

Arthur Diniz



Kubernetes in Debian

A call to Support

whoami

- Debian Contributor since 2019
- Debian Maintainer
- Systems Development Eng @ AWS
- arthurbdiniz
- Born in Brazil 
- Living in Ireland 
- Kite Surfing



Slides



<https://arthurbdiniz.com/slides/kubernetes-in-debian-a-call-to-support.pdf>

Agenda

- Kubernetes Ecosystem
- Release Lifecycle
- Other K8S based orchestrators
- What we have on debian
- Kubernetes Team
- Backlog

Kubernetes

- Created by Google
- Borg
- Apache License - Version 2.0
- Big ecosystem and monorepo
- A lot of dependencies 🧨

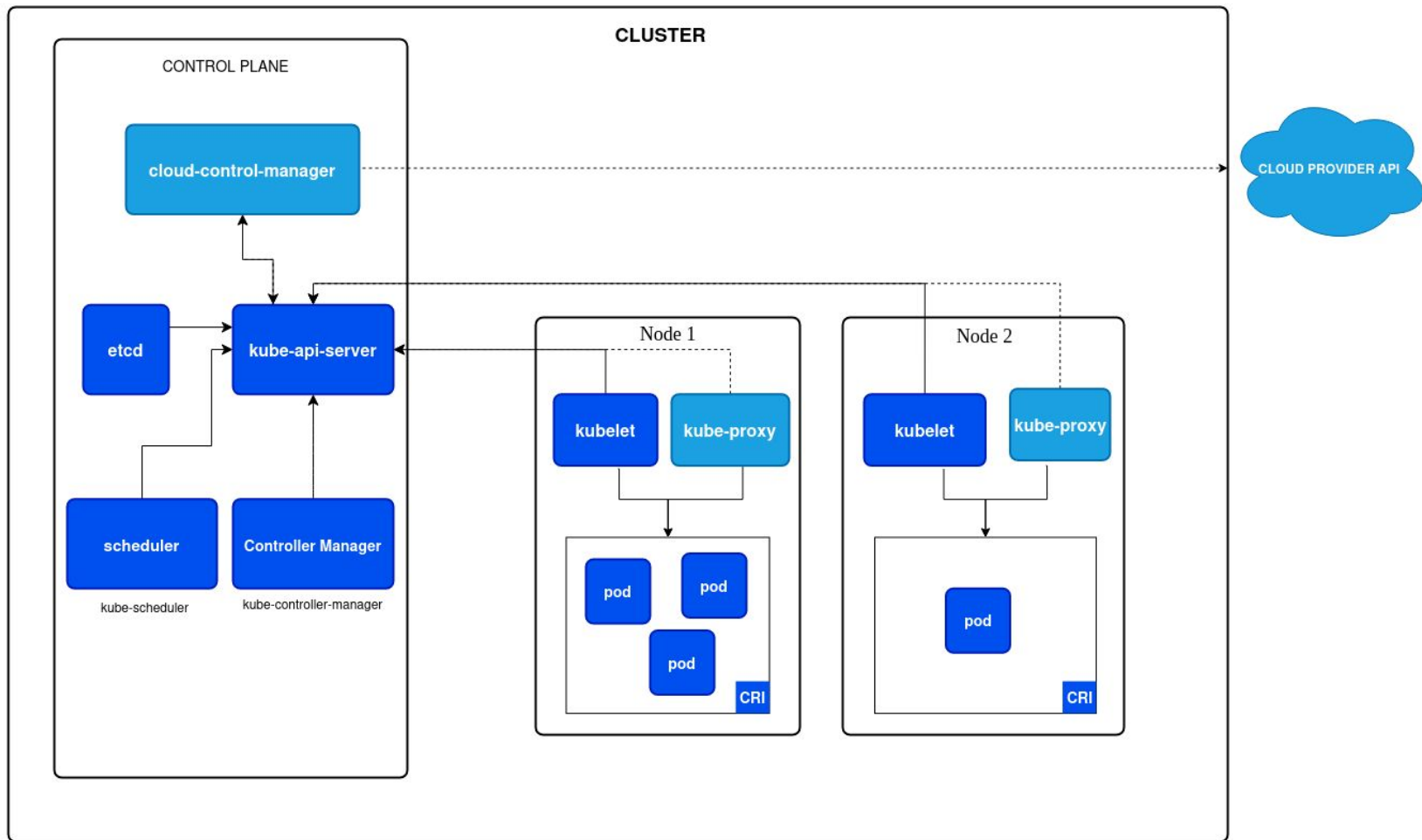
The screenshot shows the GitHub repository for Kubernetes. At the top, the repository name 'kubernetes' is displayed with a 'Public' label. On the right, there are buttons for 'Watch' (3230), 'Fork' (38.9k), 'Star' (108k), and a dropdown menu. Below this, a navigation bar shows 'master' as the selected branch, '54 Branches', '1,102 Tags', a search bar, and buttons for 'Add file' and 'Code'. The main content area is divided into two columns. The left column lists files and folders with their last commit information. The right column contains repository metadata and links.

File/Folder	Commit Message	Time Ago
.github	Add new contrib leads to sig-contrib-approvers	last year
CHANGELOG	CHANGELOG: Update directory for v1.31.0-alpha.3 release	last week
LICENSES	Switch to stretchr/testify / mockery for mocks	3 weeks ago
api	Merge pull request #125021 from aojea/servicecidr/beta	last week
build	Bump images, dependencies and versions to go 1.22.5 and...	last week
cluster	Merge pull request #125736 from aojea/netpol_v0.4.0	2 weeks ago
cmd	Merge pull request #125483 from wojtek-t/storage_readline...	last week
docs	Make root approval non-recursive	2 years ago
hack	update OpenTelemetry dependencies and grpc	5 days ago
logo	logo: better alignment of layers	2 years ago
pkg	Merge pull request #125997 from mimowo/job-comment-cle...	2 hours ago
plugin	Merge pull request #125116 from pohly/dra-one-of-source	2 weeks ago
staging	Merge pull request #125944 from timofurrer/fix/error-msg-type	5 hours ago
test	Merge pull request #125971 from googs1025/integration_test	19 hours ago
third_party	agnhost: merge registry.k8s.io/stress:v1 (github.com/vishh/...	5 months ago
vendor	update OpenTelemetry dependencies and grpc	5 days ago

About
Production-Grade Container Scheduling and Management
kubernetes.io
go kubernetes containers cncf
Readme
Apache-2.0 license
Code of conduct
Security policy
Activity
Custom properties
108k stars
3.2k watching
38.9k forks
Report repository

Releases 679
Kubernetes v1.30.2 (Latest)
last month
+ 678 releases

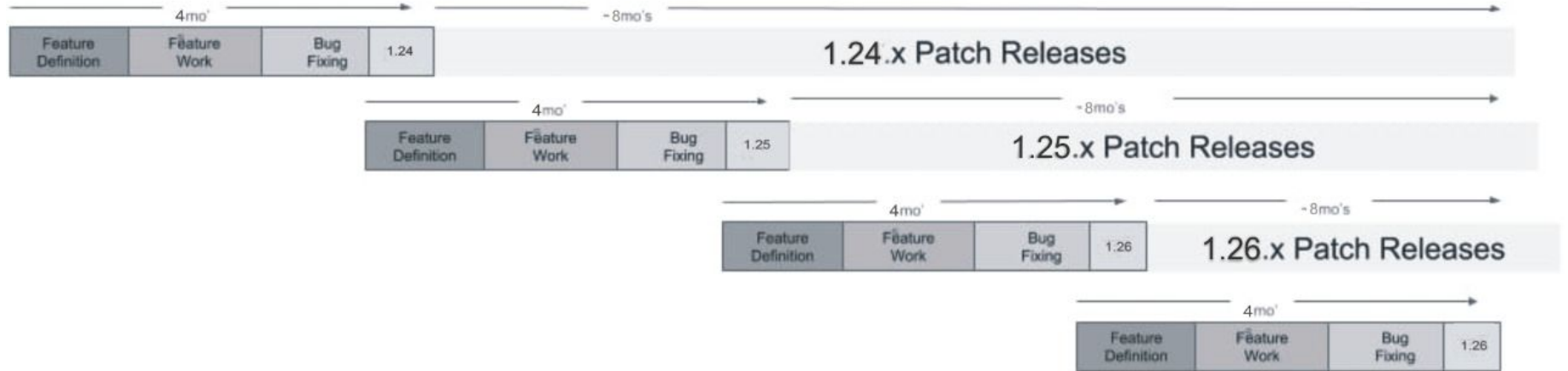
Packages
No packages published



Release Cycle



Release Cycle



Edge/Minimal K8S distributions



Package

- First attempt in Debian



kubernetes

Kubernetes client binary (kubectl)

general

source:	kubernetes (main)
version:	1.20.5+really1.20.2-1.1
maintainer:	Janos Lenart (DMD)
arch:	amd64 arm64 armel armhf i386 s390x
std-ver:	4.5.0
VCS:	unknown

versions

oldstable:	1.20.5+really1.20.2-1
stable:	1.20.5+really1.20.2-1.1
testing:	1.20.5+really1.20.2-1.1
unstable:	1.20.5+really1.20.2-1.1

versioned links

1.20.5+really1.20.2-1:	📄 📦 🔍 🔗 🔖
1.20.5+really1.20.2-1.1:	📄 📦 🔍 🔗 🔖

binaries

[kubernetes-client](#) (2 bugs: 0, 1, 1, 0)

action needed

✓ Problems while searching for a new upstream version	high
✓ 2 security issues in trixie	high
✓ 2 security issues in sid	high
✓ lintian reports 1 error and 228 warnings	high
✓ 1 bug tagged patch in the BTS	normal
✓ Does not build reproducibly during testing	normal
✓ 1 low-priority security issue in bullseye	low
✓ 1 low-priority security issue in bookworm	low
✓ Issues found with some translations	low
✓ Standards version of the package is outdated.	wishlist

news

[2022-04-15] kubernetes 1.20.5+really1.20.2-1.1 MIGRATED to testing (Debian testing watch)
[2022-04-09] Accepted kubernetes 1.20.5+really1.20.2-1.1 (source) into unstable (Florian Ernst)
[2022-04-01] kubernetes REMOVED from testing (Debian testing watch)
[2021-07-14] kubernetes 1.20.5+really1.20.2-1 MIGRATED to testing (Debian testing watch)
[2021-06-13] Accepted kubernetes 1.20.5+really1.20.2-1 (source) into unstable (Janos Lenart)
[2021-03-31] Accepted kubernetes 1.20.5-1 (source) into unstable (Janos Lenart)
[2021-01-23] kubernetes 1.20.2-1 MIGRATED to testing (Debian testing watch)
[2021-01-14] Accepted kubernetes 1.20.2-1 (source) into unstable (Janos Lenart)

Challenges

- Upstream Vendoring Folders
- Big Tree of deps for Go packages
- Everyday a new package of a new “V”
 - V2 -> V3
 - GOPATH
- Multiple libraries in the same repository
 - Misleading Debian Version
 - Rework to make GOPATH work
 - Repack each library
- New releases 3 times per year (k8s)
- Fix CVEs and backports

Debian Kubernetes Team

- Have a place for the Ecosystem
- Join effort to create and maintain packages
- Stop vendoring dependencies and work on packaging deps
- Partnership with go-team



Migration

Moving packages to the team.

DONE

- [kubectx](#) ChangZhuo Chen @czchen
- [kubetail](#) ChangZhuo Chen @czchen

TODO

- [kubecolor](#) Stephen Gelman @ssgelm

Migration

Migrating packages from Salsa Debian to Kubernetes group Inbox x



Arthur Diniz

 Tue, 26 Sept 2023, 00:48 

Hey ChangZhuo, Hope you are doing well, Around 1 year ago I've created the Kubernetes team inside Salsa [1], Tracker [2] and IRC [3]. - [1] <https://salsa.debian>



ChangZhuo Chen (陳昌倬) czchen@debian.org [via](#) gmail.com

to me, czchen ▼

 Wed, 27 Sept 2023, 02:22    

On Tue, Sep 26, 2023 at 12:48:33AM +0100, Arthur Diniz wrote:

> So I would like to invite you to first join the Debian Kubernetes team and
> then if you feel comfortable migrate those 2 packages to the group.

Sound like a good idea. However, I did not find transfer button in Salsa. How can we transfer to the group?

Transfer Process

Salsa / support / Issues / #351

Transferring repos from Debian group to kubernetes-team

Edit



⊖ Closed



Issue created 9 months ago by **Arthur Diniz**

Would like to request the migration of 2 repositories to kubertes-team group.

- <https://salsa.debian.org/debian/kubectx>
- <https://salsa.debian.org/debian/kubetail>

Contacted the current maintainer [@czchen](#) that apparently have no options on the repository to transfer.

ChangZhuo Chen

I did not find transfer button in Salsa. How can we transfer to the group?

Kubernetes Team Details

- Salsa: <https://salsa.debian.org/kubernetes-team>
- Tracker: <https://tracker.debian.org/teams/kubernetes/>
- IRC: #debian-kubernetes

Can anyone help us transfer those repositories to <https://salsa.debian.org/kubernetes-team/packages> ?

Thanks!

QA

main (5)

Source Package	Bugs		Version					Ubuntu	VCS	Build	Lintian	Deb	Piu	CI	Popcon	Watch
	All	RC	oldstable	stable	testing	unstable	exp							Rep		
kind*	-	-	-		0.23.0-1		-	0.23.0-1 -	Git ✓	✓~✓✓✓✓✓\$X✓✓ \$✓✓✓✓✓✓\$~	✓	✓	✓	-- FTBR	-	0.24.0~alpha
kubectx*	-	-	-	0.9.3-1	0.9.5-2		-	0.9.5-2 -	Git ✓ ✓	✓\$✓✓✓✓\$X\$✓✓ \$✓\$✓✓✓\$X\$	✓	S	✓	✓✓ ✓	-	0.9.5
kubernetes-split-yaml*	-	-	-	0.3.0-1	0.4.0-1		-	0.4.0-1 -	Git ✓	✓~✓✓✓✓\$X✓✓ \$✓✓✓✓✓\$~	✓	✓	✓	✓✓ ✓	-	0.4.0
kubetail*	1	-	1.6.5-2		1.6.20-1		-	1.6.20-1 -	Git failed ✓	1x✓	✓	✓	✓	-- ✓	-	1.6.20
tfk8s*	-	-	-		0.1.10-2		-	0.1.10-2 -	Git ✓	✓~✓✓✓✓\$X✓✓ \$~~✓✓✓\$~	✓	✓	✓	✓✓ ✓	-	0.1.10

Salsa



packages 

Subgroups and projects

Shared projects

Inactive

 Search

Name 





K

kind 

Kubernetes IN Docker - local clusters for testing Kubernetes

★ 0

1 week ago



K

kubectx 

★ 0

3 months ago



K

kubernetes-split-yaml 

Split a giant yaml file into one file per Kubernetes resource

★ 1

1 year ago



K

kubetail 

Aggregate logs from multiple Kubernetes pods into one stream

★ 1

3 months ago



T

tfk8s 

Tool for converting Kubernetes YAML manifests to Terraform HCL

★ 1

9 months ago

Links

- Tracker: <https://tracker.debian.org/teams/kubernetes>
- Email list: team+kubernetes@tracker.debian.org
- IRC: [#debian-kubernetes](#) on [irc.debian.org](#) (OFTC)
- Wiki: <https://wiki.debian.org/Teams/pkg-kubernetes>
- Salsa: <https://salsa.debian.org/kubernetes-team>
- Docs: <https://kubernetes-team.pages.debian.net/docs/>

Docs Demo


Debian K8S

Q Search

Home

Packages

Contributing



Debian Kubernetes Team

About

The **Debian Kubernetes Team** aims to empower users with the knowledge and resources needed to harness the full potential of Kubernetes in Debian environments, promoting efficiency, reliability, and innovation in containerized application deployment and orchestration.

[QA](#) | [Tracker](#) | [Wiki](#) | [Backlog](#)

- Team Email: team+kubernetes@tracker.debian.org

Ultimate Debian Database (UDD)

- [HTML](#)
- [JSON](#)

<https://kubernetes-team.pages.debian.net/docs/>

Coming next

- kubectl
- kompose
- kustomize
- k9s
- Helm
- (And more)

Please reach out to us or create issues in Salsa so we can track more tools

Thank You