

WHITE PAPER

Beyond Cloud Management: How to Build on FinOps to Achieve Cloud Optimization

Balancing cost, agility and quality in cloud investments by applying FinOps principles

Table of Contents

03	Executive Summary
04	How Did We Get Here?The Evolution of the Cloud Economy
05	The Business Implications of Poor Cloud Cost Management
06	The 4 Levers of Cloud Cost Optimization
07	Driving Cloud Cost Optimization With a Cutting-Edge FinOps Partnership
08	Focusing on FinOps With Hitachi Cloud FinOps Services
09	Building on 3 Pillars of Cloud Cost Optimization to Achieve Real Business Benefits
10	Cloud Cost Optimization in the Real World: Customer Stories Speak for Themselves
11	Create Your Cloud Center of Excellence With FinOps Services from Hitachi

Executive Summary

Countless businesses have moved to the cloud, drawn by its promises of agility, speed and innovation. And in theory, the cloud's model of paying only for what you use seems like a smooth road to significant cost savings. But many businesses have instead found their cloud costs soaring, largely due to a lack of visibility into their cloud spend and poor architectural decisions. In fact, cloud cost management is one of the key challenges organizations face in their cloud transformation journey. The problem is becoming urgent, as the average IT spend on the cloud is expected to soon surpass noncloud spend for most enterprises.¹

FinOps (from finance and DevOps) has emerged as a solution for effectively managing operational costs in a cloud environment. An evolving cost management discipline, FinOps helps organizations define their cloud budgets and establish performance indicators based on service, business unit, environment and more. It also allows them to analyze consumption against predefined indicators.

The core of elements of FinOps services are:

- **Cost optimization.**

In embarking on a FinOps journey, most enterprises consider cloud spend optimization a primary consideration.

- **Production operations.**

FinOps also focuses on adopting industry best practices to effectively manage and reduce cloud cost as part of operations.

- **Improved visibility into spend.**

Organizations pursuing a FinOps strategy need a comprehensive platform to track spending. This can help them develop a means to charge back cloud consumers (internal and external teams) within an organization based on consumption, which is becoming critical as these organizations struggle to formulate an effective way of distributing costs across their cloud consumers.

Many enterprises today are embracing FinOps by creating cloud centers of excellence supported by an experienced FinOps partner. The benefits they are enjoying include comprehensive visibility into their cloud usage, accountability across their organizations, and data-driven decision-making that helps optimize their cloud investments. Hitachi Cloud FinOps Services, a part of Hitachi Application Reliability Centers (HARC), helps enterprises address their cloud cost challenge by optimizing cloud cost and investment, providing visibility and management across cloud environments.



“FinOps is an evolving cloud financial management discipline and cultural practice that enables organizations to get maximum business value from cloud by helping engineering, finance, technology and business teams to collaborate on data-driven spending decisions.”

J. R. Storment, Executive Director, FinOps Foundation

1. Mike Wheatley, “IDC expects cloud spending to surpass noncloud infrastructure for first time this year,” siiconANGLE, July 4, 2022.

How Did We Get Here?

The Evolution of the Cloud Economy

In an on-premises computing model, hardware purchases are tightly controlled and up front, all capital expenditures are routed through the approval workflow, and the procurement process is owned by the procurement or sourcing department. In contrast, cloud services are purchased in small and relatively inexpensive increments with approval from line managers, and actual spend happens after the fact as operational expenditures. In fact, any spend over the budget is not known until the bill arrives. With spending on cloud deployment set to overtake that of on-premises deployment, it is imperative that organizations have a robust cloud financial management system in place.

In the Cloud Economy, managing cloud operations has become integral to IT and DevOps teams — it is the need of the hour for business and financial managers. Cloud migration has replaced large one-time infrastructure investments, and organizations now need to manage the operational expenses associated with cloud spend and contracts with cloud service providers (CSPs).

As enterprises are discovering, cloud operational expenses can be highly variable based on usage, and they can quickly spin out of control if not managed using structured processes and tools. For example, engineers across various teams can purchase cloud services from one or more CSPs independently without consultation with management or IT teams, which can result in duplication and overprovisioning for certain sets of workloads and underprovisioning for others.

Without insight into their cloud spend, businesses face cost overruns, siloed cloud buying and ineffective management of cloud resources. Left unresolved, these challenges can lead to serious business implications for organizations across industries.



In the Cloud Economy, managing cloud operations has become integral to IT and DevOps teams — it is the need of the hour for business and financial managers.

The Business Implications of Poor Cloud Cost Management

Enterprises that have moved to the cloud without cloud cost management in place are experiencing high operating costs, longer reporting cycle time, weak compliance controls and communication, duplication of work, inability to manage crises, and an inferior end-user experience. Those pain points are borne out by industry experts, as detailed in Flexera's 2022 "State of the Cloud Report".²



Organizations are experiencing higher operating costs due to wasted cloud spend. According to the report, only 68% of money is spent efficiently in the cloud — 32% of total cloud spend is wasted.



Teams involved in cloud cost monitoring and management across the enterprise can't collaborate effectively. Without cloud cost management, IT and finance teams cannot cooperate efficiently to support the agility of the business and proactively monitor and react to spend.



The growing use of multiple clouds complicates cloud cost management. The report states that 89% of enterprises use multiple clouds, with the majority taking a hybrid approach. While the CSPs of these clouds support financial management within their respective clouds, there is no industry tool that helps manage cloud cost management across multiple clouds.



Enterprises have no way to charge back cloud costs to business units or products. Organizations can't track and distribute costs to business units, products or customers without transparency into cloud costs across the enterprise. Tracking is necessary to allow teams to accurately report financial results to facilitate business decisions based on cloud cost data.



Lack of a unified view of spend hampers accurate reporting. There is a growing demand for transparency, including timely reports on cloud spend, from various teams across the enterprise. Without a central tool that can quickly provide those numbers, enterprise decision-makers have no way to easily visualize where their cloud spend is going.



Discrete sourcing is uncontrolled, leading to poor sourcing decisions. While decentralized sourcing of cloud resources and services enables flexibility and agility in cloud migrations and modernizations, lack of coordination and oversight can lead to overspending and duplicative efforts.

A cloud transformation journey without cloud cost management is a path strewn with significant obstacles. To overcome these obstacles and realize the full value of the cloud for their organizations, businesses need insight into their current needs and usage so they can right-size their cloud infrastructure and services at an affordable price.

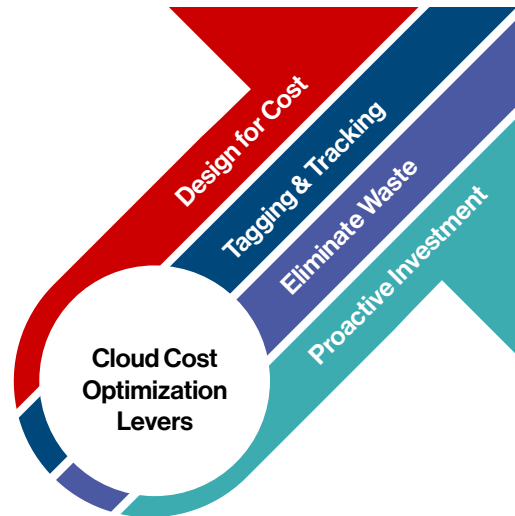
2. "State of the Cloud Report," Flexera, 2022.

The 4 Levers of Cloud Cost Optimization

Without cloud cost optimization, it's difficult for organizations to ensure that their cloud investment will bring the speed, agility and innovation they expect. A cloud cost management approach based on FinOps principles and best practices helps by bringing together financial, technical and business functions to create a cost-conscious culture for cloud cost optimization.

The FinOps approach to cloud cost optimization consists of four levers:

1. **Design for cost.** FinOps draws on its DevOps roots to ensure that all applications are architected and designed for optimized cloud costs from the ground up. It does so by ensuring that application architectures are based on the cost implications of their cloud spend, taking into account interactions between the application and cloud services, ensuring effective usage of cloud native services, and facilitating data retention and transfer between application components. Applications are often integrated with external services such as monitoring tools and data pull/push services, and they are containerized or delivered via platform-as-a-service (PaaS) methods to reduce infrastructure-as-a-service (IaaS) spend. Finally, enterprises are encouraged to adopt cloud native, open-source platforms to save on enterprise licensing costs.
2. **Tag and track.** In FinOps, it's crucial to tag cloud resources with the right set of metadata, which enables organizations to track cloud spend comprehensively and to support the accurate optimization of spend. Enterprises can do this by first working with all stakeholders to create a tagging strategy, designing a comprehensive tagging process based on best practices to track tagging compliance and effectiveness. With a successful tagging and tracking program, the business will gain real-time visibility into cost expenditures and be able to create cost alarms, schedule cost reports and drill down based on tags.



3. **Eliminate waste.** The third lever focuses on avoiding overprovisioning and optimizing utilization to reduce or even eliminate waste in cloud expenditures. A FinOps approach achieves this by right-sizing cloud instances by keeping inventory at an optimum level to meet fluctuating demand, shutting down unused resources, and reducing storage and network costs. Other techniques include scheduling nonproduction instances and servers to start and stop automatically, leveraging storage services like S3 intelligent tiering to reduce storage costs, and optimizing applications for better utilization of cloud resources.
4. **Invest proactively.** The final lever of the FinOps approach encompasses such forward-looking tasks as prepurchasing resources and negotiating contracts with CSPs; adopting reserves instances, compute savings plans, and spot-instances; and leveraging enterprise discounts and programs.

In order to wield these four levers effectively, organizations need an experienced FinOps partner who can provide the technology and the expertise to support each of these principles, bringing the entire organization's cloud cost strategies and data together in a single source of truth.

Driving Cloud Cost Optimization With a Cutting-Edge FinOps Partnership

Optimizing cloud costs means taking the complexity out of managing costs for public, private and hybrid clouds. At Hitachi Vantara, we help our customers simplify cloud cost management and optimize the economics of the cloud through a combination of consulting services and best practices, increasing their ability to be agile and make appropriate tradeoffs in managing cloud costs in the long run.

We go beyond providing the tools and technology to partner with our customers throughout their cloud journey. We build on their specific cloud cost models by providing:

- **Automated, intelligent, collaborative accelerators.** We help our customers leverage a blend of accelerators and collaborate with stakeholders to analyze their existing cloud setup, determine usage to identify cost-saving opportunities and redesign their cloud for business alignment.
- **Outcome-based engagement models.** Our engagement models include assessment services for cost optimization, professional services for cloud cost management and optimization, and cloud financial management as a service, all of which are tailored toward specific outcomes and delivered in a risk-and-reward-based incentive model.
- **An open ecosystem, no “rip-and-replace.”** Our customers have the flexibility to leverage solution accelerators in an open ecosystem as part of the Hitachi Cloud Accelerator Platform (HCAP). Our open APIs and built-in adapters allow our customers to automate cloud cost management, integrate consumption data, support governance, and deploy machine learning and analytics with their existing systems and clouds.
- **Repeatable solutions.** As a trusted partner, we provide and support proven methodologies and reference architectures for accelerated modernization efforts while keeping risk and cost to a minimum.

With Hitachi Cloud FinOps Services, part of Hitachi Application Reliability Centers (HARC), we offer all these benefits across all three major cloud providers — Amazon Web Services (AWS), Microsoft Azure and Google Cloud Platform (GCP) — as well as on-premises resources. Our “design right” approach ensures that your application portfolios are designed through the lens of the business outcomes you want to achieve.

Hitachi Cloud FinOps Services are built and delivered through a unique E3 methodology (Envision, Evaluate and Execute), which is a comprehensive modernization approach that enables clients to envision, evaluate and execute a FinOps-led program to address the complexity of managing cloud environments:

Envision

Value based assessment to understand current spend and it's alignment to business needs

Evaluate

Deep diving into cost management practices, arriving at design patterns, MVP for quick wins and plan for optimization

Execute

Implementation of cost management best practices and ongoing cloud cost optimization

Evolve

Focusing on FinOps With Hitachi Cloud FinOps Services

As a part of our comprehensive HARC offering, Hitachi Vantara provides a set of cloud FinOps services that cover assessment, implementation and FinOps-managed services that can deliver significant savings while maintaining service levels for cloud workloads. Hitachi Cloud FinOps Services leverage industry-leading tools and custom frameworks developed by Hitachi Vantara FinOps experts to help lower our customers' cloud spend by reducing or eliminating wasted spend and optimizing cloud infrastructure to align with demand and growth.

Our three services build on each other to provide a complete cloud FinOps strategy for our customers, as shown in the following table.

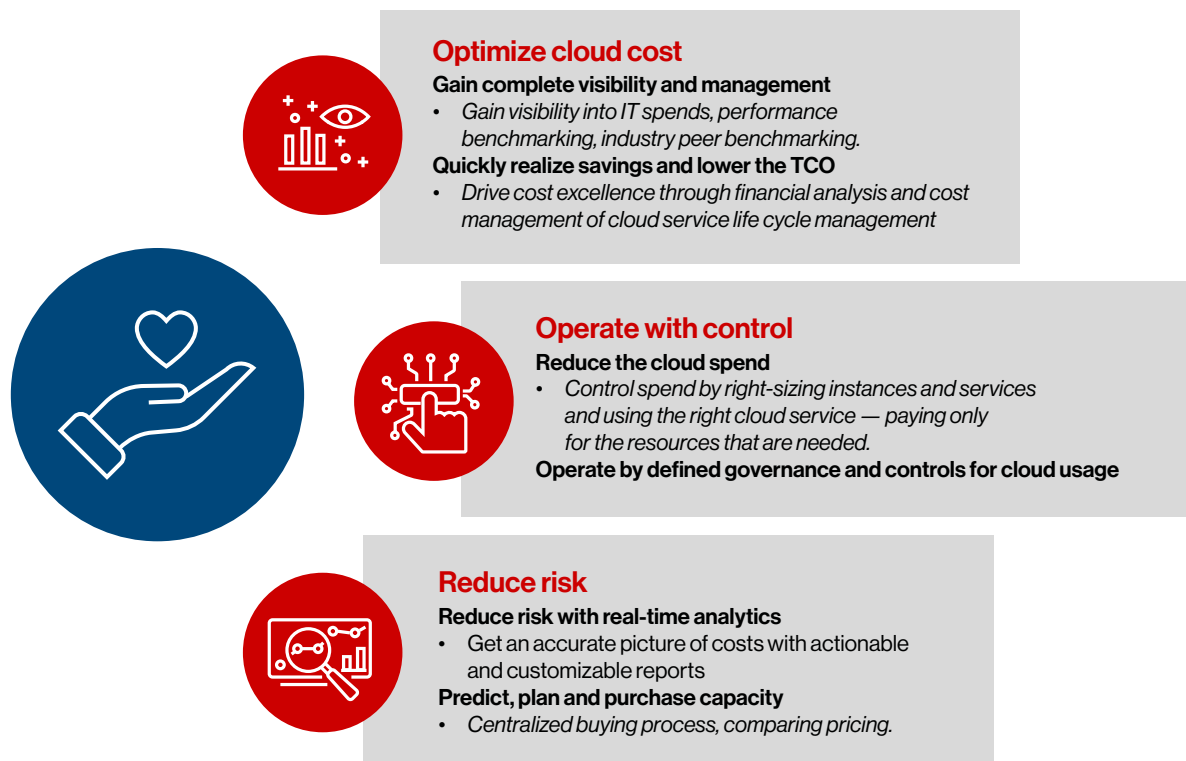
Service	Description	Activities Performed
Cloud FinOps Assessment Service	<ul style="list-style-type: none"> Assessment of current fully loaded cost along with benchmarks to industry standards and recommendations Fixed fee that we will reinvest to drive cost optimization 	<p>Understand fully loaded costs</p> <ul style="list-style-type: none"> Visibility into IT spend Granular cost allocation Team-level budgets and tracking <p>Performance benchmarking</p> <ul style="list-style-type: none"> Trending and variance analysis Internal team benchmarking Industry peer-level benchmarking
Cloud FinOps Implementation Service	<ul style="list-style-type: none"> Professional services engagement to assess, recommend and implement cost takeouts from cloud platforms, leading to effective utilization and enablement of real-time decision support Outcome-based (fixed fee and a percentage of savings realized); offered through save now, pay later campaign 	<p>Along with Assessment Service:</p> <ul style="list-style-type: none"> Cloud resource tagging and spend tracking Cleanup of unused resources Rightsizing of resources Instance type changes to optimize costs Account-level cost optimizations Recommendations for leveraging cloud-native services Architecture recommendations to optimize costs Auto-scheduling of resources for lower (non-production) environments Budget and TCO reports
Cloud FinOps Managed Service	<ul style="list-style-type: none"> Continuous, iterative operating model that helps enterprises balance cost, speed and quality to gain cloud efficiencies and keep reinvesting in innovation Outcome-based (fixed fee and a percentage of savings realized) 	<p>Along with Implementation Service:</p> <ul style="list-style-type: none"> Active optimization of customer's cloud spend Ability for finance to move at the speed of IT Continuous improvement for cost, efficiency and innovation Defined governance and controls for cloud usage Usage and trend reports

Building on 3 Pillars of Cloud Cost Optimization to Achieve Real Business Benefits

The Hitachi Cloud FinOps Services portfolio balances cost, speed and quality in an organization's cloud investments to give it a solid foundation for growth and innovation. With our FinOps system in place, enterprises gain three essential pillars on which they can build:

- Optimized cloud investment
- Control over cloud operations
- Reduced risk of moving to and operating in the cloud

These pillars are detailed in the following figure:



Once these pillars are in place, the real business benefits start to roll in. Organizations begin to:

- Gain end-to-end visibility into cloud usage and associated cost by user groups, departments and products.
- Establish accountability on cloud spend and initiate usage-based cost allocation.
- Use improved visibility into cloud usage to plan for future growth.
- Simplify financial budgeting for cloud usage.
- Identify cost optimization opportunities and automate tasks.
- Accelerate fulfillment requests.
- Enable data-driven decision-making.
- Gain organizational alignment on cloud spending.

These benefits and more have been realized by our customers across industries and around the world.

Cloud Cost Optimization in the Real World: Customer Stories Speak for Themselves

Our customers know from experience that it's easy to overspend on cloud services when you have limited visibility and predictability on utilization. Hitachi Cloud FinOps Services addresses this issue and lowers the total cost of ownership through mapping spend data, tagging, allocating shared costs equitably and recommending data-driven cost take-out measures. Across industries, our customers have leveraged our FinOps services to gain a solid understanding of their current cloud costs, implement best practices and get the most value from their cloud spend.

Here are a few of their stories:

Technology Company Right-Sizes Its Infrastructure and Enjoys Ongoing Cost Reductions

Deluxe Corporation, an American payments and business technology company, tapped Hitachi Cloud FinOps Services to help it streamline its journey to becoming a nimble technology company — and CIO Michael Mathews couldn't be happier. "In addition to providing ongoing, yearly cost reductions across cloud environments and other savings," he says, "Hitachi Vantara has 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."

Leading Healthcare Service Provider Controls Costs and Reduces Risk With FinOps

High CSP costs were plaguing a top healthcare service provider at a time when the organization was also facing rapid business growth and increasing its customer base. Lacking the necessary tools and knowledge to analyze and make decisions to optimize its cloud spend and keep its business secure, the company turned to Hitachi Cloud FinOps Services. Today, the company boasts a 20% cost reduction in its AWS landing zone accounts. Its FinOps strategy also reduces the company's risk by allowing it to optimize sensitive data detection, AWS Reserved Instances (RI) deployment and Cloud Watch. Additionally, Hitachi Vantara helped the company rebuild its RADAR using AWS native services, initiate cost anomaly detection and budget alerts, and optimize performance.

FinOps Eliminates Silos for a Global Financial Services Firm

Silos were out of control for a financial services firm with a global presence. Its IT organization had more than 40 business units running and managing independent IT environments with a variety of tooling, security and cloud resources. With cost containment pressure coming from the market and from leadership, the organization turned to Hitachi Vantara for help. Hitachi Cloud FinOps Services helped the firm achieve a 50% cost reduction in Amazon Elastic Compute Cloud (EC2) compute costs and a 16% cost reduction across its cloud environments. The company was then able to right-size 50 individual resources based on actual consumption. This increased the company's budget capacity for new workloads in the cloud, gave the C-suite visibility into burndown per business unit, and enabled real-time budget monitoring and alerting for budget overrun.

Energy Trading Company Reduces Costs and Optimizes Performance With FinOps

An energy trading firm had multiple AWS accounts used in silos by its eight business units, hosting almost 40 applications. The company's high cloud-native development activity had led to a higher degree of cloud spend than it had budgeted, and it was seeking timely cost optimization. Hitachi Vantara came on board to help, ultimately bringing the company a 30% cost reduction through right-sizing of Amazon EC2, Relational Database Service (RDS) and ElastiCache instances. Hitachi Vantara Cloud FinOps also enabled the company to save on S3 storage costs and automated cleanup of unused cloud resources. The FinOps strategy included cost anomaly

Create Your Cloud Center of Excellence With FinOps Services from Hitachi

To realize the benefits of FinOps for your organization, consider creating a cloud center of excellence based on [Hitachi Application Reliability Centers \(HARC\)](#). With a cloud center of excellence, you can drive FinOps best practices and alignment between technology, finance and management across your organization. A cloud center of excellence brings your teams together to make better spending decisions, discuss tradeoffs when balancing cost and innovation, and define governance and controls for your cloud usage.

Hitachi Cloud FinOps Services, a part of HARC, address the cloud cost challenge by optimizing cloud cost and investments, providing visibility and management across your cloud environments and enabling you to:

- Gain control over cloud spend with real-time visibility, right architectural choice and predictable usage.
- Get more value from the cloud by balancing cost, speed and quality.
- Future-proof your organization with best-in-breed cloud services.

Wherever you are on your cloud journey, HARC works with you to help migrate, modernize and manage your applications in the cloud. Enabled by AI-driven accelerators, solution cores, tools, frameworks and people with the right skillsets, our physical and virtual centers of excellence assist you in managing and optimizing your cloud applications.

With your cloud center of excellence and a partnership with Hitachi Vantara, you'll gain faster time to market, deliver quicker and more innovative services for you and your customers — and realize your vision without breaking the bank.



Why Choose Hitachi Vantara as Your FinOps Partner?

At Hitachi Vantara, we provide our customers with superior service in FinOps with:

- **Strong cloud cost management experience** from providing and supporting multicloud and platform-based services for customers in over 700+ engagements.
- **Outcome-based delivery** with clear measurements, ROI and KPIs to deliver solutions that positively impact your business.
- **Capabilities and experiences** well beyond cost optimization, featuring broad-based, end-to-end capabilities that help customers drive overall modernization and transformation. Our services — including value mapping, Agile practices, automation and more — have been developed over many years to offer the best experience, faster time to market, optimum cost and flexibility of scale.
- **Comprehensive set of tools and methodologies** that help accelerate, identify, optimize and control cloud cost, including the Hitachi Cloud Accelerator Platform and the Hitachi Cloud Management Platform.



ABOUT HITACHI VANTARA

Hitachi Vantara, a wholly-owned subsidiary of Hitachi Ltd., delivers the intelligent data platforms, infrastructure systems, and digital expertise that supports more than 80% of the fortune 100. To learn how Hitachi Vantara turns businesses from data-rich to data-driven through agile digital processes, products, and experiences, visit hitachivantara.com

[Learn More](#) →

Design, build, run and operate your cloud workloads with confidence to establish an always-on business.

Hitachi Vantara

Corporate Headquarters
2535 Augustine Drive
Santa Clara, CA 95054 USA
hitachivantara.com | community.hitachivantara.com

Contact Information
USA: 1-800-446-0744
Global: 1-858-547-4526
hitachivantara.com/contact

© Hitachi Vantara LLC 2023. All Rights Reserved. HITACHI and Lumada are trademarks or registered trademarks of Hitachi, Ltd. All other trademarks, service marks and company names are properties of their respective owners.

HV-TLC-WP-Beyond-Cloud-Management-FinOps-9Mar23-A

