

Cloud Cost Optimization With FinOps

Solving the Cloud Cost Paradox



HITACHI VANTARA PERSPECTIVE

Optimize Your Cloud Cost and Investments

Managing cloud costs and investments is complex. It is easy to overspend on cloud services with no enterprise visibility and predictability on utilization, making it hard to ensure that your cloud investment brings you the speed and innovation you expect. A cloud cost management approach based on FinOps principles helps bring together financial, technical and business functions to create a cost-conscious culture for cloud cost optimization. With Hitachi Cloud FinOps Services we take it a step further. In addition to addressing the cost side of the equation, we focus on helping you find the right balance between cost, agility and quality so that you can drive innovation and achieve the business outcomes you want.

The Cloud Cost Paradox

The cloud's benefits are undeniable, and its on-demand consumption model promises cost savings — letting you pay only for what you use. But the reality can be much different. When organizations move to the cloud, they may instead find costs spiraling out of control. When costs soar, innovation can slow, causing business margins to decline.

In the cloud, everything is consumption-oriented, which passes control from a centralized procurement function to individual business units, engineering teams and developers. Resources and cloud services are provisioned instantly and aren't being driven by a heavy, approval-driven process, turning the traditional procurement-driven purchasing process on its head. As a result, there is a lot of sprawl within the enterprise; services are often deployed but not used effectively. Organizations often lack visibility into who is buying what or using which services, making it difficult to analyze costs or map usage to business value.

Cloud pricing also can be incredibly complex and difficult to understand, with tens of thousands of SKUs offered by many cloud providers. Adding to the complexity is the extreme granularity in billing, constant changes in offerings and pricing models, fluctuating variable prices, and a lack of standardization in cloud billing. These conditions make it challenging for organizations to budget and forecast needs and consumption. As a result, wasted resources can add up to tens of thousands — or even millions — of dollars every year.

Without a unified way for financial, technical and business stakeholders to contribute to a company's cloud decision-making, cloud investments can become an unmanageable, costly tangle.

Optimize Your Cloud Costs and Investments

FinOps is quickly becoming an industry-wide practice to help enterprises understand and control cloud spending and create a cost-conscious culture by following guiding principles. The FinOps life cycle involves three stages: Inform, Optimize and Operate (see Figure 1).

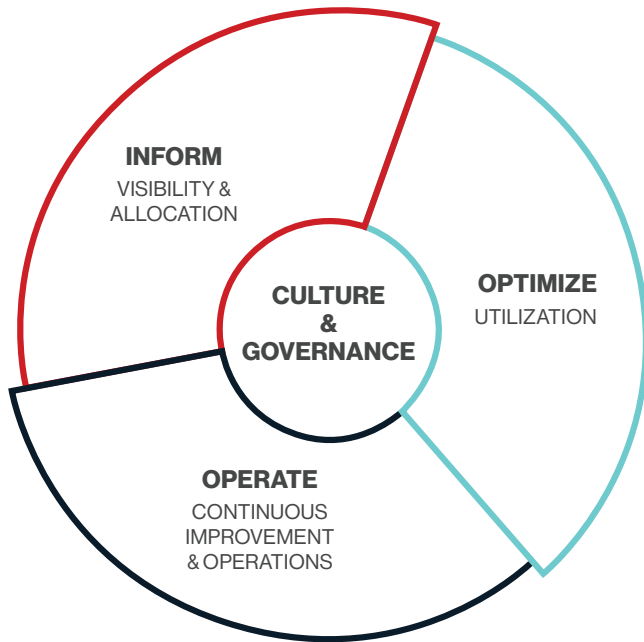


FIGURE 1. THE FINOPS LIFE CYCLE: INFORM, OPTIMIZE, AND OPERATE

At Hitachi Vantara, our approach is to take it one step further with our Cloud FinOps Services. Like FinOps, we address the cost side of the equation. However, we believe that if you want to drive innovation across your organization in the long run, you need to take a balanced approach with agility, cost and quality. Every organization has unique business needs, so making the appropriate tradeoffs and decisions throughout the transformation and getting the right balance is essential to optimize your cloud investments.

We recommend a three-step approach to drive a balanced approach to cost optimization and innovation:

Cloud Assessment Strategies for Cost Optimization

STEP 1: Take Stock of Your Environment

Our recommendation is to start with an assessment of your current IT environment and cloud ecosystem. Getting visibility and control over your cloud spending starts with a detailed evaluation of your current state.

Start by asking yourself the following types of questions:

- What are your current cloud costs? Do you understand your fully-loaded cloud costs?
- Can you map your cloud costs to business units, cost centers, applications and projects?
- How does your cloud spending align with your business needs?
- Can you map your costs to your total cost of ownership (TCO), return on investment (ROI) and business value?
- What are the business outcomes you are trying to achieve?
- Do you have the right skill sets and resources, or are there gaps?

Mapping is critical for understanding your actual cloud services usage, completing granular cost allocation, and creating accurate budgets and forecasts at the business unit, project, application and even team level. In your assessment, you'll want to incorporate key performance metrics and industry benchmarking, as well as trend and variance analysis. Industry benchmarking will help you compare how well you are managing costs compared to your industry peers. Trend and variance analysis will help you understand spikes in your usage and identify the costs associated with these spikes.

In addition, assess your organization's level of maturity when it comes to being a cost-conscious culture. Does your organization have a discipline or culture of measuring, tracking, forecasting and optimizing costs? Do you have the right skill sets to understand how to balance cost, agility and quality when making decisions? Or are there gaps in knowledge or skill sets that need to be addressed?

If so, you may want to consider working with a seasoned cloud optimization service provider to take advantage of their expertise to fill in those gaps, provide insight and give you the level of support you need.

50%

IDC predicts increased investment in public cloud cost management through 2022 as enterprises seek to cut cloud waste by 50%.

IDC FutureScape: Worldwide Cloud 2021 Predictions, Doc # US46420120, October 2020

Cloud Cost Management and Optimization Strategies

STEP 2: Establish KPIs and Governance Rules To Keep You on Track

Once you've completed your assessment and have identified the gaps between your TCO or ROI and the business value that needs to be delivered, we recommend that you set goals and define strategies for cost optimization. Doing this will ensure that you implement a long-term strategic approach to optimization rather than doing it as a one-time project.

"This is not a one-and-done proposition. If you need speed of innovation, you need to establish the right KPIs, sometimes nontangible ones, to keep you on track and drive accountability to parts of the organization where provisioning is happening."

– Jean Atelsek, Analyst at 451 Research,
a part of S&P Global Market Intelligence

The goal of cloud cost optimization is to pay only for what you need. Getting to that point means identifying mismanaged resources, eliminating waste, right-sizing cloud services, reserving capacity for higher discounts, and adjusting computing services for scale. In addition, it's essential to implement budget allocations and quotas to keep cloud costs under control. Establish agreed-upon KPIs to ensure you resolve quality, agility and risk with cost optimization and align it for business value and future innovation. This requires commitment from the various stakeholders: IT Ops, DevOps, CloudOps, business leaders and finance.

This step focuses on key spending areas, tagging strategies to organize cloud costs, and cost avoidance and cost reduction strategies to manage usage, control rates and recover costs. It also puts governance and cost control mechanisms in place. An essential aspect of governance is ensuring that your business units, engineering staff and developer teams have real-time information to help them manage and act on cloud costs. This will help your organization sustain innovation and optimize value from the cloud.

Cost savings are often an architecture-driven decision. This could mean shifting to a multicloud or distributed cloud environment, repatriating workloads back on premises or to a private cloud, or shifting workloads to a new cloud vendor. But first, you need visibility into your existing architecture, including service patterns and reliability, to measure and execute the right kind of optimizations and workload placements. This is a critical step to ensure you are making the right tradeoffs; it is not only cost but also agility and quality that you need to keep in mind.

Addressing Cost Savings

There are many ways to address cost savings once you've identified the inefficiencies in your existing cloud environment. These include:

- Right-sizing cloud instances by keeping inventory to a bare minimum.
- Shutting down unused resources to reduce storage and network costs.
- Using reserved instances to save on compute spends.
- Scheduling nonproduction instances and servers to start and stop automatically to save on compute bills.
- Implementing compute savings plans and spot instances to reduce on-demand compute spend.
- Leveraging storage services like Amazon S3 Intelligent Tiering to reduce storage costs.
- Implementing containerization and platform-as-a-service (PaaS) applications to reduce infrastructure-as-a-service (IaaS) spend.
- Adopting cloud-native, open-source platforms to save on enterprise licensing costs.

Cloud Operation and Automation Strategies

STEP 3: Automate To Operate Predictably

Once you intimately know your cloud status and consumption model and have developed a plan for optimizing it, you need to set up a continuous, iterative cost avoidance and cost reduction model. This model will help you consistently optimize for cost, speed and quality and constantly monitor your overall consumption of cloud services.

Automation plays a vital role in continuous cost optimization. When coupled with machine learning, it can help with continuous improvements, such as making sure workloads are placed appropriately, constantly monitoring your consumption of cloud resources, detecting anomalies and continuously optimizing for cost optimization through right-sizing and other adjustments. Automation can help you make decisions faster, find the best new services for your needs, benchmark them and sanction them into your cloud ecosystem.

Minimizing risk is a significant benefit of automated continuous cost management operations. Real-time analytics increase the probability of capturing an accurate picture of your costs across your on-premises data centers and cloud environments. Real-time analytics helps empower quick, informed decision-making backed by solid and reliable data. It enables you to budget accurately for the future with data visibility coupled with the right forecasting models.

Your cloud environment is built to meet your business goals, and you are unique in what will drive innovation and define the right balance between cost, speed, and quality for your company. However, many enterprises lack the skill sets or resources to keep up with the changes in cloud cost optimization, so consider whether a cloud cost management as a service is right for your organization. Partnering with an experienced cloud service provider can help you accelerate cost optimization across your organization and migrate workloads and applications as needed.

Nonprofit Health Research Organization Optimizes Its Cloud Environment

Case Study

A major U.S. health research organization faced high cloud costs that only increased with its business-growth projections. It needed a strategy to accommodate increased demand while reducing its cloud spend but didn't have the in-house knowledge and resources required to analyze and make decisions to best accomplish this. To assess options and achieve its goals, it turned to Hitachi Vantara.

Hitachi Vantara's cost control and recovery services helped the organization achieve a 20% cost reduction for Amazon Web Services (AWS) landing zone accounts. With Hitachi Vantara's technology and advisory services, the organization optimized sensitive data detection (AWS reserved instances deployment and cloud watch optimization), cost anomaly detection and budget alerts, and conducted performance optimization.

Consider Establishing a Cloud Center of Excellence

A cloud center of excellence can help enterprises drive FinOps best practices and alignment between technology, finance, and management. It can help bring together teams to make better spending decisions, discuss tradeoffs when balancing cost and innovation, and define governance and controls for cloud usage. This can help your enterprise master the unit economics of the cloud to drive competitive advantage.

Optimize Your Cloud With Hitachi Cloud FinOps Services

Take the complexity out of controlling costs for your public, private and hybrid clouds by shifting to a FinOps-based approach with Hitachi Cloud FinOps Services. These services from Hitachi Vantara can provide real-time decision support for you to make fast, data-driven decisions. We can map spending data to your business, set tag strategies to organize costs, allocate shared costs equitably, and recommend cost take-outs from your cloud platforms. We can also help you define budgets and forecasts; establish score carding, benchmarking, trend and variance analysis; and set up automated reports, real-time dashboards and alerts for tracking.

Hitachi Cloud FinOps Services are designed for your unique circumstances and will support your cloud environment, whether private cloud, multicloud, hybrid cloud or distributed cloud. Our managed services can include anything from automated cloud consumption and cost monitoring to establishing cloud governance and usage controls.

At Hitachi Vantara, we leverage our expertise in consulting services, cloud acceleration, flexible infrastructure choices and best practices to help you reach your cloud business goals and cost savings. Using our extensive cloud and industry experience in cloud usage and cost optimization, we've helped thousands of companies identify cost-savings opportunities and implement best practices to drive continuous innovation. Our comprehensive set of tools and methodologies have helped our customers accelerate, identify, optimize and control their cloud costs.

Customers report 30% average savings with Hitachi Cloud FinOps Services

"Hitachi Vantara's services have helped to streamline our journey to becoming a nimble technology company. In addition to providing ongoing, yearly cost reductions across cloud environments and other savings, they've helped us right-size our core infrastructure based on actual consumption, increase our budget capacity for new workloads in the cloud, and improve the operational and financial transparency into our technology and cloud operating environments."

– Michael Mathews, Chief Information Officer at Deluxe Corporation

For more information about how Cloud Financial Operations Services from Hitachi Vantara can help your organization optimize your cloud costs and investments, talk with your Hitachi Vantara representative or visit www.hitachivantara.com/modernize.



We Are Hitachi Vantara

We guide our customers from what's now to what's next by solving their digital challenges. Working alongside each customer, we apply our unmatched industrial and digital capabilities to their data and applications to benefit both business and society.

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