8 DevOps trends to watch in 2018

Here are the most important DevOps trends to track in 2018.

1. Keep CALMS and carry on

- ✓ Over the years, pundits have argued about the definition of DevOps, what it means for organizations, and what organizations need to do to achieve its principles.
- ✓ The definition has evolved as more people have been drawn into the community and as shared experience has shown that successful DevOps adoption is actually the successful integration of a number of common key ingredients.
- ✓ All this has coalesced into an important and deceptively simple acronym that you should continue to keep in mind in 2018: CALMS, said Nicole Forsgren, CEO of consultancy DevOps Research and Assessment.

"When we talk about what DevOps is, it is CALMS: Culture, automation, lean, measurement, and sharing."

—Nicole Forsgren

- ✓ No one component is more important than the other, and organizations must recognize that it takes full engagement on all five to achieve true transformation.

2. The year of enterprise DevOps

- ✓ Last year was an incredible period for the wide-scale adoption of DevOps, as the acceptance of DevOps principles reached critical mass in the hearts and minds of many in IT.
- ✓ According to a study by cloud-management provider RightScale, the ratio of enterprises that have adopted some aspect of DevOps principles reached 84% in 2017.
- ✓ However, there's a difference between accepting principles and putting them into action.
- ✓ That same study showed that just 30% of enterprises have been able to adopt DevOps company-wide.
- ✓ The truth is that while DevOps adoption has gone wide, it hasn't necessarily gone deep.

- ✓ Experts believe this is the year when large organizations start not just doing DevOps, but doing DevOps at scale.
- ✓ Forrester Research's Robert Stroud said that 2018 will be the year of enterprise DevOps.

"Although many organizations are in the experimentation stage with single or multiple pilots, they all are transitioning toward DevOps across their entire enterprise."

—*Robert Stroud*

3. DevSecOps won't be novel anymore

- ✓ Part and parcel with the enterprise scale-up of DevOps is the increasing acceptance that security and compliance must be completely folded into DevOps transformations if they're to achieve success, said Jay Lyman, an analyst at 451 Research.

"Increasingly I'm hearing users and vendors talk about the need to inject security thinking and security people earlier into the development and the release process and the workflow."

—*Jay Lyman*

- ✓ But it's not just about embedding security people into DevOps teams.
- ✓ Enterprises recognize that to truly make software secure, they must instill the principles these security people have been preaching for years directly into the habits of the entire team, said Rick Fitz, senior vice president of IT markets for Splunk.

"Security will become a standard requirement for building enterprise-class services and applications. This means developers will have a larger role and more accountability for ensuring the security of their applications and the data they process."

—*Rick Fitz*

4. Serverless technology will take off

- ✓ If there's one constant in the technology buzz for DevOps this year, it's serverless technology.
- ✓ Containers and orchestration edges are becoming commoditized "to the point where they're being abstracted away," explained Mike Kavis, managing director at Deloitte Consulting.

"That's kind of the future I see for 2018: I'm just going to configure some abstraction layer and I won't have to worry about all that plumbing."
—Mike Kavis

- ✓ According to analysts at Research and Markets, serverless computing and this abstraction are driving the function-as-a-service market at a phenomenal rate.
- ✓ In 2018 and the following years, the company expects this market to grow by almost 33% annually, reaching $7.72 billion by 2021.

5. SRE role will go mainstream

- ✓ The more DevOps and continuous delivery practices seep into the consciousness of the mainstream IT community, the more we'll see the DNA of IT Ops evolve.
- ✓ This is leading to the mainstream acceptance of a new breed of IT operations professional, said Splunk's Fitz.
- ✓ He explained that the site reliability engineer (SRE) will continue to grow in prevalence this year as ops professionals start to work on their software development skills to be able to collaborate more effectively with developers.
- ✓ SREs need to be as comfortable with Python and Ruby as with configuration and capacity, Fitz said.

"They are leading the way in areas like systems automation, architectural flexibility, developer empowerment, and site reliability to deliver better applications faster and with an exceptional user experience."
—Fitz

6. KPI metrics will balance speed and stability

- ✓ Measurement is the fuel by which the DevOps engine runs.
- ✓ The right blend of metrics gives organizations the visibility to understand what's working with tools and processes now and what needs to be tweaked or rethought entirely.
- ✓ There is not necessarily one perfect key performance indicator.
- ✓ But consultant Forsgren said that if she had to choose one category of metric above all others for tracking DevOps proficiency, it would be the type that shows "the ability to develop and deliver software with both speed and stability."

- ✓ It's that balance between the two that matters most. On one side of that teeter-totter are metrics such as "lead time per change" and "code commit to code deploy." On the other side are stability measures such as "mean time to repair" and "change fail rate."

> *"The important point to take is that these measures move all together. We do not see them as trade-offs; they all move in tandem. High performers are able to achieve all of these, not just one or the other."*
>
> *—Forsgren*

7. Ultimate success metrics, though, follow business value

- ✓ Technical indicators are important, but more organizations today are coming to the realization that it's crucial to not only deliver quality software faster, but also to make sure it's software that actually moves the needle on business goals, said Jez Humble, CTO for DevOps Research and Assessment.

> *"Unless you're actually measuring the impact of your features—and not building the ones that don't deliver value—two-thirds of the features that you're building are delivering zero or negative value."*
>
> *—Jez Humble*

- ✓ As a result, don't be surprised to see increasing emphasis in 2018 placed on collecting metrics that track business impact of feature delivery and process improvements, said Tim Buntel, vice president of product at XebiaLabs.
- ✓ The emphasis in examining the data so far has been primarily on looking for ROI, he explained. In 2018, the evolved stance will be to seek out metrics that can help shape the way organizations continuously improve their software, he said.

> *"We need to understand how this effort and the investment we're making in DevOps transformations is actually improving the bottom line of our business, and the way you do that is by looking at the data."*
>
> *—Tim Buntel*

8. DevOps will embolden experimentation

- ✓ The more DevOps organizations lock down their technical and business metrics in 2018, the more they will be emboldened to experiment.
- ✓ That's because good metrics provide a valuable safety net for failure.

- Collecting and tracking metrics allows organizations to do things they've never done before and set risk parameters around those experiments so that, when they fail, the impact is limited. This is crucial for innovation.
- "Failure and novelty are linked to each other, and here's why: If you're on a team where, when something goes wrong, you're punished for it, how likely are you to take risks?" Humble said.
- "Innovation is basically risk-taking. By definition, you're doing something that's never been done before, so it's a risk."
- DevOps organizations are increasingly shifting from the mindset of preventing failure to embracing it by looking for ways to limit the stakes for failure when it inevitably happens.

"Teams that are punished for failure won't innovate, either in process or in product development."