



KubeCon



CloudNativeCon

North America 2023

Kubeburned Out? How to Get Things Done Efficiently Within the Kubernetes Community

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@saschagrunert



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- Contributing to Kubernetes since 5 years
- Mostly working on SIG Release and SIG Node topics
- Everything related to container runtimes
- Trying to bring the community forward as CNCF Ambassador
- My 3 year old at home told me I should find a controllable dump truck for him at KubeCon





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———— North America 2023 ————

- K8s Sig-Release Tech Lead
- Former K8s Steering Committee member
- All Things on sigstore
- Releases and Automation all the code and infra @ Chainguard
- Grill master aficionado
- Barista in the free time



What we will talk about



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- 1. Where to start**
- 2. Staying involved**
- 3. Becoming an expert**
- 4. Maintain your circle of influence**
- 5. Final thoughts**

Where to start - Get overwhelmed



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 **kubernetes**

[Documentation](#) [Kubernetes Blog](#) [Training](#) [Partners](#) [Comm](#)

KubeCon + CloudNativeCon NA 2023 Chicago, Illinois + Virtual.
4 days of incredible opportunities to collaborate, learn + share with the entire community!
November 6 - November 9, 2023.

 
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Documentation

Available Documentation Versions

Getting started

Concepts

Tasks

Tutorials

Reference

Contribute

Kubernetes Documentation / Documentation

Kubernetes is an open source container orchestration engine for automating deployment, scaling, and management of containerized applications. The open source project is hosted by the Cloud Native Computing Foundation (CNCF).

Understand Kubernetes

Learn about Kubernetes and its fundamental concepts.

[Why Kubernetes?](#)
[Components of a cluster](#)
[The Kubernetes API](#)
[Objects in Kubernetes](#)
[Containers](#)
[Workloads and Pods](#)

View Concepts

Try Kubernetes

Follow tutorials to learn how to deploy applications in Kubernetes.

[Hello Minikube](#)
[Walkthrough the basics](#)
[Stateless Example: PHP Guestbook with Redis](#)
[Stateful Example: Wordpress with Persistent Volumes](#)

View Tutorials

Set up a K8s cluster

Get Kubernetes running based on your resources and needs.

[Learning environment](#)
[Production environment](#)
[Install the kubeadm setup tool](#)
[Securing a cluster](#)
[kubeadm command reference](#)

Set up Kubernetes

Learn how to use Kubernetes

Look up common tasks and how to perform them using a short sequence of steps.

Look up reference information

Browse terminology, command line syntax, API resource types, and setup tool documentation.

Contribute to Kubernetes

Anyone can contribute, whether you're new to the project or you've been around a long time.

[Start contributing to K8s](#)

[Edit this page](#)

[Create child page](#)

[Create an issue](#)

[Print entire section](#)

github.com/kubernetes/kubernetes/issues

kubernetes / kubernetes

Type to search

<> Code Issues 1.9k Pull requests 889 Discussions Actions Projects 6 Security Insights Settings

Filters is:issue is:open Labels 202 Milestones 8 New issue

1,909 Open 42,198 Closed

Author Label Projects Milestones Assignee Sort

[Failing Test] unable to create the kubeadm:cluster-admins ClusterRoleBinding (periodic-kubernetes-e2e-kind-kms) **kind/failing-test** needs-triage sig/auth sig/cluster-lifecycle

#121587 opened 5 hours ago by Vyom-Yadav v1.29

Correct Keyword name for DisruptionsAllowed in PDB. needs-triage sig/apps

#121585 opened 18 hours ago by nikhilmaheshwari24

The e2e CI test for the Garbage collector in sig-api-machinery is reporting an error **kind/bug** needs-triage sig/api-machinery sig/testing

#121582 opened yesterday by bzsuni

[StructuredAuthorizationConfig] - cel cache r.Spec sig/auth triage/accepted

#121578 opened 2 days ago by ritazh

Failing UT pkg/kubelet/kuberuntime/logs TestReadRotatedLog with DATARACE **kind/flake** needs-triage sig/node

#121564 opened 2 days ago by srivastav-abhishek

[Flaky test][sig-node] can make a CDI device accessible in a container **kind/bug** sig/node triage/accepted

#121562 opened 2 days ago by chendave

kubect! shows Pod status Completed if one of the containers exited with an Error **kind/bug** needs-triage sig/node

#121563 opened 2 days ago by teoincontatto

Unable to use the value of image as an env variable **kind/bug** kind/support needs-triage sig/node

#121558 opened 2 days ago by kolluria

Endpoints and EndpointSlices can have duplicate addresses with different Ready conditions needs-triage sig/network

#121556 opened 3 days ago by aojea

[StructuredAuthn] follow-ups from alpha implementation sig/auth triage/accepted

#121553 opened 3 days ago by aramase

DBus and dual-stack Azure tests failing to pull image with kube-HEAD **kind/failing-test** needs-triage sig/network

#121552 opened 3 days ago by bzsuni

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Discussions

We talk a lot. Find us and join the conversation on any of these platforms.



COMMUNITY FORUMS ▶

Topic-based technical discussions that bridge docs, troubleshooting, and so much more.



TWITTER ▶

#kubernetes

Real-time announcements of blog posts, events, news, ideas.



GITHUB ▶

All the project and issue tracking, plus of course code.



SERVER FAULT ▶

Kubernetes-related discussion on Server Fault. Ask a question, or answer one.



SLACK ▶

With 170+ channels, you'll find one that fits your needs.

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Contribute to

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[Start contributing to](#)

KUBERNETES CONTRIBUTORS

Welcome Blog Documentation Community Resources

Search this site...

Documentation

Getting Started

Contributor Cheatsheet

New Contributor Course

Section 1: Starting Out

Section 2: Getting Into GitHub

Section 3: Pull Requests

Section 4: Issues Management and Triage

Section 5: Getting Started with Kubernetes Development

Section 6: Testing

Section 7: Code Review

Section 8: Community

Section 9: Documentation

Section 10: Architecture and Enhancements

Communication Platform Guidelines and Policies

New Contributor Course

A high-level, multi-part course for those who are just starting out

Welcome to the E-Learning for Contributors course for Kubernetes!

Each unit of this course consists of a slideshow and links to resources. Take your time reading the materials, and feel free to reach out to the community with questions.

The Kubernetes project is always evolving. To keep this course more relevant for longer, it is built with links to other resources rather than listing explicit steps and details. This keeps the training from falling out of step with the rest of the Kubernetes project.

We look forward to your contributions!

Section 1: Starting Out

Begin your journey to become a contributing member of the Kubernetes project!

Section 2: Getting Into GitHub

Learn how the Kubernetes organization uses GitHub and how to work with repositories there.

Section 3: Pull Requests

Learn how to submit and manage pull requests for the different Kubernetes repositories.

Section 4: Issues Management and Triage

Learn how to work with GitHub issues and how they are prioritized and organized.

Section 5: Getting Started with Kubernetes Development

This is the first unit of slides in the Kubernetes Contributor On-Boarding series.

Section 6: Testing

Learn about the different types of tests in the Kubernetes project and how to run them.

Section 7: Code Review

Find out everything there is to know about code review, including what to do when you need a reviewer.

Section 8: Community

Community and good communication are vital to the Kubernetes project. Learn how we do it!

github.com/kubernetes/kubernetes/issues

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New Contributor Course | Kubernetes Contributors

Documentation / New Contributor Course

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The screenshot shows the GitHub repository page for 'kubernetes'. The search bar at the top contains the text 'kubernetes'. The search results are filtered by 'kubernetes' and show 473 results. The first result is 'kubernetes/website' with a description: 'Kubernetes website and documentation repo:'. The second result is 'kubernetes/ingress-nginx' with a description: 'As we are dropping PSP on #10608 we need to document how to use PSA on Ingress-NGINX. We are already doing the tests using the baseline PSA, and basically we should start...'. The third result is 'kubernetes/kubernetescn' with a description: 'Cleanup for Job e2e tests: do not use global vars for parallelism, completions and backoffLimit...'. The fourth result is 'kubernetes/autoscaler' with a description: 'Cluster autoscaler should remove unused "node-autoprovisioning-enabled" flag and the related metrics...'. The fifth result is 'kubernetes/kubernetescn' with a description: '[Eviction Manager] Missing unit test on PIDPressure...'. The sixth result is 'kubernetes/kubernetescn' with a description: 'We might benefit from a "network should continue working in cases that resemble syn_cookie or syn_flood" test...'. The left sidebar shows the repository structure with filters for 'Code', 'Issues', 'Pull requests', 'Discussions', 'Users', 'Commits', 'Packages', 'Wikis', 'Topics', and 'Marketplace'.

The screenshot shows the GitHub repository page for 'kubernetes-sigs'. The search bar at the top contains the text 'kubernetes-sigs'. The search results are filtered by 'kubernetes-sigs' and show 473 results. The first result is 'image-builder' with a description: 'Tools for building Kubernetes disk images'. The second result is 'k8s-sig-cluster-lifecycle' with a description: 'Shell'. The third result is 'external-dns' with a description: 'Configure external DNS servers (AWS Route53, Google CloudDNS and others) for Kubernetes Ingresses and Services'. The fourth result is 'cluster-api-provider-vsphere' with a description: 'k8s-sig-cluster-lifecycle k8s-sig-vmware cluster-api'. The fifth result is 'hierarchical-namespaces' with a description: 'Home of the Hierarchical Namespace Controller (HNC). Adds hierarchical policies and delegated creation to Kubernetes namespaces for improved in-cluster multitenancy.'. The sixth result is 'scheduler-plugins' with a description: 'Repository for out-of-tree scheduler plugins based on scheduler framework.'. The seventh result is 'kube-scheduler-wasm-extension' with a description: 'All the things to make the scheduler extendable with wasm.'. The right sidebar shows the repository structure with filters for 'Assignee', 'Sort', and 'New issue'.

Where to start - Get overwhelmed



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Where to start



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Find areas of personal interest via Special Interest Groups (SIGs)

Special Interest Groups

Name	Label	Chairs	Contact	Meetings
API Machinery	api-machinery	* David Eads, Red Hat * Federico Bongiovanni, Google	* Slack * Mailing List	* Kubebuilder Meeting: Thursdays at 11:00 PT (Pacific Time) (biweekly) * Regular SIG Meeting: Wednesdays at 11:00 PT (Pacific Time) (biweekly)
Apps	apps	* Janet Kuo, Google * Kenneth Owens, Snowflake * Maciej Szulik, Red Hat	* Slack * Mailing List	* Regular SIG Meeting: Mondays at 9:00 PT (Pacific Time) (biweekly)
Architecture	architecture	* Derek Carr, Red Hat * Davanum Srinivas, Amazon * John Belamaric, Google	* Slack * Mailing List	* Enhancements Subproject Meeting: Thursdays at 10:00 PT (Pacific Time) (biweekly) * Production Readiness Office Hours: Wednesdays at 12:00 PT (Pacific Time) (biweekly) * Regular SIG Meeting: Thursdays at 11:00 PT (Pacific Time) (biweekly) * code organization Office Hours: Thursdays at 14:00 PT (Pacific Time) (biweekly) * conformance office Hours: Wednesdays at 18:00 UTC (First Wednesday of the month)
Auth	auth	* Mo Khan, Microsoft * Mike Danese, Google * Rita Zhang, Microsoft	* Slack * Mailing List	* Regular SIG Meeting: Wednesdays at 11:00 PT (Pacific Time) (biweekly) * Secrets Store CSI Meeting: Thursdays at 9:00 PT (Pacific Time) (biweekly) * Weekly Issues/PR Triage Meeting: Mondays at 9:00 PT (Pacific Time) (weekly)
Autoscaling	autoscaling	* Guy Templeton, Skyscanner * Marcin Wielgus, Google	* Slack * Mailing List	* Regular SIG Meeting: Mondays at 16:00 Poland (weekly)
CLI	cli	* Katrina Verey, Independent * Eddie Zaneski, Chainguard, Inc * Natasha Sarkar, Google	* Slack * Mailing List	* Bug Scrub: Wednesdays at 09:00 PT (Pacific Time) (every four weeks) * KRM Functions Subproject Meeting: Wednesdays at 10:30 PT (Pacific Time) (biweekly) * Kustomize Bug Scrub: Wednesdays at 09:00 PT (Pacific Time) (every four weeks) * Regular SIG Meeting: Wednesdays at 09:00 PT (Pacific Time) (biweekly)
Cloud Provider	cloud-provider	* Bridget Kromhout, Microsoft * Michael McCune, Red Hat	* Slack * Mailing List	* Regular SIG Meeting: Wednesdays at 9:00 PT (Pacific Time) (biweekly) * (cloud-provider-extraction-migration) Weekly Sync removing the in-tree cloud providers led by @cheftako and @mcrcute: Thursdays at 13:30 PT (Pacific Time) (weekly) * (provider-alibaba-cloud) Regular Alibaba Cloud Subproject Meeting: Tuesdays at 12:00 UTC (monthly 2020 start date: Jan. 7th) * (provider-aws) Regular AWS Subproject Meeting: Fridays at 9:00 PT (Pacific Time) (biweekly 2019 start date: Jan. 11th) * (provider-azure) Azure Subproject Meeting: Tuesdays at 16:00 PT (Pacific Time) (monthly - third Tuesday) * (provider-gcp) Regular GCP Subproject Meeting: Thursdays at 16:00 UTC (biweekly) * (provider-ibmcloud) Regular IBM Subproject Meeting: Wednesdays at 14:00 ET (Eastern Time) (monthly - last Wednesday every month) * (provider-oci) Regular Oracle Cloud Subproject Meeting: Tuesdays at 06:00 PT (Pacific Time) (First Tuesday of each month) * (provider-openstack) Regular OpenStack Subproject Meeting: Wednesdays at 08:00 PT (Pacific Time) (biweekly starting Wednesday March 20, 2019) * (provider-vsphere) Cloud Provider vSphere monthly syncup: Wednesdays at 09:00 PT (Pacific Time) (monthly - first Wednesday every month)
Cluster Lifecycle	cluster-lifecycle	* Justin Santa Barbara, Google * Lubomir Ivanov, VMware * Vince Prignano, Red Hat	* Slack * Mailing List	* Regular SIG Meeting: Tuesdays at 09:00 PT (Pacific Time) (biweekly) * (cluster-addons) Cluster Addons meeting: Tuesdays at 09:00 PT (Pacific Time) (biweekly) * (cluster-api) Cluster API office hours: Wednesdays at 10:00 PT (Pacific Time) (weekly)



Maintain an overview about the project

- Try to attend the SIG(s) you choose
 - To ask questions
 - To understand the project, issues, roadmap
- If not possible, try to watch the recordings and ask questions in Slack
- Read the SIG documentation
- Check the repositories, issues and PRs to understand the work
- Read the code the part you are interested

Where to start



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Educate yourself about topics of interest

- What you like to do
- Things that you know and want to improve
- Things you don't know but you would like to learn
- Things that you don't like much but maybe can be something really interesting
- Attend other SIGs meetings, watch the recordings

Where to start



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Iterate continuously and fail fast

- Work in smaller Pull Requests
- Understand how CI/PROW works
- Use the PR feedback review to learn and improve your PR

Establish routines for contributions

- Plan a time that you will dedicate for it

Examples:

- Every day before you start your work, maybe 1 hour
- Every Tuesday and Thursday after your work
- 1-2 hours during the weekend

Make your work public and transparent

- Always communicate the status of your work in the Issue/PR
- Ask for help if you are stuck
- If you cannot work anymore in the issue that you got assigned:
 - Let people know that you will not work on that, remove the assignment
 - If possible, add some status / code snippet in the issue, that might help the other person that will take the issue.





Recognizing for work

- Celebrate small achievements
- If you like, write a blog post about the change you made
- Recognize others as well

Staying involved



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Avoid burnout from the beginning on

- It is okay to say **no**
- Don't take too many issues
- Take breaks, short / longs are fine, just let people know



Staying involved



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Avoid burnout from the beginning on



memeguy.com

Becoming an expert



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Couple contributions to Kubernetes enhancements (KEPs) and releases:

“Why Can’t Kubernetes Devs Just Add This New Feature? Seems So Easy!”

Ricardo Katz & Carlos Panato - KubeCon NA 2022 (Detroit)

- Working on Kubernetes enhancements takes time
- It requires meeting all the deadlines in a release cycle
- Features needs to be graduated and maintained



The conservative Kubernetes approach makes it harder to facilitate experimental technologies.

Why should I even care about enhancements? 🙋

- They're great opportunities to grow into specific areas for expert level domain knowledge
- Helping the community to succeed means personal success:
 - Having something distinct to celebrate
 - Interacting more closely with other contributors
 - Understanding the project politics

Enhancements are great to establish a permanent footprint within the community by using the right tricks to avoid being burned out on them.

How to start an alpha enhancement without getting burned out

1. Do the necessary prework
 - Find interested people by using SIGs
 - Research the reasons for the current state
 - Connect end user stories and reduce complexity
2. Outline a first KEP draft in [kubernetes/enhancements](https://kubernetes.io/enhancements/)
 - Demonstrates the will to drive the work
 - Leave enough room for iterating on alternatives



The whole initial enhancement creation should be decoupled from any release process or deadline.

Becoming an expert



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Goal: Get the enhancement through the release cycle...

- It's daunting get get stuck in traffic jam
- Many different parties involved

Making progress over time is the most critical mental aspect.



Image by macrovector on Freepik

Becoming an expert



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Propose the enhancement for a release cycle

- Get approval from the SIG and identify supporters
- Set personal goals for the [hard deadlines within the release cycle](#)

Start hacking

- Surf ahead of the wave of deadlines
- Always consider the enhancement to slip a release
- Avoid getting bound to external dependencies
- Leave enough time to celebrate 🎉

How to graduate an enhancement efficiently

- Understand why an enhancement has not been graduated yet
- Propose the graduation to the SIG
 - Demonstrate the will to drive the whole effort
 - Rework of the KEP ahead of time
- Consider to (temporarily) step back if the complexity is too large

Graduating features is more appreciated in the community compared to introducing new ones.

Becoming an expert



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Level up: Mentor new contributors

- Onboarding new folks within the community is essential for a healthy and sustainable project
- Leave the right breadcrumbs for new folks to pick-up the work
 - Connect issues and enhancements
 - Offer people to directly discuss more complex topics
- Point undecided people into the right areas for possible contributions
- Consider submitting parts of the project to programs like the [Linux Foundation Mentorship Program](#)

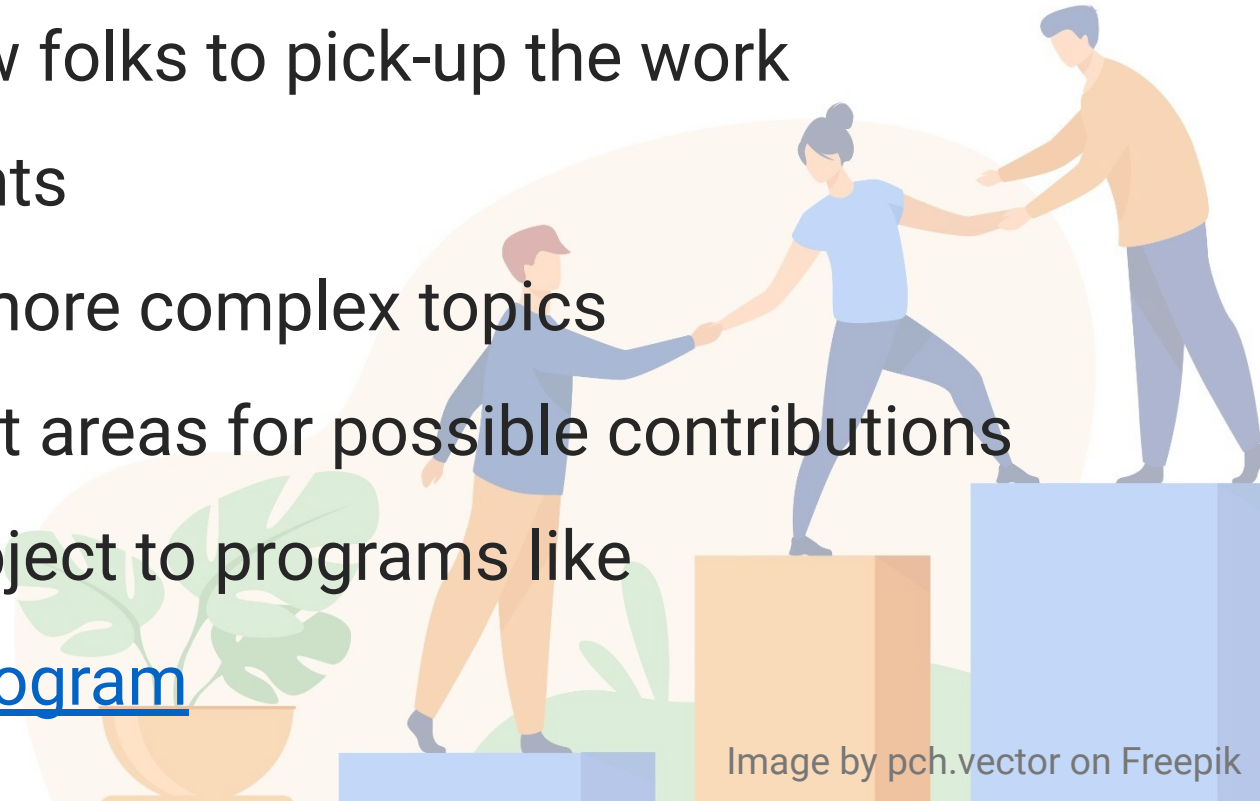


Image by pch.vector on Freepik

Becoming an expert



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Look for more advanced roles within the community

- Demonstrate commitment to your personal areas of interest
- Propose yourself as OWNER
- Participate in [CNCF Technical Advisory Groups \(TAGs\)](#)
- Express interest in becoming a SIG Technical Lead or Chair
- Consider running for the yearly [Steering Committee](#) election

Continuously re-evaluate your personal goals: What would it mean for myself if I became ... in the community?

Becoming an expert



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Speaking about politics

- Companies have interest in moving Kubernetes into various directions
- Corporations want to maintain a footprint of influence

From time to time, things seem to happen magically... ✨

- If it's not your company, then it's outside of your circle of influence
- Avoid being dragged into other companies problems

Being aware that politics in such a large project exists is the key to balance the importance of topics.

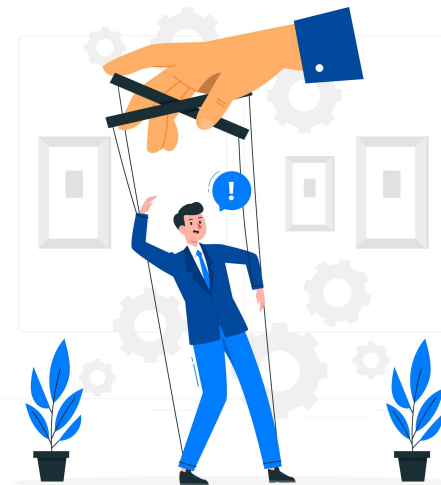


Image by storyset on Freepik

Becoming an expert



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Consider stepping back, when ...

- a topic is not able to move forward because of external dependencies
- a role does not add any value to your work
- something feels draining
- priorities have changed

Communicate your commitment to the community continuously to establish feedback loops.

Being able to step back is a strong skill and helps to maintain the bigger picture.

Maintain your circle of influence



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You can't know everything, but the community can!

- Experts from all over the world work on Kubernetes, use them!
- Understanding the project structure is essential for knowledge exchange
- Self-educate to be able to raise the right questions to the right audience
- Get to know people and their working domains

Finding questions nobody asked before will drive the project forward.

Finding the right solutions to those questions will lead into innovation.

Maintain your circle of influence



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The right timing brings the most success

- Timing enhancements correctly into the release cycle makes people work together more efficiently
- Proposing enhancements at the right point in time will make people listen
- Raising questions at the right time gives the highest chance to find the right answer
- Establishing an asynchronous workstyle makes people more-likely to work together with you

Maintain your circle of influence



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A great communication style leads into less burnout.


<https://nohello.net>



✗ Don't do this


 **Keith** 2:15 PM
hi


 **Tim** 2:19 PM
...?


 **Keith** 2:20 PM
what time was taht thing again?


 **Tim** 2:20 PM
oh - 3:30 mate

✓ Instead try this

 **Dawn** 2:15 PM
Hiya! What time was that thing?

 **Tim** 2:15 PM
hey, 3:30

 **Dawn** 2:15 PM
Ta - seeya then!

 **Tim** 2:16 PM
🔥 np

Final thoughts



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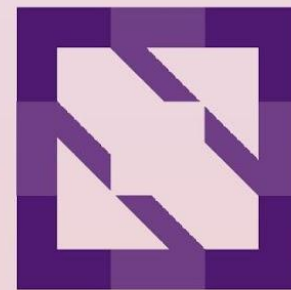
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- Helping others to succeed is the way to contribute to a community
- Avoiding burnout from the beginning is not simple
- Habits which feel right today may be draining over months or years
- You always have the possibility to step back
- It's about making progress on your personal high priority topics
- Avoid being dragged into the problems of others

Your mental (and of course physical) health is the most important part of you and your professional career. Invest in it continuously.



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Thank you!

