
ok      k8s.io/kubernetes/pkg/kubectl/apply/parse  0.442s
ok      k8s.io/kubernetes/pkg/kubectl/apply/strategy  2.916s
ok      k8s.io/kubernetes/pkg/kubectl/apps  0.251s
.
.
```

Testing: Integration

- Package or component interactions
- Requires dependency management
- Example: run a test of k8s code + etcd
- hack/install-etcd.sh; make test-integration

Testing: End-to-End (e2e)

- Cluster interactions
- Requires … a cluster
- Example: run a focused e2e test (requires Linux)

```
sudo PATH=$PATH hack/local-up-cluster.sh
export KUBECONFIG=/path/to/kubeconfig
kubetest --provider=local --test --test_args="--minStartupPods=1
--ginkgo.focus=Secrets"
```

Testing: Conformance

- Subset of e2e
- SIG Architecture approved tests
- Represent core set of interoperable features
- Example: run the conformance tests

(see previous on local-cluster-up.sh)

```
make WHAT="test/e2e/e2e.test vendor/github.com/onsi/ginkgo/ginkgo cmd/kubectl"
kubetest --provider=skeleton --test --test_args="--ginkgo.focus=\[Conformance\]"
```

Testing: Minikube

- https://github.com/kubernetes/minikube/
- Kubernetes **cluster-in-a-VM** on your local machine!

- Requirements:
  - Host machine with kubectl
  - Guest VM ability
  - Host<->Guest networking and internet connectivity

Testing: KinD (Kubernetes in Docker)

- https://github.com/kubernetes-sigs/kind/
- Kubernetes **cluster-in-a-container** on your local machine!

- Requirements:
  - Docker runtime
  - Internet connectivity

- Get KinD, build k8s from source, start cluster:
  - `GO111MODULE="on" go get -u sigs.k8s.io/kind@master`
  - `kind build node-image`
  - `kind create cluster --image kindest/node:latest`

Website 開発環境

- 下記をフォークして、ローカルにクローンする
  - https://github.com/kubernetes/website
  - git clone https://github.com/kubernetes/website.git
  - cd website
- サブモジュールをアップデートする
  - git submodule update --init --recursive --depth 1
- 修正対象のファイルを編集する
- 以下を実行して、コンテナ内でサイトを構築する
  - make container-image
  - make container-serve
- ブラウザで http://localhost:1313 にアクセスして、修正内容を確認する

- 参考: https://github.com/kubernetes/website/blob/main/README-ja.md
- Slack: #kubernetes-docs-ja (日本語ページ向け)

Dashboard 開発環境

- 下記をフォークして、ローカルにクローンする
  - https://github.com/kubernetes/dashboard
- Dockerを使ったお手軽環境で開発する
  - https://github.com/kubernetes/dashboard/blob/master/docs/developer/getting-started.md#easy-way-to-build-your-development-environment-with-docker
  - ソースディレクトリをコンテナにマウントして、これをビルド、テスト、実行できるようになっている。
  - デフォルトでは、D-in-D で kind を起動してここに接続する。
  - 別のK8sクラスタ(API server)に接続できれば、それも利用可能。
- 注意１：git push するときにテストが走る
  - フォークの master ブランチを更新したい場合は、環境変数 HUSKY=0 を設定して git push する。
  - 開発環境コンテナには、~/.git-credentials をマウントするとよい。
- 注意２：主にUbuntu環境で使っています。Macではあまりテストできていないので、動作しなかったらPR出してください。

Q & A

Thank you, and welcome aboard!

Appendix01

Building Binaries

Build and modify the kubectl binary, and use it against a locally deployed cluster

Building Binaries: Prerequisites

docker
go1.13.4 or later
kubernetes/kubernetes repo
KinD

```
GO111MODULE="on"; go get sigs.k8s.io/kind@v0.6.0
export PATH=$PATH:$GOPATH/bin
```

Modifying Kubectl

Open the file

`cmd/kubectl/kubectl.go`

with your prefered text editor.

Add `"fmt"` to the imports

After ~line 38

```
command := cmd.NewDefaultKubectlCommand()
```

add a print statement

```
fmt.Println("Alpacas are fluffy")
```

Building the modified kubectl

```
$make WHAT=cmd/kubectl
```

Using The Binary

Deploy a cluster using KinD

```
kind create cluster \
--image=kubecon.goharbor.io/contribsummit/kindest/node:v1.16.3
```

Run the binary you built against the cluster!

```
./_output/bin/kubectl get po
```

Using The Binary

```
✗ alison@MacBook-Pro  ~/Documents/Code/kubernetes  master •  ./_output/bin/kubectl get po
o hallo
No resources found in default namespace.
```

Make Targets

- ‘make **WHAT=cmd/kubectl**’
  - build kubectl for your host OS/arch
- ‘**KUBE_BUILD_PLATFORMS=windows/amd64** \
  make WHAT=cmd/kubectl’
  - build kubectl for windows/amd64
- ‘make help’: info on make targets

Make Targets: Try it...build kubectl!

1. Edit cmd/kubectl/kubectl.go
2. Add a “hello world” print out in “func main()”, eg:
   fmt.Println("Hello Kubernetes!")
3. Build:
   make WHAT=cmd/kubectl
4. New binary?
   ls -al _output/local/go/bin/kubectl
5. Run your binary:
   cd ./_output/local/go/bin
   ./kubectl version