

GlobalDots

Cloud Innovation Hunters

All-Inclusive Toolkit

FinOps Reinvented: A Glimpse into the 2023 Innovations Reshaping the Industry



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Introduction

2023's economic situation is looking dire - projections of stagnation and recession flourish, with customer spending all but guaranteed to tighten. Following years of relentless spending increases, cloud infrastructure reigns as one of the single highest enterprise expenses.

FinOps is a practice that's always evolving: this year, it promises to take center-stage. Faced with a drive for rapid results, many organizations have failed to keep up to date with FinOps advancements. Optimization expectations are shoddily shifted left, piled onto the shoulders of DevOps teams who must then choose between day-to-day responsibilities or manual, shot-in-the-dark optimization attempts. The result? AWS, Azure, GCP and multi-cloud models that fail to fully realize their cost-cutting potential. **With over 20 years of cloud innovation knowledge, GlobalDots makes innovative cloud cost optimization solutions accessible to the teams that need them most.**

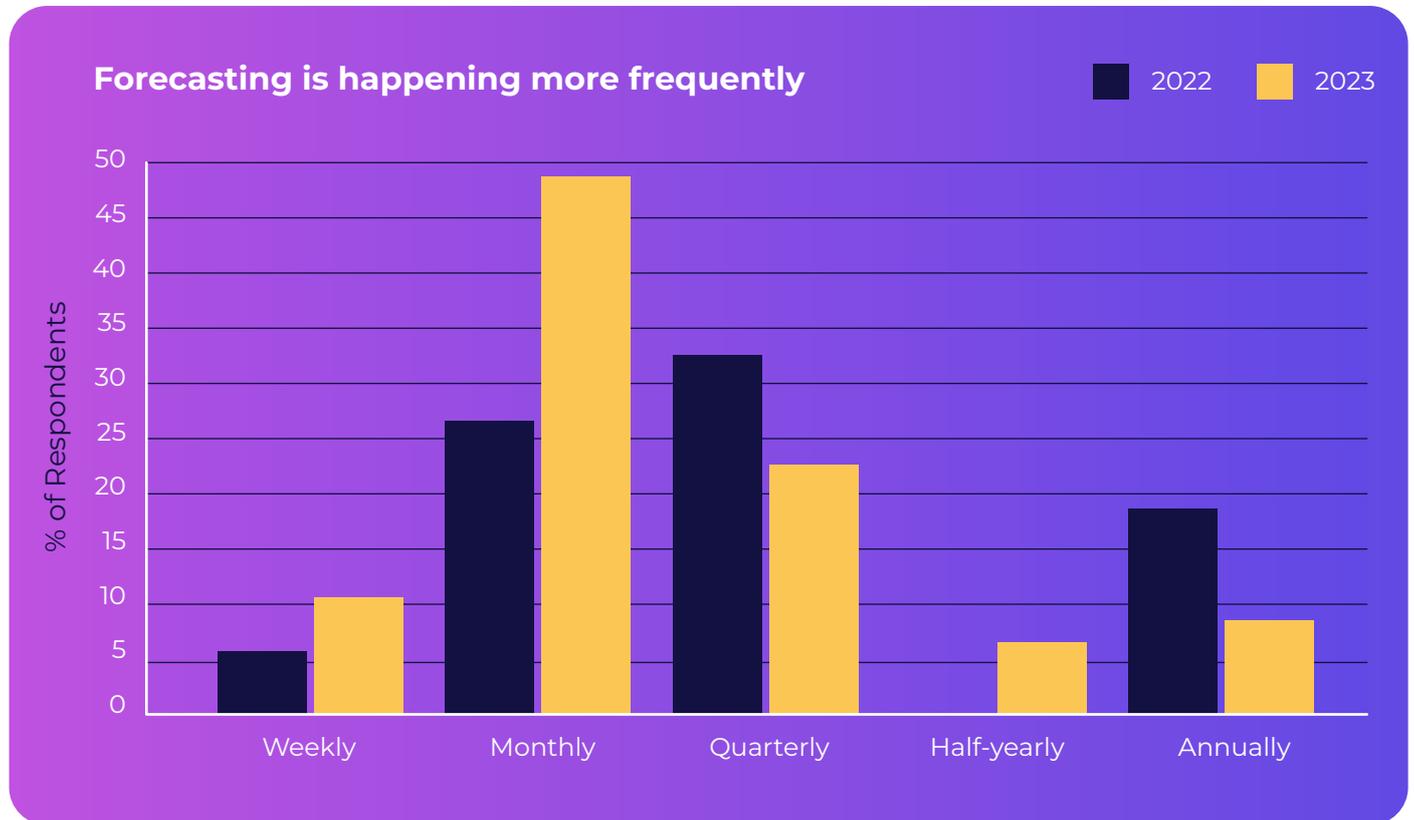
This guide aims to break FinOps into its core components, before giving actionable advice that not only realizes immediate savings - but also creates a culture of cost responsibility that will keep your organization buoyant throughout 2023's crests and troughs.

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1. The State of FinOps in 2023

2023 is facing significant economic uncertainty - now more than ever, FinOps adoption is defining the next steps in cloud expenditure. The frequency of financial forecasting has increased significantly since 2022, with [49% of organizations now performing monthly forecasts](#), showing an increased reliance on up-to-date, accurate data.



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Forecasting is a critical tool for FinOps thanks to the emphasis it places on future cloud costs. By analyzing past trends, organizations are afforded accurate insight into their current and projected patterns of usage. It's also important thanks to its holistic approach. FinOps success demands a culture of responsibility; forecasting provides a form of collaboration between IT and business teams, to collectively make informed decisions about future cloud investments. One of the strongest tools in the FinOps arsenal, forecasting demands that an organization has a minute understanding of every cloud resource. Only with this knowledge is it then possible to identify multi-million-dollar saving opportunities.

2. Security Remains Crucial, but Cloud Financial Management Emerges as the Foremost Challenge in 2023

In 2022, the landscape of top cloud challenges for organizations saw a noticeable evolution. After years of prioritizing cloud security issues first, companies began to put a higher emphasis on Cloud Financial Management (CFM), [making it a top priority](#).

A symptom of the problem, forecasts by Gartner indicate that cloud spend continues to increase roughly [20% a year](#), a figure that outstrips the tech industry's projected annual growth rate for 2023.

Defining true value against wasted resources is one of the leading challenges within FinOps implementation: it's only very recently that organizations are finally beginning to disentangle these. What some of them have discovered has shaken the industry. A ['cloud backlash'](#) is rapidly brewing, as organizations such as Nvidia consider pulling away from cloud infrastructure entirely.

This cost blindness is the result of unstable foundations. As they initiate their cloud journey, organizations are presented with an exceptional opportunity to lay a robust foundation in FinOps. Through the implementation of cost visibility measures, they can maintain an up-to-date understanding of their cloud budget, expenses, the condition of over or under-provisioned resources and many more blind spots. This empowers them to align expenditure with business goals, and respond to any cost-related inquiries promptly and accurately. With the capacity to delve deeply, widen their perspective, and tap into the most detailed, context-rich intelligence available, they can undertake comprehensive analyses. It's useful to embrace these best practices early on, but even organizations with established operations can reap substantial benefits from integrating these measures and fostering a FinOps culture.

One prime illustration of waste can be seen in tagging. Implementing tagging in cloud resources for accurate CFM can be challenging. Defining and enforcing a tagging strategy that aligns with financial tracking needs is complex, as it requires input and adoption from various teams and individuals. It becomes even more difficult when applying tags retroactively to existing resources. Despite these hurdles, the right tagging strategy is crucial for effective CFM.

Tagging can significantly streamline CFM. Tagging resources allows for precise cost allocation, tracking, and optimization. It enables granular visibility into which resources are consuming the most budget, facilitating informed decisions about cost savings. Tagging can also automate cost reporting and enhance forecasting accuracy by providing a clear picture of resource utilization. Although implementing a tagging strategy represents just a portion of the broader FinOps approach, it's a crucial factor in achieving efficient CFM.

Now, with 90% of the industry finally turning a critical eye toward cloud inefficiencies, Cloud Financial Management is 2023's most pressing challenge across both SMEs and well-established organizations. Throughout the year, as organizations are forced to tread the tightrope between spend reduction and customer retention, only an awareness of wasteful spending can help.



3. Wasteful Spending: A Multi-Million-Dollar Opportunity



Companies hold complex relationships with their expenditure. On one hand, cost is a direct threat to the profit margin. On the other hand, increasing cloud expenses are an integral part of rapid growth and innovation. As a result, many scaling organizations end up with a monochromatic view of their expenses. The very first step toward FinOps success is to define good vs wasteful spending. Which costs actually help shorten time to market, or aid DevOps efficiency?

Fundamentally, expenditure can be classed as smart if it fulfills corporate goals such as saving employees time, helping perform more complex analysis, and pushing more products through their development cycles. In these cases, spend has a perceptible and positive relationship with revenue.

In contrast, wasteful spending is any cost that goes toward idle or unused resources. Take a group of servers that are only minimally active between 12am and 8am. Many organizations simply continue paying for the full processing power of each server, even while they remain almost barely used during the night. After identifying this wasteful spend, it becomes possible to act on that data. Tools such as auto-scalers can switch the system to a smaller instance throughout the night, switching off the larger instance and cutting that cost accordingly.

On-demand instances make up one of the most common examples of wasteful spending. Many organizations fail to take advantage of their own use cases, meaning they miss out on significant instance discounts. RIs and SPs can offer discounts of up to 60%, and these savings can rise even more dramatically - up to 90% - with Spot Instances. Other organizations are at their most efficient when fully on-demand. That being said, your definition of wasteful spending must reflect the unique requirements of your organization.

CFM provides an alternative philosophy on waste. Whereas many industry leaders simply condone cost waste, CFM redefines it as potential savings.

CFM provides an alternative philosophy on waste. Whereas many industry leaders simply condone cost waste, CFM redefines it as potential savings. The horrifying statistic of 32% budgets wasted suddenly gleams with possibility.

4. FinOps Roadblocks: The Excuses that Delay Adoption

'It's Not My Job'

One of the biggest roadblocks to FinOps development is a habit that seeps through a lot of collaborative processes: the failure to claim responsibility. Often, organizations cripple their attempts at FinOps growth by segmenting a budget into buyers and spenders. The buyers, such as the IT development team, aim to maximize the features they get for a set budget. The spenders - perhaps a business operations team - are left writing the check. This disconnect creates a culture in which entire teams view the budget as outside of their responsibility.

'I'm Sure it's Good Enough'

Even once engineers understand the extent of their pivotal financial role, there remains yet another substantial obstacle: data. While it's possible to claim that an action will create savings, it's vital that these changes are accurately and continuously tracked. Take the example of one engineer that had spent time optimizing a number of Managed Service for Kafka instances. He'd wound down a few unused resources, cached others, and worked to streamline some of the processes. After all of this, he was left with a critical question: how do you measure the true financial impact of each action?

To accurately determine this, the engineer would need three primary pieces of information. First, he'd need a clear idea of running and maintenance costs prior to optimization. This would encompass the infrastructure, CPU usage, memory, and all other MSK-related expenses. The second piece of data addresses usage and cost after each optimization. Critical to this entire process, however, is the third and final piece of data: the time and effort placed into optimization. Consider the engineer's salary, and how much time each optimization takes. To maintain a positive ROI, the financial impact of these optimization measures must be weighed against the time he or she has had to de-prioritize other responsibilities.

Given the complexity of cost optimization, many fall into the convenient trap of assuming their spreadsheets or cloud provider's dashboard offers good enough insight. This 'it'll do' attitude is often cemented in place when teams focus on the barriers to optimization: for instance, their monolithic application hosted on K8s would first need to be segmented up - 'it's just not worth it' is the ensuing excuse. However, diving into recent FinOps innovations allows organizations to break free from tunnel vision and begin realizing savings across all storage environments.

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'But It'll Take Forever!'

The final roadblock to FinOps maturity is priorities. Many of the excuses used against cost optimization accuse the process of taking too much time. Even when teams are aware of potential savings, the process of preparing pre-existing services for FinOps optimization may appear lengthy, and overworked DevOps personnel aren't usually thrilled at the prospect of implementing an entire suite of new tools.

This reluctance overlooks the financial and operational benefits that FinOps maturity offers in favor of short-term convenience. As the solutions below show, however, rapid strides toward FinOps optimization don't need to be long-winded or grueling.

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5. Innovative FinOps Solutions - Revealed

The roadblocks to FinOps development are precisely why GlobalDots partners with solution providers that are rapid to deploy, alongside professional services that combine to offer instant insight into cloud cost optimization. From resource management to workload optimization, visibility and action are defining today's compelling range of new tools.

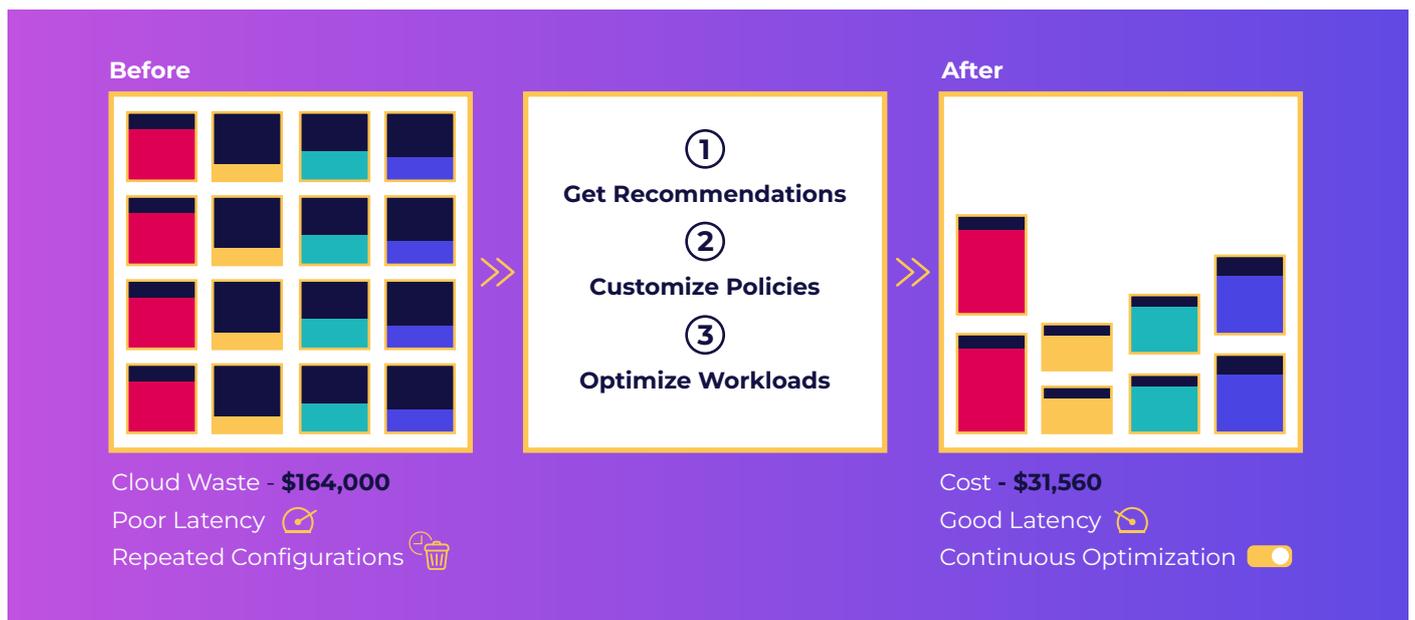
The following solutions represent some of the best financial decisions that 2023 has to offer:

K8s: Run More Workloads on Less Resources

Open source containerization has already transformed app development. However, containerization solutions such as Kubernetes can cause a real headache for manual resource tuning; chasing dev teams to tweak their provisioned resources only takes up further time and money. The answer is an approach which automatically right-sizes pods, eliminating the need to wait for further node provisioning, and improving latency. This node headroom optimization integrates with all of the cluster auto-scalers.



While instant savings are expected, this solution continues learning as your application develops, cementing requests to the precise level of usage. Long-term Kubernetes maturation is supported by the solution's transparency: the once infamously-complex costing structure is broken down workload-by-workload, providing genuine insight into the financial effect of each improvement.



What it does:

- ✓ **Container Rightsizing**
- ✓ **HPA Optimization**
- ✓ **CPU & RAM Requirements:**
Changing by the Minute to Meet Demand
- ✓ **Resource Prioritization**
- ✓ **Bin Packing**
- ✓ **Streamlined K8s Resource Management**

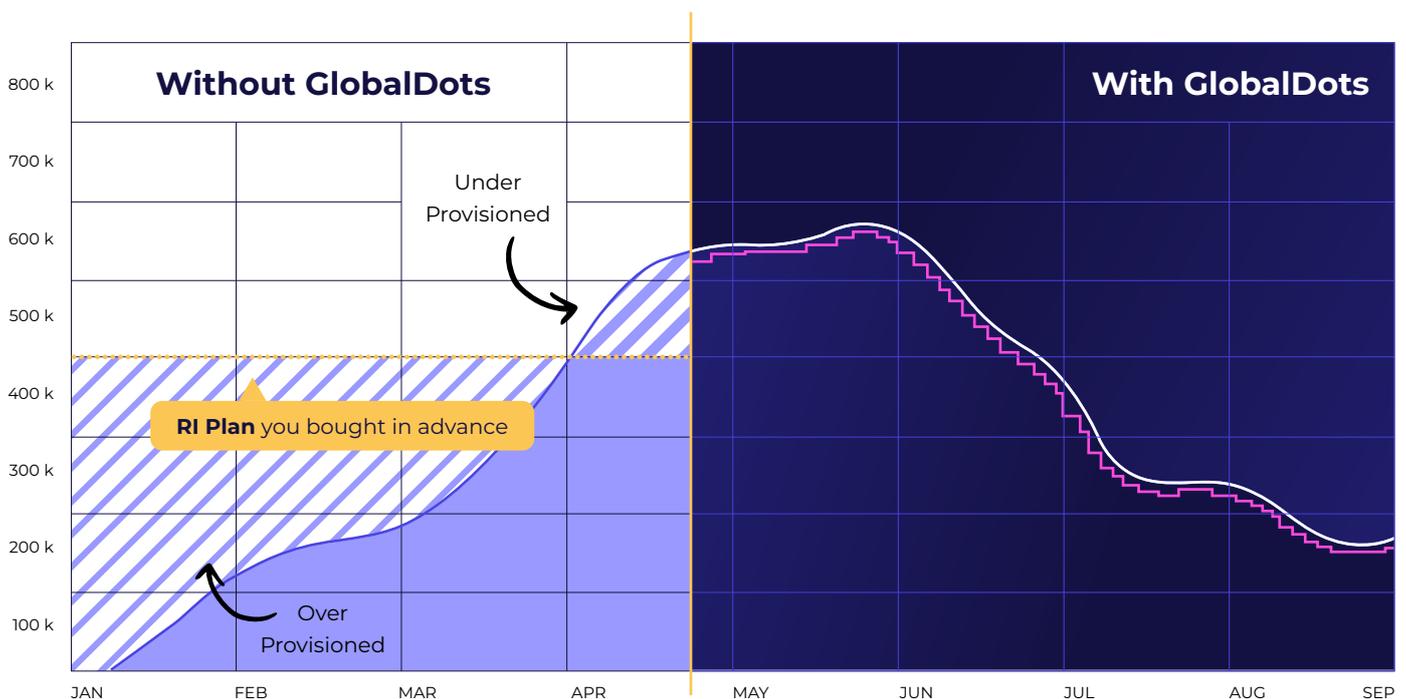
Automate Commitments Lifecycle Management

AWS Reserved Instances (RI) were the cloud hyperscaler's answer to extortionate expenses demanded by on-demand resources. RIs allow instance usage to be bought over set periods of time for discounted rates. While this has carved an accessible path toward FinOps culture, organizations still remain trapped in a chronic cycle of resource over-attribution. For example, many organizations employ both RI and on-demand instances, with the latter acting as a stopgap in case of sudden request surge.

This FinOps tool buys and sells AWS RIs in direct response to changes in infrastructural needs. By automatically aligning resource purchases with exact usage, organizations are afforded the full flexibility of On-Demand, while getting the maximum discounted pricing on the RI marketplace. With EC2 commitments being adjusted in near real-time, organizations can expect a 60% cost reduction versus equivalent On-Demand prices - not to mention the time saved by cloud engineers no longer continuously reviewing and fixing discount commitments.



Proving its commitment to FinOps maturity, the tool's buy-back guarantee refunds any RIs that remain unused at the end of the month. These credits help keep the cost of next month's bill just as low.



What it does:

- ✓ **Real-Time Selling & Purchasing of RIs**
- ✓ **ML-Driven Selection & Predictive Rebalancing of Savings Plans & Reserved Instances**
- ✓ **Reduce On-Demand Resources to Near 0%**
- ✓ **Continuous Monitoring & Optimization**
- ✓ **Buy-Back Guarantee**

Orchestrate Spot Instances

The goal of the previous approach was to cut out the expensive On-Demand costs of the hyperscalers. The ethos of efficient spot pricing is amplified in the following solution.

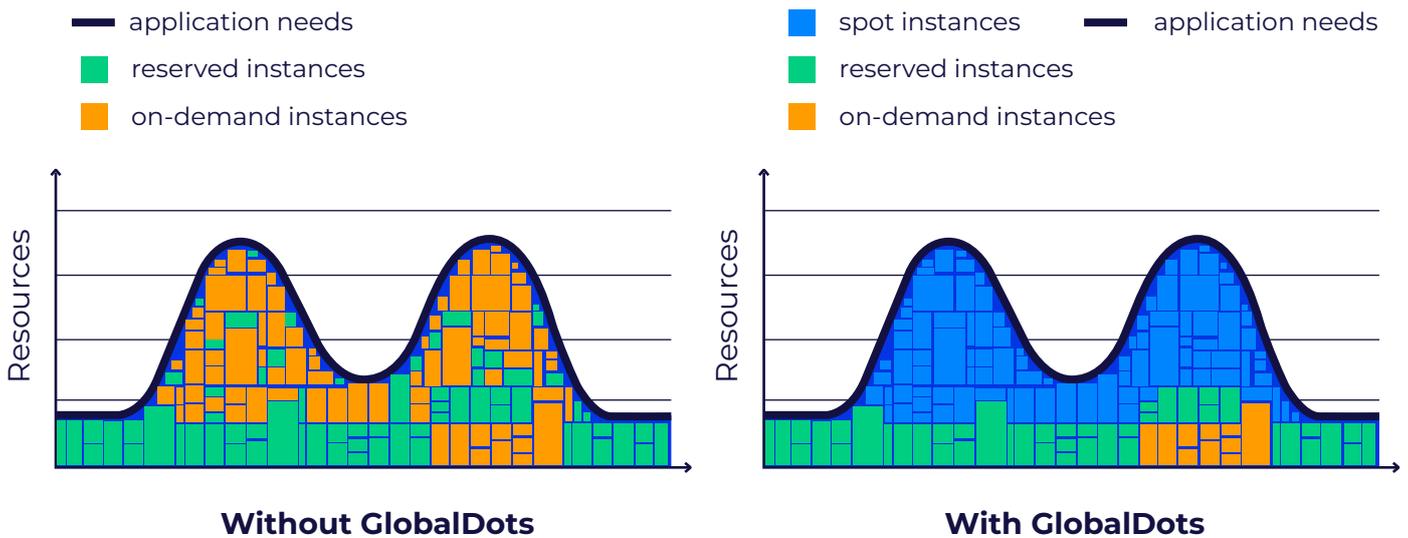
One of the main challenges of using spot instances is that they can be interrupted at any time. This can be a problem for mission-critical applications, so it's important to have a plan in place to handle interruptions. GlobalDots can help with this by providing a number of features that can help you mitigate the risk of interruptions. For example, we can automatically scale your instances up or down in response to demand, and our tools can also automatically replace spot instances that are interrupted.

Our solution employs the optimal mix of spot, reserved, and on-demand pricing, delivering the most cost-effective and highly available cloud compute globally. This is further enhanced by intelligent distribution of incoming traffic across cloud resources, ensuring maximum instance utilization and high performance. Moreover, it ensures you avoid over-provisioning. Your workloads stand to benefit from application-driven infrastructure management, tailored to your workload's requirements. This provides optimal performance without unnecessary cost burdens.



Our approach to spot instances orchestration also offers built-in integration with a wide array of cloud solutions. This ensures seamless compatibility with the most popular CI/CD, configuration management, Infrastructure as Code (IaC), and other DevOps tools available, allowing you to continue your operations as usual.

By cohesively orchestrating spot, reserved, and on-demand instances, cloud compute costs can be optimized by up to 90% across the board.



What it does:

- ✓ **Advanced Spot Instance Orchestration for Cloud Infrastructure**
- ✓ **Available for K8s, ECS, Auto Scaling Group / VM Scale Sets & Stateful Instances**
- ✓ **Hands-Free Cluster Provisioning and Node Scaling**
- ✓ **Intelligent Provisions of the Most Cost-Efficient Mix of Compute Resource Types & Pricing**

Object Storage: Archive Tier Pricing, Standard Tier Rewards

Up until now, cloud cost optimization has been placed mainly in the compute ballpark. However, a major component to today's gargantuan cloud cost is the sheer volume of data being stored and managed. In theory, data compression describes the process of re-encoding information with fewer bits than its original representation - usually achieved by an algorithm. However, traditional data compression suffers from a number of setbacks. The process of identifying and removing redundant pieces of data across petabytes of information is incredibly slow. This has kept byte-level compression limited to small windows and equally small files.

This solution's cutting-edge lossless algorithms now offer a new era of petabyte-level data reduction. Object storage can now be compressed within the cloud environment - reducing the demands placed on your AWS S3 buckets. This is possible thanks to the location of these reduction algorithms, which sit between the cloud data storage provider and the application's end-user in the form of an API. Thanks to the elastic crunch scaling, the savings promised by this approach scale with the quantity of objects being compressed. Optimized out of the box and offering a read and crunch throughput of over 50 GBs per second, cached data requests are delivered 2-3 times faster than their S3-hosted counterparts.



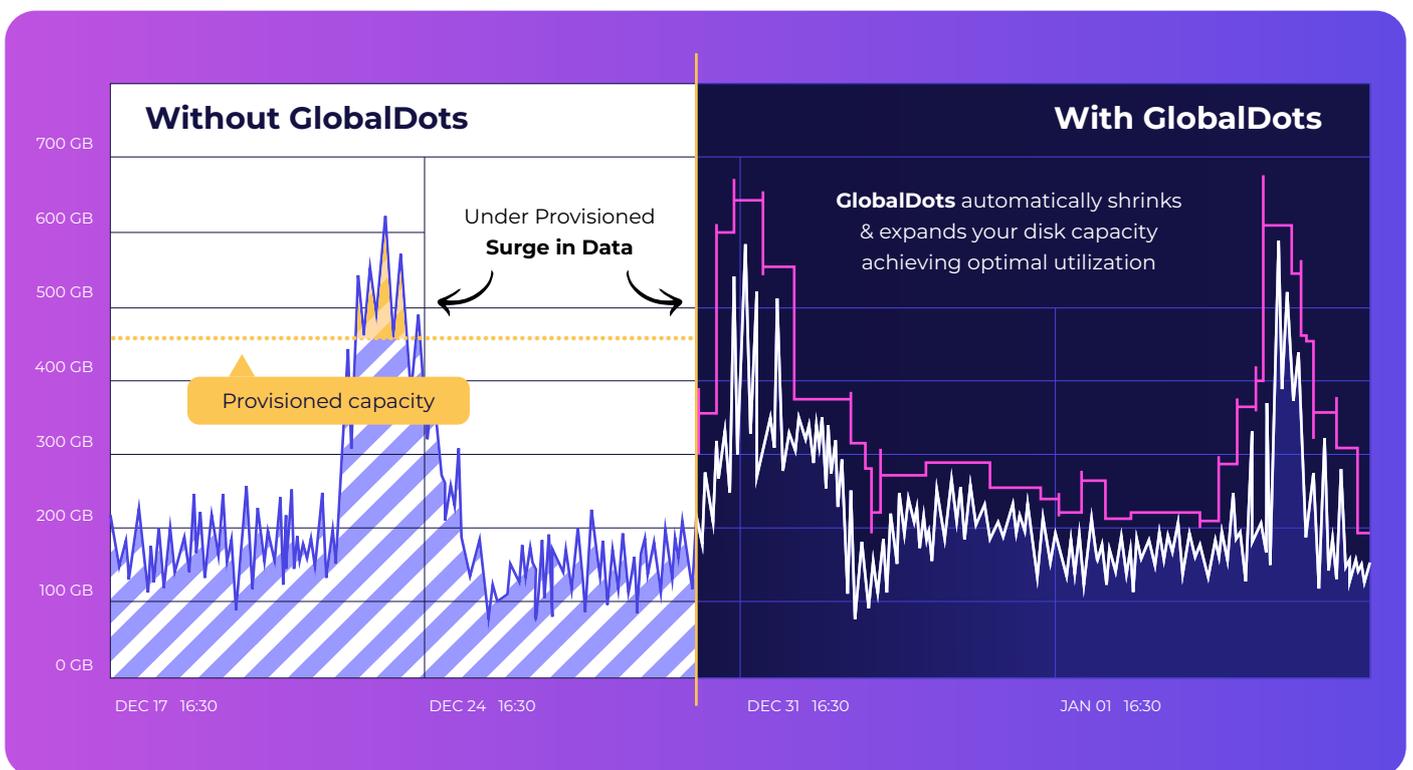
What it does:

- ✓ **Data Reduction for Petabyte Scale Cloud Object Storage**
- ✓ **Retrieve Data Instantly without Paying Fees**
- ✓ **Runs within YOUR VPC, Using YOUR Policies**
- ✓ **Automatic Elastic Crunch Scaling**

Block Storage: Pay for Disk Usage, Not Allocation

With new ways to take the strain off object storage, another piece of the FinOps puzzle is block storage. When it comes to allocating this storage, there is no one-size-fits-all solution. It's often allocated without a clear understanding of the required volume - this is because there's no straightforward method for determining the necessary size allocation, as it's almost certain to change over time and impossible, natively, to decrease volume allocation.

Insufficient block storage can make your service vulnerable to application failures and result in data loss and performance degradation. On the other hand, provisioning excess storage typically results in organizations paying two to three times more than what's necessary. This creates a cost-performance dilemma where organizations almost always end up losing out. Now, however, our auto-scaler tool eliminates the need to choose between performance and cost. By automatically adjusting volume capacity in response to changing application demand, organizations can see a significant boost in performance, with throughput and IOPS improving by approximately 300%. Manual adjustments are rendered almost obsolete, freeing up the team to focus on more mission-critical maintenance.



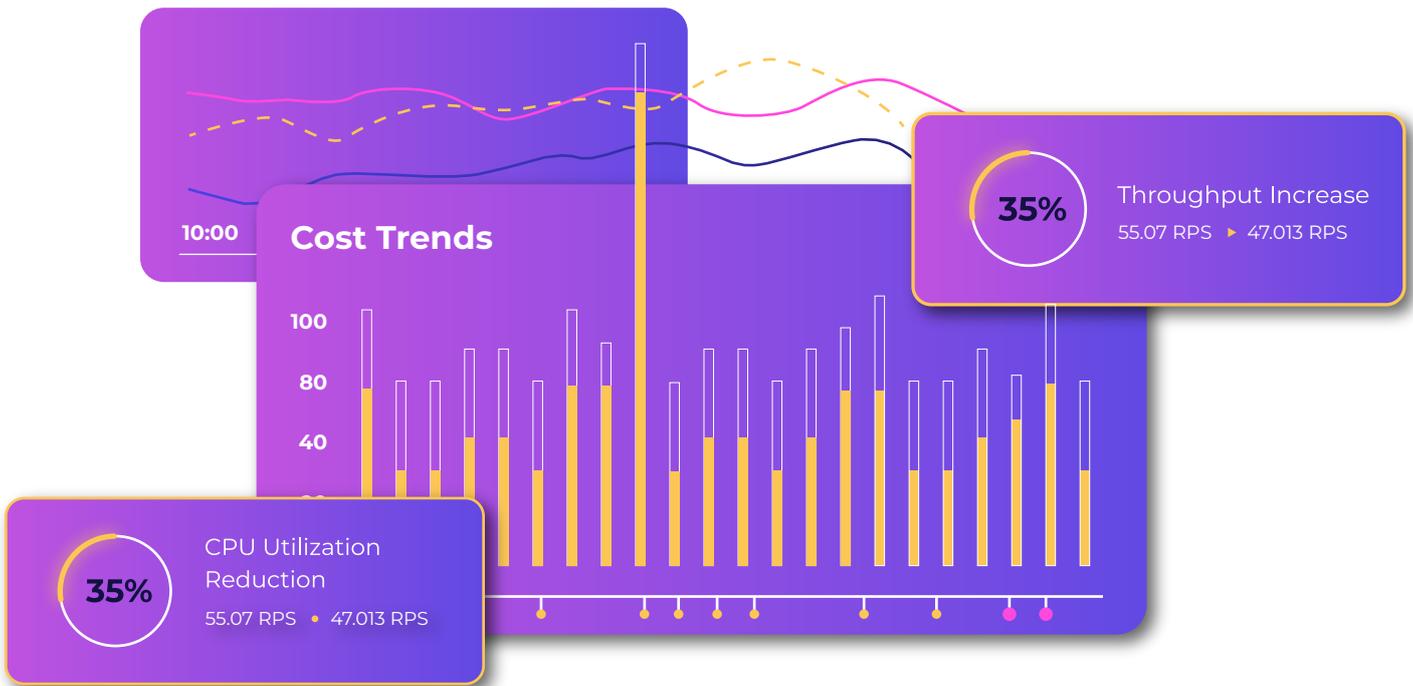
What it does:

- ✓ **Shrink & Expand in Runtime**
- ✓ **Increase Disk Utilization from 35% to 80%**
- ✓ **Eliminate Overprovisioning**
- ✓ **Never Run out of Disk Space During a Surge**

Continuously Optimize CPU Workloads

The complexity of your service's data flows across cloud, compute, OS, and environment is one of the biggest challenges to efficient management. While some FinOps approaches divide each area into individual projects, some organizations benefit from a single cohesive platform.

This solution sits adjacent to your application's compute architecture. By keeping a pulse on the patterns of resource usage and data flows, it becomes possible to rapidly analyze bottlenecks and prioritization opportunities. The performance of each workload can be optimized by adapting each machine to its specific load, allowing the same workloads to be managed with 60% fewer servers.



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What it does:

- ✓ **CPU Utilization Reduction**
- ✓ **Handles Workloads with 60% Fewer Servers**
- ✓ **Increases Throughput 5X Per Server**
- ✓ **Improves Application Performance**

START NOW

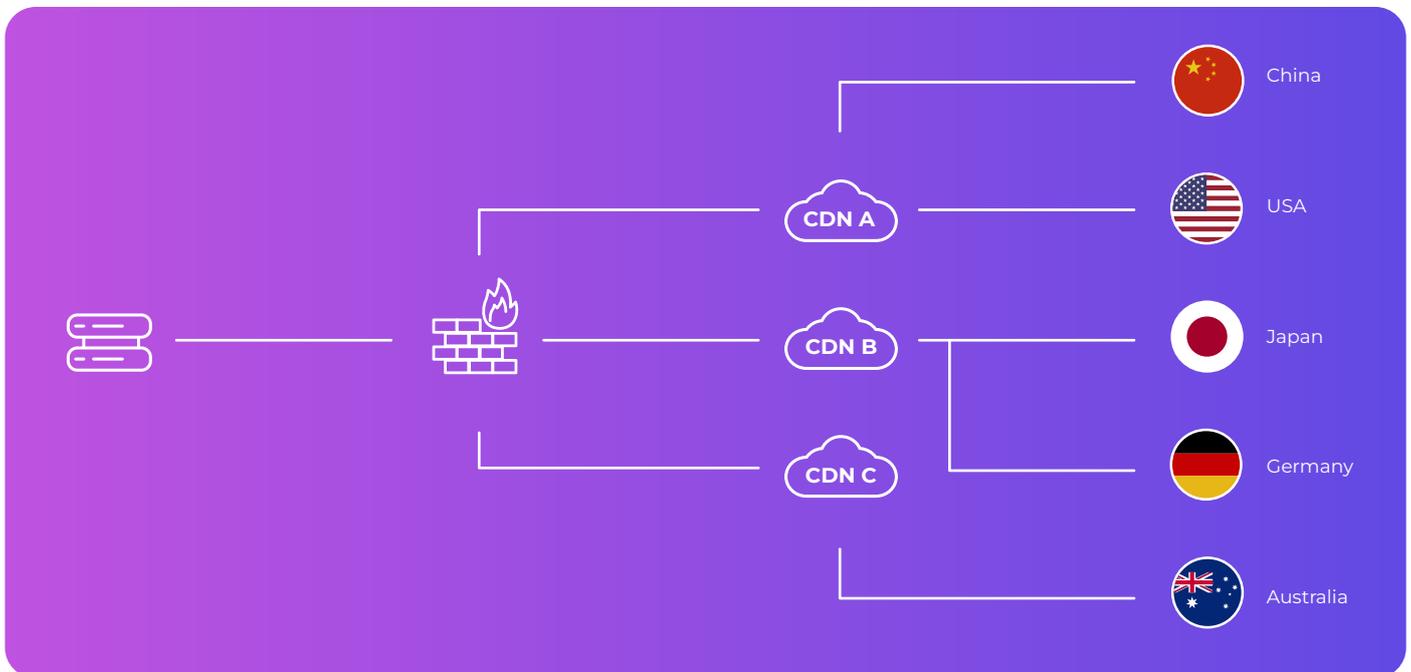
Data Transfer Optimization

A strategy for Data Transfer Cost Optimization is crucial for organizations to control and reduce their cloud spending. Complex pricing structures across various cloud providers can lead to unpredictable and escalating costs, especially for data transfer. Understanding how data is transferred and the associated costs is key to managing these expenses: cloud providers typically charge for data transfer between their services, the public internet, and on-premises. Costs can vary based on the volume of data, the type of transfer, and the geographical location.

Many providers offer tools to help businesses estimate their data transfer costs, but real-world charges can often be higher due to various factors.

To reduce data transfer costs, organizations can implement several strategies. These include using cost allocation tags to track resource usage, reviewing data transfer usage regularly, reducing outbound data, optimizing storage, using content delivery networks (CDNs) for efficient data delivery, keeping data transfer within a single region or availability zone, choosing less expensive regions, automating for off-peak hours, and setting up billing alerts.

The main pillar for optimizing cloud data transfer cost is arguably the use of a CDN. Leveraging multi-CDN support and capable of managing almost limitless traffic volumes, GlobalDots forms partnerships across the world's most prominent CDN providers and the native CDNs of all major hyperscalers. This not only ensures the most competitive pricing in the market but also provides customers the flexibility they need with no vendor lock-in.



What it does:

- ✓ **Multi-CDN Integration & Migration Support**
- ✓ **Infinite Hyperscaling: We Stream More than 1 EB (1000 PB)/mo**
- ✓ **Removes Vendor Lock-In**
- ✓ **Premium Partner of the Top-Rated Worldwide CDN players**
- The MOST COMPETITIVE PRICES in the Market

Visibility, Tagging & Allocation: Combine Cost and Data

With tags in place, investment visibility can be elevated even further by correlating Cost of Goods Sold against utilization data. This unlocks insight into which customers and features are driving costs up, super-charging your FinOps maturation. However, across untagged, untaggable and shared resources - in both containerized and multi-tenant infrastructure - the process can very quickly become an unmanageable mess.

GlobalDots has encountered this major roadblock countless times, and offers an effective solution. With a tool that ingests data from cloud providers and software platforms such as AWS, Azure, New Relic, MongoDB, and Snowflake, infrastructural costs are recorded and unified into a single common format. With expenses granted full contextual visibility - regardless of the state of your current tags - it becomes possible to identify where your biggest gaps are. From there, you're granted the tools to group costs based on attributes, and gain true insight into product cost.

Moreover, effective cost data visibility tools also pave the way for advanced anomaly detection. Unusual spikes in resource utilization and costs can be identified and examined promptly, enabling quick corrective actions. These anomalies could be due to a variety of reasons such as inefficient code, unexpected traffic, or even malicious activities. By leveraging a comprehensive view of costs and resources, companies can maintain optimal performance and efficiency while minimizing unnecessary expenditures. The ability to break down costs per customer, per team, and even per feature in a product (!) enhances financial clarity and accountability. By understanding the cost implications of each operational unit, decisions can be made more strategically.

Businesses can pinpoint which aspects are most profitable or costly, facilitating an informed allocation of resources and efforts. The combination of cost and data through visibility, tagging, and allocation also significantly improves budgeting and forecasting capabilities. With a clear view of past and current expenses, companies can more accurately predict future costs. This allows for better budget planning and control, ensuring financial resources are used efficiently. Furthermore, forecasting accuracy helps avoid unexpected costs, ensuring business continuity and growth.



What it does:

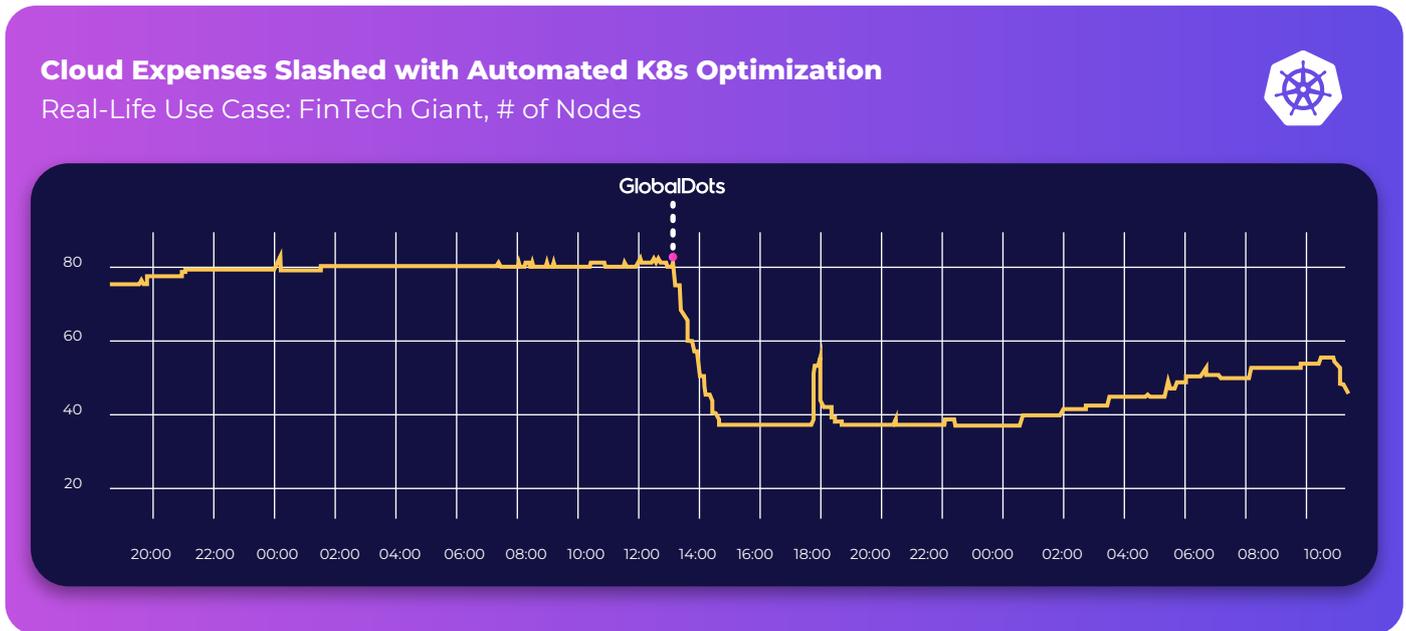
- ✓ **Allocate 100% of Your Spend & Correlate it with Business KPIs**
- ✓ **Easy Discovery of New & Ongoing Optimization Opportunities**
- ✓ **Measure & Control Unit Costs**
- ✓ **Autonomous Anomaly Detection, Forecasting & Recommendations**

6. Successful Cloud Savings Cases - Revealed

FinOps sits at the pinnacle between data and collaboration: here are three examples supported by GlobalDots.

Fintech Firm: 91% Cloud Cost Reduction (Annual Savings of \$744,000)

The first was a fintech firm aiming to mature their approach to Kubernetes management. Spending \$816,000 per year solely on K8s, their primary challenge was the lack of streamlined visibility into the containerization platform. With the solution and implementation process that we identified, they were granted an on-the-ground view of the resource requirements of each system.



From there, the autonomous pod resizing process could begin. These updates allowed every request to be fully resized and optimized, precisely matching our client's actual usage.

[The result: the annual cost of K8s management fell to \\$72,000 per year](#) - shockingly close to their monthly spend pre-optimization. The number of active nodes dropped just as drastically, falling from 80 to 20.

eCommerce Giant: 30% Cloud Cost Reduction (Annual Savings of \$1.5 Million)

While this single solution offered an average savings rate of 91%, other clients have benefited just as much from a broader approach to cloud cost management. One giant eCommerce group had recently completed its migration to the cloud, but was facing the methodological effects of a severe FinOps oversight.

Across 16 verticals, the client had a sprawling 74 AWS accounts, with no central entity to govern optimization or overall costs. The lack of FinOps ethos became even more evident when delving deeper. If an application underperformed, engineers had historically just increased the machine size; in some cases, only 5% of CPUs were actually being used. With no drive to optimize performance against cost, there had been no desire to spend time fully investigating the slowdown issue. While GlobalDots' solutions are easy to implement and rapidly accrue results, changing the culture of cost responsibility can be the longest-fought battle in FinOps.

With patience and dedication, GlobalDots was able to generate smooth cooperation across multiple business units. This widespread visibility set a foundation for solution implementation. Its AWS plan was one of the first major architectural changes: the number of machines running off reserved instances was doubled. Following this overhaul, VMs were combed through and manually resized, pruning unnecessary resource demands. Data tables and machines were consolidated and upgraded, minimizing storage costs.

Savings strategies proposed

AWS Service	Estimated monthly savings
EC2 Compute - short term.....	\$16,000
EC2 Compute - long term.....	\$20,000
RDS Compute.....	\$12,000
ElasticSearch (option 1).....	\$14,000
ElasticSearch (option 2).....	\$34,000
ElasticCache.....	\$8,000
AWS Premium Support.....	\$10,000
NAT Gateway.....	\$20,000
EC2 Transfer.....	\$10,000
Housekeeping (snapshots & s3).....	\$6,000
TOTAL per month.....	\$136,000
TOTAL per year.....	\$1,632,000

The results stretched further than financial savings: the client's cloud bill fell by 20% even as the organization grew by 30% throughout the course of the project. With GlobalDots' personal resource dashboard and end-to-end support, the client's proposed annual savings were [\\$1.5 million](#).

Flight Delay Compensation Service: Annual Savings of €30,000 in Engineer Fees Alone, as Well as Countless Hours of Hiring and Training

GlobalDots' structural approach to FinOps has also transformed this client's approach to cloud spend. Their complementary flight checking tool enables customers to quickly check if their airline ticket qualifies for compensation. With over 80 million data entries monitored on a daily basis, every delay is closely examined. With a tech stack relying solely on AWS, every data point was further contributing to their already sizable databases, data warehouses, and lookup tables. The often-overprovisioned nature of their EC2 instances meant that the high peaks of the client's database were driving up costs. The sheer scale and rapid growth of their databases had led to a haphazard implementation process that was spiraling out of control.

After extensively combing through our cloud partners, GlobalDots identified the ideal solution - an optimization tool that effortlessly adjusts EC2 resources to accurately align with current usage patterns. GlobalDots' managed implementation saved significant setup time, being up and running within a day's worth of work. However, our support went far beyond discovery and implementation: GlobalDots' intensive industry knowledge aided in addressing structural inefficiencies [that otherwise could have dampened their sky-high growth](#).

7. Beginning your FinOps Journey: Three Tips

Start by Tagging

Before jumping into the procurement process, it's possible to establish a solid FinOps framework by making use of the tools you've already got on hand. Too often, users aren't aware of - or don't know how to fully take advantage of - the governance mechanisms already packaged in with cloud solutions.

One of the most powerful - and overlooked - FinOps tools is account tagging. Many organizations are juggling dozens of AWS accounts at any one time, each of which oversee their own share of resources. GlobalDots regularly sees cases in which a handful of production accounts may be tagged, but these are outnumbered by their unlabeled counterparts. This is a major roadblock to visibility as, during scaling, these accounts inflate more and more - slowly calcifying any attempt to identify which team is responsible for which resource.

When creating a resource, it's vital that the owner is tagged. This can be an individual, a team, or a department - or even all three. This way, it becomes possible to quickly query the individual, and identify the total expenses they've generated throughout the cloud. It's not just a FinOps best practice, but also takes a proactive approach to potential issues and anomalies: knowing immediately who to contact out of hundreds of engineers can make the difference between a minor blip and a major outage. The final piece of the tagging puzzle is the cost allocation tag. AWS natively offers this, but it's disabled by default. Shortened to CAT, this is data that AWS already collects and monitors from its customer base. Enabling them helps your organization reclaim some control back over cloud expenditure.

When accounts are defined across owner and service owner levels, a whole new view of account expenses is opened up: identifiable across subscription, account, and project. These can build an image of how expenses shift across the days, weeks, and months. While this architectural housekeeping is underway, make sure to identify who is responsible for reviewing account expenses. Through this, anomalies not only become crystal clear - but there's already structure in place for combatting budget bloat.

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Choose a Customizable Dashboard

With a solid FinOps foundation provided by comprehensive tagging, the next stage of accessible CFM requires a unified dashboard that collects all cloud expenses in context. Across AWS, Azure, K8s - everything needs to be present and accounted for. It's between the data and behavior that the cultural component of FinOps kicks in. For all stakeholders to engage with the data and insight afforded by FinOps, your CFM dashboard needs to be deeply customizable. Without this customization, FinOps simply cannot spread to all business contexts. If your dashboard can't easily support someone from the product team requesting a dashboard for expenses per feature, it's time to reevaluate.

This adaptability lies at the core of cultural FinOps: the dashboard needs to be made relevant to every team. Think back to the last time you were sat in an unnecessary meeting - how many details do you remember? When information holds no sway over your day-to-day responsibilities, your brain will simply discard it, prioritizing directly relevant data. For FinOps success, AI teams, data engineers and ML analysts will each require their own dashboards. This allows each member to digest the details and start to truly engage with the financial side of their own choices.

Leveraging AWS Cloud Intelligence Dashboards for state-of-the-art data visualization and collaboration offers numerous benefits. These dashboards present data insights in a user-friendly manner, provide high-level summaries, and are arranged by services. They uphold security through Identity and Access Management (IAM), require no agent installations, and operate using only native AWS services, keeping all data within the organization. Offering hundreds of pre-built visuals, resource-level granularity, and machine learning-driven insights, these dashboards are fully customizable. As a serverless solution, they're cost-efficient, charging users only for the resources they consume.

Make It Relevant

Being exposed to cost data isn't enough to spark interest. Instead, the dashboard's focus should be on the impact of activity. To support this, the dashboard can be based on active logs, rather than cost logs. That's because cost logs usually have a delay of up to 48 hours, whereas active logs can alert an engineer to anomalies in real-time. One piece of data that consistently supercharges FinOps adoption is the Effective Selling Rate, or ESR. The ESR gives each optimization activity a score, relative to the total savings potential offered by the project. For example, switching all machines from GP2 to GP3 could save a total of \$10,000 per month. It will take time for this to be done, however. As the engineer switches each over, the project's ESR score rises incrementally, until the project has hit 100% of its potential savings. Take a more macro view of the cloud - the EBS storage being switched over represents only a portion of total environments. This score does a fantastic job of transforming a complex, abstract process into an accessible indicator of success for every team member.

Finally, this data can be relayed back to teams via relevant and up-to-date custom notifications about their FinOps progress. With each project linked to its own optimization score, a sense of palpable change drives a culture of widespread and streamlined FinOps adoption.

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8. About GlobalDots

With 20 years of experience in Cloud Innovation, Security, Web Performance, DevOps, Corporate IT, and advanced AI/ML models - GlobalDots now grants businesses privileged access to groundbreaking FinOps technologies & services.

Our mission is to help all organizations close knowledge gaps and manage their spend prudently. Whether you're a startup or an established enterprise, we'll customize our solutions to meet the unique needs of your IT architecture. We leverage our vast experience from hundreds of successful use cases to ensure optimal results.

Led by a team of seasoned engineers and architects, GlobalDots offers easy end-to-end innovation adoption, from consulting to ongoing professional services, proactively introducing newer and better solutions to support

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