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CloudNativeCon

THE LINUX FOUNDATION



AI_dev
Open Source GenAI & ML Summit

China 2024



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KubeVirt Community Update <<Maintainer Talk>>

Haolin Zhang (Arm)
Andrew Burden (Redhat)

In this session



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- 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



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- 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



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Oxfelix
7h3-3mp7y-m4n
a180285
aaguirre
aaron dewes
aburdenthehand
acardace
acedus
ader1990
aep
aerosound
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
bennyzy
bgaussen
bnabholz
bougou
brianmcarey
burnskp
caohuilong
cccsss01
cfilleke
chandramerla
changjjjjjj
chifu1234
chomatdam
cloudmaniac
coderjojo
codingben
crazytaxii
cwilkers
dai88x
dalia-frank
dankenigsberg
davidffry
davidvossel
davo911
dharmit
dhiller
diafour
dkeler
dollierp
dominikholler
drssdinbck
dshchedr

dsionov491
ebblake
ecxtest
eddev
eduardgomezescan
dell
enp0s3
epanter-mw
esteban-ee
fabian
fl64
foolusion
fossedihelm
fudancoder
gaochx
gccio
gcezaralmeida
germag
ghost
gnaponie
go-bai
grass-lu
guidograzioli
halfcrazy
hanqingwu
haojue
harsh-varadhan-
ande
harshitgupta1337
henviso
hex2dec
hhhskkk
hindu-muppala
hoo29

hshitomi
hujun-open
humblenginr
ianb-mp
ibm-jitendra
ibrokethecloud
ido106
iholder101
inteon
ivandans
ivyly888
jaffcheng
jamesandari
jcanocan
jean-edouard
jelmer
jerry7z
jeven2016
jherrman
jkinred
jokuniew
jschintag
junezee
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
mralfaydev
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
raj152k
ramlavi
relaxdiego
rmohr
rokkiter
ronikishner
roysav
rthallisey
sarthaksarthak9
sbahar619
scydas
seb54000
shellyka13
shubhamrajvans
hi
sibiraja-l

solacelost
sraddco
sreeja1725
starbops
stefanha
stu-gott
sudo-nithishkarthik
surajyadav1108
swastik-swarup-dash
sylvain-pierrot
talcoh2x
tbunch1
testwill
therealsibashishbehera
tiraboschi
toelke
tpreclik
tusharjain123
umangutkarsh
usiegj00
vamsikrishna-siddu
vasiliy-ul
vicente-cheng
victortoso
virrages
vitalikbuterineth
vladikr
vsibirsk
wangjihai
wangzihao05
wenhuizhang
weshayutin

xphyr
xpivarc
yaslavborbat
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/



v1.2.0

Released on: Tue Mar 05 2024

KubeVirt v1.2 is built for Kubernetes v1.29 and additionally supported for the previous two versions. See the [KubeVirt support matrix](#) for more information.

API change

- [PR #11064] [AlonaKaplan] Introduce a new API to mark a binding plugin as migratable.
- [PR #10970] [alromeros] Expose fs disk information via GuestOsInfo
- [PR #10905] [tiraboschi] Aggregate DVs conditions on VMI (and so VM)
- [PR #10872] [RamLavi] IsolateEmulatorThread: Add cluster-wide parity completion setting
- [PR #10846] [RamLavi] Change vm.status.PrintableStatus default value to "Stopped"
- [PR #10774] [victorios] Windows offline activation with ACPI SLIC table
- [PR #10732] [AlonaKaplan] Extend kubvirt CR by adding domain attachment option to the network bind
- [PR #10658] [matthewell] Support "Clone API" to filter VirtualMachine.spec.template.annotation and VirtualMachine.spec.template.label

Bug fix

- [PR #11271] [kubevirt-bot] Bug fix: VM controller doesn't corrupt its cache anymore
- [PR #11242] [kubevirt-bot] Fix migration breaking in case the VM has an rng device after cgroupsv2
- [PR #11069] [ormergl] Bug fix: Packet drops during the initial phase of VM live migration CNV-28040
- [PR #11065] [fossediheim] fix(vmlauncher): Generate VM patches from vmsnaps
- [PR #11050] [fossediheim] restrict default cluster role to authenticated only
- [PR #11047] [jschintag] Fix potential crash when trying to list USB device
- [PR #10963] [alromeros] Bugfix: Reject volume exports when no output
- [PR #10916] [orelman] Fix the value of VM [Status.GuestOsInfo.Version]
- [PR #10888] [fossediheim] [Bugfix] Clone VM with WaitForFirstConsumer binding mode
- [PR #10860] [akalenyuk] Bugfix: Double cloning with filter fails isolateEmulatorThread feature (b

v1.3.0

Release on: Wed Jul 17 2024

KubeVirt v1.3 is built for Kubernetes v1.30 and additionally supported for the previous two versions. See the [KubeVirt support matrix](#) for more information.

API change

- [PR #11156] [nunnatsa] Move some verification from the VMI create validation webhook to the CRD
- [PR #11500] [holder101] Support HyperV Passthrough: automatically use all available HyperV features
- [PR #11641] [alicefr] Add kubevirt.io/testWorkloadUpdateMigrationAbort annotation and a mechanism to abort workload threads
- [PR #11700] [alicefr] Add the updateVolumeStrategy field
- [PR #11720] [ryanwood] [SpreadOptions] have been introduced to preferences in order to allow for finer grain control of the available version when the [VirtualMachine] owning them is resync'd by [virt-controller]
- [PR #11955] [mhenrika] Introduce snapshot kubevirt.io/v1beta1
- [PR #11956] [mhenrika] Introduce export kubevirt.io/v1beta1
- [PR #11533] [alicefr] Implement volume migration and introduce the migration updateVolumesStrategy field
- [PR #10490] [jschintag] Add support for building and running KubeVirt on s390x.
- [PR #11330] [jean-edouard] More information in the migration state of VMI / migration objects
- [PR #11773] [jean-edouard] Persistent TPM/UEFI will use the default storage class if none is specified in the CR

Bug fix

- [PR #12295] [orelman] Network binding plugins: Enable the ability to specify compute memory overhead
- [PR #12279] [fossediheim] Fix persistent tpm can be used with vms containing dots in their name
- [PR #12249] [awela] Virt export route has an edge termination of redirect
- [PR #12249] [machadovalaca] Fix missing performance metrics for VMI resources

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 popularators
- Using snapshots 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



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- 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



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- 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>



- 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



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SIG Scale

Weekly meetings on Thursdays at 15:00 UTC. https://docs.google.com/document/d/1d_b2o05FfBG37VwIC2Z1ZArnT9-_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 across 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



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```
kubevirt / OWNERS_ALIASES

Code Blame 159 lines (149 loc) · 2.8 KB
59
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
104 # Owns everything which is taking place on a node, for example
```

Design Process Updates



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- 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



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"[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>