

10

Things Your CIO Should Know About DevOps



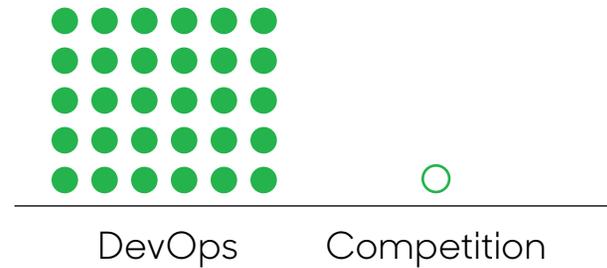
APPDYNAMICS



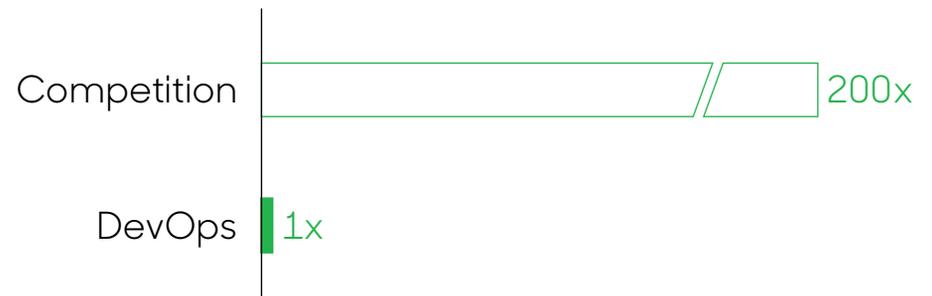
DevOps has taken the IT world by storm over the last few years and continues to transform the way organizations develop, deploy, monitor, and maintain applications, as well as modifying the underlying infrastructure. DevOps has quickly evolved from a niche concept to a business imperative and companies of all sizes should be striving to incorporate DevOps tools and principles.

The value of successful DevOps is quantifiable. According to the 2015 State of DevOps Report, organizations that effectively adopt DevOps **deploy software 30 times more frequently** and with **200 times shorter lead times** than competing organizations that have yet to embrace DevOps.

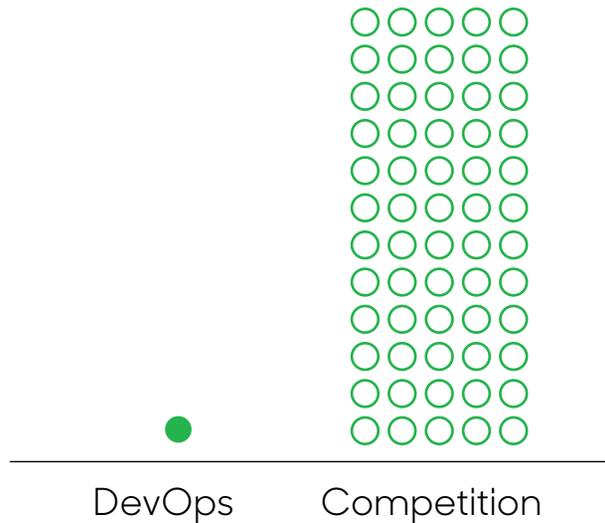
Software Deployment Frequency



Lead Times

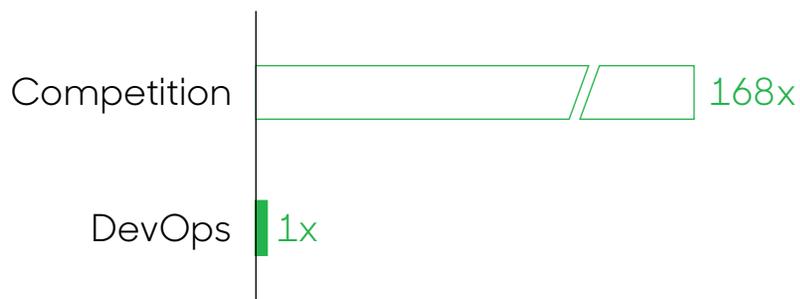


Failure Frequency



They also have **60 times fewer failures**, and **recover from those failures 168 times faster**. Those are impressive numbers and define why succeeding at DevOps is so important for organizations to remain competitive today.

Failure Recovery Time



A woman with dark hair pulled back, wearing glasses and a blue denim shirt, is engaged in a conversation with a man in a plaid shirt. They are in an office environment with laptops and water bottles on a table. The woman is gesturing with her hands as she speaks. The background is slightly blurred, showing office equipment and windows.

As the DevOps revolution continues, though, many enterprises are still watching curiously from the sidelines trying to understand what it's all about. Some have jumped in, yet are struggling to succeed. But one thing's certain – it's a much greater challenge to succeed at DevOps if your CIO doesn't grasp what it is or how to adopt it effectively.

Here are ten key points you can share with your CIO to drive the DevOps conversation and enlist his or her support.

01

DevOps requires buy-in from your CIO

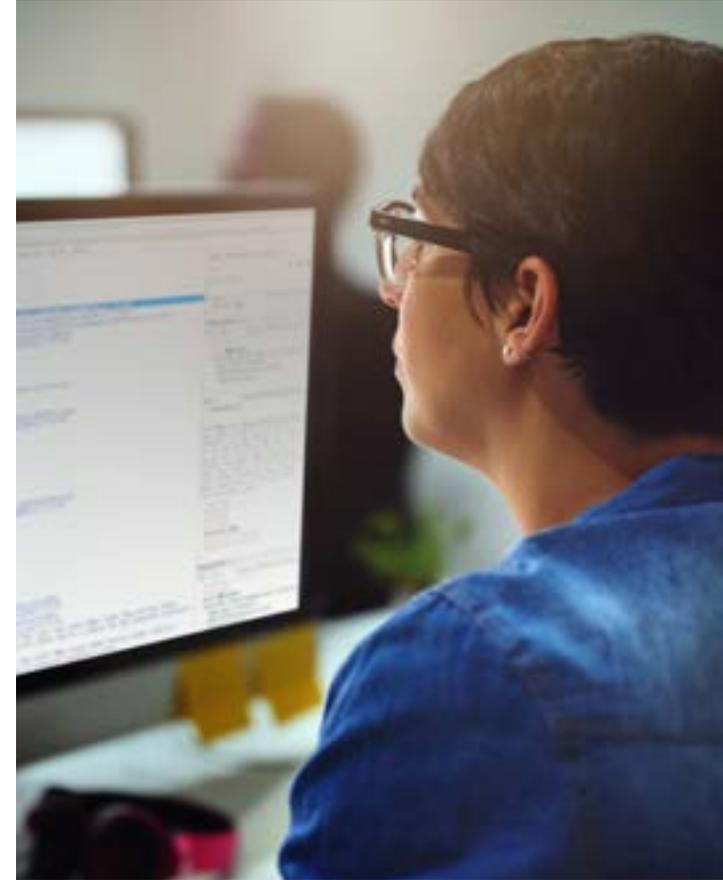
DevOps is ultimately about transforming the way your business thinks about software and its effect on the bottom line. It's possible to employ elements of DevOps within individual teams or projects, but in order for the organization as a whole to benefit, it depends on support from the top. To reach its full potential, IT must fundamentally change how it operates, which requires your CIO to be a DevOps champion – to approve, support, and in some cases be willing to lead this effort.



DevOps is about delivering quality software releases that meet user speed expectations

Successful DevOps adoption is more than just a specific set of rules or tools, and it can mean different things to different organizations. There are many definitions about what DevOps is – maybe it's about continuous delivery, or it's about release speed and quality, etc. The important part is that however you define DevOps for your business, your explanation should be clear and consistent.

Your CIO will probably ask, "Why DevOps? What problems are we trying to solve?" Your answers should be compelling enough to get them on board. Focus on the results more than the methods. DevOps isn't about release speed – it's about meeting the increasing expectations of consumers. DevOps isn't about continuous delivery – it's about streamlining development and removing deployment hurdles in order to function more efficiently. In order to get buy-in, you have to succinctly convey the need for DevOps in your business. This means means using concrete examples of how DevOps can improve specific services and increase user satisfaction. Luckily, we have a few good ones for you.



02



DevOps isn't just about dev and ops – it's also about the business

03

The idea behind DevOps is of course merging development and operations, but DevOps has evolved beyond a strictly IT concept. DevOps involves software, applications, and the delivery of tech-based services, which in today's digital world is the responsibility of everyone in the company – not just enterprise IT.

Effective DevOps involves the whole company collaborating more closely. Even a strictly IT-based project touches other teams and departments – like HR or accounting. Those interactions can be roadblocks if they're bogged down in corporate bureaucracy.

04

DevOps isn't just about new tools – it's about transforming the culture

There are many factors that will affect your transition to a DevOps operating model, like having the right tools and realigning processes. Ultimately, though, DevOps is about changing the culture of enterprise IT more than the tools and principles it leverages.

Traditional corporate structures and processes inhibit efficient collaboration and impede productivity. DevOps culture is about breaking down silos, removing barriers, and improving communication between teams so employees are empowered to get things done faster and more effectively at the same time. It's important to make sure that everyone – both inside and outside of IT – understands the business importance of software, applications, and the competitive advantages of being more agile.

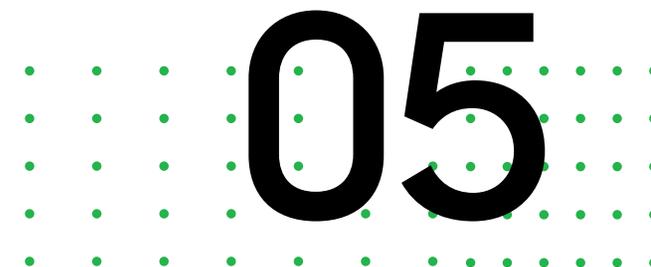


DevOps is necessary for digital transformation

There's been a definite emphasis on the demand for digital transformation in recent years, and it's a virtual guarantee that your CIO has been bombarded with information about its importance in your industry.

One of the foundations of digital transformation is using applications to constantly create new channels – both to engage customers and to keep employees productive. In a way, every company is now a software company, and your CIO should be aware that DevOps is critical for application strategy success, meaning it's also an essential element of digital transformation.

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DevOps requires enterprise IT to think more holistically about metrics

Metrics are the compass that guides your organization. If you aren't effectively measuring what you're doing and how well it's working, you can't make the proper changes to continue growing and innovating.

The right metrics are key to making sure that your DevOps transformation is working, but you have to think beyond technology metrics. Metrics such as Mean Time To Resolution (MTTR) or Mean Time Between Failure (MTBF) can tell you a lot, but make sure to focus on process and people metrics, too. Things like monthly or daily active users and analyzing the development-to-deployment lead time are also significant metrics to consider. Learning to take a full-dimensional approach to measuring your data is likely to improve user experience, ultimately increasing revenue.

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Your application performance management (APM) and monitoring solutions should have features that allow you to automatically detect releases and to automatically respond to issues through runbook automation.

DevOps requires automation

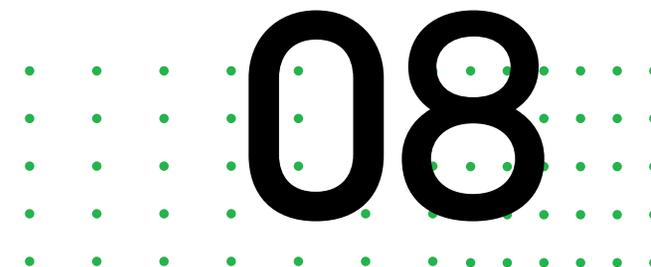
Agility is necessary in all processes of a DevOps operating model, but manual processes and human intervention impede that agility. They are time-consuming and prone to error. This means that no matter what solutions or tools you choose, they should have features that can automate repetitive tasks for a more efficient workflow.

Tools like Chef and Puppet, for example, are great for release automation, but that's just one facet. Consider automation on a broader, more holistic basis. This is why your application performance management (APM) and monitoring solutions must be able to automatically detect releases and instantly respond to issues through runbook automation. Automation helps you deliver faster and reduce costs while also enabling you to achieve your desired quality goals and maintain compliance.

DevOps requires solutions that can aid feedback and feedforward cycles

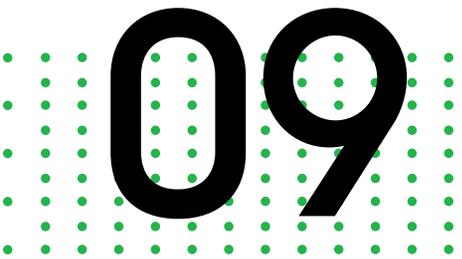
DevOps is designed to promote agility through healthier collaboration within the organization. The ability to deliver feedback or feedforward information in the development life-cycle is critical to agility. In order for different functions of the company to interact smoothly and provide input that has value, you must have tools capable of focusing on different elements of the software development process that can present information in a context that's relevant to each audience.

Contextual relevance is particularly important with any APM or monitoring solution. It's now possible to easily create dashboards that present information that matters to different audiences in a way that makes sense to them. The data and information that developers depend upon is different than what the operations team needs, which is different from what departments like management, accounting, or HR might have to see. At the same time, all parties need to be able to monitor and give input that helps the whole organization function more efficiently.





DevOps requires a modern approach to APM – one that provides situational awareness



DevOps is about culture more than tools, but the right tools greatly improve your odds of success. Managing software development and implementation in a volatile, fast-paced environment requires an enterprise, production-ready APM solution.

There are a lot of moving pieces in a DevOps environment. Your CIO should understand the relevance of being able to monitor applications down to specific functions, as well as the end user experience as seamlessly as possible. The key is that the solution you choose can provide rapid situational awareness or instant visibility into emerging problems so that the right actions can be taken immediately to avoid negative user impact. When your teams are working together from the beginning to ensure quality and your monitoring solutions let you spot problems in real-time, it's easier to predict the success of your applications.

10

DevOps requires application analytics to improve software strategy

Analytics are essential for all areas of business, especially when it comes to improving your software strategy. In order to make sure your applications always live up to the quality expectations of your users – and to stay ahead of your competition – investing in an effective analytics solution should be your main priority.

Ultimately, your software isn't about the software itself – it's about how that software connects with customers and partners to generate revenue. An ideal analytics solution will be capable of easily correlating application performance with user engagement and business data in order to ensure that all software decisions support and drive financial outcomes.

DevOps success is a recipe that combines transforming the culture of IT and the business itself, as well as an investment in the tools and principles that enable teams to develop and deploy software more efficiently. The CIO plays an important role in both areas – defining a vision and establishing organizational priorities, as well as controlling the budget. Helping your CIO understand these ten key elements and winning his or her support is crucial for the long term success of DevOps in your organization.

An ideal analytics solution will be capable of easily correlating application performance with user engagement and business data in order to ensure that all software decisions support and drive financial outcomes.



DevOps Top Ten – The Short Version:

- 01 Requires approval from your CIO
- 02 Delivers software that meets user speed expectations
- 03 Isn't just about dev and ops – it's about business, too
- 04 Isn't just about new tools – it's a new culture
- 05 Is necessary for digital transformation
- 06 Requires a holistic approach to metrics
- 07 Requires automation
- 08 Must aid feedback and feedforward cycles
- 09 Requires a real-time approach to APM
- 10 Requires analytics to improve software strategy