Measuring the ROI of DevOps

HOW DO YOU MAKE THE BUSINESS CASE FOR ADOPTING DEVOPS PRACTICES?

**Time Is Money**
When people can spend their time on higher value problems they’ll create more value for your business

**Efficiency Is Key**
Put authority and responsibility closest to the problem, removing bottlenecks

**Mileage May Vary**
It’s not one-size-fits-all: figure out what’s important to your business and optimize for that

DevOps is a culture, movement, or practice that emphasizes the collaboration and communication between software developers and IT operations professionals, while automating and accelerating the process of software delivery and infrastructure changes. Implementing DevOps practices requires several types of investment: in people, in education, in tools, in organizational alignment, and much more. But determining the value received by your organization in exchange for these investments can be difficult — what exactly should you measure? How do you make the case that these investments are worthwhile?

“Not everything that counts can be counted, and not everything that can be counted counts.”

- William Bruce Cameron
The Impact of DevOps on ROI

In a non-DevOps world, software releases are infrequent and contain all the new features, updates, and changes built by the development team since the previous release. During the period between releases, all of the code that’s built but not shipped isn’t creating value for your business. Accelerating the velocity at which code is delivered to users is like just-in-time manufacturing, generating value immediately upon completion. And in today’s world of continuous digital transformation, the ability to deploy new features and resolve problems faster than your competition is the route to market dominance.

One of the primary goals of DevOps is to make software releases frequent, routine, and automated. When you have the capacity to release multiple times per day, each individual push to production is no big deal. Compare that to less frequent “big-bang” style releases that require all hands on deck, last-minute firefighting, and operations teams working late nights and weekends to get things done. Clearly, it’s of far greater value to your organization to have happier, well-rested operations teams proactively solving the next problem instead of tearing out their hair resolving downtime from a failed deployment.

Your People Are Your Greatest Assets

The best way to implement DevOps is to put both authority and responsibility closest to the problems that need solving. Your front line team is in the best position to know where time is being wasted, where the hidden inefficiencies lie, where there are opportunities for optimization. One of the biggest misconceptions about introducing automation into your processes is that it necessarily puts people out of jobs. Rather, by replacing their tedious manual work with automation, it frees up your team to concentrate on higher value activities.

After all, there’s nobody that knows your business better than your people. Think about how much you have invested in human capital: maximizing the productivity of your teams is a huge component of the ROI from implementing DevOps. Having them spend their time on solving important problems both improves the quantity and quality of your overall business output, and removes risk as tedious error-prone tasks are removed from their to-do lists.

Tying ROI to Business Goals

So how do you select the right measure of ROI to validate the business case for adopting DevOps practices? It all comes down to what’s important to your business. As digital transformation spreads, new business models and new ways of interacting with customers are radically changing the value created across every industry. The key to measuring success is to understand the unique value you provide to your users, and tie your metrics to achieving that. Whether it’s minimizing the time spent by a customer in accomplishing their goal, maximizing revenue per user, or anything else, you should be able to directly relate your investment in DevOps to improvements in your key business indicators.
And don’t forget — just because you can measure something doesn’t mean that you should: it’s all too easy to be distracted by metrics that don’t relate to your business goals. With so many tools available, you can track all sorts of data that doesn’t really matter — like counting lines of code written or number of bugs fixed for measuring developer productivity. They may be easy to calculate and easy to optimize for, but they don’t really relate to the value you’re trying to create for your users.

Lessons For Your Business

The business case for DevOps doesn’t have to be hand-waving! Given that DevOps transformation is all about process changes for the purpose of increasing IT velocity, the biggest challenge in measuring ROI is understanding the different types of benefits it offers, and being able to tie those benefits to your business goals.

From reducing un-delivered “software inventory”, to reducing risk from manual failures, to increasing productivity and employee satisfaction, the value of implementing DevOps practices quickly adds up. For those companies seeking to maintain a competitive edge in today’s digital landscape, the question of whether you can afford to move to DevOps very quickly becomes one of whether you can afford not to.

DevOps Metrics That Can Be Used in Determining ROI

*Take these and relate them to your business goals*

<table>
<thead>
<tr>
<th>Metric</th>
<th>Explanation &amp; Benefit</th>
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<tbody>
<tr>
<td>Number of pushes to production per day/week/month</td>
<td>By increasing the frequency of production deployment, you increase the speed of delivering business value to users and decrease “warehouse inventory” code</td>
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<tr>
<td>Minutes of downtime per month/year</td>
<td>Increasing automation cuts down on application downtime, which is directly related to user satisfaction and revenue</td>
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<td>Automated testing coverage</td>
<td>The more extensive your use of automation, the fewer opportunities for manual error and the faster you can move</td>
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<tr>
<td>Time required for a new employee to deploy code to production</td>
<td>Building the frameworks and processes for new hires to come up to speed quickly allows them to become productive faster, and also helps with existing team productivity</td>
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<td>Employee time spent on new initiatives vs. running existing processes</td>
<td>Automating manual processes allows your teams to spend time moving the ball forward rather than dealing with existing issues</td>
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<td>Employee happiness</td>
<td>Happy workers, spending their time on valuable problems instead of busy work, are more productive and stay with you longer — this could be measured directly via NPS, or indirectly via number of nights/weekends fighting fires</td>
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