

DEVOPS METRICS AND KPIS



DevOps may seem like the new kid on the block with all the buzz surrounding it, but it's actually been around for a while and has proven itself a valuable method for improving software enterprises' ability to deliver better products in less time. It achieves this lofty goal by leveraging the power of cross-discipline teams and empowering transparent communication throughout the organizations. A culture of communication goes a long way in improving morale as well as efficiency.

It's difficult to overstate what DevOps can help you accomplish. However, as with any other method or toolset you implement into your organization, you need to track what changes are made and the impact they have on your performance to best measure your success. Without tracking metrics, it's impossible to know where you went right and where you could improve. DevOps has specific ramifications on enterprises and there are key performance indicators (KPIs) which should be measured and tracked to intimately understand the impact the changes have on your organization.

There are many metrics worthy of your attention, but here some important KPIs you should be tracking now and throughout the lifetime of your DevOps operations, in no particular order.

(This article is part of our [DevOps Guide](#). Use the right-hand menu to navigate.)

Deployment Frequency

DevOps is an evolution of Agile methodology. As such, one of the primary pursuits of DevOps is to increase the pace of development and the frequency of deployment. Rapid deployments are a key sign that things are going according to plan in a DevOps enterprise. However, regular deployments aren't in and of themselves an indication that development has improved.

Change Volume

Frequent deployments are great, but the amount of change within each deployment needs to be tracked for meaningful comparison. In DevOps, changes should come often and be in small pieces, but the sizes of those pieces can still vary quite a bit. Tracking performance of your team means ensuring evolution occurs steadily in both the rate of deployment as well as the volume of change between each deployment. Pushing for ever faster rates isn't always the solution. Finding a happy medium of frequent and impactful changes leads to greater success rates.

Change Failure Rate

Frequency is important, but changes need to be both rapid as well as successful. Defining success can be difficult, but failure tends to be a more obvious metric to track. Determine what success means for your standards of change and keep tabs on each change made and its overall success. Try to quantify success in some way that you can rate on a relative scale for increased value from your metrics.

Lead Time

Tracking the time an idea takes to make its way from conception to implementation is essential for keeping tabs on the efficiency of your various processes. A long lead time is an indication that something is off about the workflow. DevOps embraces Agile methodologies and should lead you to quick turnaround times for new changes to become implemented into your system. Adaptation and nimbleness are key components of a successful DevOps enterprise.

Service Availability

This is an incredibly important aspect to keep tabs on for software as a service (SaaS) enterprises. The availability of your service is key to maintaining customer satisfaction, and it's also a valuable metric for indicating the success of changes in addition to how quickly the IT department responds to issues. Uptime percentage is both easy to quantify as well as track. Additionally, uptime provides insight into the success of operations across the board.

Application Performance

Great software needs to do its job successfully while being easy to use all while taxing the system as little as possible. Optimization is essential for customer satisfaction and the overall wellbeing of your organization's services. Spikes in usage can lead to unexpected outcomes when services are lacking in optimization. Monitoring key performance aspects over time will also help to clue you in when changes had unanticipated impacts on your services.

Usage and Traffic Reports

A great way to ensure the deployments are successful in the eyes of your users and customers is to track changes in usage across your services. If there is a noticeable dip in usage after a change is pushed through, it's likely something is malfunctioning or the changes just aren't gelling with customers. Make sure you keep constant tabs on usage and traffic so you can tell the difference

between general usage trends and sudden changes that could be due to factors within your control.

Automated Tests Failure Rate

Automation is a core tool in the DevOps kit and should be used as often as possible to make sure your teams don't waste their time on rote tasks. Freeing up your team members to do more creative work by offloading repeated tasks through the use of automation is incredibly valuable for improving enterprise performance. Automated tests are especially great because they provide a constant source of feedback that doesn't suffer from bias. Keeping tabs on automated test performance markers will keep you dialed in on important success metrics. Furthermore, measuring results of automation tests will also help ensure your automation efforts are bearing fruit as well.

Track What's Important to You

This list should be seen as general suggestions for metrics to keep tabs on throughout your DevOps processes. The specific metrics and KPIs that matter most to your organization will depend on your individual needs. Make sure you keep an eye out for other important aspects that you believe would help inform future changes and help you keep a finger on the pulse of your organization.

There is no one size fits all approach to DevOps because each organization and its services are unique to them. DevOps is a corporate mentality of embracing change and empowering communication throughout the organization. Tracking the way changes impact your organization will help you understand the value you are getting out of your DevOps investment while also helping to shape any future decisions you make.

Gather data regularly and leverage it to steer your organization in the right direction, but make sure you don't get bogged down in unnecessary data points that don't provide meaningful information for your unique enterprise. There are plenty of tools available on the market to help you keep tabs on changes as they occur and give you real-time updates on how your services are performing.

DevOps: Solutions for You

If DevOps sounds like a good fit for your organization's needs but you want to make sure you get it right the first time, BMC is the IT solution partner you need. Read more about how automation and DevOps systems can help increase the rate at which you deploy products with BMC's free eBook: *Automate Cloud and DevOps Initiatives*. BMC expert consultants are available to work with you to bring their knowledge and expertise to your organization. BMC provides custom-tailored [Deployment Services](#) for your organization to tackle the unique challenges you face. When partnering with BMC, you get:

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- **Visibility across data:** Ensure compliance and data accuracy
- **Cost-effective service:** Increased productivity and performance
- **Experienced DevOps professionals:** Equip you with the tools you need for success
- **Conversion or upgrade:** Seamless modernization or total replacement
- **All tailored for the specific needs of your organization.**

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enterprise and then contact the experts at BMC to find out more about how to leverage DevOps practices and metrics tracking for enhanced building, testing, and deployment success.