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HOW TO OPTIMIZE YOUR CLOUD COSTS

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Contents

Understanding cloud costs 3

Foundations of cloud cost management 4

Cloud pricing models 5

Identifying your cost profile 7

Optimizing your cloud journey 8

Aligning to business objectives 8

Establishing roles and responsibilities 9

Setting optimization strategies 11

Measuring what matters 13

Key KPIs to measure for cost optimization 13

Translating insights to reports & dashboards 13

Building a culture of cost optimization 14

The evolving cloud landscape 15

Emerging trends & technologies in cloud cost management 15

The impact of AI 16

Continuous improvement 17

Harnessing the power of Cloud Cost Management 18

Introduce Harness 18

How Harness solves your unique challenges (specific CCM features) 20

Next steps & getting started 23

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Understanding cloud costs

Unlike traditional on-premises infrastructure, where capital expenditures are the primary cost driver, cloud costs are primarily operational and based on consumption. This pay-as-you-go model can be both an advantage and a challenge when it comes to cost management.

To comprehend cloud costs effectively, organizations must first understand the different pricing models employed by cloud service providers (CSPs). These models can vary based on the type of service being consumed, such as compute instances, storage, networking, databases, and other managed services. Common pricing models include on-demand, reserved instances, spot instances, and committed use discounts, each with its own pricing structure and trade-offs between flexibility and cost savings.

In addition to pricing models, cloud costs can be influenced by various factors, including resource utilization, data transfer, geographic regions, and pricing tiers. Organizations must analyze their workload patterns, data egress requirements, and performance needs to select the most cost-effective combination of services and pricing models.

Another critical aspect of understanding cloud costs is recognizing the shared responsibility model. While CSPs are responsible for the underlying cloud infrastructure, organizations are accountable for the costs associated with their workloads, configurations, and resource management practices. Inefficient resource provisioning, over-allocation, or lack of automation can lead to significant cost inefficiencies.

By developing a deep understanding of cloud costs, organizations can make informed decisions about resource provisioning, pricing models, and cost optimization strategies. This knowledge empowers organizations to strike the right balance between operational agility, performance, and cost-effectiveness, ultimately maximizing the value derived from their cloud investments.

Foundations of Cloud Cost Management

Effective cloud cost management is essential for organizations to optimize their cloud spending and maximize the value derived from their cloud investments. The foundations of cloud cost management revolve around three key pillars: visibility, optimization, and governance.

- **Visibility**: The first step in cloud cost management is gaining visibility into cloud usage and spending patterns. This involves implementing tools and processes to monitor and analyze cloud resource consumption across various services and applications. By having a clear understanding of resource utilization, organizations can identify areas of over-provisioning, idle resources, and opportunities for cost savings. Visibility also enables organizations to track actual costs against budgets and forecasts, allowing for proactive cost management and informed decision-making.
- **Optimization**: With visibility into cloud usage and costs, organizations can then focus on optimizing their cloud resources and rightsizing their infrastructure. This involves implementing strategies such as scaling resources based on demand, leveraging reserved instances or committed use discounts, and adopting cost-effective storage and compute options. Additionally, organizations can benefit from automation and orchestration tools that dynamically adjust resources based on workload requirements, ensuring efficient resource utilization and minimizing waste.
- **Governance**: Effective cloud cost management requires establishing governance policies and processes to ensure accountability, compliance, and responsible resource consumption. This includes defining clear roles and responsibilities for cloud resource management, implementing approval workflows for resource provisioning, and setting budget caps or alerts to prevent overspending. Governance also encompasses the implementation of cost allocation and chargeback models, enabling organizations to accurately attribute cloud costs to specific business units, projects, or applications.

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Cloud Pricing Models

Cloud pricing models are an essential component of understanding and managing cloud costs effectively. Cloud service providers (CSPs) offer various pricing options to cater to different workload requirements, budget constraints, and organizational needs.

- **On-Demand Pricing**: On-demand pricing is the most flexible and straightforward pricing model offered by CSPs. Under this model, customers pay for the computer resources (such as virtual machines or containers) and other services they consume on an hourly or per-second basis. The pricing is typically higher compared to other models, but it provides the flexibility to scale resources up or down instantly based on demand. On-demand pricing is ideal for workloads with unpredictable or sporadic usage patterns, development and testing environments, or short-term projects.
- **Reserved Instances (RIs)**: Reserved Instances allow customers to reserve compute capacity for a predetermined period, typically ranging from one to three years. By committing to a long-term reservation, customers can benefit from significant discounts compared to on-demand pricing, often ranging from 30% to 70% in savings. RIs are well-suited for workloads with steady, predictable usage patterns, such as production environments or long-running applications. However, customers must carefully forecast their capacity requirements to avoid over-provisioning or under-utilization.
- **Spot Instances**: Spot Instances are a cost-effective option for workloads that can tolerate interruptions or have flexible start and end times. CSPs offer spare compute capacity at heavily discounted prices (up to 90% off the on-demand rates) through a bidding process. However, these instances can be reclaimed by the CSP with little notice when demand for resources increases. Spot Instances are ideal for batch processing, data analysis, and other fault-tolerant or interruptible workloads.
- **Committed Use Discounts**: Committed Use Discounts are a pricing model offered by some CSPs, such as Google Cloud Platform (GCP), where customers commit to using a certain level of resources over a one or three-year term. In exchange, they receive discounted rates for those resources, with the discount increasing as the commitment level rises. This model can be beneficial for organizations with relatively stable and predictable workloads, allowing them to optimize costs while maintaining flexibility.

- **Serverless and Consumption-Based Pricing**: Serverless computing services, such as AWS Lambda or Azure Functions, are priced based on the actual usage or consumption of resources. Customers are charged for the execution time and the amount of memory or resources consumed by their functions or applications. This pricing model is well-suited for event-driven or on-demand workloads, as customers only pay for the resources they actually use, enabling cost optimization and avoiding over-provisioning.

  When evaluating cloud pricing models, organizations must consider factors such as workload characteristics, resource utilization patterns, cost predictability, and operational requirements. By understanding the strengths and limitations of each pricing model, organizations can make informed decisions to optimize costs while meeting their performance and scalability needs effectively.

Identifying Your Cost Profile

Identifying your cloud cost profile is a crucial step in effective cloud cost management. By understanding your organization's unique cloud usage patterns, workload characteristics, and resource requirements, you can make informed decisions about pricing models, resource allocation, and cost optimization strategies.

To identify your cloud cost profile, you need to start by analyzing your workload characteristics and resource usage patterns. This involves gathering data from various sources, such as cloud monitoring tools, application logs, and resource utilization reports. By examining this data, you can gain insights into factors like peak demand periods, resource utilization rates, data transfer volumes, and geographic distribution of your workloads.

Next, you should categorize your workloads based on their characteristics and requirements. For example, you might have mission-critical applications with high availability and performance requirements, batch processing workloads that can tolerate interruptions, or development and testing environments with variable resource demands. Understanding the unique needs of each workload category will help you determine the most appropriate pricing models and resource configurations.

Another important aspect of identifying your cloud cost profile is understanding your organization's growth trajectory and future resource needs. This includes forecasting demand based on factors like business expansion, new product launches, or changes in customer behavior. By anticipating future resource requirements, you can plan and ensure that your cloud infrastructure is scalable and cost-effective in the long run.

Once you have gathered and analyzed the relevant data, you can begin mapping your workloads to the appropriate cloud pricing models and resource configurations. This process may involve a combination of on-demand, reserved instances, spot instances, or committed use discounts, depending on your specific requirements and cost optimization goals.

It's important to note that identifying your cloud cost profile is an ongoing process. As your workloads and business needs evolve, you should regularly review and adjust your cloud cost profile to ensure that your infrastructure remains optimized and aligned with your organizational goals.

Optimizing Your Cloud Journey

Optimizing your cloud journey is crucial for organizations to maximize the benefits of cloud computing while minimizing costs and ensuring operational efficiency. As organizations embrace the cloud, they must continuously evaluate and refine their strategies to adapt to evolving business needs, technological advancements, and changing market dynamics.

By continuously optimizing your cloud journey, you can achieve higher operational efficiency, better resource utilization, and cost savings, while maintaining the agility, scalability, and innovation that cloud computing offers. Regular assessment, governance, automation, and embracing cloud-native practices can help organizations stay ahead of the curve and maximize the value derived from their cloud investments.

Aligning to Business Objectives

Setting financial goals and aligning cloud costs to business objectives is crucial for organizations to maximize the value derived from their cloud investments. By establishing clear financial targets and ensuring that cloud spending aligns with overall business strategies, organizations can optimize resource allocation, prioritize investments, and achieve greater cost-effectiveness.

The first step in aligning cloud costs to business objectives is to have a comprehensive understanding of their overall business objectives and how cloud computing can support and enable those objectives. These objectives may include improving operational efficiency, enhancing customer experiences, accelerating time-to-market for new products or services, or enabling digital transformation initiatives. By aligning cloud investments with business objectives, organizations can ensure that cloud resources are allocated to the areas that drive the most value and support strategic priorities.

You also need to establish well-defined financial goals. These goals should be specific, measurable, achievable, relevant, and time-bound (SMART). Examples of financial goals related to cloud computing may include reducing overall IT costs by a certain percentage, achieving a target return on investment (ROI) for cloud migrations, or maintaining cloud spending within a predetermined budget. By setting clear financial goals, organizations can establish benchmarks for evaluating the success of their cloud initiatives and make informed decisions about resource allocation and optimization strategies.

Achieving alignment between cloud costs and business objectives also requires establishing cost transparency and accountability throughout the organization. This involves implementing robust cloud cost management practices, such as tagging resources, implementing chargeback models, and regularly reporting on cloud spending.

By providing visibility into cloud costs at a granular level, organizations can attribute expenses to specific business units, applications, or projects, enabling informed decision-making and prioritization of investments. Effective alignment between cloud costs and business objectives requires collaboration and governance across multiple stakeholders, including IT teams, finance departments, business units, and executive leadership.

Keep in mind that this is an ongoing process that requires continuous monitoring and optimization. Organizations should regularly review their cloud usage patterns, resource utilization, and cost trends to identify opportunities for optimization and cost savings. This may involve rightsizing resources, leveraging reserved instances or committed use discounts, or adopting cloud-native architectures and practices to improve efficiency and reduce waste.

Building a Cost Optimization Culture

Effective cloud cost management requires seamless collaboration and communication among all stakeholders. Regular meetings, shared dashboards, and established communication channels can facilitate knowledge sharing, enable data-driven decision-making, and promote transparency across teams.

The first step in establishing roles and responsibilities for cloud costs is to identify the key stakeholders involved in the cloud cost management process. These stakeholders may include cloud architects, DevOps engineers, application owners, finance teams, and executive leadership. Each stakeholder should have well-defined roles and responsibilities that align with their expertise and organizational objectives.

- **Cloud Architects and DevOps Engineers**: Cloud architects and DevOps engineers play a critical role in designing and implementing cloud infrastructure, ensuring optimal resource utilization, and automating deployment processes. Their responsibilities may include rightsizing resources, implementing auto-scaling mechanisms, leveraging cloud-native architectures, and continuously optimizing the cloud environment based on evolving workload demands.
- **Application Owners and Development Teams**: Application owners and development teams are responsible for understanding the resource requirements of their applications and ensuring efficient resource allocation. They should collaborate closely with cloud architects and DevOps engineers to communicate application needs, identify performance bottlenecks, and optimize resource utilization based on application-specific requirements.
- **Finance and Procurement Teams**: Finance and procurement teams are responsible for establishing budgets, tracking cloud spending, and ensuring compliance with organizational policies and regulations. They should work closely with other stakeholders to implement cost allocation models, enforce budget controls, and provide financial reporting and analysis to support informed decision-making.
- **Executive Leadership and Governance**: Executive leadership and governance bodies play a crucial role in setting strategic direction, defining cloud cost management policies, and ensuring alignment between cloud investments and overall business objectives. They should establish a cloud governance framework, define cost optimization goals, and foster cross-functional collaboration among stakeholders.

By establishing clear roles and responsibilities for cloud costs, organizations can ensure accountability, enable informed decision-making, and foster collaboration among stakeholders. This structured approach promotes cost transparency, aligns cloud investments with business objectives, and empowers teams to optimize resource utilization and achieve cost-effectiveness in their cloud environments.

Setting Optimization Strategies

Establishing effective cloud optimization strategies is crucial for organizations to maximize the value of their cloud investments while minimizing costs and ensuring operational efficiency. By implementing strategies such as rightsizing, governance, and automated resource provisioning, organizations can optimize resource utilization, maintain cost control, and align cloud operations with business objectives.

- **Rightsizing**: Rightsizing is a fundamental cloud optimization strategy that focuses on aligning resource provisioning with actual workload demands. It involves regularly evaluating resource utilization and adjusting compute instances, storage, and other services to match the precise requirements of applications and workloads. By rightsizing, organizations can avoid over-provisioning, which leads to unnecessary costs, and under-provisioning, which can compromise performance and reliability.

Rightsizing can be achieved through continuous monitoring and analysis of resource usage patterns, leveraging tools and dashboards provided by cloud service providers (CSPs) or third-party solutions. This data-driven approach enables organizations to identify idle or underutilized resources and adjust them accordingly, ensuring optimal resource allocation and cost optimization.

- **Cloud Governance**: Implementing a robust cloud governance framework is essential for effective cloud optimization. Cloud governance encompasses policies, processes, and tools that govern the management, deployment, and optimization of cloud resources across an organization. It ensures compliance with regulatory requirements, enforces security standards, and promotes cost transparency and accountability.

  A well-defined cloud governance strategy should include guidelines for resource provisioning, approval workflows, cost allocation models, and chargeback mechanisms. Additionally, it should establish clear roles and responsibilities for various stakeholders, such as cloud architects, DevOps teams, application owners, and finance teams, fostering collaboration and enabling informed decision-making.

- **Automated Resource Provisioning**: Automated resource provisioning is a key enabler of cloud optimization, leveraging Infrastructure as Code (IaC) and orchestration tools to streamline the deployment and management of cloud resources. By automating resource provisioning, organizations can ensure consistency, repeatability, and scalability, while reducing manual effort and minimizing the risk of human errors.

  Furthermore, automated resource provisioning can be integrated with continuous integration and continuous deployment (CI/CD) pipelines, enabling organizations to automatically provision and deprovision resources in response to application requirements, ensuring efficient resource utilization and minimizing waste.

Measuring What Matters

Measuring what matters when it comes to cloud costs is crucial for organizations to gain visibility into their cloud spending and make informed decisions about resource allocation and optimization strategies. By identifying and tracking the right metrics, organizations can understand their cloud cost drivers, evaluate the effectiveness of their cost management efforts, and align their cloud investments with business objectives.

However, keep in mind that when it comes to cloud costs, it is an ongoing process that requires continuous monitoring and adjustment. As your cloud environment evolves, your cost drivers and optimization priorities may change. Regularly reviewing your cost metrics, baselines, and benchmarks can help you identify new areas for cost optimization and ensure that your measurements remain aligned with your evolving business objectives.

Key KPIs to Measure for Cost Optimization

Establishing and tracking key performance indicators (KPIs) is crucial for effective cloud cost optimization. By measuring the right KPIs, organizations can gain visibility into their cloud spending patterns, identify areas for improvement, and quantify the impact of their cost optimization efforts.

- **Cloud Spend as a Percentage of Total IT Budget**: Tracking cloud spend as a percentage of the overall IT budget provides a high-level view of the organization's cloud investment and helps align cloud costs with strategic IT initiatives. This KPI aids in budgeting and forecasting, allowing organizations to plan and allocate resources more effectively.
- **Cost Savings from Optimization Efforts**: Measuring the actual cost savings achieved through various optimization strategies, such as rightsizing, reserved instances, and autoscaling, is essential. This KPI quantifies the direct financial impact of your cost optimization efforts and helps justify investments in tools and processes for ongoing optimization.

- **Resource Utilization Rates**: Monitoring resource utilization rates for compute instances, storage, and other cloud services is crucial for identifying underutilized or idle resources. By tracking utilization rates, organizations can pinpoint opportunities for rightsizing and ensure that resources are provisioned and scaled efficiently based on actual workload demands.
- **Reserved Instance (RI) or Committed Use Discount Utilization**: Measuring the utilization of RIs or committed use discounts helps organizations assess the effectiveness of their long-term capacity planning and commitment strategies. High utilization rates indicate optimal use of these cost-saving mechanisms, while low utilization may suggest a need for adjustments or alternative approaches.
- **Cost Allocation Accuracy**: Accurately attributing cloud costs to specific business units, applications, or projects is essential for cost transparency and accountability. Measuring the accuracy of cost allocation enables organizations to identify potential discrepancies, optimize resource allocation, and align cloud investments with business objectives.
- **Cloud Governance Compliance**: Establishing KPIs to measure compliance with cloud governance policies, such as resource tagging, approval workflows, and security standards, helps organizations maintain control over their cloud environments and ensure adherence to best practices.
- **Cloud Waste Reduction**: Quantifying the reduction in cloud waste, such as idle resources, oversized instances, or orphaned volumes, is a crucial KPI that directly impacts cost optimization efforts. Measuring and minimizing cloud waste can lead to significant cost savings and improved resource efficiency.
- **Time-to-Value for Cloud Investments**: Measuring the time it takes for cloud investments to generate positive returns or achieve specific business objectives can help organizations assess the effectiveness of their cloud strategy and make informed decisions about future investments.

By establishing and consistently tracking these KPIs, organizations can gain valuable insights into their cloud cost optimization efforts, identify areas for improvement, and make data-driven decisions to maximize the value of their cloud investments. Regular monitoring and adjustment of these KPIs, combined with robust cloud cost management practices, enable organizations to achieve sustainable cost optimization and align their cloud strategies with their overall business goals.

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The Evolving Cloud Landscape

The cloud computing landscape is constantly evolving, and organizations must stay agile and adaptable when it comes to managing and optimizing cloud costs. As new technologies, pricing models, and industry trends emerge, the challenges and opportunities associated with cloud cost management also shift.

The rise of serverless computing and containerized architectures has introduced new cost dynamics to the cloud ecosystem. With serverless offerings like AWS Lambda, Azure Functions, and Google Cloud Functions, organizations pay only for the actual execution time and resources consumed, potentially leading to significant cost savings compared to traditional compute instances. However, careful monitoring and optimization are required to avoid unexpected cost spikes due to inefficient code or excessive invocations.

Similarly, containerization technologies like Docker and Kubernetes enable efficient resource utilization and scalability, but organizations must consider the additional costs associated with container management platforms and orchestration tools.

Cloud service providers (CSPs) are also continuously expanding their portfolios of managed services, ranging from databases and analytics to machine learning and Internet of Things (IoT) platforms. While these managed services can simplify operations and offload infrastructure management tasks, their costs can quickly accumulate if not properly monitored and optimized. Organizations must carefully evaluate the trade-offs between the convenience of managed services and the potential cost implications, ensuring that the benefits outweigh the expenses.

Another trend is around multicloud and hybrid cloud strategies. As organizations embrace multicloud and hybrid cloud strategies to mitigate vendor lock-in and leverage best-of-breed services, cloud cost management becomes increasingly complex. Monitoring and optimizing costs across multiple cloud platforms, accounting for data transfers and integration complexities, and ensuring consistent governance and security practices pose significant challenges.

By staying informed about the evolving cloud landscape and proactively adapting their cost management strategies, organizations can effectively navigate the complexities of the cloud ecosystem. Continuous monitoring, optimization, and alignment with business objectives are crucial to maximizing the value of cloud investments while minimizing unnecessary costs and ensuring long-term sustainability.

Emerging Cloud Cost Management Technologies

As cloud computing continues to evolve and become more pervasive, new trends and technologies are emerging in the realm of cloud cost management. These advancements aim to provide organizations with greater visibility, automation, and optimization capabilities, enabling them to better control and optimize their cloud costs.

- **Artificial Intelligence and Machine Learning for Cost Optimization**: Artificial intelligence (AI) and machine learning (ML) are increasingly being leveraged in cloud cost management solutions. These technologies can analyze vast amounts of cloud usage and billing data, identify patterns and anomalies, and provide intelligent recommendations for cost optimization. AI/ML algorithms can suggest rightsizing compute instances, optimizing storage configurations, and identifying idle or underutilized resources, enabling organizations to proactively manage their cloud costs.
- **Cloud Cost Anomaly Detection and Alerting**: Advanced cloud cost management solutions are incorporating anomaly detection capabilities, enabling organizations to identify and address unexpected cost spikes or deviations from normal spending patterns. These solutions leverage machine learning algorithms and historical data to establish baselines and detect anomalies, triggering alerts and notifications for prompt investigation and remediation.

- **Automated Cloud Resource Scheduling and Deprovisioning**: To maximize cost savings, organizations are adopting automated scheduling and deprovisioning tools for their cloud resources. These tools can automatically scale down or terminate non-production resources during off-peak hours or when they are not in use, reducing idle costs. Conversely, they can scale up resources when demand increases, ensuring optimal resource allocation and minimizing waste.
- **Cloud Carbon Footprint Measurement and Optimization**: As sustainability becomes a growing concern, organizations are seeking ways to measure and optimize the carbon footprint of their cloud operations. Cloud providers are introducing tools and services that enable customers to estimate and offset their carbon emissions, while also providing recommendations for energy-efficient architectures and workload placements.
- **Multicloud Cost Management and Optimization**: With the rise of multicloud strategies, organizations are facing the challenge of managing and optimizing costs across multiple cloud platforms. Dedicated multicloud cost management solutions are emerging, offering centralized visibility, cost analysis, and optimization recommendations across different cloud providers, ensuring consistent governance and cost control.

By embracing these emerging trends and technologies, organizations can enhance their cloud cost management capabilities, enabling them to make data-driven decisions, automate cost optimization processes, and align their cloud investments with their overall business objectives and sustainability goals.

Harnessing the Power of Cloud Cost Management

Cloud cost optimization can be a daunting challenge – with confusing bills, hidden waste, and a lack of clear accountability. The Harness platform exists to solve these exact challenges, delivering significant value for Engineering and FinOps teams by enabling them to optimize cloud costs, improve financial visibility, and streamline financial management processes. With its comprehensive set of features and capabilities, Harness Cloud Cost Management (CCM) empowers FinOps teams to effectively manage cloud spend and drive financial efficiency. Harness CCM breaks down silos between FinOps, Engineering, and DeevOps teams. With a shared dashboard, clear recommendations, and automated workflows, teams work together seamlessly to optimize costs.

Harness CCM helps you get your cloud costs under control with:

- **AutoStopping of idle cloud resources**
- **Governance-as-Code for all cloud resources**
- **Commitment Orchestration for RIs, savings plans, CUDs and SUDs**
- **Granular Cloud and Cluster Cost Reporting**
- **Right-sizing and Unused Resource Recommendations**

Cloud Autostopping™

Controlling cloud costs often feels like a constant struggle. Idle development environments and forgotten resources contribute to rapid waste accumulation, and periodic cleanups provide only temporary relief.

Harness Cloud Cost Management's Cloud Autostopping™ feature offers continuous, proactive cost optimization. It intelligently identifies idle non-production resources and shuts them down, potentially saving up to 75% on relevant environments. Additionally, it seamlessly orchestrates spot instances for greater savings, ensuring uninterrupted developer access.

Key benefits of Cloud AutoStopping™:

- **Effortless savings**: Idle resources are detected and stopped/terminated without manual intervention.
- **Optimized spot usage**: Run workloads on cost-effective spot instances without the risks. Cloud Autostopping™ handles any potential interruptions.
- **Seamless workflow**: Developers access their resources using the same familiar methods (DNS,SSH, etc) regardless of whether they're actively running.

Governance-as-Code

Enforcing cloud cost policies and maintaining compliance has traditionally been a time-consuming, error-prone manual process. This creates a significant burden on teams and increases the risk of unexpected costs.

Governance-as-Code brings the power of automation and Infrastructure-as-Code (IaC) concepts to cloud cost management and compliance. By turning rules and policies into machine-readable code, Governance-as-Code automates enforcement, ensuring consistent adherence to best practices across your entire cloud infrastructure.

Harness Cloud Cost Management's Governance-as-Code feature enables you to define your essential policies – resource sight-sizing, usage limits, tagging standards, and more – as machine readable code. This ensures these rules are automatically enforced across your entire cloud infrastructure.

Key benefits of Governance-as-Code:

- **Proactive cost control**: Automated policy checks during deployment prevent wasteful configurations and catch deviations before they impact your bill.
- **Efficiency & automation**: Eliminate manual checks, freeing your team to focus on high-value activities.
- **Standardization at scale**: Automatically enforce resource rightsizing, tagging, usage limits, and other best practices across all workloads.
- **Collaboration**: Codified policies create a shared source of truth, promoting cross-functional alignment between teams.

Commitment Orchestrator

Cloud providers offer various commitments (reserved instances, savings plans, etc.) to help reduce costs. However, manually choosing the right types, quantities, and durations can be complex. Miscalculations can lead to wasted savings, or worse, being locked into commitments you don't need.

Harness CCM's Commitment Orchestrator eliminates the guesswork and manual effort. It analyzes your usage patterns and intelligently matches those patterns with the optimal mix of commitments across cloud providers. This maximizes your savings while ensuring you maintain the flexibility to adapt.

Key benefits of Harness Commitment Orchestrator:

- **Maximize savings**: Eliminate the guesswork of commitment planning. Harness automates the process, ensuring you get the best possible utilization of your commitments.
- **Flexibility without sacrifice**: Workload needs change, and Harness Commitment Orchestrator changes with them. It automatically adjusts commitments to ensure you're always covered, but never overcommitted.
- **Full transparency**: Clear dashboards help you understand exactly how your commitments are saving you money.

Granular Cost Reporting

Cloud bills are black boxes without granular reporting. You know your bill's too high, but you lack the tools to pinpoint why and where to optimize for the biggest impact.

Harness CCM goes far beyond basic breakdowns. You can drill into individual services, regions, projects, or even specific components, exposing the true cost drivers within your cloud environment.

Key benefits of granular reporting:

- **Identify wasteful spending**: Pinpoint underutilized resources, oversized instances, or unexpectedly costly services.
- **Informed optimization**: Don't just cut costs, make the smartest cuts based on granular data, maximizing savings impact.
- **Accountability & transparency**: Allocate costs to specific teams or projects, fostering a culture of responsible cloud usage.
- **Data-driven savings**: Measure the exact impact of your optimization efforts to continually refine your strategy.

Recommendations

At Harness, we understand your time is valuable. That's why we provide recommendations that go beyond simple suggestions, empowering you with data-driven, customizable recommendations for optimal cloud resource usage.

Key benefits of Harness recommendations:

- **Easy validation**: See the transparent data behind each recommendation, so you can trust and implement suggestions quickly.
- **Workload-specific optimization**: Customize recommendations based on your precise CPU/memory needs, ensuring they match your priorities.
- **Presets for efficiency**: Filter for cost-optimized or performance-focused recommendations, streamlining common decision making.

How to Get Started

Now that you've completed the ebook, we hope that it's clear that Harness Cloud Cost Management (CCM) is an intelligent cloud cost management solution for FinOps, Infrastructure, and Engineering teams. And getting started using Harness CCM is easy. All customers need to do is log in to the Harness platform and view their cost-saving recommendations.

Click here to sign up for a personalized demo of how Harness can help whip your cloud costs into shape.

The Modern Software Delivery Platform™

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