KubeCon CloudNativeCon

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OPEN SOURCE SUMMIT

AI_dev

Open Source GenAI & ML Summit

China 2024

KubeCon

CloudNativeCon

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China 2024

KubeVirt Community Update <<Maintainer Talk>>

Haolin Zhang (Arm)
Andrew Burden (Redhat)

In this session

- A year in review
  - Releases v1.1, v1.2, and v1.3
  - Why you should know about SIG-release
  - Mentorship
- Project maturation
  - SIG updates
  - Design process and feature lifecycle updates
- What's next?

Our newest adopters

- PITS Global Data Recovery Services
- KubeSphere
- Bytedance
- Spectro Cloud
- Ænix
- CloudRaft
- Microsoft
- The Linux Foundation
  - Training & Certification
- S3NS
- NCR Voyix
- Intel Gaudi

https://github.com/kubevirt/kubevirt/blob/main/ADOPTERS.md

Folks who created a PR in the project

0xfelix
7h3-3mp7y-m4n
a180285
aaguirrre
aarondewes
aburdenthehand
acardace
acedus
ader1990
aep
aerosouund
ahmad-hafe
akalenyu
akrejcir
akshat-kaushik
alaypatel07
albertofaria
aliamerj
alicefr
alonakaplan
alromeros
andreabolognani
andreatp
anishbista60
anjuls
apinnick
arnongilboa
arsiesys
assafad
avlitman
awels
bamshk
barakmor1
barthv
bartverc
bell-lev
benjx1990
bennyz
bgaussen
bnabholz
bougou
brianmcarey
burnskp
caohuilong
cccsss01
cfilleke
chandramerla
changjjjjjjj
chifu1234
chomatdam
cloudmaniac
coderjojo
codingben
crazytaxii
cwilkers
dai88x
dalia-frank
dankenigsberg
davidffry
davidvossel
davo911
dharmit
dhiller
diafour
dkeler
dollierp
dominikholler
drssdinblck
dshchedr
dsionov491
ebblake
ecxtest
eddev
eduardgomezescan
dell
enp0s3
epanter-mw
esteban-ee
fabiand
fl64
foolusion
fossedihelm
fudancoder
gaochx
gccio
gcezaralmeida
germag
ghost
gnaponie
go-bai
grass-lu
guidograzioli
halfcrazy
hanqingwu
haojue
harsh-vardhan-ande
harshitgupta1337
henviso
hex2dec
hhhskkk
hindu-muppala
hoo29
hshitomi
hujun-open
humblenginr
ianb-mp
ibm-jitendra
ibrokethecloud
ido106
iholder101
inteon
ivandans
ivylu888
jaffcheng
jamesandariese
jcanocan
jean-edouard
jelmer
jerry7z
jeven2016
jherrman
jkinred
jokuniew
jschintag
juneezee
kaovilai
karstenb
kasserater
kevng9
kgoldbla
kpol-lgx
ksimon1
kubelize
kuruyia
kvaps
kyriosgn0
l3acon
lazzypanda7
linuxsuren
liuzhen21
lmilbaum
longchuanzheng
lyarwood
machadovilaca
maiqueb
marceloamaral
matthewei
maya-r
mfranczy
mhenriks
mikelolasagasti
mikemykhaylov
moffoso
moshuipan
mountcount
mperetzred
mrafaydev
mrnold
mtaylor91
mukeshkuiry
muxuelankk
mzzgaopeng
nagarjunanettem3
nestoracunablanco
nianyush
nickolaev
nikhil7sharma
nnzv
nunnatsa
nxf129
odedviner
ohadrevah
opc-16
opokornyy
ordovicia
orelmisan
orenc1
ormergi
oshoval
padlar
pat-glitch
pfeifferj
phoracek
pnasrat
pomodorox
prnaraya
qinqon
qiutingjun
rabin-io
rajp152k
ramlavi
relaxdiego
rmohr
rokkiter
ronikishner
roysav
rthallisey
sarthaksarthak9
sbahar619
scydas
seb54000
shellyka13
shubhamrajvans
hi
sibiraja-l
solacelost
sradco
sreeja1725
starbops
stefanha
stu-gott
sudo-nithishkarthik
surajyadav1108
swastik-swarup-dash
sylvain-pierrot
talcoh2x
tbunch1
testwill
therealsibasishbehera
tiraboschi
toelke
tpreclik
tusharjain123
umangutkarsh
usiegj00
vamsikrishna-siddu
vasiliy-ul
vicente-cheng
victortoso
virrages
vitalikbuterineth
vladikr
vsibirsk
wangjihai
wangzihao05
wenhuizhang
weshayutin
xphyr
xpivarc
yaroslavborbat
yj-yoo
ykulazhenkov
yojay11717
zaher1307
zakisk
zhlhahaha
zhonglin6666

Releases

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Releases from the past year

https://kubevirt.io/user-guide/release_notes/

v1.1 and v1.2

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V1.1

- Memory Hotplug
- Extended KSM support
- Persistent NVRAM to preserve settings
- Improved instance type inference and a set of common ones as default
- Moving storage closer to K8S native by introducing CDI volume popularors
- Using sanpshots to store OS golden images for cloning

V1.2

- Successful integration of KubeVirt on Arm64 platforms, with hybird cluster as tech preview
- LUN disks can be hotplugged
- Added a Passt and macvtap networking binding plugin
- Improved security by disabling HTTP/2
- Ability to run scripts through hook sidecar

Recently released: v1.3

- Node Restriction, to improve security, so that virt-handler's requests to modify VMs must be authorized
- Memory Hotplug refinement to support hugepages
- Compatibility with the Kubernetes descheduler
- s390x is now building but more work for full support is needed...
- LiveUpdates(CPU/Memory Hotplug) when you use Instance Types
- Volume migration, to migrate storage while the VM is running
- Kubevirt deployment is now more secure by default
- Libvirt (10.0.0), Qemu (8.2.0), and Go (v1.22) all bumped
- CommonInstancetypesDeployment, Snapshots, Export, Network hotplug all graduated to Beta

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The Demo

Mentorship: Google Summer of Code

- Project: Rewriting our ever-important KubeVirtCI into GO
  Mentee: Ammar Yasser
  Mentors: Ľuboslav Pivarč and Antonio Cardace

- Project: Persistent Device Claims through the introduction of DRA driver
  Mentee: Sibasish Behera
  Mentors: Alice Frosi, Victor Toso de Carvalho

- https://github.com/kubevirt/community/wiki/Google-Summer-of-Code-2024

SIG-release

- Upcoming changes (pre-release notes, updated daily)

https://github.com/kubevirt/sig-release/blob/main/upcoming-changes.md

- Our support matrix

https://github.com/kubevirt/sig-release/blob/main/releases/k8s-support-matrix.md

- v1.4 schedule

https://github.com/kubevirt/sig-release/blob/main/releases/v1.4/schedule.md

Update to SIGs

SIG Scale

Weekly meetings on Thursdays at 15:00 UTC. https://docs.google.com/document/d/1d_b2o05FfBG37VwlC2Z1ZArnT9-_AEJoQTe7iKaQZ6I/edit?usp=sharing

Scope

- Define and drive scalability and performance goals within KubeVirt. This includes documenting, testing, and measuring performance and scalability for a KubeVirt release.
- Analyze KubeVirt component scalability
- Learn how KubeVirt can more efficiently use Kubernetes
- Document, test, and maintain the performance and scalability standards of KubeVirt components and Virtual Machines acr
  KubeVirt releases
- Raise awareness to work focusing on performance and scale
- Build tooling to measure scale and performance
- Meet to discuss new solutions, patterns, and progress

Roles and Organization Management

This sig follows the Roles and Organization Management outlined in OWNER_ALIASES file.

SIG chairs:

- rthallisey
- alaypatel07

SIG CI Charter

Scope

The SIG CI - aka KubeVirt CI Operations Group - maintains the KubeVirt CI infrastructure.

In scope

The group is **primarily** responsible for keeping the KubeVirt CI infrastructure operational, such that CI jobs are executed in a timely manner and PRs of any of the onboarded projects are not blocked.

Additional **secondary** responsibilities are:

- keeping an eye on prow job failures and notify members of the sig teams if required
- supporting and educating sig members in CI matters related to prow job configuration
- regularly updating the prow deployment (effectively meaning looking at the automated bump jobs)
- maintaining cluster nodes (in coordination with the KNI infrastructure team)
- maintaining cluster configuration (i.e. prow concertation, onboarding and updating other cluster configs inside the secrets repository, also adding secrets that folks can use in their jobs or actions)

Out of scope

The SIG is NOT responsible for

- fixing flaky tests, as long as those tests are not caused by the CI infrastructure itself
- fixing the overload of the CI infrastructure if it is caused by misuse of the infrastructure
- improving the runtime of specific lanes as long as the creators of the lane are capable of handling this themselves
- anything else that people outside this group are capable of handling on their own

Roles and Organization Management

This sig follows the Roles and Organization Management outlined in OARP

Additional responsibilities of Chairs

- Be welcoming to new contributors

Updates to SIGs

kubevirt / OWNERS_ALIASES

Code | Blame | 159 lines (149 loc) · 2.8 KB

```
60      #
61      # SIG Network
62      # Owns anything related to networking.
63      #
64      sig-network-reviewers:
65        - AlonaKaplan
66        - EdDev
67        - RamLavi
68        - ormergi
69      sig-network-approvers:
70        - AlonaKaplan
71        - EdDev
72
73      #
74      # SIG Scale
75      # Owns to keep kubevirt's scalability comparable to Kubernetes'.
76      #
77      sig-scale-approvers:
78        - rthallisey
79      sig-scale-reviewers:
80        - rthallisey
81
82      #
83      # SIG Storage
84      # Owns anything related to storage.
85      #
86      sig-storage-approvers:
87        - mhenriks
88        - alicefr
89      sig-storage-reviewers:
90        - awels
91        - akalenyu
92        - ShellyKa13
93
94      #
95      # SIG API
96      # Owns the API including API life-cycle, deprecation,
97      # and backwards compatibility.
98      #
99      sig-api-approvers: []
100     sig-api-reviewers: []
101
102     #
103     # SIG Compute
```

Design Process Updates

- Feature Lifecycle Design Proposal (merged)

https://github.com/kubevirt/community/blob/main/design-proposals/feature-lifecycle.md

- Evolving Design Proposals

https://github.com/kubevirt/community/pull/288

The road to Graduation

"Graduation Cake Guy" by CarbonNYC [in SF!] is licensed under CC BY 2.0.

Thank you!

- Our Contributing Guide

https://kubevirt.io/user-guide/contributing

- All of our community things

https://github.com/kubevirt/community#socializing