Kubernetes: Use it, Contribute to it, and Enjoy it!

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1. The community
2. How to contribute
3. Versioning
4. The easy way to use it
5. Demo
6. Q & A
The community

Orgs/Repos

SIGs/WGs

Communication

Resources

Ecosystem
Orgs/Repos

- Kubernetes
- Kubernetes Clients
- Kubernetes SIGs

Orgs

Kubernetes Incubator

- kubernetes-csi
- kubernetes-retired
Orgs/Repos

Kubernetes

63

Kubernetes

community
features
website
test-infra
...

Kubernetes Incubator

external-storage
bootkube
service-catalog
kubespray
...

...
SIGs/WGs

Special Interest Group

Working Group

https://github.com/kubernetes/community/blob/master/sig-list.md
Communication

- Github
- Slack
- Mailing list
- Zoom
- Discussion board
- YouTube channel
- Kubecons /meetups
Communication

related links

- Github: https://github.com/kubernetes/kubernetes/issues
- Slack: http://slack.k8s.io/
- YouTube channel: https://www.youtube.com/c/KubernetesCommunity/live
- Mailing list: https://groups.google.com/forum/#!forum/kubernetes-dev
- Zoom: https://zoom.us/my/kubernetescommunity
- Discussion board: https://discuss.kubernetes.io
- Kubecons/meetups: We are already here!
Roles

- Maintainer
- Owner
- Approver
- Reviewer
- Member
- Collaborator
- Contributor

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

https://github.com/kubernetes/org/issues
Resources

- Course
- Docs/blog
- Video
- Learning platform
- Playground
related links

Docs/blog  https://kubernetes.io
Course   https://www.edx.org/course/introduction-to-kubernetes
Video   https://www.youtube.com/channel/UCZ2bu0qutTOM0tHYa_jklwg
Playground  https://labs.play-with-k8s.com
Learning platform  https://www.katacoda.com/courses/kubernetes

More:
https://kubernetes.io/docs/tutorials/online-training/overview/
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Where to

- docs
- code
- bug report
- code review

all repos
git workflow

1. fork
2. git clone
3. git checkout --branch myfeature
4. git fetch & git rebase
5. git commit
6. git push
7. create pull request
bot/commands

/approve
/cc
/lgmt
/assign

/retest
/kind bug
/hold
/lint

https://prow.k8s.io/command-help
xiangpengzhao commented a minute ago
/joke

k8s-ci-robot commented a minute ago
@xiangpengzhao: What does a pirate pay for his corn? A buccaneer!

xiangpengzhao commented a minute ago
/shrug

k8s-ci-robot added the 🙃 label a minute ago
cats vs dogs

/meow

/woof
A short demo
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Types of Releases

• Alpha releases (vX.Y.0-alpha.W): cut directly from master.

• Beta releases (vX.Y.Z-beta.W): cut from their respective release branch, release-X.Y.

• Official releases (vX.Y.Z): cut from their respective release branch, release-X.Y.

• Emergency releases (vX.Y.Z): cut from a new release-X.Y.Z branch based on a tag
## Release Schedule

<table>
<thead>
<tr>
<th>Type</th>
<th>Versioning</th>
<th>Branch</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>alpha</td>
<td>vX.Y.0-alpha.W</td>
<td>master</td>
<td>every ~2 weeks</td>
</tr>
<tr>
<td>beta</td>
<td>vX.Y.Z-beta.W</td>
<td>release-X.Y</td>
<td>as needed (at branch time)</td>
</tr>
<tr>
<td>official</td>
<td>vX.Y.Z</td>
<td>release-X.Y</td>
<td>as needed (post beta)</td>
</tr>
<tr>
<td>emergency</td>
<td>vX.Y.Z</td>
<td>release-X.Y.Z</td>
<td>as needed</td>
</tr>
</tbody>
</table>
Supported releases

1.10
1.11
1.12
1.13

1.10

1.11

1.12

1.13
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# Table of Solutions

<table>
<thead>
<tr>
<th>IaaS Provider</th>
<th>Config. Mgmt.</th>
<th>OS</th>
<th>Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>any</td>
<td>any</td>
<td>multi-support</td>
<td>any CNI</td>
</tr>
<tr>
<td>Google Kubernetes Engine</td>
<td>Stackpoint.io</td>
<td>multi-support</td>
<td>multi-support</td>
</tr>
<tr>
<td>AppCode.com</td>
<td>Saltstack</td>
<td>Debian</td>
<td>multi-support</td>
</tr>
<tr>
<td>Maccore.AI</td>
<td>Jenkins DSL</td>
<td>Ubuntu</td>
<td>multistart</td>
</tr>
<tr>
<td>Platform9</td>
<td>custom</td>
<td>multistart</td>
<td>multi-support</td>
</tr>
<tr>
<td>Kublr</td>
<td>custom</td>
<td>multistart</td>
<td>multi-support</td>
</tr>
<tr>
<td>Kubernetes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IBM Cloud Kubernetes Service</td>
<td>Saltstack</td>
<td>Ubuntu</td>
<td>IBM Cloud Networking + Calico</td>
</tr>
<tr>
<td>Giant Swarm</td>
<td></td>
<td>CoreOS</td>
<td>flannel and/or Calico</td>
</tr>
<tr>
<td>GCE</td>
<td>Saltstack</td>
<td>Debian</td>
<td>GCE</td>
</tr>
<tr>
<td>Azure Kubernetes Service</td>
<td></td>
<td>Ubuntu</td>
<td>Azure</td>
</tr>
<tr>
<td>Azure (IaaS)</td>
<td></td>
<td>Ubuntu</td>
<td>Azure</td>
</tr>
<tr>
<td>Bare-metal</td>
<td>custom</td>
<td>Fedora</td>
<td>flannel</td>
</tr>
<tr>
<td>Rare-metal</td>
<td>custom</td>
<td>Fedora</td>
<td>flannel</td>
</tr>
<tr>
<td>libvirt</td>
<td>custom</td>
<td>Fedora</td>
<td>flannel</td>
</tr>
<tr>
<td>KVM</td>
<td>custom</td>
<td>Fedora</td>
<td>flannel</td>
</tr>
<tr>
<td>DCOS</td>
<td>Marathon</td>
<td>CoreOS/Alpine</td>
<td>custom</td>
</tr>
<tr>
<td>AWS</td>
<td>CoreOS</td>
<td>CoreOS</td>
<td>flannel</td>
</tr>
<tr>
<td>GOE</td>
<td>CoreOS</td>
<td>CoreOS</td>
<td>flannel</td>
</tr>
<tr>
<td>Vagrant</td>
<td>CoreOS</td>
<td>CoreOS</td>
<td>flannel</td>
</tr>
<tr>
<td>CloudStack</td>
<td>Ansible</td>
<td>CoreOS</td>
<td>flannel</td>
</tr>
<tr>
<td>VMware vsphere</td>
<td>any</td>
<td>multistart</td>
<td>multi-support</td>
</tr>
<tr>
<td>Bare-metal</td>
<td>custom</td>
<td>CentOS</td>
<td>flannel</td>
</tr>
<tr>
<td>lxd</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>AWS</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>Azure</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>GCE</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>Oracle Cloud</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>Rackspace</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>VMware vsphere</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>Bare Metal</td>
<td>Juju</td>
<td>Ubuntu</td>
<td>flannel/canonical</td>
</tr>
<tr>
<td>AWS</td>
<td>Saltstack</td>
<td>Debian</td>
<td>AWS</td>
</tr>
<tr>
<td>AWS</td>
<td>kops</td>
<td>Debian</td>
<td>AWS</td>
</tr>
<tr>
<td>Bare-metal</td>
<td>custom</td>
<td>Ubuntu</td>
<td>flannel</td>
</tr>
<tr>
<td>oVirt</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[https://kubernetes.io/docs/setup/pick-right-solution/](https://kubernetes.io/docs/setup/pick-right-solution/)
Which one should I pick?
I'm a user of some Cloud

Just follow its instructions!
I have only a local machine

You need an easy way!
Local-machine Solutions

kubeadm-dind-cluster

kubeadm

Minikube

local-up-cluster

microk8s
related links

- **local-up-cluster**: [https://github.com/kubernetes/kubernetes/blob/master/hack/local-up-cluster.sh](https://github.com/kubernetes/kubernetes/blob/master/hack/local-up-cluster.sh)
- **Minikube**: [https://github.com/kubernetes/minikube](https://github.com/kubernetes/minikube)
- **Kubeadm**: [https://kubernetes.io/docs/setup/independent/install-kubeadm](https://kubernetes.io/docs/setup/independent/install-kubeadm)
- **microk8s**: [https://microk8s.io/](https://microk8s.io/)
My machine can't run Kubernetes...

Oops!
Online playgrounds!

Play with Kubernetes

https://labs.play-with-k8s.com/
Online playgrounds!

https://www.katacoda.com/courses/kubernetes
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Q & A
Thank you !