Unlocking Financial Accountability in the Cloud

THE 5 Critical Elements of a Robust FinOps Model

Introduction

During the pandemic, companies searching for more agile, secure, and scalable work-from-home solutions migrated in droves to cloud-based solutions—and cloud service providers (CSPs) like Amazon Web Services (AWS). And this trend shows no sign of slowing down. At the end of 2020, Gartner projected that public cloud spending would jump 18% in 2021 to more than $300 billion worldwide. [1]

But with the increased number of customers migrating workloads to the cloud comes an increased need for financial management strategies to maximize this new cloud environment. Many leaders think they can simply replicate legacy systems in the cloud and continue leveraging current ways of managing costs, but doing so doesn't unlock the full potential of the AWS pay-as-you-go consumption model. As a result, organizations are likely to overspend on their cloud infrastructure. [2]

To solve this problem, forward-thinking companies are moving away from a top-down cost management model. Instead, they're adopting models that drive cost accountability across their organization while maintaining transparency and governance controls across their workloads. This approach—which aligns with the new, variable consumption model—is called financial operations ("FinOps").

At the core of FinOps is a culture of best practices. How can you prepare for this fundamental culture shift and start thinking proactively about cost in the cloud? Follow along to learn the five critical elements to developing a robust FinOps operating model for AWS.

[1] https://www.gartner.com/en/newsroom/press-releases/2020-11-17-gartner-forecasts-worldwide-public-cloud-end-user-spending-to-grow-18-percent-in-2021

[2] https://www.gartner.com/en/documents/3982411/how-to-manage-and-optimize-costs-of-puablic-cloud-iaas-an

Streamline Your Procurement Practices

01

In a traditional operating model centered around on-premises infrastructure, top-down procurement processes were the norm.

Capital Expenditure (CapEx) was determined in advance for infrastructure, licensing, and real estate. With the transition to the cloud, this simply doesn't work. Companies need to take a fundamentally different approach to procurement processes because the underlying consumption model has changed. Engineers now instantly have access to AWS services that can significantly impact an organization's monthly expenses if the proper guardrails aren't applied. In essence, everyone within the organization that is consuming AWS now has some financial responsibility and an impact on the data provided to procurement teams.

Streamlining processes in a FinOps-focused operating model requires tight collaboration between technology, business, and finance when reviewing and optimizing CSP costs. Key targets for streamlining procurement include the more complex product selection, review, and purchasing approval processes, as well as specific activities like matching cost and usage reports to accounts payable. Leveraging techniques like consistent and intelligent asset tagging leads to reporting and alerting capabilities that empower consumers while enforcing financial policies. Providing the distributed ecosystem teams across the organization access to those same reports allows for granular views into their spending habits. When combined with the guidance of a FinOps team, your employees become actors in the procurement process and are empowered to take responsibility for optimizing their AWS usage and the associated costs.

Deploy Guardrails, Not Roadblocks

02

FinOps is about taking part in the ownership of cloud spend.

It's also about removing the roadblocks of traditional top-heavy budgeting and procurement approaches and replacing them with guardrails that empower teams to move faster, build better solutions, and drive more value from what they're deploying. FinOps doesn't mean handing over total control of financial decisions and hoping for the best. FinOps means providing teams with best practices, training, and guidelines so that they better understand why decisions are being made, and the impact of their choices, as they continue to build and deliver AWS solutions for the organization.

Generally, the guardrails necessary to be successful fall into two categories: financial and security.

Financial guardrails involve providing best practices around data-driven cost allocation and tracking, which provides distributed teams downstream with the ability to monitor their spending in real-time and make adjustments. Key components include:

- Establishing acceptable budgetary thresholds
- Applying tagging strategies that drive reporting, dashboarding, and cost allocations
- Performing regular reviews to seek out optimizations and ensure users are empowered to work within the framework while not going into overdrive

Security Guardrails are an equally important consideration when thinking about cloud financial management. As teams are empowered to innovate within the financial guardrails set in place, organizations must ensure that their workloads remain secure and that compliance requirements are met. While this blog doesn't address the greater topic of security in the cloud, and the shared responsibility model, there are a few key components to consider as part of a FinOps model:

- Establish policies that prevent the use of non-compliant services
- Deploy an alerting framework to detect and notify of spikes or anomalies, as this is often indicative of a potential threat or bad actor within your environment
- Regularly test your security capabilities and any frameworks or policies put in place, to ensure the organization is ready in the event of an incident

Develop a Trained and Informed Workforce

03

As your organization shifts to embrace cost transparency and responsibility at all levels, training your team becomes vital.

In a FinOps-driven operating model, team members need to understand their new responsibilities, adopt new working habits, and develop new skills. Engineers are responsible for more than deploying and configuring AWS infrastructure—they're also in charge of developing the AWS Well-Architected Framework, and that includes thinking about the short and long-term financial impacts of their choices. As developers write code, they're focused on factors like how that code will be deployed, how often it'll run, or even how many API calls it makes. Seeing the real-time usage reports associated with their work gives them the information they need to make leaner decisions. Don't forget that teams must be trained and encouraged to adopt the new mindset of financial transparency and responsibility, including the data and tools that will help them deliver optimized AWS solutions and drive more positive outcomes for the organization.

Drive Toward Data Transparency

04

The foundation of every FinOps operating model is data.

In the cloud, traditional reporting that could normally take months is now possible in near real-time, with the ability to filter datasets down to specific applications, environments, or categories of interest and flag anomalies in a company's normal consumption habits. But the trick is to get this data into the right hands. In a culture of cost transparency, where distributed teams play a significant role in how the cloud is consumed, the data must be accessible and available to make real-time decisions.

The democratization of data across all levels of the organization is a pivotal part of the transformation. A key component is to enable tools that monitor, track and report on AWS resource usage across the enterprise—and across clouds—allowing teams to access consumption data and make informed decisions about their workloads. Providing leadership teams and governance bodies with access to the dashboards and usage reports enables them to perform trend analysis, optimize spending patterns, and align with other strategic areas of the business. All of this helps move toward building a culture of financial responsibility, which we address in No. 5 below.

Build a Culture of Financial Responsibility

05

In today's cloud-adoption climate, organizations are looking for more advanced ways of preventing the types of "shadow IT" practices that can lead to unwanted cloud spend.

At the same time, teams are consuming more and more cloud services—making real-time decisions, driving higher levels of output, and building at the speed of innovation. To support this agile nature of cloud consumption, organizations should make usage reports directly available to the teams who run and build their environments. Pushing this data out to the broader audience of distributed teams enables everyone to make smarter decisions in their roles as cloud consumers.

Through this process, the financial impact of architecture decisions or optimization plans becomes a part of the ongoing operating picture, and cost responsibility becomes a part of the organization's culture. For example, a DevOps team might leverage their AWS cost and usage data to inform optimizations like scheduling the up/downtime of Amazon Elastic Compute Cloud (Amazon EC2) instances, right-sizing Amazon EC2 instances, or cleaning up orphaned Amazon Elastic Block Store (Amazon EBS) volumes. And they might update their infrastructure automation and solution designs based on the same, or they might take it a step further to inform Reserved Instance purchases.

With the appropriate processes, guardrails, training, and data transparency in place, teams become equipped to work more closely and purposefully with their leadership, take ownership of their existing footprint, and position themselves to avoid future financial "surprises."

Futureproofing Your Company With FinOps

It takes time to refine a FinOps framework that blends strategic business objectives with cost optimization and guardrails, and it takes commitment across the organization. But armed with the right mindset, a skilled team, and the tools to support, companies can prepare themselves for the freedom and value brought by a strong foundation of FinOps practices.

SMX is a trusted partner in cloud services, with experience across public and commercial sectors. We've spent over a decade working with customers to unlock the value of the cloud and optimize their cloud spend. We understand the need to transform the face of cloud financial management and its critical role in a successful cloud migration or adoption journey.

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