CLOUDZERO aws

CloudZero And AWS: Driving Proactive Cloud Cost Efficiency

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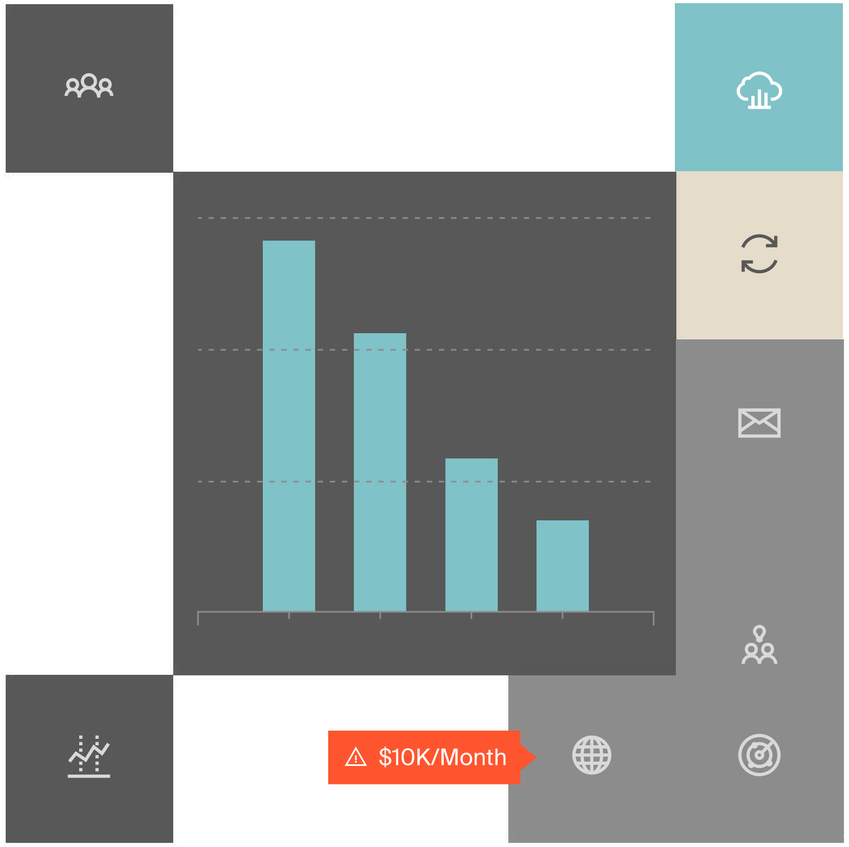
Introduction

Every Engineering Decision Is A Buying Decision

Software engineers aren't just designing new products or features; they're also in the cloud cost management business. Engineers incur a new cloud cost every time they spin up a new cloud resource, and they constantly make choices about how much money they need to spend. Because every engineering decision is a buying decision, software engineers are fundamentally responsible for managing cloud costs.

If engineers are the ones spending the money, it makes sense that they should have all of the information they need to determine how to spend that money most efficiently. Unfortunately, most cloud cost management platforms weren't built for engineers to manage their costs autonomously. These platforms also haven't been configured to deliver detailed cost information to, and drive engagement with, engineering teams.

CloudZero enables companies to understand 100% of their operational cloud spend and take an engineering-led approach to optimizing that spend.



The Need For Cloud Cost Efficiency

Cloud cost problems often start when the finance department gets a cloud spend bill and struggles to understand why it's larger than expected. Because they're not the ones making the technical buying decisions, it's hard — if not impossible — for finance to put the increased cloud bill in context. To solve the problem, finance might contact engineering to try and uncover the reason, leading to a back-and-forth between finance and engineering on a weekly, monthly, or quarterly basis.

In an effort to bridge this gap, finance teams would often set up first-generation cloud cost management products that relied on tagging cloud resources — creating disruption for engineering teams.

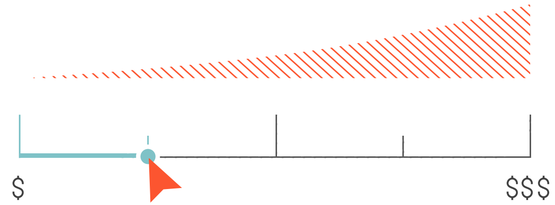
Visibility is another challenge, with many companies today dealing with cloud cost data hosted on different platforms and in different formats, and with no centralization or unified data for comprehensive analysis. Consider the following statistics from our recent report, "The State Of Cloud Cost In 2024," based on our survey of 1,000 finance and engineering professionals:

Nearly 9 in 10 finance and engineering professionals surveyed said a lack of cloud cost visibility prevents them from doing their job well.

Two-thirds of companies report that investigating rising cloud costs disrupts both finance and engineering workflows, with our data indicating this now has more of an impact than in previous years.

For engineers specifically, 66% report a lack of visibility into cloud costs, causing some level of disruption to their work. **Of these, 22**% said they cause high levels of disruption (the equivalent of a full sprint), compared to just 11% in 2022.

Other companies are striving to achieve the holy grail of cloud cost management: unit economic efficiency. To be efficient in the long term, companies need to identify and quantify the unit cost metrics that are core to the health of cloud spend and then learn to manage them over time. However, first-generation cost management tools have limitations that prevent them from achieving this kind of insight and efficiency.



Here are some of the cloud cost management challenges specific to different areas within an organization:

Infrastructure And Operations/DevOps

- Difficulty holding engineering accountable for cloud spend
- Inability to report key cost metrics to finance
- No simple way to detect anomalous spend and prevent overages
- Difficulty setting up and enforcing cloud governance policies, including tagging, and enabling engineering to follow

Engineering

- Retroactive cost data analysis, causing engineering leaders to be reprimanded for expenses after products are already built
- Innovation disrupted by retroactive cost optimization and resource tagging projects
- Lack of enough granular data to build cost-efficient software from day one

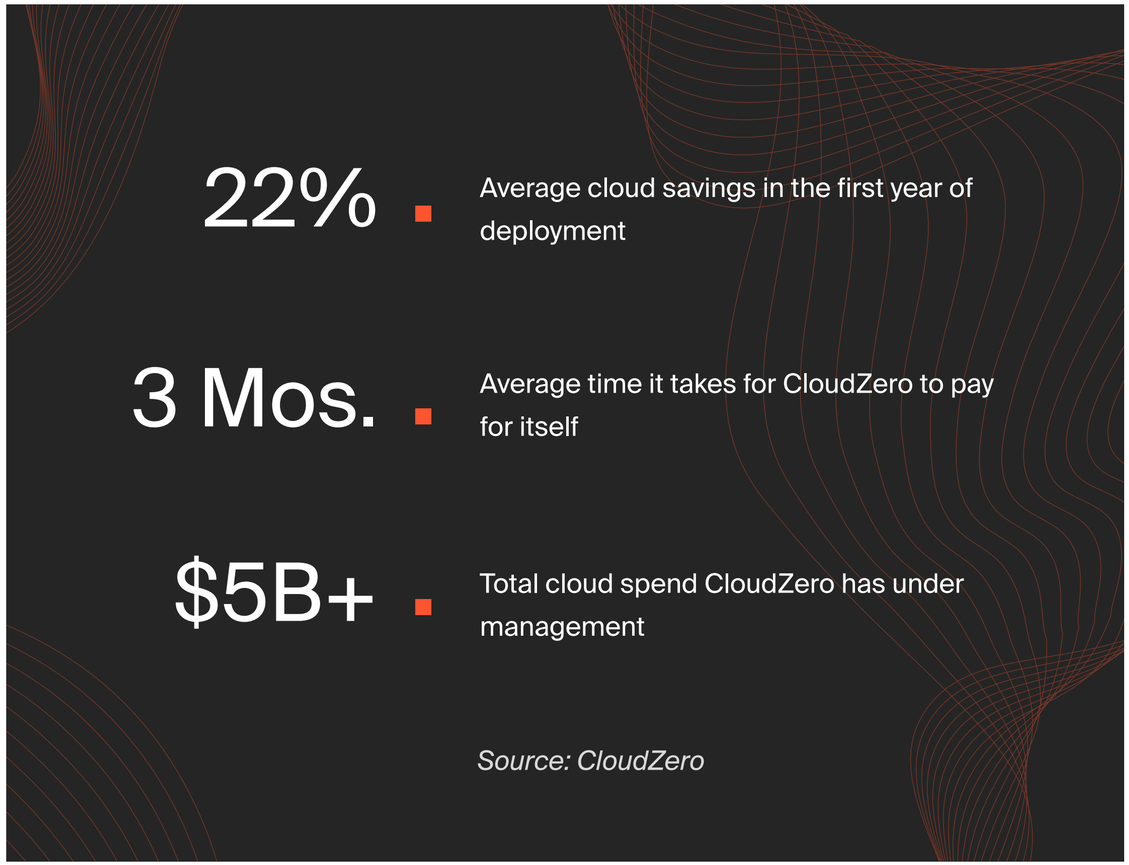
Finance

- Needs cloud financial metrics for reporting but can’t get accurate numbers from engineering in a timely manner
- Volatile and opaque cloud spend, making it difficult to forecast spend and align with budgets
- Doesn’t have the information needed to predict how cloud spend will change based on engineering and business plans

How CloudZero Solves The Problem: Connecting Technical Decisions To Business Results

Cited as a Strong Performer in the 2024 Forrester Wave: Cloud Cost Management and Optimization, Q3 2024, CloudZero is a dynamic FinOps platform used by some of the world's most prominent cloud-driven organizations. Our AWS-based platform empowers the world's engineers to build cost-efficient software without slowing innovation. CloudZero automates the collection, allocation, and analysis of cloud cost data to uncover savings opportunities and improve unit economics.

We use machine learning to produce up-to-date cost insights, allowing engineers to make informed decisions in real time when launching new products and features. With these capabilities, our customers **connect technical decisions to business results** by uncovering the real-time cost consequences of engineering decisions.



Built On AWS For AWS

As an AWS Partner from day one, CloudZero was purpose-built for AWS on AWS and we help digitally native businesses and ISVs maximize the return on their AWS investments. Like AWS, we are customer-obsessed and we fully embrace our Better Together story.

CloudZero integrates with numerous AWS services to enrich the value we deliver our customers. These include AWS Trusted Advisor, AWS Cost and Usage Reports, AWS Cost Explorer, and AWS CloudWatch. Moreover, the CloudZero platform itself leverages a long list of AWS services, including Amazon S3, Amazon RDS, Amazon EventBridge, Amazon CloudWatch, AWS Lambda, Amazon SNS, Amazon SES, Amazon SQS, Amazon DynamoDB, Amazon EC2, Amazon EKS, Amazon ECS, Amazon API Gateway, AWS Systems Manager Agent (SSM Agent), Amazon Athena, Amazon Bedrock, Amazon SageMaker, AWS Step Functions, and AWS Secrets Manager.

As an AWS Advanced Technology Partner, CloudZero has early access to new AWS technologies and collaborates closely with AWS product teams. We also provide a fully serverless platform that runs on AWS Lambda.

Our AWS Competencies Include:

Cloud Operations Software Competency in the Cloud Financial Management category.

Cloud Operations and Security Partner Advisory Board member.

ISV Accelerate Program Partner.

AWS Global Startup Program Partner.

CloudZero Cloud Cost Intelligence Platform offered on the AWS Marketplace.

> “In our first year participating, CloudZero was recognized as a Strong Performer in The 2024 Forrester Wave for Cloud Cost Management and Optimization — just one step below the Leader ranking. We attribute this to our core belief: Every engineering decision is a buying decision, and we have optimized our platform around both engineering and FinOps use cases. Unlike our competitors, we believe builders should be central to cloud cost management, and that companies are ready to think differently about their cloud unit economics. Our growth, success with sophisticated customers, and analyst recognition affirm this.”

Erik Peterson, Founder and CTO

What Sets Us Apart

Complete Cost Allocation.
We can take spend from any cloud provider, SaaS, and/or PaaSplatform — whether containerized or non-containerized, shared or not shared — and organize it according to a framework that's relevant to and reflects your business.

Engineering Engagement.
We empower engineering teams to establish a process of autonomously optimizing their own cloud costs. This is a key to successful cost management. As "The State Of Cloud Cost In 2024" report revealed, when engineers own cloud costs, business outcomes improve.

Unit Economic Efficiency.
The goal of cloud cost management isn't simply cutting costs; it's investing in cloud spending intelligently so you're getting the most ROI. The holy grail of FinOps, unit economic efficiency, helps you learn how to invest your cloud spending intelligently so you're getting as much ROI as possible. CloudZero's unit economic efficiency shows you whether your investment is growing in a healthy way.

FinOps Expertise.
We supplement your team's knowledge with our own internal experts to help you maximize your investment. Each CloudZero customer has access to a designated FinOps Account Manager (FAM). This expert has years of experience and works with you to audit your spend environment, implement best practices, and continuously review your environment.

Engineering Ownership = A Better Understanding of Cloud Cost

Data points to a positive correlation between engineering ownership and better business outcomes, such as greater confidence in reporting accuracy. 81% of respondents said their cloud costs are "about where they should be" when engineering has some level of ownership.
(Source: "The State Of Cloud Cost In 2024." CloudZero, May 15, 2024.)

Our Solutions

Each CloudZero solution starts with data. We ingest 100% of your cloud, PaaS, and SaaS data, then normalize it all in our Common Bill Format (CBF). This standard data model allows you to ingest cost data from any source and analyze it as a unified whole. It accommodates many different cost data types, including taxes, discounts, and credits.

Our Primary Data Solutions Are:

AnyCost™

With CloudZero AnyCost, your team can analyze all of your cloud, PaaS, and SaaS spend in a common data model, ensuring that you are accounting for and allocating 100% of your cloud and DevOps spend. Using CloudZero tools, you can write cost data from different vendors on a schedule that makes sense for you. You can then register a new Billing Connection that automatically detects, ingests, and integrates the data into CloudZero.

CostFormation®

CloudZero CostFormation enables you to harness the CloudZero platform to view your cloud costs in the context of your business and engineering needs. With CostFormation, you can define custom Dimensions that consist of rules and conditions used to assign your cloud charges to different elements based on billing line item data and other sources like resource tags.

Explorer

CloudZero Explorer gives you a powerful way to view and explore your cloud bill by allowing you to filter and group your charges based on different Dimensions. By using this simple tool, you don't have to create new reports every time you want to see your data through a different lens.

Analytics

CloudZero Analytics is a robust business intelligence tool that automates cloud cost intelligence delivery. It allows customers to easily view, share, and act on cost data. The solution includes dashboards for invoice reconciliation, tag coverage, and reserved instance coverage. Custom dashboards can visualize various metrics, such as the cost of a Kubernetes migration or unit cost metrics (e.g., cost per thousand shipments).

Anomaly Detection

CloudZero Anomalies uses your cloud's billing data to detect and flag abnormal spend events, presenting them at a level of hourly granularity. Anomalies then alerts the engineers responsible for managing the affected resource so they can remediate the anomaly quickly.

How We Help

Complete Visibility Into Cloud Spend.
By normalizing your cloud cost data and unifying it in a single pane of glass, we enable proactive visibility into, and analysis of, your spend. With all cloud spend data in one place, it's easier to explore, analyze, and optimize. With CloudZero, you can give contextualized visibility to every stakeholder, including engineering, finance, and FinOps. As a result, it's easy to understand exactly which products, customers, and parts of your architecture are driving which portions of your spend.

Aligning Engineering And Finance.
We help bring these two teams together around common metrics, including cost per product feature, customer, and development team. By giving finance and engineering teams a common platform and language to discuss cloud cost issues, CloudZero reduces friction between these two teams and boosts both of their productivity.

Maximizing Profitability.
CloudZero quantifies the margins of different products, features, customers, and more, showing you your strongest and weakest profit centers. This enables our customers to refine their GTM approach through actions like refining their pricing and packaging and/or adjusting customer contracts.

Driving Efficient Engineering.
We help boost efficiency by putting cloud cost intelligence in the hands of the people who can directly impact it: engineering teams. CloudZero combines billing and telemetry data to develop precise unit cost metrics — such as cost per firewall, cost per workout, cost per delivery, cost per 1000 shipments, cost per daily active user, and more — and presents them in intuitive dashboards. In addition, by combining hourly data granularity with unit cost metrics, CloudZero makes it easy for you to anticipate the future with precise budgets and forecasts.

Saving Money.
Our solutions help you save money through several key channels: Anomalies (outlined above), CloudZero Insights, FAM review, and unit economics. CloudZero Insights enables both automated and manual identification of spend irregularities — e.g., unusually high CloudTrail spending — whose normalcy benchmarks are based on CloudZero's $5B+ cloud spend portfolio. Regular FAM reviews often illuminate areas of inefficient spending and steps to remediate. Lastly, CloudZero's unit economics capability includes unit cost metrics that quantify the overall efficiency of your cloud spending — and in the event of inefficiency, shows you the most impactful optimization opportunities.

Customer Success Stories

highradius

Challenge: HighRadius, the world's #1 autonomous finance platform to lower Days Sales Outstanding (DSO), needed to optimize cloud costs, specifically through the lens of Cloud Efficiency Rate (CER).

Solution: HighRadius implemented CloudZero to boost spend allocation, identify savings opportunities, and give engineers relevant, timely data about the cost of their cloud infrastructure.

Outcomes: Improved CER by 5% against projections, developed a single pane of glass for all cloud stakeholders, and decentralized cost accountability to engineers.

"We're very happy with the adoption. Our engineers are using it to go in, monitor their costs, do some fine-tuning, and see some quick wins with cost."

Tanuj Vohra, CTO, HighRadius

NEON

Challenge: Neon, a Brazil-based digital bank that offers credit cards, personal loans, and investment products, needed to engage more of its engineers in FinOps objectives as the company scaled.

Solution: Neon implemented CloudZero to boost spend allocation, identify savings opportunities, and give engineers relevant, timely data about the cost of their cloud infrastructure.

Outcomes: Grew engineering engagement by 700%, automated core financial reporting, and calculated core unit cost metrics.

"It's strengthened our relationship with the finance team. Analytics automates what would otherwise be a long process and sends the reports to them on a regular basis. They have better cost insights, so we can all spend more time on strategic goals."

Daniel Abreu, Principal FinOps Culture Engineer, Neon

Upstart

Challenge: The leading AI lending marketplace, Upstart connects millions of consumers to more than 100 banks and credit unions. The company wanted to reduce its cloud spending by at least $10 million.

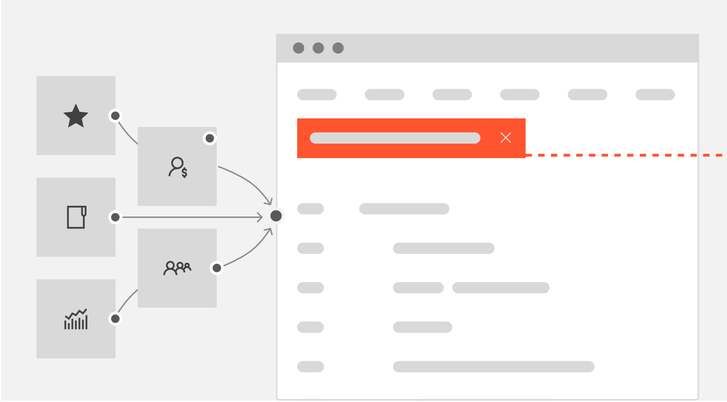
Solution: Upstart implemented CloudZero to get complete cost visibility, drive engineering cost accountability, and automate financial reporting.

Outcomes: Reduced annual cloud spending by $20 million.

"Giving all our teams access to quick views of their spend has enabled them to understand where their costs are and, when necessary, how to optimize."

Chris Gray, Principal Engineer, Upstart

Benefits By Business Area

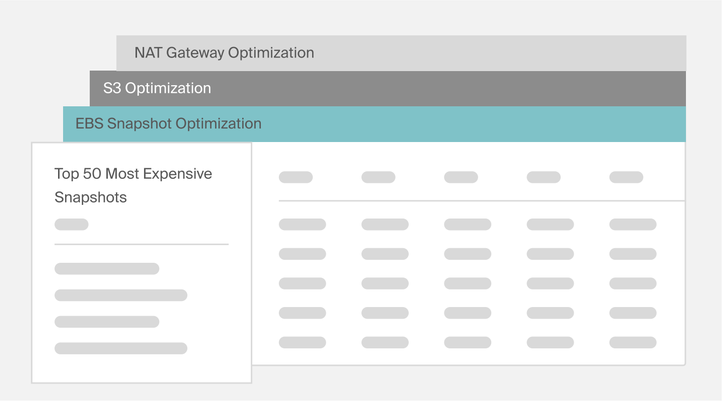


Infrastructure And Operations/DevOps

- Improve accountability by providing engineering teams with views of their spend
- Quantify product and feature cloud efficiency through business-critical unit costs metrics
- Align cloud cost with business metrics, enabling engineers to report metrics to finance and other key stakeholders

Engineering

- Help engineers build a culture of cost awareness, eliminating cost tech debt before it's introduced
- Prevent accidental overages through anomaly alerting and budgeting
- Enable engineering to quickly understand and debug the source of any cost spikes



Finances

- Strengthen cloud unit economics and put spend growth in the context of business growth
- Track budgets, forecast future spend, and alert on overspending
- Calculate the margins of individual customers and products to maximize profit margins and company valuation

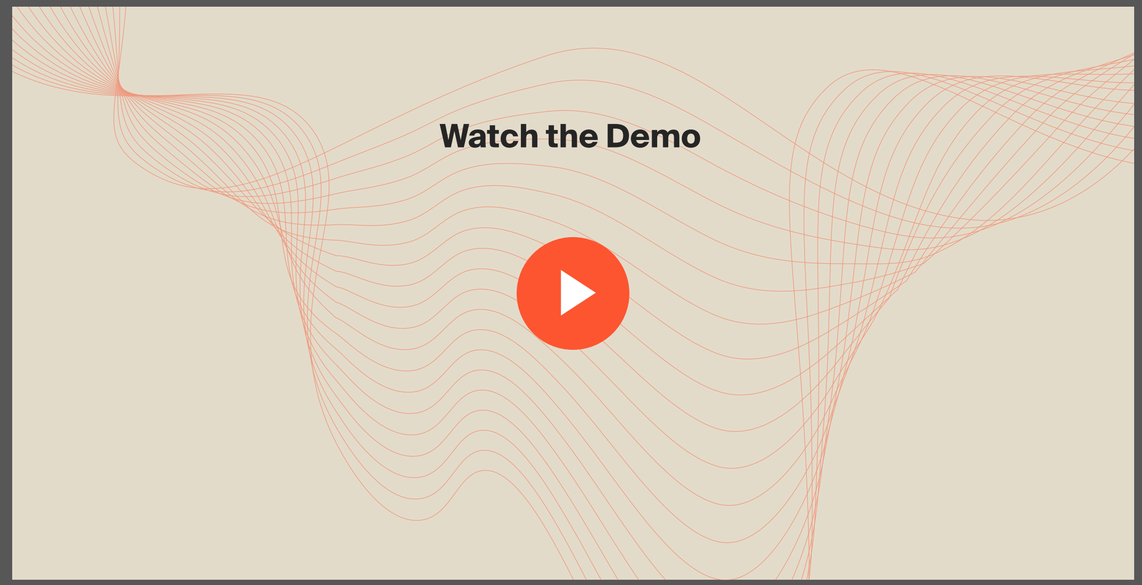
Conclusion

How are engineering changes affecting my systems' efficiency and my company's profitability? How do new product and feature releases impact cloud costs? What's the cost per tenant of shared cloud resources? How can I maximize the return on my cloud investment — which, next to personnel, is perhaps my largest business investment?

CloudZero can help you answer all of these questions through visibility, insights, and savings. Built entirely on AWS, CloudZero enables engineers to develop cost-efficient software without slowing down innovation. By aligning engineering and finance teams around metrics like cost per product feature, customer, and development team, CloudZero enables teams to manage spend, drive a culture of cost-efficient engineering, and strengthen cloud unit economics.

Through proactive visibility, cost savings, efficient management, anomaly detection, platform recommendations, and a dedicated FinOps partnership, CloudZero puts engineers at the center of cloud savings.

Learn How To Drive Proactive Cloud Cost Efficiency



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