



Kubernetes Upstream Training

in Japan

※本資料は、Kubernetes Contributor Summit SanDiego 2019 の NewContributorWorkshop の資料をベースに再構成、更新したものです。

その前に

TODO

- 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つたと思います。
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>
- **Kubernetes Slack**の以下に参加しておいてください。
 - #jp-mentoring チャンネル
 - #jp-dev チャンネル
- **kubernetes-sigs/contributor-playground** リポジトリの Fork & Clone
 - あなたのGitHubアカウントで Fork しておいてください。
 - Fork したリポジトリを使用する PC に Clone しておいてください。



はじめに

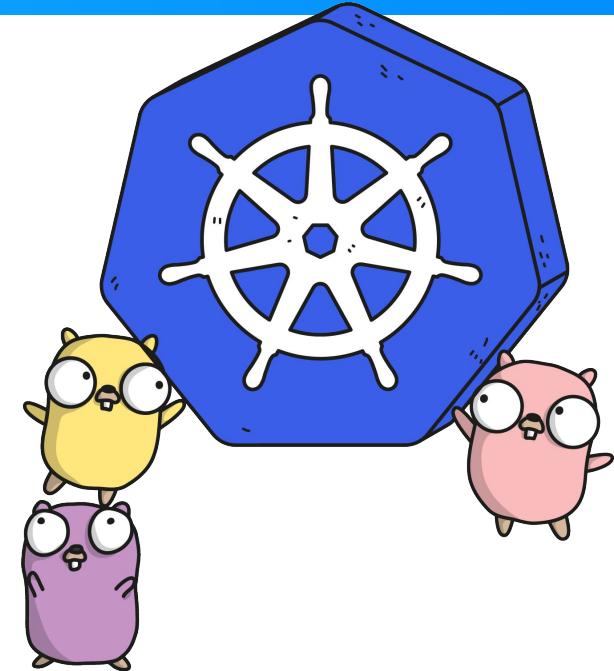
Welcome on board!



Schedule

- **Kubernetes コミュニティ (30min)**
 - Break (5min)
- **コントリビューション実践 (25min)**
- **コミュニケーション (20min)**
 - Break (5min)
- **ハンズオン (70min)**
 - Break (5min)
- **Kubernetes 開発環境 (40min)**
- **Q&A (5min)**
- **クロージング (5min)**

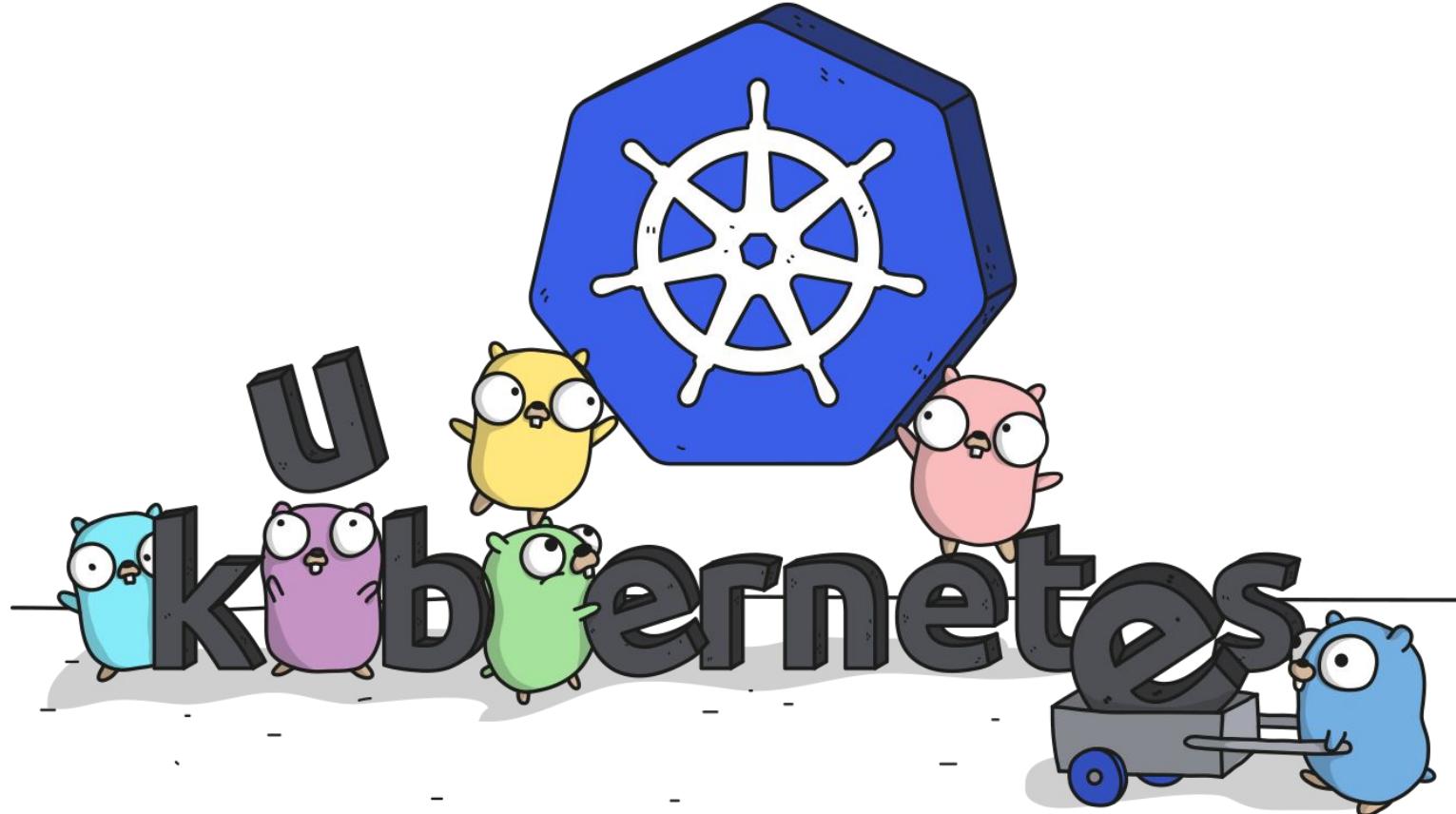
Total: 3h30m



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?



Why contribute to Kubernetes?



The Kubernetes Contributor Patch

\$1,000⁰⁰

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



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.

SIG has the subproject(s)

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

すべてのUser Groupsがアーカイブとなり、グループとしてのUser Groupsはなくなった。

Committees

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



Special Interest Group

Kubernetes is a big project

Many contributors([75,000+](#)) in one pool
would be too noisy

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



Special Interest Group

Charter:

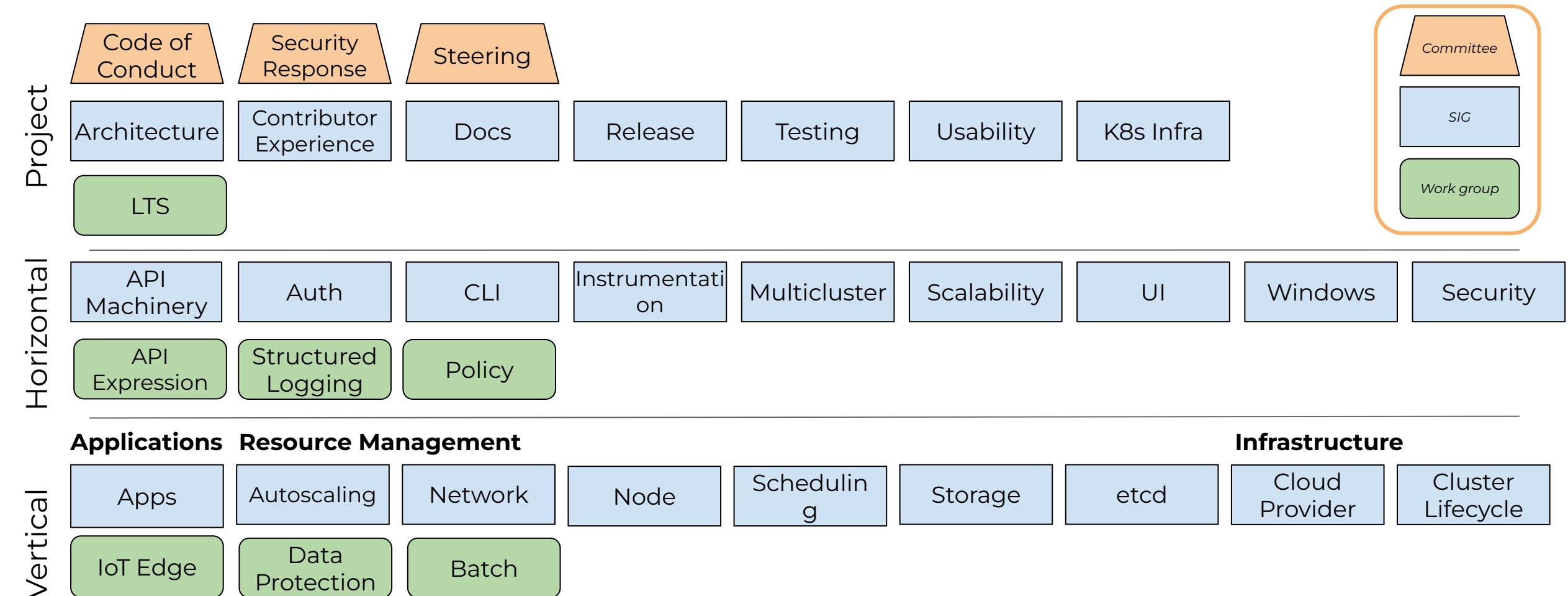
- Code ownership
 - Scope/area
 - Binaries
- Governing processes
- Subprojects
- Working Groups

Mailing List:

- Communications with SIG members



Community Groups Overview



Project SIGs

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



Horizontal SIGs

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



Vertical SIGs: Applications

- Applications
 - sig-apps
- Infrastructure
 - sig-cloud-provider
 - sig-cluster-lifecycle
- ResourceManagement
 - sig-autoscaling
 - sig-network
 - sig-node
 - sig-scheduling
 - sig-storage
 - sig-etcd



Project Working Groups

- wg-its



Horizontal Working Groups

- wg-api-expression
- wg-policy
- wg-structured-logging



Vertical Working Groups

- wg-iot-edge
- wg-data-protection
- wg-batch



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 KubeCon schedule page 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.



Repositories



Core Repository

[kubernetes/kubernetes](https://github.com/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



Engaging Community



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!

Mentoring Opportunities

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

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 Videos

- 2021
 - [Europe 2021 Virtual videos](#)
 - [NorthAmerica 2021 videos](#)
- 2022
 - [Europe 2022 videos](#)
 - [NorthAmerica 2022 videos](#)
- 2023
 - [Europe 2023 videos](#)
 - [NorthAmerica 2023 videos](#)
- Please check on [CNCF on Youtube](#)



SIGs, Areas, Issues: Engaging

Governance reference

<https://git.k8s.io/community/governance.md>

Project Group List

<https://git.k8s.io/community/sig-list.md>

Mentoring Links

<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/develop/README.md>



Break - 5 minutes

コントリビューション実践

Open Source Interactions



Open Source Interactions

me
implementation
centralized
implicit
assumptions



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



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



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**



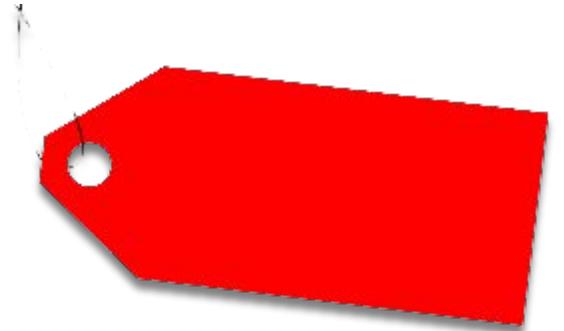
Open Source Interactions



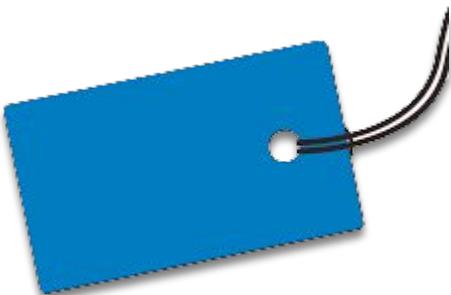
Labels



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

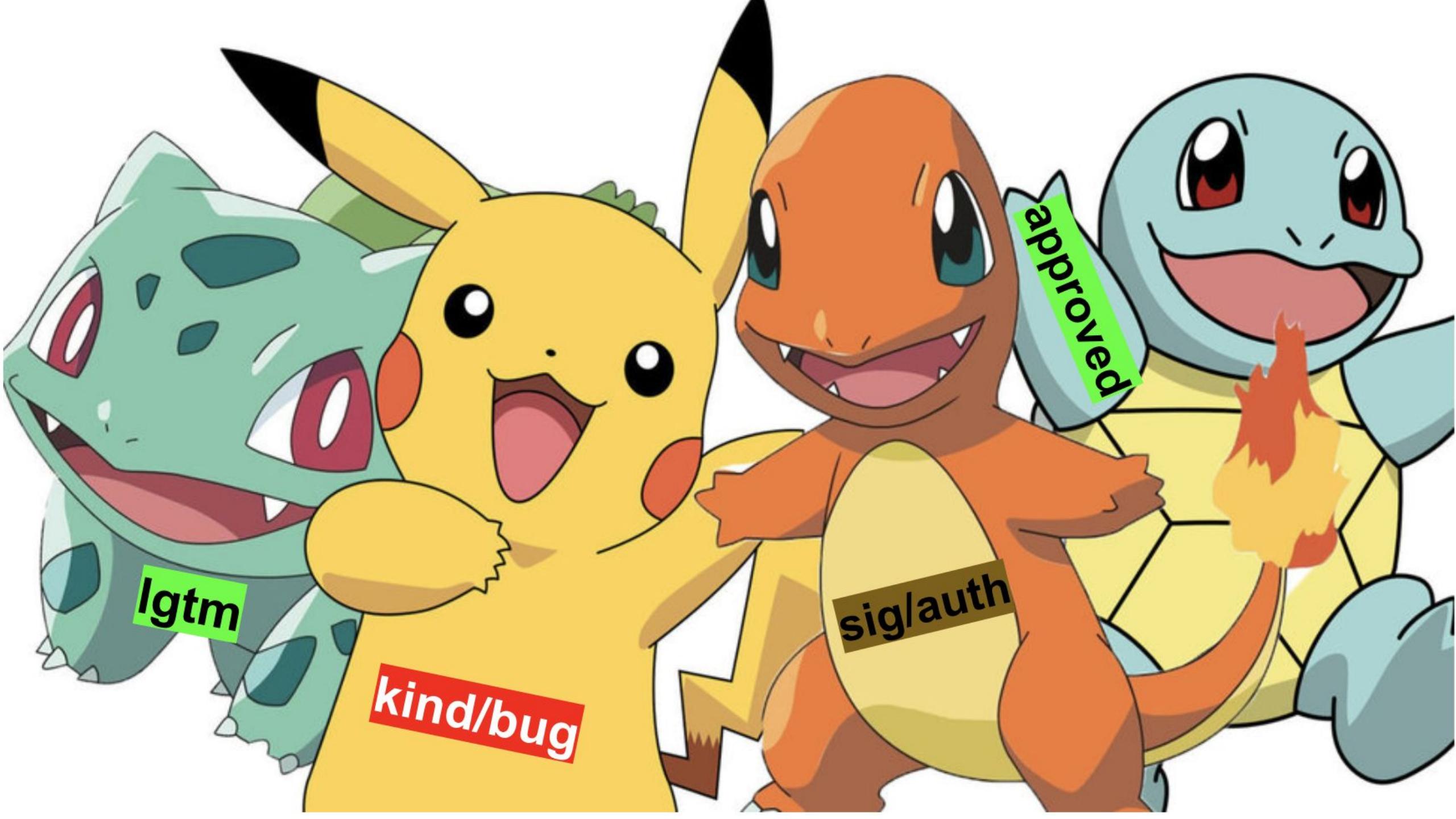
Notifications

🔕 Unsubscribe

You're receiving notifications because you were mentioned.

7 participants





lgtm

kind/bug

sig/auth

approved

WIP

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:

- mentioning a sig: `@kubernetes/sig-<group-name>-<group-suffix>`
e.g., `@kubernetes/sig-contributor-experience-<group-suffix>` to notify the contributor experience sig, OR
- 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

sig/auth

sig/testing

sig/api-machinery

sig/node

Bot command

/sig auth

/sig testing

/sig api-machinery

/sig node



Adding a label



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

Open	Closed	Author	Labels	Projects	Milestones	Assignee	Sort
16	32						
<p>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</p> <p>#81121 opened on Aug 7 by cji</p>							
<p>Add unit tests for Scheduler framework good first issue help wanted kind/feature sig/scheduling</p> <p>#80272 opened on Jul 17 by liu-cong</p>							
<p>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</p> <p>#79832 opened on Jul 5 by answer1991</p>							
<p>Support UDP with AWS NLB area/provider/aws good first issue help wanted kind/feature sig/cloud-provider</p> <p>#79523 opened on Jun 28 by kirrmann v.1.17</p>							
<p>Connect lower level traces to surrounding request handling trace good first issue help wanted kind/feature sig/api-machinery</p> <p>#79209 opened on Jun 19 by jpbetz</p>							
<p>ES Plugins support for Mount Options good first issue help wanted kind/feature sig/storage sig/mount-options</p> <p>#78955 opened on Jun 19 by jpbetz</p>							

- 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



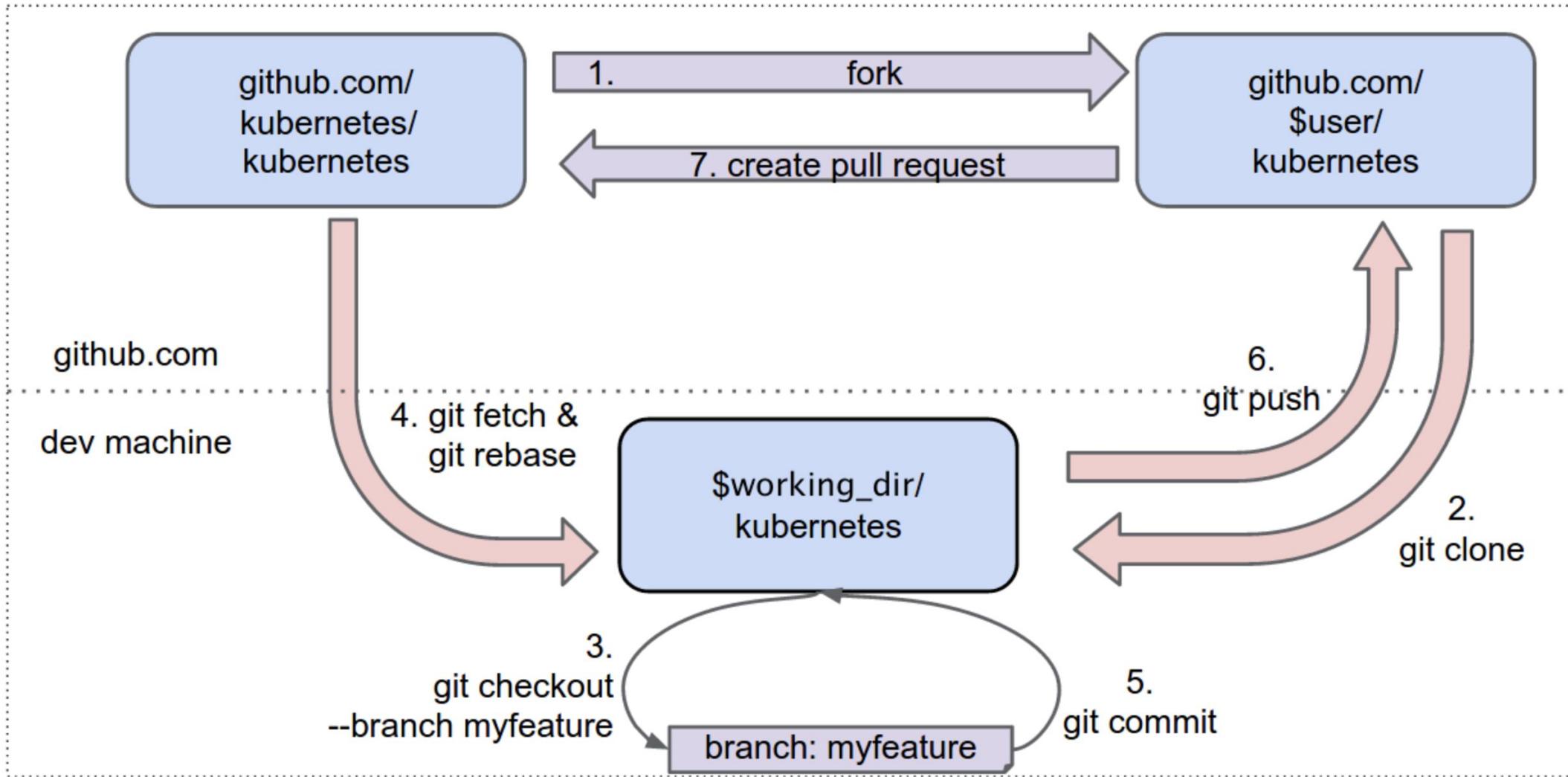
Do Not Boil The Ocean

Smaller is
better

Write good
commit
messages



PRs and Bots: GitHub PR Flow

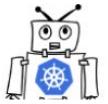


PR Workflow on GitHub

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

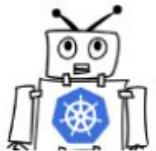
/assign @username
/retest
/close
/cc @username

Result

Assigns a Reviewer
Reruns failed tests
Closes PR
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	<code>/test pull-kubernetes-e2e-gce</code>
pull-kubernetes-e2e-gce-device-plugin-gpu	0a1251a	link	<code>/test pull-kubernetes-e2e-gce-device-plugin-gpu</code>

[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



Contributor Ladder

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

Role	Responsibilities	Requirements	Defined by
Member	Active contributor in the community	Sponsored by 2 reviewers and 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	Contributions acceptance approval	Highly experienced active reviewer and 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



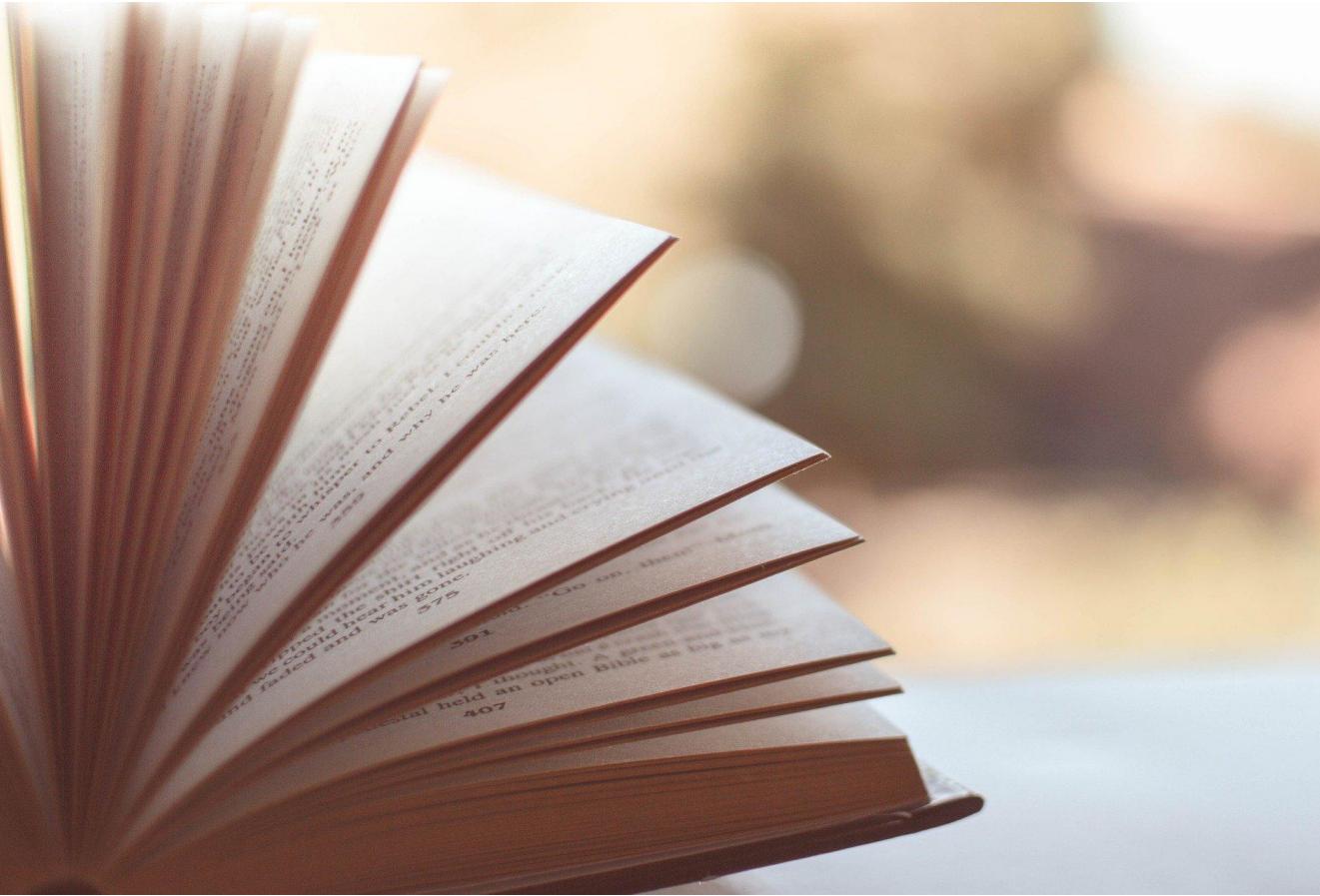
Finding A Reviewer



- 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



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

fabriiziopandini

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>



Contributions

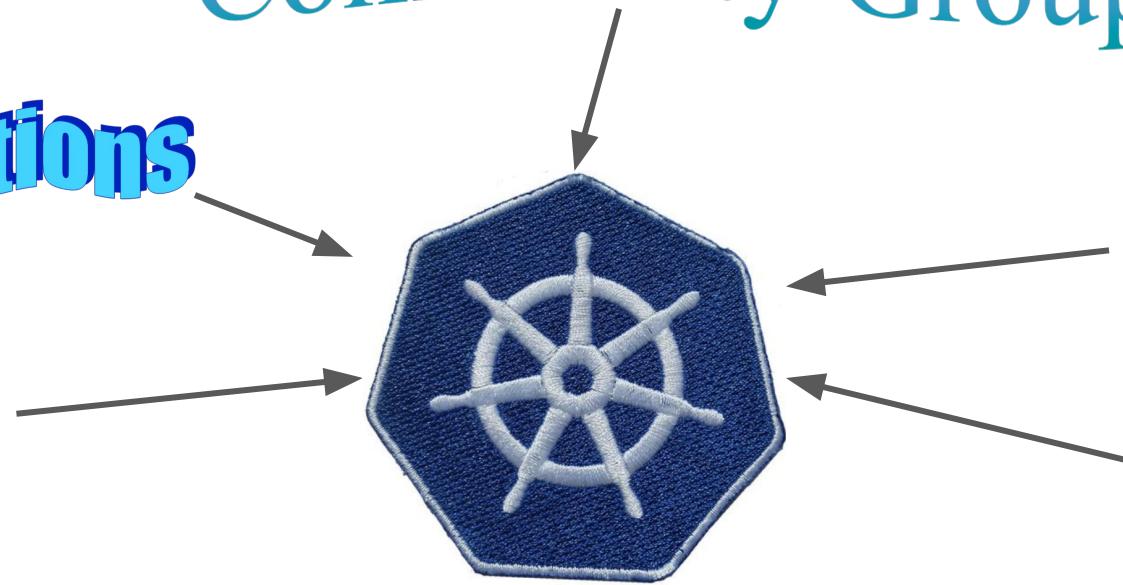
Community Groups

Code Contributions

reviewing

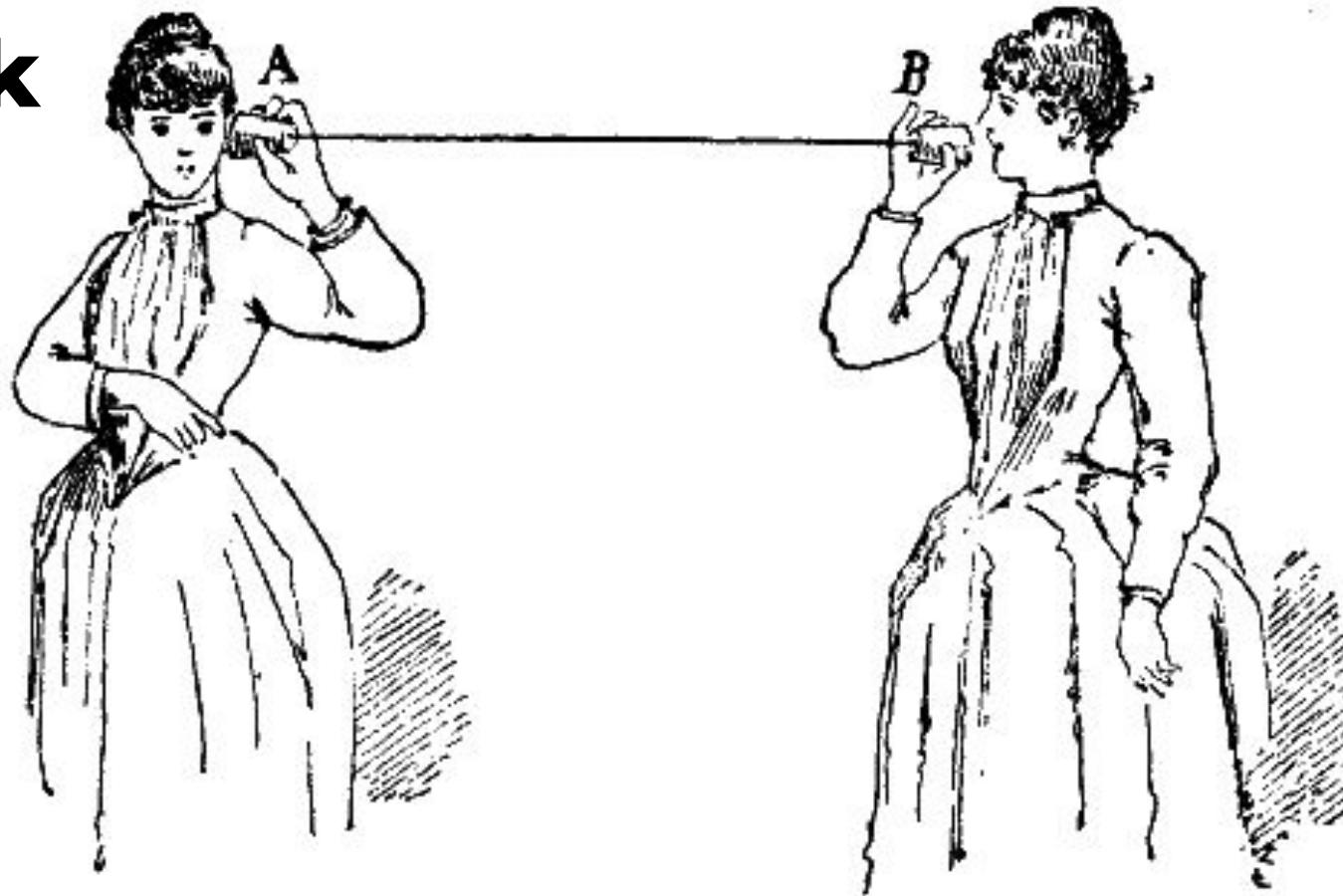
Docs

Mentorship



コミュニケーション

Let's Talk



Kubernetesコミュニティにおける コミュニケーション





When you're chill with everyone



Standards of Communication

Q: 何故みんないい人なのか？

A: 相互に尊敬・尊重しあうことが健全なコラボレーションの前提条件であると考えているから

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



Slack

Register here: slack.k8s.io

ユーザー向け

- [#kubernetes-users](#)
- [#kubernetes-novice](#)

日本人ユーザー向け

- [#jp-users](#)
- [#jp-users-novice](#)
- [#jp-events](#)

contriビューター向け

- [#kubernetes-dev](#)
- [#pr-reviews](#)
- [#sig-contribex](#)

日本人contriビューター向け

- [#jp-dev](#)
- [#jp-mentoring](#)
- [#kubernetes-docs-ja](#)



設計とディスカッション



メーリングリスト

- SIG/WGごとに1つのメーリングリスト
 - サブプロジェクトのメーリングリストがあることも
- You need to join:
 - dev@kubernetes.io
 - **Required for Org Membership!**





GitHub

Issues 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

`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 Meeting ID: [REDACTED]

Recording...

Noah (Me)

Aaron of SIG Beard

Google

Cheng (AWS/EKS)

sumi

Arnaud Meukam

Jaice Singer DuMars

guineveresaenger

Jorge O. Castro

Dhawal Yogesh Bhanushali

Frederic Branczyk

Marco Ceppi

Paris

vantuvt

Rick Lindberg

AskMediaGroup

Participants (37)

N Noah (Me)

G Aaron of SIG Beard

MC Marco Ceppi

P Paris (Co-host)

G Google

V vantuvt

Rick Lindberg

Unmute Me Raise Hand

Zoom Group Chat

From Jorge O. Castro... to Everyone:

A reminder that a bunch of documents and getting started guides encourage people to go to these good-first-issues.

so if you can keep a nice healthy pile it's a good thing.

From Paris to Everyone:

outreachy internships just went live, too. Those applicants will be looking for good-first-issue labels to make a contribution.

From guineveresaenger to Everyone:

To: Everyone

Type message here



Zoom Meetings

[community calendar](#)上でミーティングの予定を確認できます

- SIG Meetings
- [Kubernetes Weekly Community Meeting](#)
 - コミュニティの活動やリリースの情報など



Other Communications

- Global
 - kubernetes.io/community
 - KubeCon + CloudNativeCon [NA](#) / [EU](#)
- Japan
 - [CNCF Cloud Native Community Japan](#) (CNCJ)
 - [Kubernetes Meetup Tokyo](#)
 - [KubeDay Japan](#)

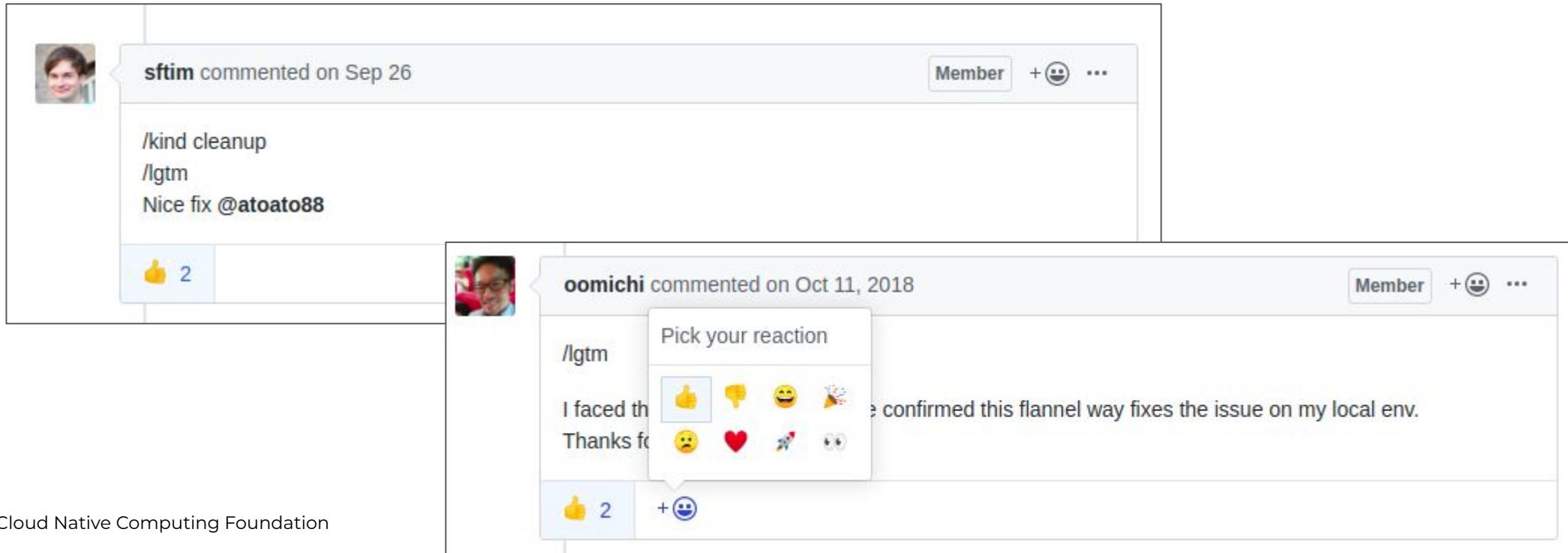


コミュニケーションのTips



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翻訳やDeepL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。
 - 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。
- Grammarlyのブラウザ拡張も便利です。
 - タイプミス、文法上の誤り、冗長な表現、不自然な表現などを指摘・修正してくれます。



コミュニケーションのTips

- 比較的よく使われる英語表現
 - ditto / (既に指摘した部分に続いて、) 同上です
 - nit, nits / 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, JFYI ((just) For your information) / 参考までに
 - -_(ツ)_/- (shrug) / 肩をすくめる
 - IMO, IMHO (In my (humble) opinion) / 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。



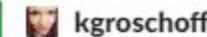
コミュニケーションのTips

- 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。



shu 08:26

Could you review <https://github.com/kubernetes/org/issues/1663>? This is New membership request for German translator.



kgroschoff

#1663 REQUEST: New membership for kgroschoff

GitHub Username

@kgroschoff

Organization you are requesting membership in

@kubernetes

Requirements

- I have reviewed the community membership guidelines (<https://git.k8s.io/community/community-membership.md>)
- I have enabled 2FA on my GitHub account (<https://github.com/settings/security>)
- I have subscribed to the kubernetes-dev e-mail list (<https://groups.google.com/forum/#!forum/kubernetes-dev>)
- I am actively contributing to 1 or more Kubernetes subprojects
- I have two sponsors that meet the sponsor requirements listed in the community membership guidelines

[もっと表示する](#)

Labels

area/github-membership

Comments

1

 [kubernetes/org](#) | 2月27日 | 投稿したメンバー: GitHub



Break - 5 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. cncj-202403).
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)

@nasa9084

@mkimura

@Shu Muto(shu)

@XIE ZIYI



Playground Exercise

```
$ git clone https://github.com/foo/contributor-playground *change foo with your github account  
$ 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)
```



Playground Exercise

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

*change <EVENT-NAME> with event name you joined (e.g. cncj-202403).

```
$ 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

- CLAサインアップ

<https://github.com/kubernetes-sigs/contributor-playground/blob/master/japan/assets/attendee-prerequisites.md#サインアップ作業>

- 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)
@nasa9084
@mkimura

@Shu Muto(shu)
@XIE ZIYI



Break - 5 minutes

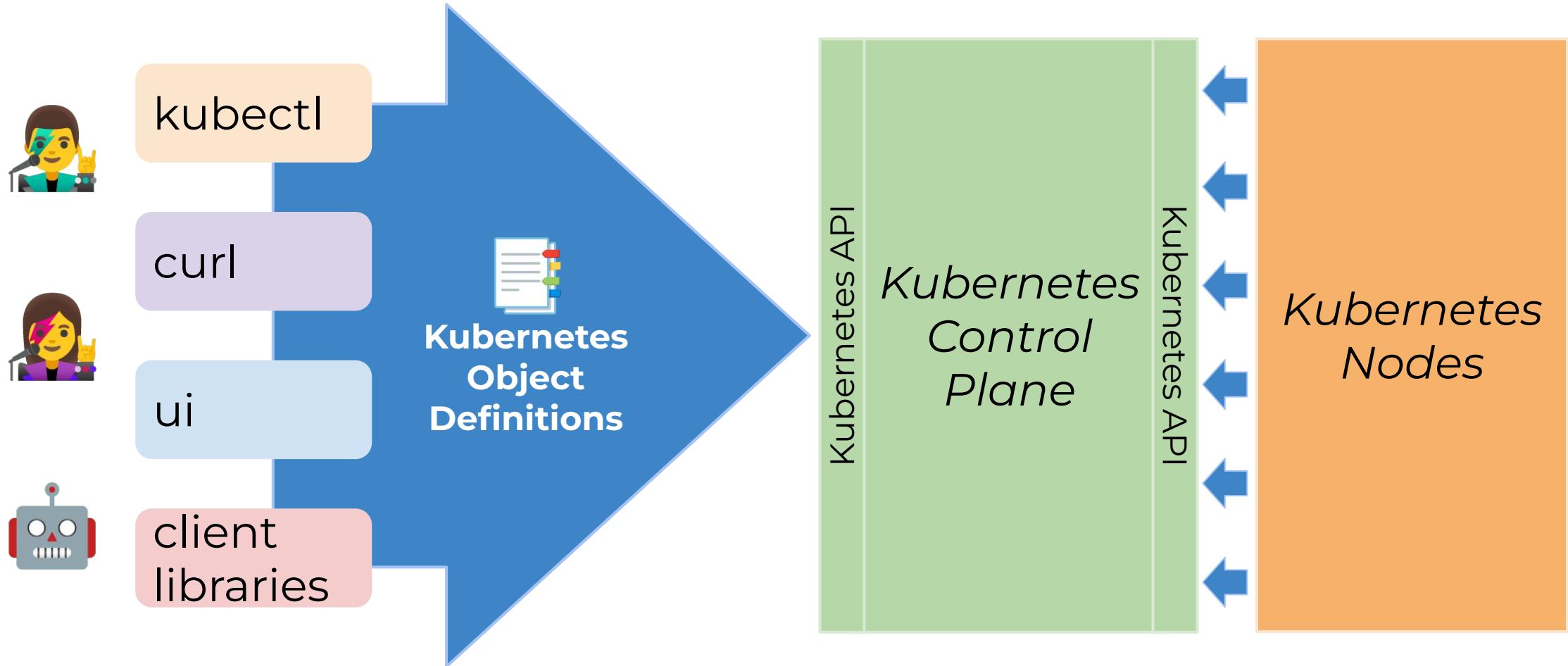
Let us know if you need any additional hands on help.

Kubernetes 開発環境

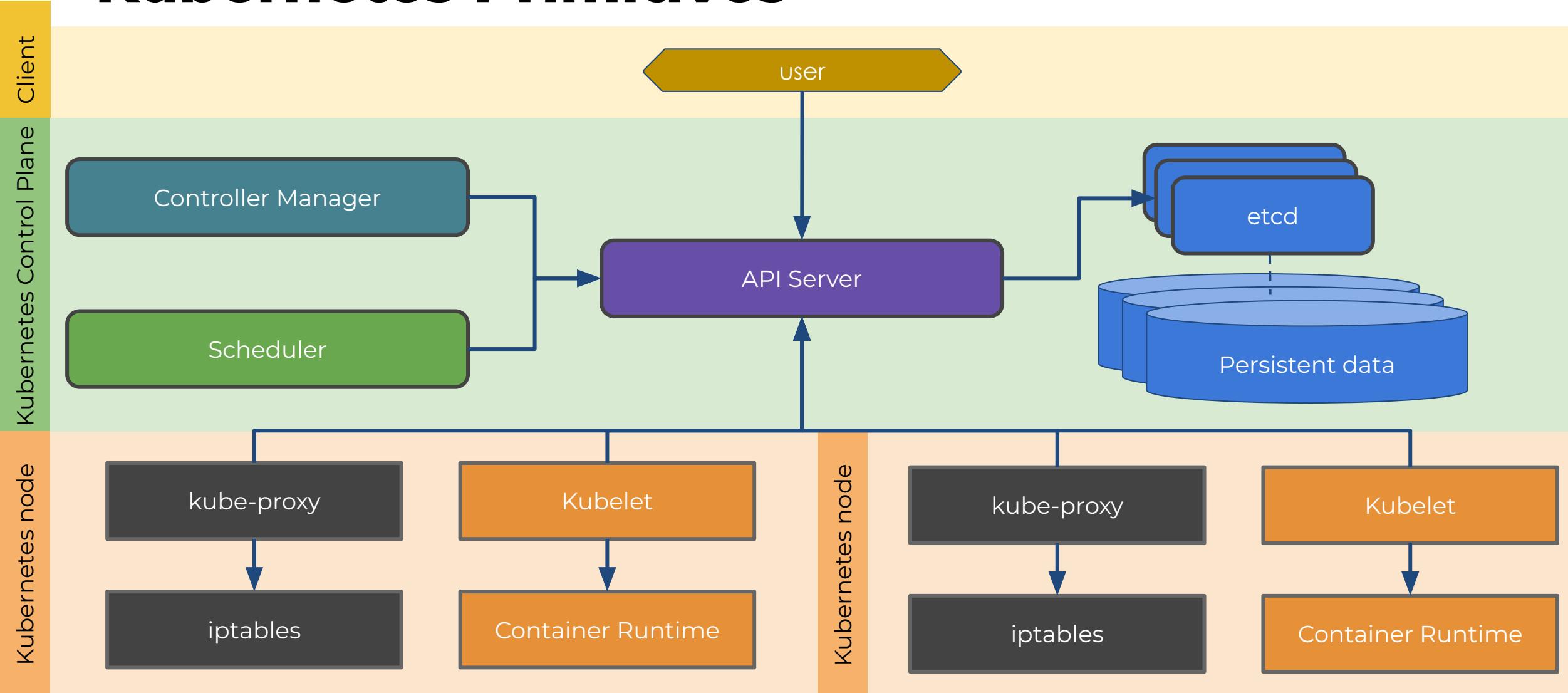
Kubernetes 概要



Kubernetes Architecture Overview



Kubernetes Primitives



レポジトリ・コードの場所 (kubernetes/)

<https://github.com/kubernetes> の主なレポジトリ

Kubernetes本体

ダッシュボード

ドキュメント

テスト基盤(prow等)

KEP置き場

Repository	Description	Language	Stars	Forks
kubernetes	Production-Grade Container Scheduling and Management	Go	38k	105.4k
minikube	Run Kubernetes locally	Go	4.7k	28.1k
ingress-nginx	Ingress-NGINX Controller for Kubernetes	Go	8.1k	16.4k
kops	Kubernetes Operations (kOps) - Production Grade k8s Installation, Upgrades and Management	Go	4.6k	15.5k
dashboard	General-purpose web UI for Kubernetes clusters	Go	4k	13.5k
community	Kubernetes community content	Jupyter Notebook	5.1k	11.5k
kompose	Convert Compose to Kubernetes	Go	727	9k
client-go	Go client for Kubernetes.	Go	2.9k	8.5k
autoscaler	Autoscaling components for Kubernetes	Go	3.7k	7.5k
examples	Kubernetes application example tutorials	Shell	4.4k	6k
kube-state-metrics	Add-on agent to generate and expose cluster-level metrics.	Go	1.8k	5k
website	Kubernetes website and documentation repo:	HTML	13.6k	4.2k
test-infra	Test infrastructure for the Kubernetes project.	Go	2.5k	3.8k
kubeadm	Aggregator for issues filed against kubeadm	Go	691	3.6k
enhancements	Enhancements tracking repo for Kubernetes	Go	1.4k	3.2k

minikube/kops/kubeadmはこっち。
別のkubernetes-sigsにあるものも。



レポジトリ・コードの場所 (**kubernetes-sigs/**)

<https://github.com/kubernetes-sigs> の主なレポジトリ

The screenshot shows the GitHub organization page for "Kubernetes SIGs". The "Repositories" tab is selected. A search bar at the top left contains the query "sort:stars". The main area displays a list of 175 repositories, each with a small icon, the repository name, a brief description, the programming language (e.g., Jinja, Go, TypeScript, Shell), the number of forks, and the number of stars. The repositories listed include kubespray, kind, kustomize, kubebuilder, external-dns, krew, metrics-server, descheduler, aws-load-balancer-controller, cluster-api, kui, and nfs-subdir-external-provisioner.

Repository	Description	Language	Forks	Stars
kubespray	Deploy a Production Ready Kubernetes Cluster	Jinja	6.2k	15.1k
kind	Kubernetes IN Docker - local clusters for testing Kubernetes	Go	1.4k	12.6k
kustomize	Customization of Kubernetes YAML configurations	Go	2.2k	10.4k
kubebuilder	Kubebuilder - SDK for building Kubernetes APIs using CRDs	Go	1.4k	7.3k
external-dns	Configure external DNS servers (AWS Route53, Google CloudDNS and others) for Kubernetes Ingresses and Services	Go	2.4k	7.1k
krew	Find and install kubectl plugins	Go	355	6k
metrics-server	Scalable and efficient source of container resource metrics for Kubernetes built-in autoscaling pipelines.	Go	1.8k	5.3k
descheduler	Descheduler for Kubernetes	Go	625	4k
aws-load-balancer-controller	A Kubernetes controller for Elastic Load Balancers	Go	1.3k	3.7k
cluster-api	Home for Cluster API, a subproject of sig-cluster-lifecycle	Go	1.2k	3.3k
kui	A hybrid command-line/UI development experience for cloud-native development	TypeScript	193	2.7k
nfs-subdir-external-provisioner	Dynamic sub-dir volume provisioner on a remote NFS server.	Shell	709	2.3k

kubespray/kindはこっち。
kustomize/kubebuilderなどもこっち。
今日使う、contributor-playgroundもこっち

<https://github.com/orgs/kubernetes-sigs/repositories?q=sort%3Astars>



コードのディレクトリ構成(k/k)

The screenshot shows the GitHub repository for Kubernetes (`kubernetes/kubernetes`). The main page displays the repository's structure, including branches (53), tags (1,078), and pull requests (828). A large green arrow points from the `cmd` folder in the main repository to the `cmd` folder in the `kubernetes/cmd` repository.

`kubernetes / kubernetes` Public

Code Issues 1.9k Pull requests 828 Actions Projects 6 Security Insights

master 53 Branches 1,078 Tags Go to file Code

k8s-release-robot CHANGELOG: Update directory for v1.30.0-alpha.3 release 3327bb3 · 35 minutes ago 121,259 Commits

.github Add new contribex leads to sig-contribex-approvers 10 months ago

CHANGELOG CHANGELOG: Update directory for v1.30.0-alpha.3 release 35 minutes ago

LICENSES agnhost: merge registry.k8s.io/stress:v1 (github.com/vish... 2 weeks ago

api Merge pull request #123411 from hunshcn/fix/volume-link 5 hours ago

build Merge pull request #123393 from cblecker/fix-make yesterday

cluster Merge pull request #123503 from aojea/ccm_ci 2 days ago

cmd Merge pull request #114672 from pohly/log-text-split-stre... 2 days ago

docs Make root approval non-recursive 2 years ago

hack Re-add KUBE_TIMEOUT explicitly to make test yesterday

logo logo: better alignment of layers 2 years ago

pkg Merge pull request #123281 from seans3/remote-comm... 1 hour ago

plugin system:kube-scheduler: extend the RBAC with pods/finali... 2 days ago

staging Merge pull request #123281 from seans3/remote-comm... 1 hour ago

test Merge pull request #123281 from seans3/remote-comm... 1 hour ago

third_party agnhost: merge registry.k8s.io/stress:v1 (github.com/vish... 2 weeks ago

vendor streamtranslator counter metric by status code 6 hours ago

cmdの中身は呼び出し元

This screenshot shows the `kubernetes/cmd` repository. It lists various sub-directories and their last commit details. A large green arrow points from the `cmd` folder in the main repository to this table.

Name	Last commit message	Last commit date
...		
clicheck	More migrations from genericoptions to genericloptions	last year
cloud-controller-manager	Drop vsphere cloud provider	last month
dependencycheck	replace deprecated io/ioutil with os and io for cmd	2 years ago
dependencyverifier	Track vendor status of unwanted deps	5 months ago
fieldnamedocscheck	Make verify-fieldname-docs actually error	last month
gendocs	More migrations from genericoptions to genericloptions	last year
genkubedocs	replace deprecated io/ioutil with os and io for cmd	2 years ago
genman	More migrations from genericoptions to genericloptions	last year
genswaggertypedocs	hack/update-bazel.sh	3 years ago
genutils	hack/update-bazel.sh	3 years ago
genyaml	More migrations from genericoptions to genericloptions	last year
gotemplate	golangci-lint: suppress one issue, demote others to "hints"	6 months ago
importverifier	replace deprecated io/ioutil with os and io for cmd	2 years ago
kube-apiserver	remove flag cidr max size validation if gate enable	4 months ago
kube-controller-manager	Merge pull request #120344 from rohitssingh/disable_forc...	5 days ago
kube-proxy	Merge pull request #114672 from pohly/log-text-split-strea...	2 days ago

pkgの中に詳細な実装(単体テスト含む)

This screenshot shows the `kubernetes/pkg` repository. It lists various sub-directories and their last commit details. A large green arrow points from the `pkg` folder in the main repository to this table.

Name	Last commit message	Last commit date
...		
api	graduate PodLifecycleSleepAction to beta	last week
apis	Merge pull request #123411 from hunshcn/fix/volume-link	5 hours ago
auth	Merge pull request #10598 from gy95/match	3 years ago
capabilities	initialize capabilities unit test	3 years ago
client	Move crf/streaming to k8s.io/kubelet staging repository	9 months ago
clouddriver	Drop vsphere cloud provider	last month
cluster/ports	Webhook framework for cloud controller manager	last year
controller	Merge pull request #122493 from mengliao-liu/fix-cronjob...	8 hours ago
controlplane	Implement authz config file reloading	2 weeks ago
credentialprovider	chore: Cleanup in-tree credential provider azure and cloud ...	last month
features	Merge pull request #123281 from seans3/remote-comm...	1 hour ago
fieldpath	Improved FormatMap: Improves performance by about 4x, ...	last year
generated	Merge pull request #123411 from hunshcn/fix/volume-link	5 hours ago
kubeapiserver	Add allowed/denied metrics for authorizers	2 weeks ago
kubectl	Merge pull request #120259 from SataQiu/clean-spf-2023...	6 months ago
kubelite	Merge pull request #123424 from haircommander/image-g...	5 hours ago

test/の中にintegration・e2eテスト

This screenshot shows the `kubernetes/test` repository. It lists various sub-directories and their last commit details. A large green arrow points from the `test` folder in the main repository to this table.

Name	Last commit message	Last commit date
...		
cmd	Bump shellcheck to 0.9.0	last month
conformance	update distroless-iptables to v0.5.0 debian-base to bookw...	3 weeks ago
e2e	Merge pull request #123281 from seans3/remote-comm...	1 hour ago
e2e_kubeadm	test/e2e_kubeadm/dns_addon_test.go: drop kube-dns tests	3 months ago
e2e_node	Merge pull request #123343 from haircommander/image-g...	last week
fixtures	api: remove SecurityContextDeny admission plugin	last month
fuzz	Add skeleton CBOR package and introduce library depend...	last month
Images	release v1.29.2 for sampleapiserver	4 days ago
instrumentation	bump the stability level of apiserver_storage_size_bytes to...	2 weeks ago
integration	Merge pull request #114672 from pohly/log-text-split-strea...	2 days ago
kubemark	Bump shellcheck to 0.9.0	last month
list	Remove KubeDescribe	3 years ago
soak/serve_hostnames	test: replace intstr.FromInt with intstr.FromInt32	9 months ago
typecheck	Fix lint warning about unchecked error	last month
utils	Merge pull request #123444 from pohly/test-context-expe...	yesterday
OWNERS	lavalamp is taking a long break	9 months ago



ドキュメントのディレクトリ構成(k/website)

The diagram illustrates the directory structure and commit history for the Kubernetes website, comparing the English version (content/en) and the Japanese version (content/ja).

content/enに英語原文

Name	Last commit message	Last commit date
..		
de	fix typo	2 days ago
en	Merge pull request #45307 from eaudetcobello/patch-1	9 hours ago
es	[es]: remove reference to removed CSS	3 days ago
fr	[fr]: Removing old CSS includes from tutorials and fix html ...	3 days ago
hi	Merge branch 'kubernetes:main' into main	last week
id	Merge pull request #45333 from HaikalRFadhilahh/fx-link-id	2 days ago
it	Merge pull request #44403 from Arhell/it-date	last month
ja	Merge pull request #45001 from Okabe-Junya/fix-44996	53 minutes ago
ko	[ko] Fix broken link	4 days ago
no	[no] Remove exec permission on markdown files	3 years ago
pl	Update references to CNCF landscape (v2)	last month
pt-br	[pt-br] Add /docs/tasks/access-application-cluster/configu...	2 weeks ago
ru	Merge pull request #44766 from yungserge/ru-localisation	3 weeks ago
uk	[uk] remove indent	last month
vi	Update references to CNCF landscape (v2)	last month
zh-cn	Merge pull request #45374 from Arhell/zh-upd	3 hours ago

content/ja/の中に日本語訳

Name	Last commit message	Last commit date
..		
_index.md	[ja] add figure/description in `content/ja/docs/concepts/architec...	last month
cgroups.md	[ja] sync concepts/architecture/cgroups.md	8 months ago
cloud-controller.md	[ja] s/クラスタ/クラスター/g	last year
control-plane-node-communication.md	[ja] sync concepts/architecture/control-plane-node-comm...	8 months ago
controller.md	[ja] sync concepts/architecture/controller.md	8 months ago
cri.md	[ja] sync architecture/cri.md	6 months ago
garbage-collection.md	fix: remove redundant modifier	6 months ago
leases.md	[ja] add docs for leases	last year
nodes.md	[ja] s/クラスタ/クラスター/g	last year



Dev Environment: Pre-Requisites

- Lots of RAM/Disk/CPU
- Linux, Mac, Windows basic dev tools
- Docker (for Mac/Win dedicate **6GB RAM**)
- Golang 1.22 (k8s v1.30 以降)^(*1) and \$GOPATH set
- GitHub:
 - Account and SSH key configured
 - Fork github.com/kubernetes/kubernetes

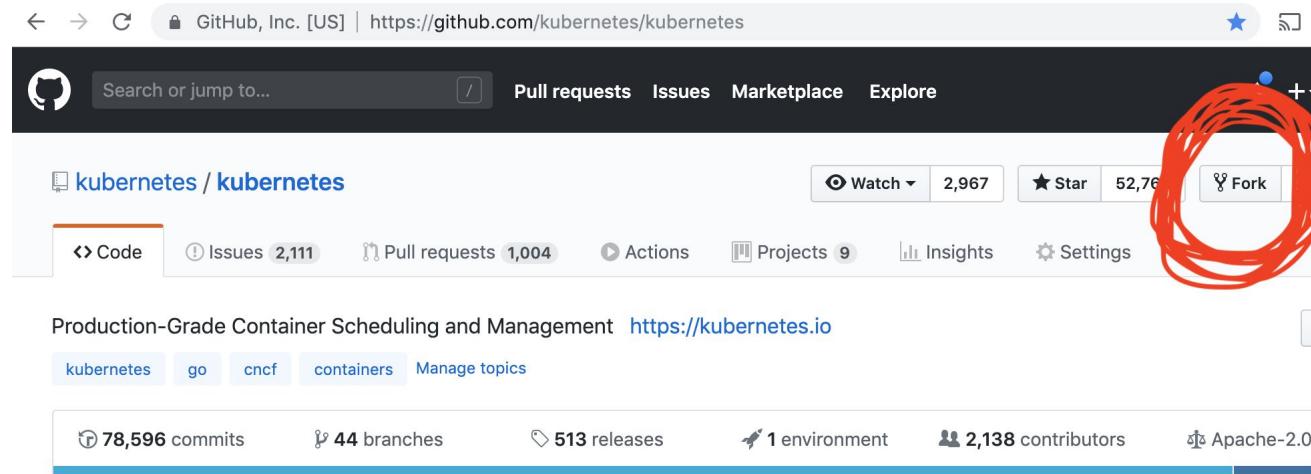
<https://www.flickr.com/photos/vestman/3900877043>
By Vestman (vestman) [CC BY 2.0], via flickr



(*1) <https://github.com/kubernetes/kubernetes/blob/master/.go-version>



Dev Environment: Initialization



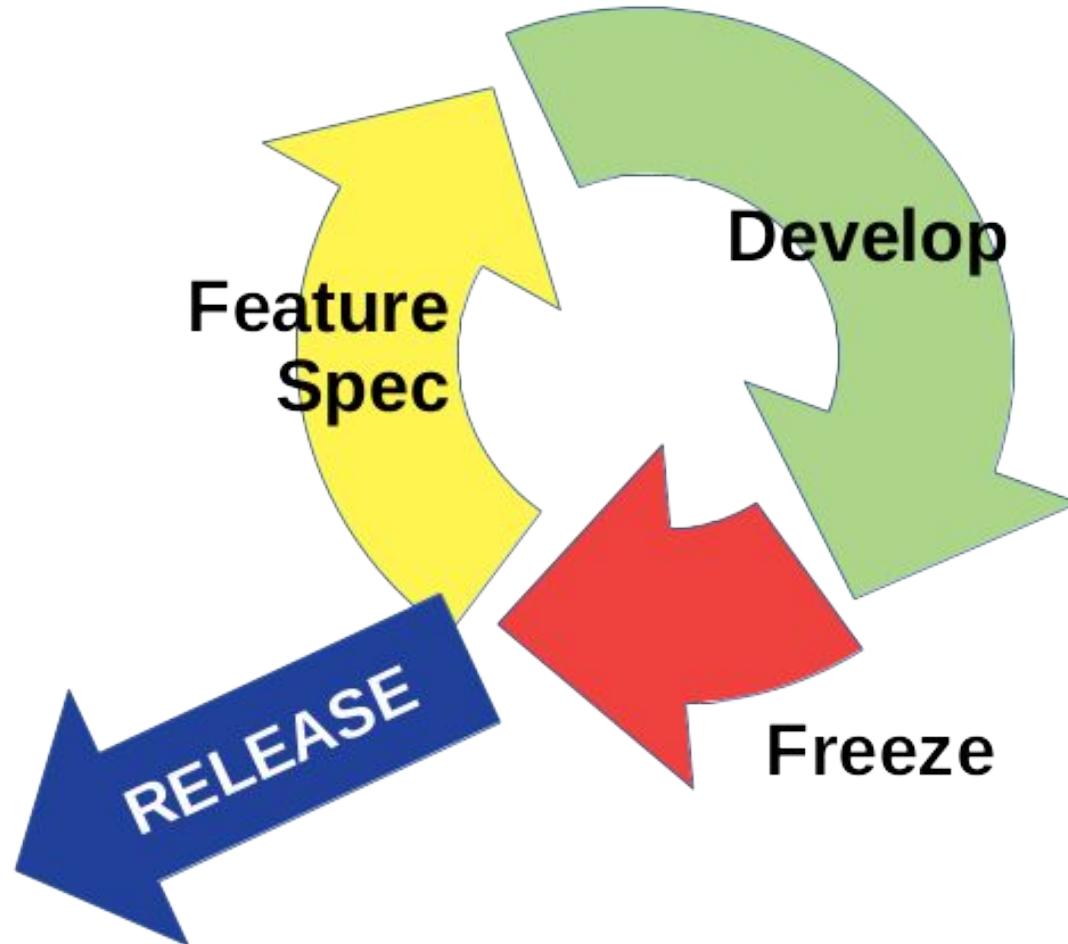
- mkdir -p \$GOPATH/src/k8s.io/ && cd \$GOPATH/src/k8s.io/
- git clone [git@github.com:\\$YOUR_USER/kubernetes.git](git@github.com:$YOUR_USER/kubernetes.git) && cd kubernetes
- git remote add upstream <https://github.com/kubernetes/kubernetes.git>
- git remote set-url --push upstream no_push
- git fetch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



リリースサイクル



The 4-month Release Cycle



Release Process

Enhancements Discussion (per SIG): ongoing

Enhancements Freeze: week ~3

Code Freeze:
...bugs, testing, bugs, fixing, bugs, ...iterating

Release Branch Creation: week ~14

End Code Freeze(Thaw): week ~16

Release: week ~16

**Enhancements
Definition**

**Feature
Work**

**Bug
Fixing**

Release

4 Month
Cycle



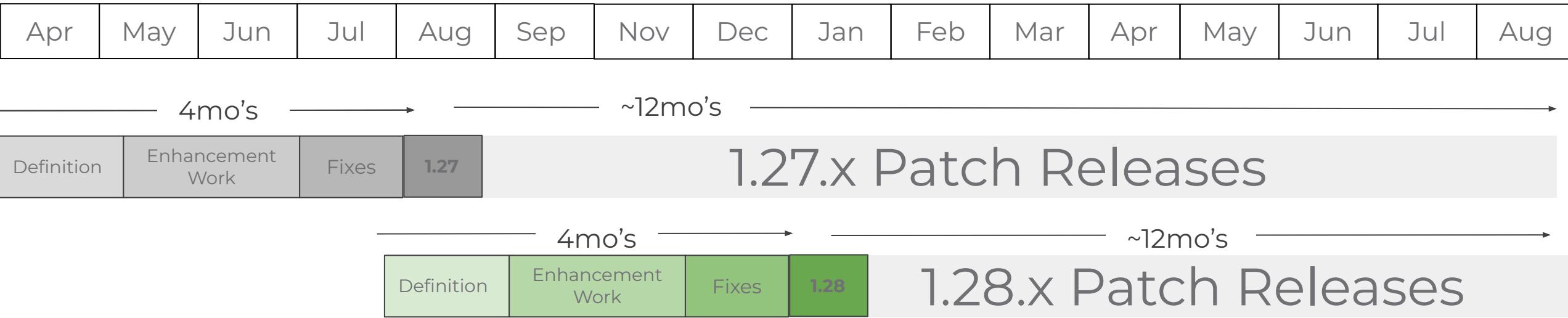
Release Lifecycle



K8s Releases



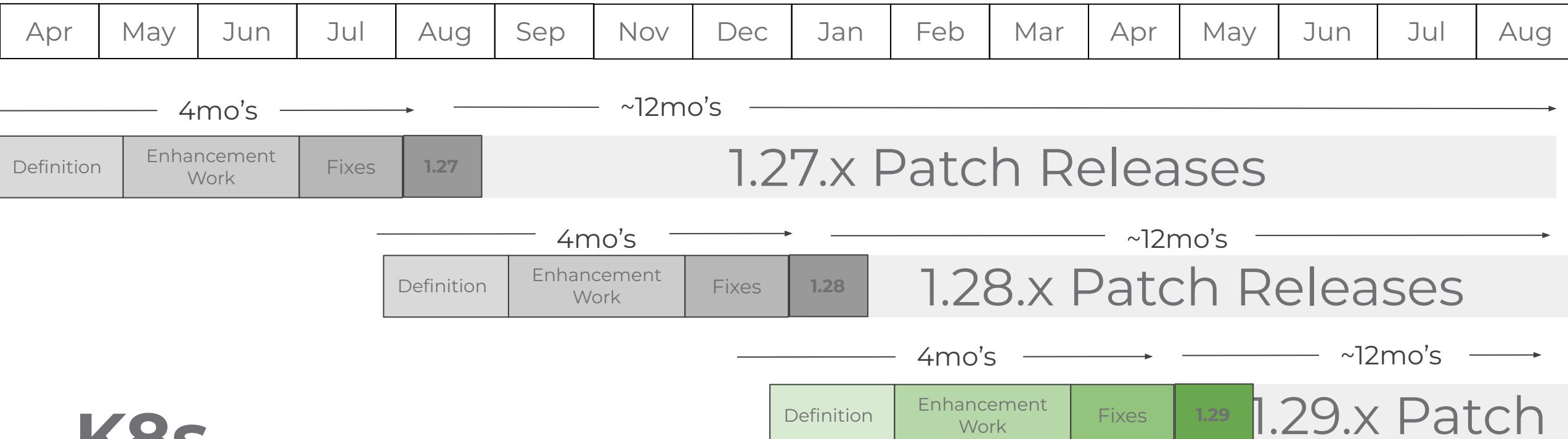
Release Lifecycle



K8s Releases



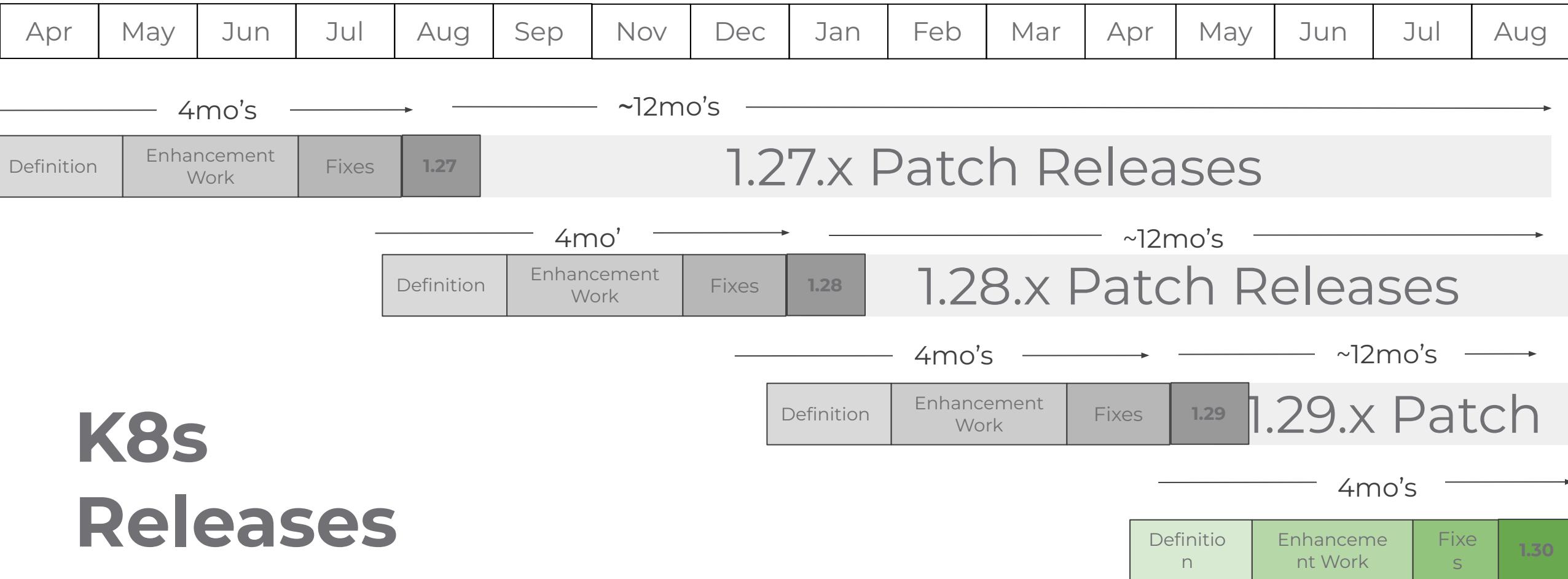
Release Lifecycle



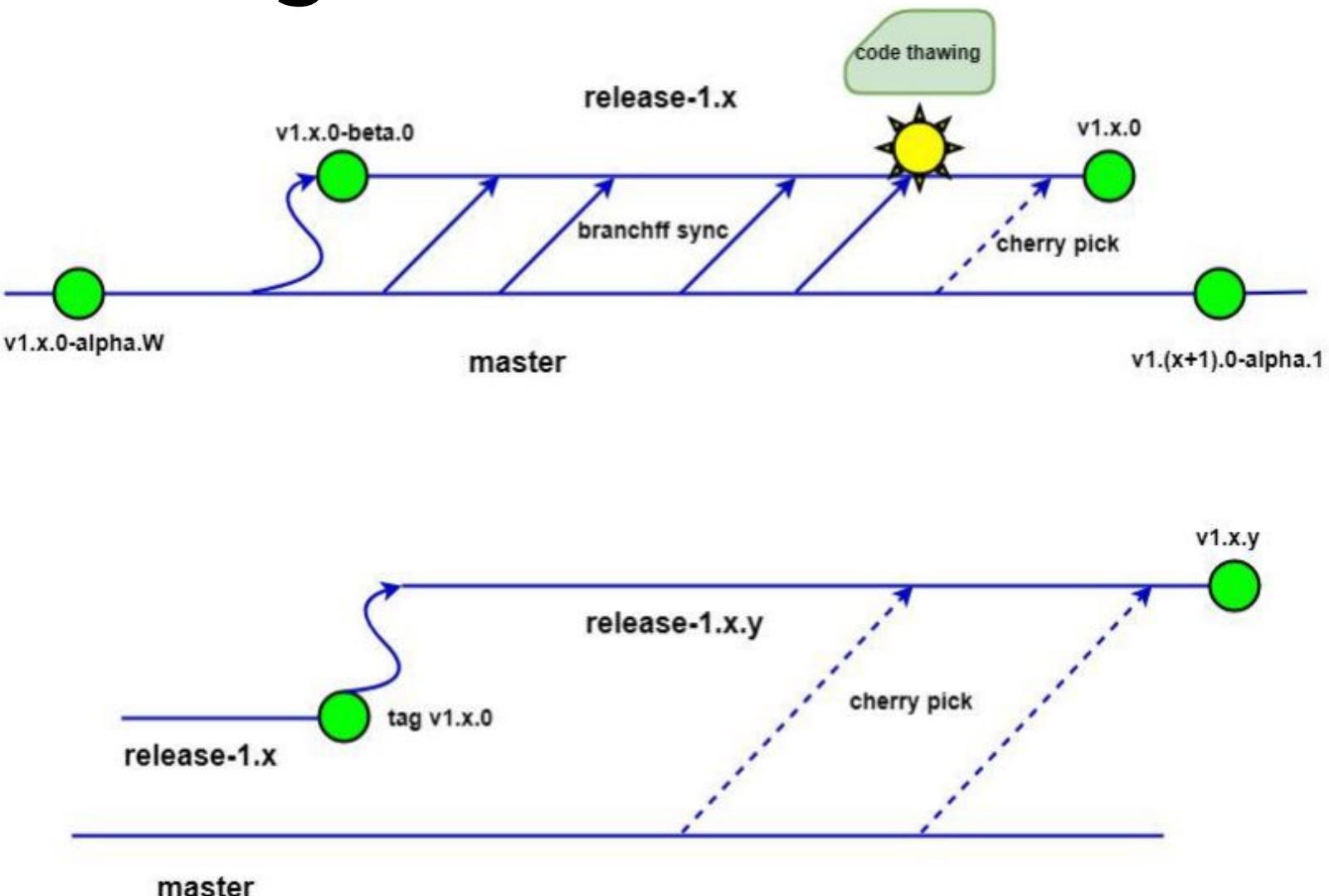
K8s
Releases



Release Lifecycle



Branch Management



開発環境構築



Kubernetes 開発環境構築方法の比較

ツール名	ビルドしてデプロイ	複数ノードにデプロイ	デプロイ先デバイスの直接操作	備考
local-up-cluster.sh	✓		✓	バイナリがホストで直接動作
kind	✓	✓		nodeはコンテナとして動作
minikube		✓	△	nodeはコンテナとして動作 ※VM、ホスト直でも可
kubeadm		✓	✓	
kubespray		✓	✓	

- k8s本体のコードを(変更+)ビルドして試したい場合:
 - 複数ノードかつデプロイ先デバイス直接操作が必要: ビルドは自分でして、kubeadm/kubesprayなどでデプロイ (graceful-node shutdownを試したい等)
 - 単体ノードでデバイス操作が必要: local-up-cluster.sh (ボリューム・GPU等)
 - 特に要件なし: kindかlocal-up-cluster.sh
- 上記以外: お好みで選択



Kubernetes 開発環境(local-up-cluster.sh)

- インストール
 - 不要 (k8s本体のソースコードに同梱されるスクリプトを利用)
- ビルドしてデプロイ (screenコマンドなどで複数ターミナル実行を推奨)

```
$ sudo PATH=$PATH hack/install-etcd.sh  
$ export PATH=$(pwd)/third_party/etcd:$PATH  
$ sudo PATH=$PATH hack/local-up-cluster.sh
```

- 停止
 - Ctrl + Cでプロセスを停止

※ 上記コマンドでのビルド時は対象のk8sのソースがカレントディレクトリにある前提
(「Dev Environment: Initialization」のスライド参照)



Kubernetes 開発環境(kind)

- インストール
 - <https://kind.sigs.k8s.io/docs/user/quick-start/#installation> を参照
- ビルドせずにデプロイ

```
$ kind create cluster
```

- 停止

```
$ kind delete cluster
```

- ビルドしてデプロイ

```
$ kind build node-image .
$ kind create cluster --image kindest/node:latest
```

※ 上記コマンドでのビルド時は対象のk8sのソースがカレントディレクトリにある前提
(「Dev Environment: Initialization」のスライド参照)



参考) 自前ビルドで動作確認のオススメの最初のステップ

- ログの出力部分のコードのメッセージを改変してみる
 - 例) kubeletだと

```
$ sed -i 's|Starting kubelet main sync loop|Starting my cool kubelet main sync loop|' pkg/kubelet/kubelet.go
```

- ビルドして動かしてみて、ログが変わっていることを確認してみる
 - 改変前

```
Feb 27 09:28:09 kind-control-plane kubelet[179]: I0227 09:28:09.386775 179 kubelet.go:2324] "Starting kubelet main sync loop"
```

- 改変後

```
Feb 27 09:45:58 kind-control-plane kubelet[179]: I0227 09:45:58.668145 179 kubelet.go:2324] "Starting my cool kubelet main sync loop"
```



自分でk8s本体をビルドする方法

- `make quick-release` を実行する
- 自分で生成されたバイナリ・コンテナイメージに差し替えて試す必要あり。
- 参考) 過去の資料より
 - <https://github.com/kubernetes/kubernetes/blob/master/build/README.md>

- ‘**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 ./...`

```
$ go test ./...
?      k8s.io/kubernetes/pkg/kubectl [no test files]
ok    k8s.io/kubernetes/pkg/kubectl/cmd/convert 0.082s
$
```



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)
- kubetest2のインストール <https://github.com/kubernetes-sigs/kubetest2>

```
$ go install sigs.k8s.io/kubetest2/...@latest
```

- テスト実行例

```
$ kubetest2 noop --test=ginkgo -- --focus-regex='Secrets'
```

補足) 手元でログを見ながら、指定したものを動かすだけなら、下記の方法がおすすめ

```
$ make all WHAT=test/e2e/e2e.test
$ make WHAT=ginkgo
$ KUBERNETES_PROVIDER=local ./hack/ginkgo-e2e.sh --ginkgo.focus='Secrets should be
able to mount in a volume'
```



Testing: Conformance

- Subset of e2e
 - SIG Architecture approved tests
 - Represent core set of interoperable features
 - Example: run the conformance tests
-
- テスト実行例
※ 前述のE2Eテストの中で、"[Conformance]"のタグが付いたテストを動かせば良い。

```
$ kubetest2 noop --test=ginkgo -- --focus-regex='\[Conformance\]'
```



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
 - make module-init
- 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.md>
- Slack: [#kubernetes-docs-ja](#) (日本語ページ向け)



Q & A





Thank you, and welcome aboard!