

Kata Containers user survey:

<https://www.surveymonkey.com/r/KataContainers>

Reviewers:

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The current content of the survey

About You

1. Each deployment profile can be marked public or confidential.

☐ Public: My organization name, location and info shared around our Kata Containers project can be published on katacontainers.io.

☐ Confidential: All information provided, including my organization name, should be kept confidential to the OpenStack Foundation and Kata Containers Architecture Committee.

2. The OpenStack Foundation and Kata Containers Architecture Committee may communicate with me in the future about my usage. Please note we will not disclose your details with third parties.

☐ Yes

☐ No

3. First Name

4. Last Name

5. Email

6. How likely is it that you would recommend Kata Containers to a friend or colleague?

0 - 10 scale

7. What do you like most about Kata Containers, besides “free” and “open”?

~~8. Which areas of Kata Containers require further enhancement? (e.g. Installation, Documentation, GitHub issue feedback / response time, Debugging / tracing, better release management, ease of contribution, etc...)~~

What Kata Containers documents do you think are missing or confusing?

Your Organization

9. Organization Name

10. Primary Industry

11. Organization Country

12. Organization Size

- a) 1-9 employees
- b) 10-99 employees
- c) 100-999 employees
- d) 1,000-9,999 employees
- e) 10,000-99,999 employees
- f) > 100K employees

13. My organization is currently:

- a) Using Kata Containers in production
- b) Currently evaluating Kata Containers
- c) Considering using Kata Containers

Your Environment

14. If you had to choose, which would be the single most important requirement for you?

- a) Container startup speed (container "boot speed")
- b) Memory density (maximum number of containers that can be run on a single system)
- c) Enhanced security
- d) Ability to use a custom kernel and/or custom rootfs
- e) Networking performance and latency
- f) Storage performance
- e) Other (please specify)

15. Which orchestrators do you use?

- a) Kubernetes
- b) Docker
- c) Other (please specify)

16. How would you describe your normal workloads?

- a) Short-lived (less than 1 minute)
- b) Long-running (greater than 1 minute)
- c) A mixture of both short and long-running

17. On a scale of 1 to 5 with 1 being “not important” and 5 being “very important,” please rank each of the following:

Network performance for containers

Disk performance for containers

Container launch time

Container density

Other (please specify)

18. What is your base host system?

RHEL / CentOS 8

RHEL / CentOS 7

RHEL / CentOS 6

RHEL / CentOS < 6 (old, unsupported version)

SLES 15

SLES 12

SLES 11

SLES < 11 (old, unsupported version)

Ubuntu > 18.04 (newer / latest version)

Ubuntu 18.04

Ubuntu 16.04

Ubuntu < 16.04 (old, unsupported version)

Debian

Fedora

Clear Linux

Other (please specify)

19. Which hypervisor(s) do you use?

- a) QEMU (default Kata hypervisor)

- b) Firecracker
- c) Other (please specify)

20. What storage driver do you use?

- a) 9pfs
- b) Devicemapper
- c) Virtio-fs
- d) Don't know

21. Do you use a custom Kata kernel?

- a) Yes
- b) No

If yes, which CONFIG options do you add or remove?

22. Do you use a custom-built Kata rootfs?

- a) Yes
- b) No

~~e) If yes, what changes do you make to it?~~

~~e) If yes, what workload types, performance preference and IO/CPU/Memory do you have?~~

23. Do you customise the Kata configuration.toml file?

- a) Yes
- b) No
- c) If yes, what changes to the default do you make (vCPUs, memory, machine type, kernel boot parameters, hotplug vfio on root bus, etc.)?

24. What would you like to see improved in Kata?

- ☐ Installation experience
- ☐ Documentation
- ☐ GitHub issue feedback / response time
- ☐ Debugging / tracing experience
- ☐ More / new features
- ☐ Improve existing features (focus on stability / robustness)
- ☐ Better release management (more detailed release notes, etc)
- ☐ More tests for particular use cases? (e.g., CentOS version x.y with docker version x.y?)
- ☐ Make it easier to contribute to project
- ☐ Other (please specify)

25. What kind of support do you require to deploy Kata Containers?

- a) I need full (24x7) support and am willing to pay for it.
- b) Paid email support is sufficient for me (if issues are resolved within 24 hours).
- c) GitHub, mailing list, Slack or IRC support is sufficient for me (if issues resolved within 72 hours).
- d) I don't need any support.

26. How do you manage installation of Kata Containers? Do you:

- a) Build from source
- b) Use distribution packages
- c) Static tarballs from release page
- d) kata deploy (docker or kubernetes)

27. How many Kata Containers do you run per node (typically)?

- a) < 10
- b) up to 100
- c) > 100
- d) It depends on the container images / workloads / tenants
- e) Still evaluating

28. What QoS class do you use for Kata Pods?

- a) Guaranteed
- b) Burstable
- c) Best effort
- d) It depends on the container images / workloads / tenants
- e) Still evaluating

29. Which (if any) Kubernetes networking (CNI) or device plugins do you use or plan to use?

- ☐ Flannel
- ☐ DHCP
- ☐ Macvlan
- ☐ Calico
- ☐ Weave
- ☐ Cilium
- ☐ Contiv
- ☐ SR-IOV network device plugin
- ☐ Other (please specify)

Community Participation

30. If you or your organization are not able to contribute to the Kata Containers project, could you tell us the reasoning? (select one or more)

- ☐ I just want to use Kata Containers
- ☐ I want to contribute but I don't have time
- ☐ Employer does not allow me to contribute
- ☐ Too difficult / don't understand how to contribute
- ☐ Unsure where to start
- ☐ Need someone to mentor me
- ☐ Other (please specify)

31. Would you like one of the community members to reach out to you about how you or your organization might be able to contribute?

Potential areas of contribution include:

- * Providing machine time / cloud resources.
- * Testing a particular feature / environment / configuration combination.
- * Helping to write tests / documentation / code.
- * Blogging about Kata.
- * Raising issues on problems you discover or suggestions on how to improve Kata.
- * Performing usability testing (informally) and providing feedback.
- * Helping with bug triage / PR reviews.

a) Yes

b) No

Please add your suggestions for any changes on the user survey below:

Changes on the user survey:

- ~~11. Country should probably be a drop-down for easier summarization.~~
- ~~13. I would suggest an additional choice "Planning to release to production"~~
- ~~15. We include docker as an option, although we don't support it anymore.~~
- ~~18. I'd reduce the OS list by a lot, allowing the user to add the version used, and leaving only:~~
 - ~~_____ * RHEL / CentOS~~
 - ~~_____ * Fedora~~
 - ~~_____ * Fedora CoreOS~~

- ~~_____ * Ubuntu~~
- ~~_____ * Debian~~
- ~~_____ * FlatCar~~
- ~~_____ * SLES~~
- ~~_____ * Ubuntu~~

~~19. Can we update the hypervisor list to include all supported hypervisors? NEED A LIST OF ALL HYPERVISORS~~

~~19. Can we add a "and why?" part on that question? I'd be interested to know what drives the people's preference on one or another hypervisor~~

~~20. Why does it have virtio fs (are you considering)? Should that be a separate question around things they might be planning to use?~~

~~24. How is the selection different than the free from #8 at the beginning? Might it just add a comment box to allow for specificity on #24?~~

~~26. We include docker as an option, although we don't support it anymore~~

~~26. Include "Snap" as an installation source~~

Additional questions to add on the user survey?

~~1. Do you use Kata in public cloud, on-premise, both, none...?~~

~~2. How long have you had Kata Containers deployed in production?~~

~~3. multi-select for what — Microservices, multi-tenancy, CAAS, containers at the edge, continuous delivery, etc.~~

~~4. Can we explore a few questions around the two primary uses that are being driven for next Kata release — Confidential computing and performance isolation.~~

~~_____ how important is this to you?~~

~~_____ what use cases are most relevant? i.e., protecting information for compliance/regulatory such as HIPAA, GDPR, securing financial data, protecting code and data, machine learning on sensitive data, multi-party computations...~~

~~_____ what features are most important?~~

~~_____ what other solutions would you consider?~~

~~5. Want to dig into observability and tracing at all?~~

~~6. How long did it take for you / your company to switch from kata containers 1.x to 2.x?~~

~~7. How often would you be willing to update to a new release of kata containers?~~

~~8. What's your expectation about how long an old release should be supported (for bug fixes only)?~~

~~9. What's your expectation about memory & CPU overhead? How much is too much for you to still consider using Kata Containers?~~

~~10. I'd be highly interested on whether users would prefer relying on the packages provided by their distro or not, but I'm not sure how to properly formulate this question~~

~~11. How would you describe the workloads you run:~~

~~——— Trusted (you have full knowledge and confidence in the workload and no external parties can control it)~~

~~——— Untrusted (external parties can run arbitrary applications)~~

~~12. How do you perceive the host environment Kata Containers runs on:~~

~~——— Trusted (normally when you control the host environment)~~

~~——— Untrusted (when you do not control or have full confidence in the host environment)~~

~~13. What platform(s) do you run (or plan to run) Kata Containers on (select all that apply):~~

~~——— ARM64 (aarch64)~~

~~——— Intel (x86_64)~~

~~——— PowerPC (ppc64le)~~

~~——— zLinux (s390x)~~

~~——— other (please specify)~~

~~14. Do you still use Kata 1.x?~~

~~15. kata-deploy: If you deploy Kata in a Cluster do you expect to do canary deployments?~~

~~——— Yes, I would like kata-deploy to do it in this way.~~

~~——— No, my infra team would manage how to deploy it locally.~~

~~——— I don't only use kata-deploy for evaluation, but instead deploy in production.~~

sunny@openstack.org , I'd like to add the following question:

- What's the ideal release cadence of a project for you to consume?
 - Monthly releases without a stable branch
 - A new minor release every 3 months, while doing patch releases in the previous stable release (only one stable release exists)
 - A new minor release every 3 months, with a LTS release maintained for 6 months.
 - Something else, explain your idea.