# Unleashing the Power of Cloud FinOps

## Maximize the value of cloud financial optimization (FinOps) practices to address cloud cost challenges.

The federal Cloud Smart (originally Cloud First) strategy boosted cloud adoption among federal agencies, leading to $12.3 billion[1] in cloud expenditures by FY 2022. Federal agencies are still early on their cloud journeys, and costs are expected to increase significantly, as agencies plan to continue or accelerate their path to cloud adoption. Across industries, businesses are in a digital transformation race to move faster, innovate more, and remain competitive. Cloud adoption underpins and enables digital transformation and innovation. This requires an evolution in financial management and optimization processes to enable successful and efficient digital transformation outcomes.

Now that most federal agencies have invested in cloud, financial management has become a higher priority. Enterprises and agencies without a clear understanding of short- and long-term cost implications risk committing to high-priced, inflexible pricing models that will exceed planned budgets. Federal IT budgets are still limited and pose challenges for agencies when cloud costs are not adequately planned for and managed, forcing agencies to, in some cases, reallocate budget away from other critical programs and technology investments. Agencies must understand cost implications prior to
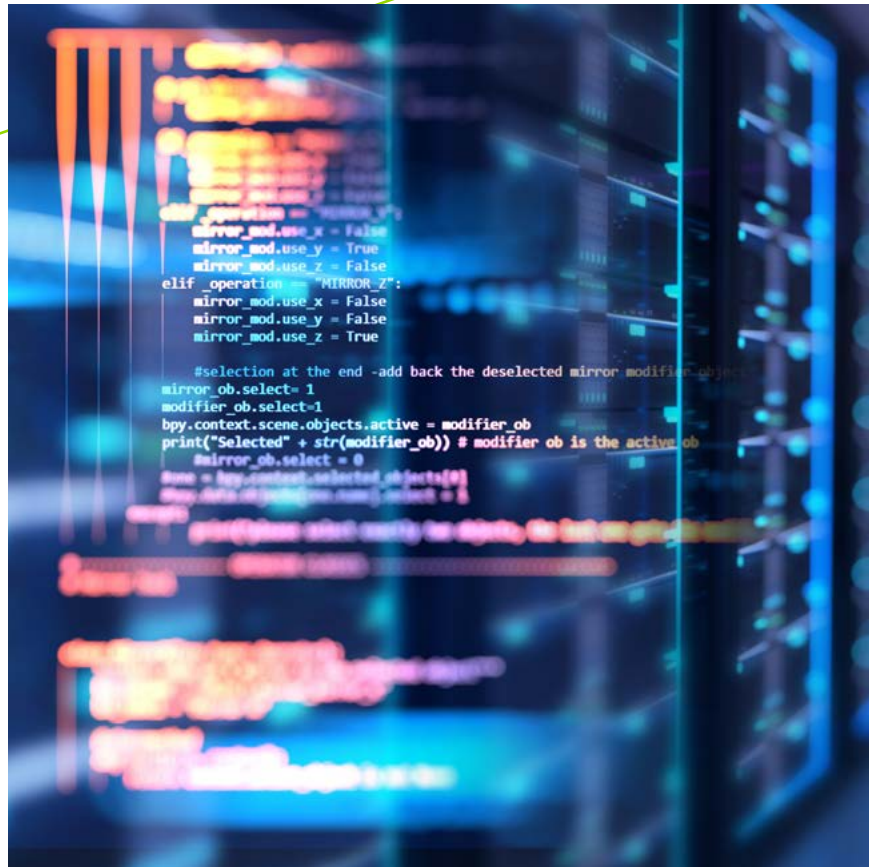
committing to cloud contracts to avoid underestimated budgets and invoice shock. Agencies should consider the application of cost management leading practices and financial governance to cloud usage to enable the delivery of superior mission outcomes in the most cost-efficient manner.

With executive and federal mandates to move to the cloud, many agencies are unprepared to properly account for ongoing operational expenditures. Effectively managing cloud costs requires assessing and analyzing cloud architecture, pricing models and contract structures. The large and growing universe of cloud computing providers makes this process even more difficult.

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[1] "Federal Cloud Spending, FY 2020-2022", GovWin, April 5, 2023. https://iq.govwin.com/neo/marketAnalysis/view/Federal-Cloud-Spending-FY-2020-2022/7171?researchTypeId=1&researchMarket=
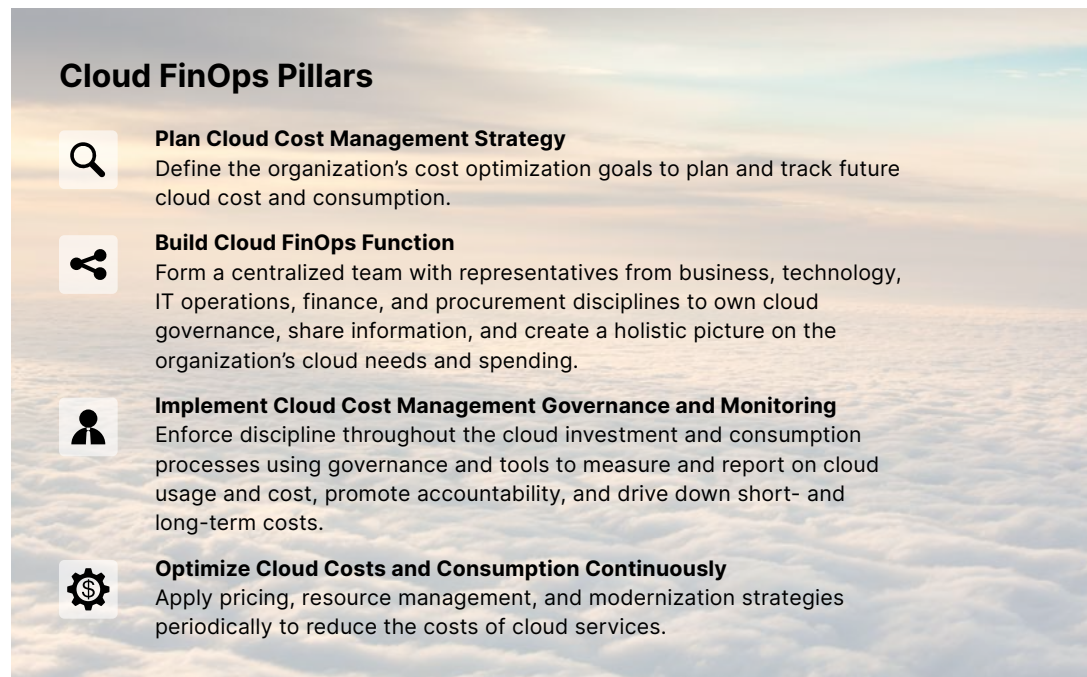
## Cloud Cost Optimization Challenges

Agencies frequently struggle with these cloud financial management tasks:

- Estimating cloud short- and long-term costs and benefits
- Forecasting cost implications of *lift*-and-*shift* cloud migrations
- Preparing contingencies for rising costs to acquire and retain their cloud workforce
- Eliminating resource duplication as part of a cloud migration
- Mitigating cloud contract price escalators and other hidden fees

## Understanding Cloud FinOps

Agencies can navigate cloud cost management challenges through cloud financial optimization, which is the application of cultural and cost-management leading practices and financial governance to bring cross-functional stakeholders together to collaborate on decisions that maximize business value, cloud usage, and cloud investments. Guidehouse uses a cloud FinOps approach founded on four pillars that help clients control cloud costs:

### Cloud FinOps Pillars

**Plan Cloud Cost Management Strategy**
Define the organization's cost optimization goals to plan and track future cloud cost and consumption.

**Build Cloud FinOps Function**
Form a centralized team with representatives from business, technology, IT operations, finance, and procurement disciplines to own cloud governance, share information, and create a holistic picture on the organization's cloud needs and spending.

**Implement Cloud Cost Management Governance and Monitoring**
Enforce discipline throughout the cloud investment and consumption processes using governance and tools to measure and report on cloud usage and cost, promote accountability, and drive down short- and long-term costs.

**Optimize Cloud Costs and Consumption Continuously**
Apply pricing, resource management, and modernization strategies periodically to reduce the costs of cloud services.

### Building Cloud FinOps in Your Organization

The four pillars are the components of cloud FinOps capabilities in your organization. When implemented, these comprehensive cloud FinOps principles guide organizations to better manage and reduce excessive cloud resource consumption, prioritize cloud investments, and maximize the value of current and future spending. Establishing the four pillars will look different at each agency, but in every case, it should focus on the aforementioned common points of emphasis.

### Plan Cloud Cost Management Strategy

Strategy should begin with the understanding that a major challenge to cloud cost management is the costly overprovisioning of resources. Organizations should define their cost optimization goals to plan and track future cloud cost and consumption. Examples of goals are reducing overall cloud spending and improving cloud resource utilization. With the Implement Cloud Cost Management pillar, organizations measure performance against the cost optimization goals through activities such as auditing the differences between resource forecasts and actual consumption, and then make corrections to ongoing resource allocation with improved forecast models. Organizations can employ a cloud cost management assessment to identify their current challenges and inform the creation of their cost optimization goals.

Many cloud commitments begin with optimistic estimates of overall cost savings through the elimination of planned capital expenditures (for example, a new data center). To be more accurate, strategy should plan and track future cloud cost and consumption, not just a first-year comparison against an unfavorable on-premise case.

Planning tasks should be led by a collaboration between operational experts, technical authorities, and cost-management specialists. This team should be consulted routinely, particularly in the event of a new workload migration or a major change in an existing cloud vendor relationship.

## Build Cloud FinOps Function

As their technology footprint grows and contractual costs increase, organizations must share and integrate information with operational processes throughout the enterprise for a more holistic picture of their cloud spending. Only with this clear and timely information can the return on investment (ROI) and business value of cloud technology investments be calculated and articulated. The cloud FinOps function ensures that this cycle of communication operates smoothly and transparently.

FinOps should be led by a centralized team with representatives from business, technology, IT operations, finance, and procurement disciplines, for a comprehensive snapshot of the needs and anticipated costs. Other functional and organizational areas may also be appropriate, depending on the agency and the scope of cloud computing projects and spend. This team then becomes the governing body for cloud operations, with the mandate to ensure efficient, effective operation of cloud engagements and investments. The FinOps team ultimately owns cloud governance, advocates for the systematic and standardized application of financial tools and business processes in line with the approved enterprise architecture for technology standardization, educates stakeholders on leading practices, and provides architectural guidance on cloud implementation.

## Implement Cloud Cost Management Governance and Monitoring

Consistent and long-term cost transparency and accountability are keys to effective cloud governance. This pillar focuses on enforcing discipline throughout the cloud investment and consumption processes, using awareness and accountability to drive down costs in both the short and long term. As part of the FinOps discipline, agencies should continuously monitor and measure consumption, cost, and performance metrics to inform and improve financial management, enable more accountability with solutions that self-service access to financial and cloud consumption data, and evaluate how the organization is progressing to meet cost optimization goals.

Cloud usage and costs should be measured and reported by business owners working in tandem with technology operations. This data will be used to promote accountability and identify opportunities for cost optimization. The methods of cost and utilization measurement should be transparent and repeatable. Guidehouse recommends the use of chargeback or showback models to create clear and tangible stakes for these owners, with internal service-level agreements (SLAs) to incentivize staying within consumption thresholds and limit costs.

In addition to the chargeback model and internal SLAs, a variety of tools and methodologies are available to help agencies enact this pillar. Technology business management (TBM) practices, which were recently championed by the US Government Accountability Office (GAO), can facilitate enforcement of chargeback/showback cost models by creating clear business and technical taxonomies. Native tools provided by cloud service providers, as well as third-party tools, including Apptio Cloudability, VMware CloudHealth, and CloudCheckr, can help aggregate and report costs to promote accountability.

**Optimize Cloud Costs and Consumption Continuously**

The optimization pillar provides an opportunity to reset cloud investments to better align the organization's cloud budget with business needs. This pillar focuses on the proper application and enforcement of pricing, resource management, and modernization strategies to reduce the costs of cloud services necessary to meet an agency's service-level requirements. Organizations should periodically apply these strategies to continuously improve cloud resource allocation and control costs.

Cloud pricing model selection is a larger topic unto itself. Choosing between reserved, on-demand, spot, and hybrid pricing models requires a thorough understanding of agency needs and business requirements. Gaining this insight is essential to make informed decisions about cloud spending and larger digital transformation goals. DevSecOps practices can be added to set budgets and establish approval processes during cloud provisioning, to reduce the chances of unexpected usage leading to runaway costs.

The optimization pillar also focuses on ways to streamline costs at the architecture level. Cloud migrations can create opportunities to reduce redundant services and retire obsolete or marginal systems. It can also open conversations about infrastructure optimization, whether the current technology stack is aligned with ongoing needs, whether to adjust contracts with cloud service providers (CSPs), and approaches to managing infrastructure, applications, and data to reduce costs.

This pillar also manages the need for failover service and disaster recovery in the cloud, identifying use cases where the high cost of always-on solutions with redundant failover are not required. The FinOps team, in collaboration with other stakeholders, determines the mission criticality of each service and aligns disaster recovery features and contract clauses to suit.

## Guidehouse Advantages and Expertise

Guidehouse offers a full spectrum of cloud services, including cloud FinOps, for organizations moving into or already in the cloud. Over the past decade, our professionals have delivered more than $100 million of cloud services to federal agencies and helped several agencies create cloud FinOps teams.

Our professionals are trained and certified on all major cloud service platforms, with architects certified in Microsoft Azure, Amazon Web Services (AWS), Google Cloud Platform (GCP), and Red Hat. This reinforces our unbiased, technology-agnostic approach to each client's objectives and cloud needs. Instead of being tied to specific systems, tools, and cloud service providers, Guidehouse focuses on meeting unique needs with optimal solutions and interoperability.

We help clients implement cloud FinOps and reexamine decisions to help improve cloud cost management. Our experts guide our clients on a path towards managing their cloud infrastructure, application, and data resources in harmony with their business needs and cost priorities.

**By directing the federal agency to embrace cloud FinOps, Guidehouse helped it reduce cloud costs by approximately 30%.**

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We recently assisted a federal agency with its transition from on-premises data centers to Amazon Web Services (AWS). Its existing infrastructure serviced thousands of operational virtual machines to support its analytics research and surveys. Over a one-year period, cloud usage more than tripled—along with service costs. The agency engaged Guidehouse to perform cost optimization and management.

By directing the federal agency to embrace cloud FinOps, Guidehouse helped it reduce cloud costs by approximately 30%. These results were obtained through aggressive enforcement of resource tagging, proper cost attribution, rightsizing of computing and storage resources to match true utilization, implementation of a third-party cost-calculation tool, and identification and remediation of unused technology resources. Some computing tasks were rescheduled to benefit from off-hours pricing, and self-service insights on costs and optimizations were shared outside the FinOps team.

At Guidehouse, we combine unequaled expertise, specialized resources, and deep domain experience to solve problems that cross sectors, industries, and geographies for public sector clients and the regulated commercial markets they serve. Guidehouse is the only scaled consultancy in the world to fully integrate commercial and public sector organizations within each of our industry segments. We take this approach because complex problems require both perspectives to address and outwit. Contact us to learn more about cloud cost containment or other cloud management strategies.

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## About Guidehouse

Guidehouse is a leading global provider of consulting services to the public sector and commercial markets, with broad capabilities in management, technology, and risk consulting. By combining our public and private sector expertise, we help clients address their most complex challenges and navigate significant regulatory pressures, focusing on transformational change, business resiliency, and technology-driven innovation. Across a range of advisory, consulting, outsourcing, and digital services, we create scalable, innovative solutions that help our clients outwit complexity and position them for future growth and success. The company has more than 16,500 professionals in over 55 locations globally. Guidehouse is a Veritas Capital portfolio company, led by seasoned professionals with proven and diverse expertise in traditional and emerging technologies, markets, and agenda-setting issues driving national and global economies. For more information, please visit www.guidehouse.com.

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