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# Intro to the Kubernetes SIG Usability

*Tasha Drew, Co-Chair*





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“Kubernetes is infrastructure software made by infrastructure engineers for infrastructure engineers.”

~ Ross Kukulinski ~

# Discussion

- How can we make the creation of deployments easier?
  - Automated validation?
  - Visual tools?
- The interest in Kubernetes is growing but, does the data show that Kubernetes is still in a testing phase?
  - Lots of cases of people trying to learn (minikube, kubeadm...)

- A proper UX is essential for a more satisfactory Kubernetes adaptation
  - Call to action: Special Interest Group in User Experience?



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# Exploring Our User-Base Challenges: Getting Insight From StackOverflow — Javier Salmeron, Bitnami (2018)



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**Matt Farina**  
@mattfarina



It just hit me that Kubernetes has no SIG UX. That says a lot about how we got to the state of UX we have.

18 10:39 AM - Nov 12, 2018



[See Matt Farina's other Tweets](#)



CONTAINERS / KUBERNETES

# UX Is Kubernetes' Biggest Short-Term Challenge

14 Nov 2019 3:00pm, by Lawrence E Hecht

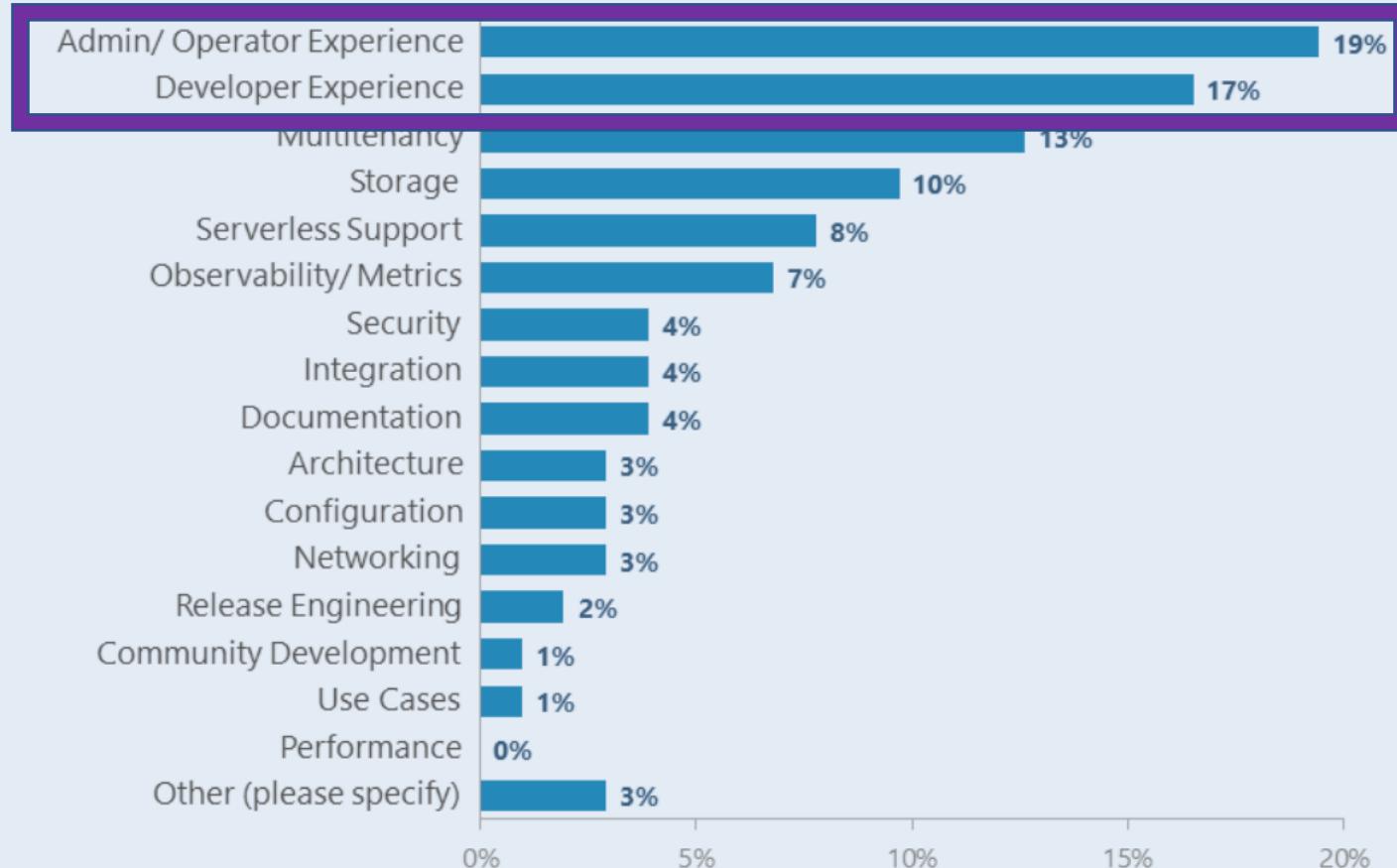


The New  
Stack

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# Top Areas the Core Kubernetes Project Needs to Address in 2020



Source: Online poll conducted between October 31 and November 12, 2019. What is the #1 area that the Kubernetes core project most needs to address next year? Most of the 103 respondents are The New Stack readers.

@ 2019 THE NEW STACK



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# What we did last cycle

We started a new SIG! 😊

The screenshot shows a GitHub pull request page for issue #3801. The title is "Initial draft of SIG-Usability. #3801". The status is "Merged" with a note that it was merged from `brendandburns:sig-usability` into `kubernetes:master` on July 17. The pull request has 110 conversations, 1 commit, 0 checks, and 5 files changed, resulting in +180 -0 changes. A comment by `brendandburns` on June 14 states: "This is an initial rough draft for discussion, lots of details need to be filled in." Below the comment are reaction counts: 2 thumbs up, 1 rocket, 15 hearts, 1 rocket, and 4 eyes. The pull request was reviewed by `dims`, `mattfarina`, `frapposelli`, `justaugustus`, `tashimi`, `BenTheElder`, `jdmars`, and `asauber`. Labels added include `cncf-cla: yes`, `size/L`, and `approved`.



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# Where to find us

- Chairs
  - @tasha
  - @vllry
  - @Rajie
  - @hpandey
- Home page: <https://github.com/kubernetes-sigs/sig-usability>
- <https://github.com/kubernetes-sigs/sig-usability>
- Meeting Notes / Agenda/ Video links  
[https://docs.google.com/document/d/1gJHgt8RpH4TvqPuC8NtR31-CMqtTYkHy\\_loxubHq8lg/edit#heading=h.dxkqxqfedyl](https://docs.google.com/document/d/1gJHgt8RpH4TvqPuC8NtR31-CMqtTYkHy_loxubHq8lg/edit#heading=h.dxkqxqfedyl)
- Slack channel: <https://kubernetes.slack.com/messages/sig-usability>
- Mailing List (join this for calendar invitations!):  
<https://groups.google.com/forum/#!forum/kubernetes-sig-usability>

# Understanding our users

Goal: Define the user research initiatives the community should take on and fund to better understand the users of Kubernetes.

Optimize the new user experience

Understand if we are churning users, and how to help them be successful

Understand the rough edges our users are running into

Understand who is using Kubernetes, and what they are trying to do

Leads:

@gaby, Gaby Moreno, IBM

@tasha, Tasha Drew, VMware

@Pamel Shinh, Pamel Shinh, VMware

@Boaz, Boaz Gurdin, VMware

@hpandey, Himanshu Pandey, Pivotal



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# Inclusive Design Initiative

Inspiration: <https://www.microsoft.com/design/inclusive/>

## Our inclusive design principles

Exclusion happens when we solve problems using our own biases. As Microsoft designers, we seek out those exclusions, and use them as opportunities to create new ideas and inclusive designs.

### Recognize exclusion

Designing for inclusivity not only opens up our products and services to more people, it also reflects how people really are. All humans grow and adapt to the world around them and we want our designs to reflect that.



### Solve for one, extend to many

Everyone has abilities, and limits to those abilities. Designing for people with permanent disabilities actually results in designs that benefit people universally. Constraints are a beautiful thing.



### Learn from diversity

Human beings are the real experts in adapting to diversity. Inclusive design puts people in the center from the very start of the process, and those fresh, diverse perspectives are the key to true insight.



# Kubernetes User Survey Proposal

Led by @gaby

[https://docs.google.com/document/d/1CPa\\_Ls4RFLeZVM6IJbsxiM7Q5fgiUnSzvTA1Uo8Mg4k/edit](https://docs.google.com/document/d/1CPa_Ls4RFLeZVM6IJbsxiM7Q5fgiUnSzvTA1Uo8Mg4k/edit)

## Goals

- Gather quantitative data on our end user community
- Recruit end users for future qualitative studies
- Build awareness of SIG Usability

## Expected outcomes

- Identify top tasks that end users do with Kubernetes (the 80/20)
- Inform top barriers to adoption and successful production use on Kubernetes
- Inform persona development
- Engage end users who are not necessarily involved in the community
- Present results



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# Kubernetes JTBD Proposal

Led by @gaby, @boaz, @tasha

This study aims to go about clarifying who are the users of Kubernetes. It aims to define how Kubernetes fits into what they hope to achieve. By breaking this desired outcome into measurable steps, it then aims to provide statistically significant results on the areas of most opportunity to improve Kubernetes.

## Questions

- Who are the main users of Kubernetes?
- What are they trying to achieve and how does Kubernetes fit into it?
- How do they go about doing so?
- What are the top opportunities for improving Kubernetes?

<https://docs.google.com/document/d/1IkPQdBEw-Xb5GEZ48WnpBgQdZ01EmTBhjcxJBlu5qJs/edit#>



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# Security by default

What are the defaults of a new cluster? What levels need to be customized to have a “good” secure experience? What are the obstacles to successfully using the features already in Kubernetes?

What is a conformance test? What is a conformant cluster? Why does this matter?

Wednesday, 3:20pm, Room 23BC

Deep Dive: Sig Usability

Vallery Lancey, Co-Chair of SIG Usability

Infrastructure Software Engineer @ Lyft

<https://kccncna19.sched.com/event/Uagd/sig-usability-deep-dive-vallery-lancey-lyft?iframe=no&w=100%&sidebar=yes&bg=no>



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# Deep Dive and more!

Tuesday, 7:20pm, IBM Cloud Booth

The Voice of the Customer: Building IBM Kubernetes Service

Gaby Moreno Cesar

UX Designer @ IBM

<https://medium.com/@morengab/kubernetes-sig-usability-ba0dd4f2296c>

Wednesday, 3:20pm, Room 23BC

Deep Dive: Sig Usability

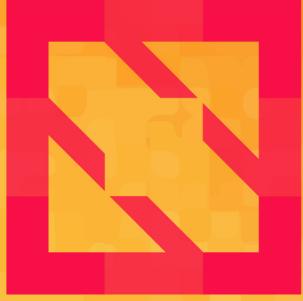
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