



WHITE PAPER

The FinOps Journey to Intelligent Spending

FinOps is the practice of bringing a financial accountability cultural change to the variable spend model of cloud, enabling distributed engineering and business teams to make trade-offs between speed, cost, and quality in their cloud architecture and investment decisions.

FinOps Foundation



A new model has emerged to manage the variable spend challenge of the cloud. As a combination of the terms “Finance” and “DevOps,” FinOps is the phrase most often used to describe this model.

Enter FinOps

FinOps creates a means to contain cloud spend, increase compute efficiencies, and eliminate waste. It engages multiple stakeholders who are provided clear visibility into the company’s cloud spend, enabling them to make well-informed decisions, create policies and otherwise manage the organization’s costs in the cloud. The [FinOps Foundation](#) explains:

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The attention garnered by FinOps compels examination into whether or not it is a practical solution for the cloud-spend issues facing business enterprises today.

Migration is the road most traveled

Large-scale migration to the cloud has been the norm in recent years, accelerating during the pandemic. Organizations are motivated by the opportunity to save compute-infrastructure costs and by the cloud’s competitive advantages of rapid deployment, agility, innovation, unlimited scale, enhanced security, and global access.

A recent survey by [McKinsey & Company](#) reveals that while computing in the cloud provides the opportunity for greater cost efficiencies, businesses recognize that the cloud confers strategic advantages in the marketplace as well. Moreover, the [Flexera 2022 State of the Cloud Report](#) reveals that

89% of cloud-based organizations utilize more than one cloud provider, choosing a multi-cloud architecture as their next level of efficiency, flexibility, and risk mitigation.

Whatever the motivation, deployment in the cloud is creating a surge in cloud spend. Unlike traditional on-premises, fixed-cost iterations, cloud-compute costs are generally variable, following a pay-as-you-go model. The challenge for cloud-based organizations is understanding and controlling ever-increasing cloud spend.

Cloud spend is skyrocketing

Industry wide, cloud-compute costs are high and continue to soar. [Synergy Research Group](#) reports that enterprise cloud spend in 2021 increased by 37% over the previous year, reaching \$178 billion while [Canalys](#) places the annual total at \$191.7 billion. Estimates vary but the [International Data Corporation \(IDC\)](#) forecasts that total worldwide spending on cloud services will surpass a whopping \$1.3 trillion by the year 2025 with spending on shared cloud services reaching \$809 billion.

In a survey of 795 entities, [Flexera](#) went on to say that the top cloud initiative across all organizations was cost savings. Optimizing cloud spend is imperative for cloud-based organizations. It is incumbent on enterprises turning to FinOps for cloud-spend solutions to clearly comprehend the methodologies that characterize a FinOps practice.

FinOps Maturity Model

FinOps is achieved by taking incremental steps. Beginning at an elementary level, each

success story builds confidence for growth into the next level. The process takes time and is described as the [FinOps maturity model](#), “Crawl, Walk, Run.” No one arrives at a fully mature FinOps position simply by pushing the FinOps button. Careful preparation is required so that the separate teams within the organization build trust. They can embrace FinOps best practices when they see their collaboration create positive results.

In most scenarios an organization will focus initially on reducing its cloud spend. In the Crawl stage it seeks to understand its current costs and to correctly allocate spend to the various users. It then employs cost-saving tools to successfully reduce the spend.

The organization’s actions at the crawl stage are primarily reactive, addressing the cloud spend after it has become a problem. As the organization matures it advances to the Walk and Run stages. At these stages the organization’s actions become more proactive. Policies and architecture are established to anticipate cloud spend.

The focus advances to something more than merely discovering opportunities to reduce cloud spend. Rather, the business will dive deeper. It may choose to assess the efficiency levels of its teams to determine how they are driving cloud spend. Or, deeper still, it may develop machine-learning forecasting capabilities or develop artificial intelligence for high-speed applications.

Each deeper dive advances the organization higher up the maturity model. As a practical matter the business will start small in scope and complexity. With repetition it matures to larger and more complex processes.

FinOps Life Cycle

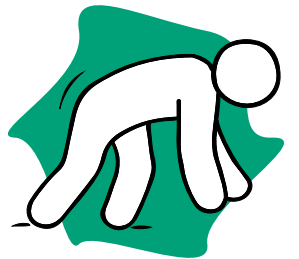
The process a company uses to employ its FinOps practice is cyclical. By repetition the organization enhances its efficiencies by drilling down to obtain more insights leading to increasingly mature methods of cloud operation. There are three phases in the [FinOps life cycle](#). As the organization advances through each phase it does so in the Crawl, Walk, Run maturity model. The life cycle phases are Inform, Optimize, and Operate.

Inform The first phase of the FinOps life cycle is the Inform phase. In this phase the organization seeks to gain real-time visibility into its costs. Teams and individuals learn what they are spending and how their decisions impact cloud spend. Accountability for costs on a granular level is allocated to responsible teams.

Tagging should be accurately followed to facilitate both a proper cost allocation and to enable comprehensive reports. The task of accurately tagging can be an extensive undertaking as many entities will have untagged or inadequately tagged infrastructure. Additionally, a number of resources are untaggable, inconsistently tagged or shared. A thoughtful tagging strategy will seek to tag as many resources as possible so that the true cost of each workload is known. Visibility is the key focus. Visibility will bring understanding and encourage better decision-making.

Optimize Once the organization has a clear understanding of its cloud usage it can develop strategies to reduce cloud spend. Examples include rightsizing, autoscaling, stopping unused EC2 instances, and orphaned volumes. Anomalies are investigated for savings opportunities. Savings Plans and Reserved Instances provide additional savings opportunities. The FinOps team may compare different

Crawl



Walk



Run



Core Principles of FinOps

The basic core elements of the FinOps methodology need to be understood by any organization considering its adoption. [The FinOps Foundation](#) sets out six principles that are foundational. All six are interrelated and must be integrated in their entirety to transform a company's cloud practice to a successful FinOps model.

1 Teams need to collaborate

FinOps has engineering, business, operations, finance and technology teams all working together to control cloud costs. The finance and engineering teams in particular need to work together closely. Finance team members need real-time data of variable cloud spend to allocate costs and to project future spend.

Without this data, finance teams are unable to ascertain in a timely manner how money is being spent in the cloud. Engineers need to consider costs before deploying new architecture; cost becomes a new efficiency metric in its development. But without clear visibility, engineers are unable to ascertain how their decisions are affecting cloud spend.

2 Decisions are driven by the business value of the cloud

Using the cloud costs money. But the costs incurred create value. FinOps



recognizes the business value created and seeks to maximize that value. Trend and variance analysis helps to understand the basis for cost increases and an evaluation of the value to the business. The business evaluation encourages the development of best practices for the organization as performance is measured against established business goals.

3 Everyone takes ownership of their cloud usage

Each person or team within the organization who uses the cloud must be responsible for that usage and accountable for their cloud spend. Ownership is facilitated by providing visibility to users at all levels of cloud spend. With visibility, users gain a clear understanding of how their actions affect cloud spend. Teams are empowered to manage their own cloud usage against their budget and track team-level targets for accountability. When given visibility and tools cloud users can optimize their cloud spend.

4 FinOps reports should be accessible and timely

Rapid feedback enables a rapid and more efficient response. Compute resources can be rapidly deployed in the cloud and can be set up to deploy automatically. Real time visibility enables timely assessment of the under or over provisioning of resources. Alerts, including anomaly alerts, grant the people who make decisions about cloud usage the ability to make corrections quickly. Previous business cycles saw reports generated quarterly or monthly. In the cloud environment reports need to be available daily and, in some cases, even more frequently.



organization's cloud usage. This centralized team can take an initiative developed for a specific situation and convert the initiative into a companywide policy.

By continuous improvement the FinOps team drives efficiency and innovation within the organization. Collaboration should be innovative, quick to adapt to new data and fresh perspectives as best practices specific to the organization are developed and as the needs of the organization evolve. When the team has developed best practices the engineers have the knowledge they need to build well-architected systems.

A centralized team responsible for FinOps adds credibility to the FinOps transformation. No single stakeholder has control at the perceived expense of the other stakeholders. Additionally, a designated team assumes a leadership role that forestalls waning interest in the FinOps transformation.

5 A centralized team drives FinOps

Greater efficiencies and cost savings are realized when the control of cloud spend is centralized. The responsibility for purchasing volume discounts or reserved instances is removed from engineering and controlled by the FinOps team. Cloud costs, direct or shared, are appropriately allocated to the teams responsible for them.

The FinOps team should be representative of the various stakeholders in the organization and have a cloud-centered perspective. It establishes the cloud governance and controls for the

6 Take advantage of the variable cost model of the cloud

Historically, compute infrastructure purchases were made based on predicted need. Since the cloud allows for the purchase of more resources at any time, purchases can be made based on current use. If additional resources are needed they can be purchased at the time the need is recognized.



cloud vendors for the best pricing. Setting the goals for optimization is the key focus.

Operate Once goals have been established those goals are implemented in the Operate phase. The cloud infrastructure is modified to take advantage of the savings strategies developed during the Optimize phase. Stakeholders continuously monitor their cloud spend against their budgets to determine performance. Execution is the key focus.

When an organization completes its trek through the FinOps life cycle it circles back to the Inform phase where it evaluates new data which now exists because of the goals just executed in the previous Operate phase. The new data will further increase visibility resulting in even greater understanding of the cloud spend. Thus, the life cycle continues as the organization once again advances through the Inform, Optimize, and Operate phases.

To FinOps or Not to FinOps

Organizations that face unacceptable cloud spend often struggle to find effective solutions. The terms “Cloud Cost Management,” “Cloud Financial Management” and others are used to describe methodologies employed across businesses for reductions in cloud spend, including what the [FinOps Foundation](#) calls its favorite, “It doesn’t have a name yet.”

FinOps contains existing structures and best practices that have been scrutinized and assessed within multiple cloud environments over a period of years. FinOps is organic, constantly evolving as thought leaders push its applications and endeavor to coax more benefits from its integration into cloud practices. As a solution FinOps can significantly enhance a company’s cost optimization.

How do you do FinOps? It is important to note that managing cloud spend with a FinOps methodology is not a simple task. Successfully executing a transition to FinOps requires careful planning and a commitment to FinOps best practices. Widespread advocacy within the organization is essential to win over even the most reluctant skeptic.

The transition is often described as a cultural shift within the organization, and for good reason. Teams from various departments must collaborate to make the shift and then continue in a collaborative mode going forward. They must adopt a common nomenclature, one that all can understand even though each comes to the table with a different perspective. Finance and engineering do not generally share the same language or metrics. Developing a language that both understand is critical.

The Journey begins

The most ideal time to adopt FinOps is when you migrate to the cloud. If you already have a presence in the cloud, the process will be somewhat different as your infrastructure is already cloud based. Your existing cloud resources will be examined and then modified to conform to the FinOps methodology. Whether pre- or post-migration, the adoption of FinOps confers significant cloud-spend advantages.

At the outset you should establish clear goals that are specific to your pain points. Often the initial goal will be to control cloud spend. Goals should be developed collaboratively with representation from each team that touches the cloud.

An assessment of the organization’s readiness must be completed. Various FinOps tools can be tested or evaluated

for their suitability to the business. The organization’s tagging must be current and accurate to ensure meaningful evaluation during and after the transition. A thorough completion of the Inform phase creates the visibility required to successfully adopt FinOps.

A FinOps team dedicated to the transition and support of the FinOps practice must be initiated. Key participants should brainstorm the company’s needs, making sure that representatives from all affected teams are included. A centralized team is of particular importance when it comes to the success of FinOps.

It is one thing to identify spending for cost-optimization purposes. It is another thing altogether to have authority to establish spending limits. The team must communicate the value of the limits and the value of having a process for limiting spending. Throughout this effort the organization must have an advocate or champion to drive the process to completion.

By identifying goals, assessing your readiness for the transition, and creating structures to move forward, you are ready to embark on the FinOps journey. At the same time it is important not to miss the big picture of all that FinOps has to offer.

FinOps is more than meets the eye

In a different light, the goal of FinOps is not to save money but rather to make money. FinOps is more than a cost-optimization tool. FinOps seeks to ensure that each dollar spent yields the most in business value. A successful FinOps practice not only reduces cloud spend but also enhances the other benefits of cloud compute, such as speed and agility.

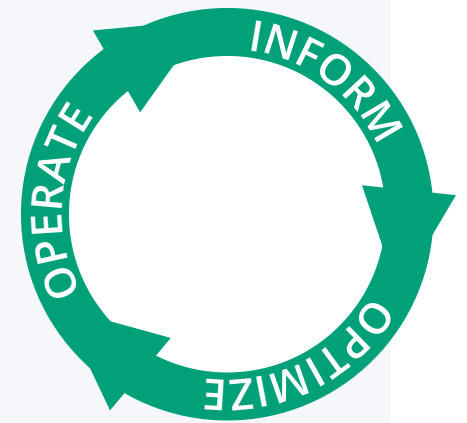
When FinOps reduces wasted cloud spend it

FinOps Life Cycle

Inform In this phase the organization seeks to gain real-time visibility into its costs.

Optimize Once the organization has a clear understanding of its cloud usage it can develop strategies to reduce cloud spend.

Operate The cloud infrastructure is modified to take advantage of the savings strategies developed during the Optimize phase.



creates incentive for additional cloud spend. The organization sees the business value being created and consequently spends more in pursuit of more value. Revenue is generated by empowering engineers to create better products, faster to market, at a lower cost. Effective cloud spend creates more spend, not less.

Spend Intelligently

Ultimately, reducing cloud spend is NOT the goal of FinOps. Cloud spend should be measured by business outcomes with metrics that communicate to all FinOps team members. When cloud spend metrics are tied to business metrics the business can see if its cloud spend is wasteful or if it is creating business value. The more you spend, the more you make should be the outcome of a well-oiled FinOps machine. If you add new customers, your cloud spend will increase. If you add new products, your cloud spend will increase.

If innovations improve your customers' experience, your cloud spend will increase.

You cannot say that you are spending too much simply because your invoice gets larger each month. You must put spend into context. Is your cloud spend intentional? Is it intelligent? For example, it is not uncommon to launch an application and overprovision it to ensure that no future performance issues occur. With FinOps, the application can be rightsized from the outset and then monitored for scale. Do not waste cloud spend. For every dollar invested make sure that you are realizing real value from the investment. Avoid unexamined cloud spend. Spend that is unquestioned or unmeasured is uncontrolled. Strive for cloud spend that visibly creates measurable business value.

A Helping Hand

Admittedly, not every business can readily resource the time and personnel needed to adopt FinOps. While recognizing the value of FinOps, the business may forgo

its implementation, concerned that the magnitude of the FinOps transformation will be too great a challenge for today.

However, the organization can still implement FinOps by engaging a third-party service provider to perform the heavy lifting. CloudSaver offers FinOps services and has a team of experts who are specially trained in optimizing cloud resources with an array of software tools and talent designed to facilitate transitioning to FinOps. By engaging CloudSaver you can have confidence that your FinOps journey is being guided effectively.

CloudSaver starts with an assessment of your infrastructure to identify savings opportunities. We provide visibility into your cloud environment enabling you to make informed decisions more quickly. CloudSaver will make recommendations for rightsizing resources, deleting unused instances, cost-effective storage, as well as many other cost optimizations. We become your FinOps-managed service partner and relieve you from the cost and burden of using your staff and

resources to implement a FinOps practice.

Conclusion

Today businesses of every size and type are invested in the cloud. Massive cloud consumption occurs every day with no end in sight. Not surprisingly, cloud spend is also on the rise, and unfortunately for many, at an uncontrolled rate. Cloud cost optimization is a business imperative. FinOps is the methodology best positioned to advance significant savings and efficiencies. As an enterprise matures its FinOps practice it realizes not only significant cloud spend savings but also an increase in the business value delivered from its cloud spend.

The value of engaging CloudSaver as a third-party service provider cannot be overstated. The business can access CloudSaver's expertise to facilitate adoption of its FinOps practice without having to devote significant time and personnel resources of its own. The FinOps journey leads to intelligent, informed decision-making, resulting in the reduction of wasteful cloud spend and the creation of greater business value.

About CloudSaver

CloudSaver unlocks the value of the cloud through innovative software and consulting solutions. We equip customers with tools, resources, and best practices to maximize their cloud investments. Located in Overland Park, KS, CloudSaver is a leader in cloud optimization, serving a client base of global organizations ranging from mid-size companies to Fortune 50 enterprises. For more information, visit cloudsaver.com.

