Cost: A New Critical Metric for DevOps

CloudZero Blog
May 2019
Author TBD
[Email draft here](#)

Meta Title: *Cost: A New Critical Metric for DevOps | CloudZero*

Meta description: *Like application performance and other DevOps metrics, cost should be a key consideration for DevOps teams.*

Social Post: *The cost of engineering actions should be just as critical a metric to #DevOps as uptime or service availability. Learn how to make cost a new KPI: LINK*

DevOps is a very data-driven practice. After the right cultural changes take place within an organization to adopt DevOps, teams often rely heavily on monitoring, measurement, and continuous improvement to keep their projects on track. The best teams use KPIs to benchmark their performance and report up to management. However, there's one metric your DevOps team might not be tracking: The cloud cost of their engineering decisions.

In the cloud, all engineering choices have a cost, and the only thing standing between the right and wrong decision is access to relevant, real-time data. Today, engineers make their cloud infrastructure decisions with good intentions, but mostly in the dark. True DevOps engineers need to learn how to include cost in their thinking, and make it a critical metric they track as closely as uptime and availability.

Often, the lack of timely and relevant cost data has made the process of cloud cost optimization [reactive](#) for DevOps teams, if it happens at all. Instead of proactively reporting on the cost of applications, cloud architects are responding to requests from finance to justify sometimes exorbitant, yet difficult to explain monthly AWS bills. By the time developers find the root cause of the problem, it's too late to make a meaningful change to control spend that's already been wasted. Not to mention, developers have to disrupt their work in order to investigate the incident.

Let's take a look at how measuring cost could transform both developers' and cloud architects' workflows and actually make DevOps teams more efficient.

Know the Real Cost of Engineering Choices

DevOps teams want to do right when it comes to cost, but too often, it's hard to know the real infrastructure cost of an engineering choice until after it has been in place for a while. Many teams try to use cloud vendors' budgeting features to define what they want to spend on a project, but these tools can be a blunt instrument and often don't account for unexpected costs. While it's easier to predict the fixed costs of compute resources, variable costs like variable

usage costs like Data Transfer, Requests, NATGateway, and Snapshots often are lumped into one big, unpredictable sum.

Simple engineering decisions can lead to massive cost spikes if there isn't sufficient visibility. Developers may be used to retroactively looking at the impact of their decisions through the lens of a monthly AWS bill, or they may be abstracted out of the financial processes altogether. Instead, if they had feedback on costs *while they're building,* they could make engineering decisions that positively impacted the business. Developers are constantly making choices about what systems to use, and how to provision those systems appropriately. If they were empowered with in-the-moment data, they could make better, more cost-effective decisions without slowing down their workflows.

Predict the Cost of Products in the Roadmap

Access to relevant cloud cost data could also improve the engineering planning process. Using the cost of actions metric, teams can predict the cost of products in their roadmap and develop budgets that reflect the real infrastructure needs of the engineering department. Management often views a department as successful based on their ability to stay within budget and deliver ROI. If engineering teams are able to regularly optimize the cost of their builds, they can be viewed as a force for driving the business forward, rather than a cost center. They may even be more likely to justify and secure additional funding for projects in the future if they can demonstrate that they are using allocated budgets resourcefully and efficiently.

What's more, if the engineering team wants to pursue large-scale cloud infrastructure transformations, such as containerization or serverless infrastructure, they'll be able to prove out the long-term cost benefits of the transition. While this exercise seems largely theoretical today, equipped with the right data on current infrastructure costs, DevOps can make smarter predictions on how a serverless transformation could benefit the business.

Avoid Surprises by Detecting Anomalies

We often hear from cloud architects that their finance teams are consistently surprised by the AWS bill. Unexplained cost spikes are often the result of common mistakes that can easily be avoided.

For example, if an engineer chooses to make nightly backup snapshots in AWS, these costs can easily rack up hundreds of thousands of dollars across the organization's EC2 instances. Or, if EC2 spot instances aren't being utilized, systems could easily be running on-demand at 10x cost. Simple decisions like these can add up to a lot of surprises. The good news is, real-time cost anomaly detection can help teams avoid surprises and fix potentially problematic issues as they arise.

Start Measuring Cloud Cost as a DevOps KPI

With [recent news reports](#) of organizations' cloud bills skyrocketing, cost-aware DevOps teams can prove a major asset to the bottom line. But, to effectively embrace the cost as a KPI, DevOps teams need access to real-time data on the cost of their systems and infrastructure.

CloudZero's platform and team of experts can help you analyze and optimize your cloud costs, so you can make cost a first-class operational metric for your team. Want to learn how? Schedule a demo today! [link or CTA button]