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Finops Practice Accelerating Innovation on Public Cloud

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Abstract

FinOps, or financial operations, is a strategic approach to managing cloud expenditures and facilitating collaboration across IT, finance, and business teams to optimize public cloud usage and drive business innovation. The need for effective cloud cost management has become paramount as organizations increasingly migrate to public cloud platforms. Traditional cost-management tools often fail to address the complex financial implications of cloud resources. FinOps fills this gap by offering a comprehensive cross-functional methodology that ensures long-term financial accountability and fosters innovation. This study explores the role of FinOps in accelerating technological advancement and business growth by optimizing cloud expenditure. It examines key cloud cost management tools and frameworks, such as AWS cost explorers, azure cost management, and Google Cloud's Billing Reports, highlighting their contributions to improving financial transparency. The study also discusses the collaboration between public cloud providers, systems integrators (SIs), and independent software vendors (ISVs) in developing tailored FinOps solutions. This study demonstrates how adopting FinOps practices not only improves cost efficiency, but also supports organizational agility, enabling companies to better align cloud investments with business outcomes.

Keywords: FinOps, cloud cost management, public cloud, innovation, IT Asset Management (ITAM), financial transparency, cloud optimization, system integrators, AWS, Azure, Google Cloud.

1. Introduction

FinOps, or financial operations, is a strategic approach that encourages collective accountability for the costs and infrastructure associated with cloud computing within an organization. Under the FinOps model, teams from IT and DevOps collaborate with procurement, finance, and various other departments to effectively manage cloud expenses throughout the organization. FinOps is a discipline for managing public cloud resources that empower organizations to maximize their business value from the cloud. It facilitates collaboration among technology, finance, and business teams to make informed data-driven spending decisions (FinOps Foundation, 2021).

Cloud cost management involves tracking and controlling cloud spending, as organizations face increasingly complex infrastructure and rising costs. Traditional cloud cost tools provided by public cloud vendors help IT teams justify expenses and allocate resources. FinOps is a discipline for managing public cloud resources that empower organizations to maximize their business value from the cloud. It facilitates collaboration among technology, finance, and business teams to make informed data-driven spending decisions (FinOps Foundation, 2021).

Cloud cost management involves tracking and controlling cloud spending, as organizations face increasingly complex infrastructure and rising costs. Traditional cloud cost tools provided by public cloud vendors help IT teams justify expenses and allocate resources. However, these are often limited to short-term monitoring and focus on IT. A tool such as AWS Cost Management offers features such as cost visualization and anomaly detection, but lacks deeper insights into broader financial impacts, such as customer cost analysis. FinOps fills this gap by enabling collaboration across teams—IT, finance, and business—to make strategic, data-driven decisions and optimize cloud costs for long-term value. Cloud cost management focuses on short-term solutions within the IT department that address immediate issues. By contrast, FinOps is a broader, long-term approach that integrates cost accountability across the entire organization. Rather than being separate or competing, cloud cost management is a key component of the larger FinOps strategy. What sets FinOps apart is its collaborative nature: it

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brings together teams from IT, finance, and other departments to continuously improve cloud cost efficiency. FinOps ensures that everyone, not just IT, is responsible for managing and optimizing cloud usage (KPMG, 2023; FinOut, 2022). This study examines how FinOp methodologies can drive and enhance innovation on public cloud platforms. By implementing FinOps practices, organizations can optimize their cloud expenditures, foster collaboration across departments, and create an environment that supports continuous technological advancement and business growth.

2. IT Cost Management Frameworks and Tools

With the growing complexity of cloud and hybrid environments, cost monitoring and management have become critical for organizations. Exclusive tools that cater to these needs provide comprehensive insights and control over IT spending, allowing businesses to optimize costs while maintaining operational efficiency (Harvard Business Review, 2022). IT Asset Management (ITAM) focuses on enhancing value, reducing risk, and improving the operational efficiency of IT assets over their entire life cycle. This discipline aligns closely with FinOps, especially in areas such as cost optimization, compliance, and resource management. By integrating ITAM with FinOps, organizations can achieve better visibility and control over their IT expenditures, while ensuring that assets are fully utilized and compliant. This collaboration fosters a more strategic approach for managing cloud costs, improving efficiency, and driving business value.

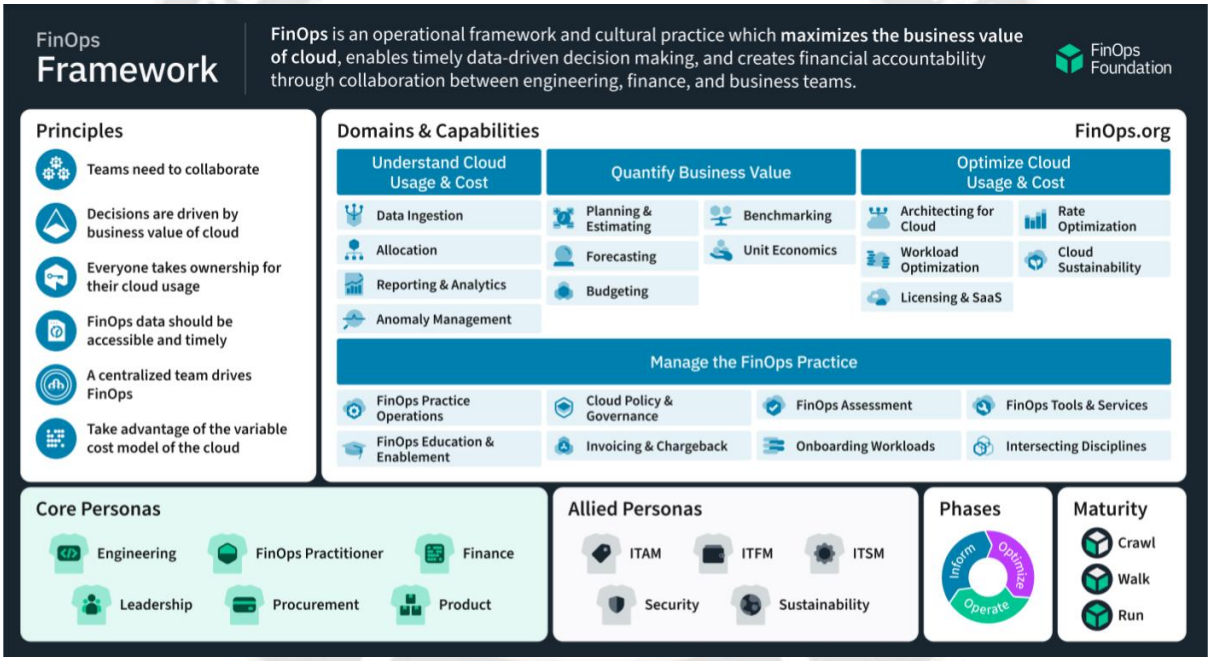

Figure 1: FinOps Framework: Source: (FinOps Foundation, n.d.).

FinOps principles guide cloud financial management by promoting collaboration, accountability, and value-driven decision making. Cross-functional teams work together in real time to manage cloud costs efficiently, treating the cloud as a key driver of business innovation, rather than just an expense. The ownership of cloud usage is decentralized, with engineers managing costs from design to operations, while real-time data insights ensure visibility of spending for all levels. A central FinOps team standardizes best practices and optimizes rates, thereby allowing teams to focus on cloud usage efficiency. Embracing a cloud's variable cost model enables agile proactive planning, optimizing value, and minimizing reactive cost adjustments (FinOps Foundation, n.d.).

2.1. IT Asset Management (ITAM)

IT Asset Management (ITAM) is the process of tracking and managing IT assets throughout their entire lifecycle, from acquisition and maintenance to upgrading and eventual disposal. Effective ITAM ensures that assets are used efficiently and properly maintained and that organizations stay compliant with software licenses. How ITAM benefits organizations

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Centralized and Simplified Asset Tracking

Managing assets scattered across different systems can lead to disorganization and inefficiency. By centralizing asset tracking in a unified system, organizations can easily monitor the status of all assets, such as determining which ones require upgrading, replacement, or optimization. This streamlined approach enhances visibility and facilitates decision making.

Optimized Asset Utilization

ITAM helps to maximize the value of IT resources by reducing waste, minimizing risks, and lowering costs. With real-time data on asset performance and usage, organizations can make well-informed decisions on how to best utilize and allocate their resources, ensuring that investments align with business needs.

Software License Compliance

Many organizations are required to undergo software audits to ensure that they comply with third-party license agreements. ITAM systems automatically track software installations and usage across the company, ensuring compliance and reducing the risk of costly penalties from licensing violations.

Improved Decision-Making on IT Assets

By analyzing ITAM data, organizations can evaluate past purchases and usage patterns to inform future decisions. This helps streamline procurement processes and improve overall asset management strategies, thus contributing to better operational efficiency.

Reducing Costs and Extending Asset Lifespan

The ITAM uses financial, contractual, and inventory data to track assets and make informed strategic decisions. By reducing redundant assets and prolonging the life of existing assets, ITAM helps to lower the total cost of ownership. This proactive approach minimizes unnecessary upgrades and enables organizations to optimize asset use over time.

ITAM enables businesses to ensure that their IT assets are utilized effectively, comply with regulations, and achieve long-term cost savings. It provides strategic advantage by integrating asset management into broader financial and operational planning (IBM, n.d.).

2.2. Cloud Cost Management Tools

Cloud-specific cost management tools such as AWS Cost Explorer, Azure Cost Management, and Google Cloud's Billing Reports are designed to help organizations manage their cloud spending. These tools provide the following features:

Reports and Dashboards

Gaining quick insight into current cost trends and forecasts is essential for effective financial management. Using intuitive reporting tools, organizations can generate comprehensive reports that highlight key financial metrics. Additionally, customizable dashboards allow teams to visualize data tailored to their specific needs, enhance overall visibility, and facilitate informed decision making.

Resource Hierarchy

Establishing a well-structured resource hierarchy is crucial to effective cost management. Organizing resources into organizations, folders, projects, and labels allows organizations to achieve fine-grained management and precise cost allocation. This structured approach enables teams to track expenses more effectively and ensure accountability for resource utilization across different departments.

Billing Access Control

Implementing robust billing access control is vital for maintaining financial discipline within an organization. By setting granular permissions at various levels of the resource hierarchy, organizations can enforce policies that dictate who have the authority to spend and who can view financial information. This control helps prevent unauthorized spending and aligns financial practices with organizational goals.

Budgets and Alerts

Setting clear budgets is essential to monitor expenses and ensure financial accountability. Organizations can establish predefined budget limits and configure alerts to notify stakeholders when the costs approach or exceed these thresholds. This proactive approach enables teams to take timely action, thus fostering a culture of financial responsibility and awareness.

Automated Budget Actions

Organizations can leverage automated budgetary actions to enhance financial management. By configuring programmatic notifications, teams can automate responses to budget thresholds such as throttling resources or capping spending. This feature helps prevent unexpected charges,

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allowing organizations to maintain control over their cloud expenditures while ensuring optimal resource allocation.

Billing Export

Streamlining cost analysis is made easy by the ability to automatically export detailed usage, cost, and pricing data to preferred analytics platforms. This functionality enhances financial transparency and provides teams with the necessary insights to conduct in-depth analysis. By configuring automatic notifications, teams can automate responses to budget thresholds, such as throttling resources or capping spending. This feature helps prevent unexpected charges, allowing organizations to maintain control over their cloud expenditures while ensuring optimal resource allocation.

Billing Export

Streamlining cost analysis is made easy by the ability to automatically export detailed usage, cost, and pricing data to preferred analytics platforms. This functionality enhances financial transparency and provides teams with the necessary insights to conduct in-depth analysis. By integrating analytics tools, organizations can better understand their spending patterns and make data-driven decisions.

Recommendations

Access to tailored recommendations for optimizing costs and resource usage is a key feature of effective cost-management tools. Organizations can benefit from intelligent insights that highlight areas of improvement and potential cost savings. By implementing these recommendations, teams can drive immediate efficiency, resulting in more streamlined and cost-effective operation.

Billing APIs

Enhancing billing management through APIs allows organizations to access and manage their billing accounts programmatically. This capability facilitates seamless integration with other systems and enables the automation of billing processes. By leveraging APIs, organizations can optimize their financial workflows and improve their overall operational efficiency.

Quotas

Establishing quota limits is a strategic measure for proactive management of spending. By setting clear limits on resource usage, organizations can minimize the risk of unforeseen spikes in costs. This approach ensures that financial resources are effectively utilized and helps maintain compliance with budgetary constraints, ultimately supporting better financial governance. (Google Cloud, n.d.)

Aspect	**IT Asset Management (ITAM)**	**FinOps**	**Cloud Cost Management (CCM)**
Primary Focus	Broad IT asset visibility, governance, and compliance	Financial accountability and optimization within cloud spending	Optimizing, forecasting, and reducing costs specific to cloud usage
Scope	Hardware (servers, desktops), software licenses, cloud assets, IT infrastructure	Public and hybrid cloud services and infrastructure; cross-functional collaboration	Cloud infrastructure costs (compute, storage, network)
Users	IT asset managers, procurement teams, compliance officers	Finance, engineering, DevOps, cloud governance teams	Cloud administrators, DevOps, finance, IT security, operations
Key Metrics	Asset utilization, license compliance rates, lifecycle cost savings, asset depreciation	Cloud spend efficiency, cost per application, cost per user/service, forecast accuracy	Cloud usage costs, savings achieved through rightsizing, underutilized resource costs
Goals	Cost containment, regulatory compliance, asset performance, full asset lifecycle management	Improved cloud financial efficiency, budgeting, spend accountability, cross-functional cost transparency	Minimize cloud waste, enhance cost visibility, create accurate cloud budget forecasts

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Aspect	IT Asset Management (ITAM)	FinOps	Cloud Cost Management (CCM)
Processes	Lifecycle management, asset discovery, inventory tracking, vendor license management	Allocation, budget forecasting, accountability, optimization through cross-functional efforts	Real-time monitoring, utilization analytics, cost-saving recommendations
Data Integration	Integrates with Configuration Management Databases (CMDBs), ERP, and procurement systems	Integrates with cloud billing APIs, financial systems, IT Ops dashboards, third-party cloud analytics	Relies heavily on native cloud providers' billing data and third-party cloud cost analysis tools
Optimization Focus	Minimizing redundant hardware/software, optimizing license usage	Reducing cloud spend through accountability and optimized resource allocation, cost anomaly detection	Cost-effective use of cloud resources (compute, storage, database services)
Challenges	Licensing complexity, asset tracking accuracy, cost justification across departments	Data silos between finance and engineering, lack of automation in cost tracking	Continuous cloud pricing changes, limited visibility into service usage by department
Example Tools	ServiceNow, Flexera, BMC Helix, IBM Maximo	Apptio Cloudability, CloudHealth by VMware, Flexera Cloud Management Platform	AWS Cost Explorer, Google Cloud Cost Management, Azure Cost Management, CloudHealth, Spot by NetApp

Table 1: Comprehensive Framework: ITAM, FinOps, and Cloud Cost Management Tools

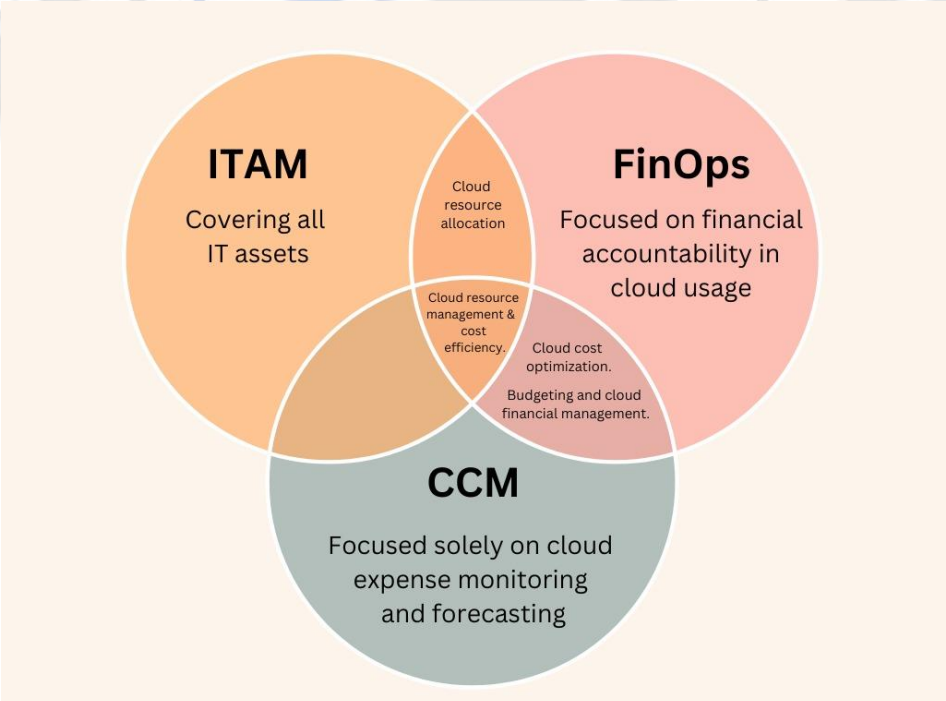

Figure 2: ITAM, FinOps, and Cloud Cost Management Tools

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3. FinOps as an Enabler for Innovation

FinOps, though a new term, represents a function that has been necessary within organizations for years—managing cloud migrations and costs. Enterprises have been working to optimize their cloud infrastructure for a quarter of a century. What FinOps brings to the table is greater visibility and accountability, addressing the challenges that many organizations face in effectively managing their cloud spending. FinOps helps bridge these gaps by providing clear insights into the value derived from cloud investments, accelerating the optimization of cloud usage, and ensuring alignment between cloud and enterprise strategies. It moves beyond basic cost management to create a direct connection between financial accountability and innovation, helping organizations leverage the cloud more strategically and efficiently (IBM, 2022).

Public cloud providers have become increasingly active in the FinOps space, recognizing the critical role of financial management in maximizing the value of cloud usage. They collaborate closely with the FinOps Foundation, systems integrators (SIs), and Independent Software Vendors (ISVs) to develop comprehensive financial operation solutions. This collaboration aims to help organizations better manage their cloud costs, improve efficiency, and align cloud spending with business outcomes.

3.1. Public Cloud Providers in the FinOps Space

Major public cloud providers, such as AWS, Google Cloud, and Microsoft Azure, are taking a proactive approach to support FinOps practices by offering tools and services that enhance cost visibility and management (Gartner, 2020). These providers offer native cloud financial management tools, such as AWS Cost Explorer, Google Cloud's Cost Management console, and Azure Cost Management, which provide organizations with real-time insights into cloud usage and spending. These tools allow businesses to track, allocate, and optimize costs across different cloud services, helping to achieve greater transparency and accountability.

Furthermore, cloud providers are working to ensure that their customers can adopt FinOp practices more effectively by integrating advanced reporting, forecasting, and budgeting capabilities (Khattak, 2022). They are also developing educational resources, best practices, and frameworks to guide companies through their FinOps journey, addressing challenges like cost optimization, resource allocation, and financial accountability (FinOps Education & Enablement, n.d.).

To gain a comprehensive understanding of FinOps tools provided by major cloud providers in 2022, it is essential to review recent features and strategies of AWS, Microsoft Azure, and Google Cloud, as each offers distinct resources for cloud cost optimization.

1. The AWS has strengthened its FinOps capabilities, with a focus on empowering engineering teams to manage costs proactively. Tools such as the AWS Cost Explorer and AWS Cost and Usage Report enable organizations to perform forecasting and driver-based cost analysis, helping teams predict and manage future expenditures effectively. Additionally, the AWS has enhanced its tools for anomaly detection and performance measurement, emphasizing the importance of financial accountability in cloud management (Gooch and Baumann, 2022).

2. Microsoft Azure also offers a structured FinOps framework that encompasses cost management and optimization throughout different stages, termed as "crawl, walk, and run" phases. Azure Cost Management integrates with the Azure Advisor and Azure Resource Manager, supporting organizations to manage costs, allocate budgets, and forecast expenditures. These tools allow for detailed reporting and visualization, helping businesses control their cloud spending through actionable insights (Microsoft, n.d.).

3. The Google Cloud Platform (GCP) has implemented tools focused on financial operations, emphasizing real-time visibility and resource accountability. The GCP's Cost Management Console supports detailed insights and integrates it with the Google Kubernetes Engine (GKE) to track cloud usage costs accurately. Google's tools also facilitate optimized cost allocation and help organizations identify cost-saving opportunities within their infrastructure (FinOut, 2022).

In summary, each provider's FinOps tools have evolved to enhance cost transparency, with AWS prioritizing operational accountability, Azure emphasizing a phased cost-management approach, and Google focusing on real-time cost visibility and accountability. These tools collectively enable organizations to effectively optimize their cloud investments.

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Feature/Capability	AWS	Microsoft Azure	Google Cloud Platform
Primary Cost Management Tool	AWS Cost Explorer and Cost and Usage Report	Azure Cost Management + Billing	Cloud Billing and Cost Management Console
Forecasting	Cost Explorer forecast capabilities	Integrated with Cost Management	Uses BigQuery for in-depth analysis
Cost Optimization	Compute Optimizer, Rightsizing Recommendations	Azure Advisor and Resource Manager	Machine learning-based anomaly detection
Long-term Savings Options	Savings Plans, Reserved Instances	Azure Reserved VM Instances	Sustained and committed use discounts
Resource Tracking	Tagging and filtering capabilities	Multi-level cost views, subscription level	Resource Hierarchy (project-level allocation)
Integration	Integrates well with AWS services	Integrates within Azure ecosystem	BigQuery, Looker for enhanced reporting
Maturity Guidance	Standard tools for all levels	Phased approach: Crawl, Walk, Run	Provides resources for advanced FinOps users

Table 2: Comparison of Top Public Cloud Providers

Each provider's tools serve different FinOp needs, allowing companies to select solutions that align with their cost optimization strategies and organizational maturity levels in cloud financial management.

3.2. Collaboration with Systems Integrators and ISVs

In addition to building native tools, cloud providers collaborate extensively with system integrators (SIs) and Independent Software Vendors (ISVs) to deliver tailored FinOps solutions. SIs such as Deloitte and Accenture assist organizations in implementing FinOps frameworks by providing consulting services that help integrate financial operations across IT, finance, and business units. These partnerships ensure that organizations can adopt FinOps at scale while aligning with their existing enterprise strategies (FinOps Foundation, n.d.).

ISVs, such as Apptio Cloudability, Spot by NetApp, and CloudHealth by VMware, offer specialized FinOps tools that go beyond what native cloud platforms provide. These tools offer features, such as multi-cloud cost management, advanced analytics, automation, and deeper insights into cost-saving opportunities. By integrating these tools with public cloud services, ISVs can enhance the ability of organizations to monitor, control, and optimize their cloud spending (Gianchandani, 2023).

Through partnerships with the FinOps Foundation, systems integrators, and ISVs, public cloud providers are expanding their roles in the FinOps space. Their collaboration ensures that enterprises not only have access to native cost management tools but can also leverage external expertise and third-party platforms for more comprehensive financial operations management. This collaborative ecosystem helps enterprises optimize cloud investments, drive innovation, and gain a competitive edge by adopting FinOps as a strategic enabler for cost efficiency and growth (FinOps Foundation, n.d.).

3.2.1. Popular GSI Solutions

Accenture and Deloitte are well-regarded global systems integrators (GSIs) offer comprehensive FinOps solutions (Accenture, 2015; O' Neill, 2022). Cloud Cost Management and Optimization solutions for accommodations are a popular choice among enterprises. This includes advisory services for designing cost-efficient architectures and implementing automated workflows to manage cloud spending at scale (Accenture, 2020). Similarly, Deloitte's FinOps Framework focuses on integrating financial accountability and visibility within organizations by unifying finance, IT, and business

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strategies to improve cost transparency across cloud services. Deloitte also offers cloud-native automation tools that integrate major cloud providers' services to support continuous cost optimization (Deloitte, n.d.).

3.2.2. Popular ISV Solutions

ISVs, such as Apptio Cloudability, Spot by NetApp, and CloudHealth by VMware, provide advanced FinOps tools that offer functionality beyond native cloud capabilities (Gianchandani, 2023). These tools are used for multi-cloud management and advanced analytics.

- **Apptio Cloudability**: Offers cost optimization and allocation tools that support real-time spend visibility, helping businesses analyze and control costs across multiple cloud providers. Cloudability's automated resource rightsizing and machine-learning-driven forecasting enhance financial predictability in cloud spending (Gianchandani, 2023).
- **Spot by NetApp**: Specializes in automation-driven cost management, including workload optimization and resource utilization recommendations. Spot automates the purchase of Reserved Instances and Savings Plans, a functionality not commonly available in native tools (Gianchandani, 2023).
- **CloudHealth by VMware**: Known for its robust multi-cloud management capabilities, CloudHealth provides detailed analytics and reporting for complex cloud environments, enabling enterprises to implement policies for budget alerts, spending allocation, and continuous cost control (Gianchandani, 2023).

Solution	**Provider**	**Key Capabilities**	**Target Use Case**
Accenture Cloud Cost Management	Accenture	Advisory and automation services for enterprise cost optimization	Large enterprises needing tailored solutions
Deloitte FinOps Framework	Deloitte	Integrated financial visibility and strategic alignment	Enterprises with complex multi-unit finances
Apptio Cloudability	Apptio (ISV)	Multi-cloud cost visibility, real-time allocation, forecasting	Multi-cloud cost control for large-scale use
Spot by NetApp	NetApp (ISV)	Automated Reserved Instance/Savings Plan management, rightsizing	Automation for continuous cost savings
CloudHealth by VMware	VMware (ISV)	Detailed multi-cloud reporting, policy-driven spend control	High compliance, governance needs

Table 3: Comparison of GSI and ISV FinOps Solutions

By working together, GSIs and ISVs enable public cloud providers to offer holistic FinOp solutions by combining advisory expertise with specialized tools for enhanced cost transparency, governance, and efficiency. Through such partnerships, enterprises can better manage cloud spending and achieve strategic cost efficiency in their FinOps journey.

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4. Case Studies

4.1. Toyota Connected's FinOps Solution Using AWS

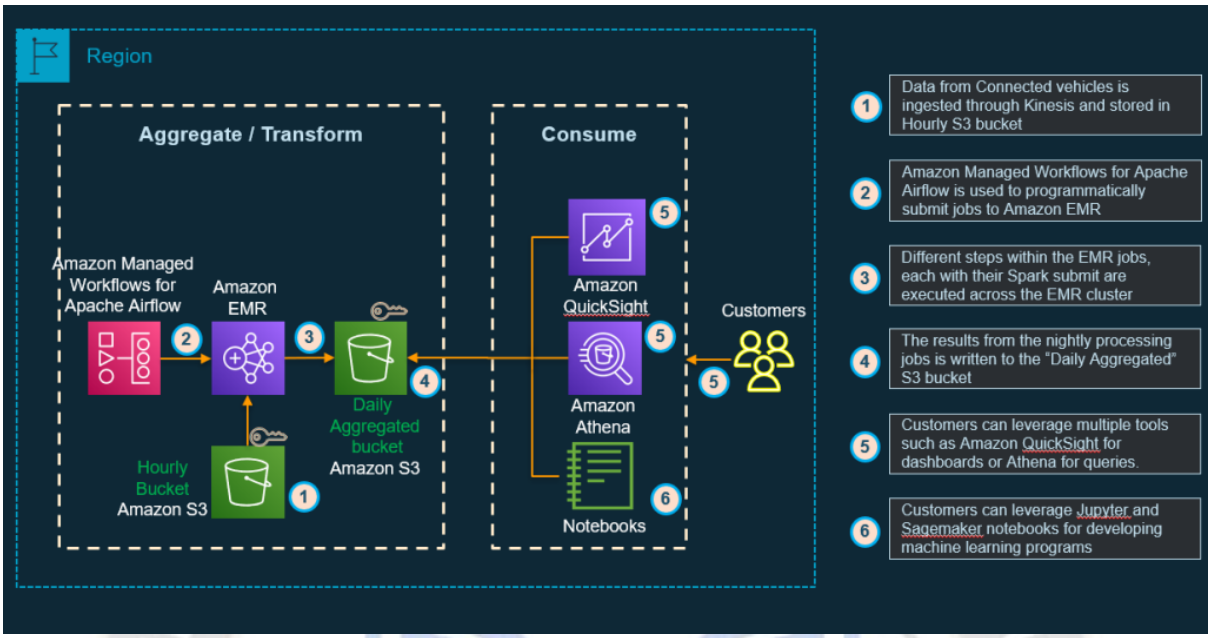

Figure 3: Toyota AWS Architecture; Source: (Kulkarni et al., 2022)

At the Toyota Connected, massive volumes of data are ingested from millions of connected vehicles into a petabyte-scale data lake. Built on Amazon Simple Storage Service (Amazon S3), this architecture serves as the foundation for Toyota Connected's big-data ecosystem. To process, analyze, and derive insights from these large datasets, Toyota Connected uses Amazon EMR, a cloud platform optimized for big data applications, such as distributed data processing, SQL querying, and machine learning (ML) using frameworks such as Apache Spark. This setup helps Toyota to efficiently organize and prepare data for advanced analytics and ML applications. With millions of partitions in the Amazon S3 data lake, each containing small parquet files, Toyota Connected faced a complex challenge: optimizing costs, maintaining high performance, and ensuring resilience to meet strict business service level agreements (SLAs). Built on Amazon Simple Storage Service (Amazon S3), this architecture serves as the foundation for Toyota Connected's big-data ecosystem. batch-processingyze and derive insights from these large datasets, Toyota Connected uses Amazon EMR, a cloud platform optimized for big data applications, such as distributed data processing, SQL querying, and machine learning (ML) using frameworks such as Apache SparThis setup helps Toyota to efficiently organize and prepare data for advanced analytics and ML applications. With millions of partitions in the Amazon S3 data lake, each containing small parquet files, Toyota Connected faced a complex challenge: optimizing costs, maintaining high performance, and ensuring resilience to meet strict business service level agreements (SLAs). To address these needs, Toyota Connected implemented Amazon Managed Workflows for Apache Airflow (Amazon MWAA) to orchestrate and schedule batch-processing jobs. Amazon MWAA, a managed orchestration service, provides Toyota Connected with high availability and robust security for handling Apache Airflow workflows. By leveraging these AWS services, Toyota was able to fine-tune configurations to control costs, while enhancing system resiliency. Through code optimization on Amazon EMR and Spark, Toyota Connected dramatically reduced data filtering time from 27 minutes to just 30 seconds—illustrating how finely tuned FinOps practices can deliver significant performance improvements along with cost savings (Kulkarni et al., 2022).

4.2. Northmill Bank Accelerates Online Launch and Growth with AWS

In 2020, Northmill Bank, a rapidly growing Swedish neobank, leveraged AWS to accelerate its online banking launch by three times compared with its previous on-premises setup. The bank, focused on providing innovative financial solutions, transitioned its financial applications and customer website to AWS, using AWS Lambda for serverless computing. This shift allowed Northmill to quickly scale, automate processes, and meet ISO 27001 compliance

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requirements, thereby improving security and operational efficiency (AWS, 2020).

Founded in 2006, Northmill aimed to simplify financial decisions for customers using technology. As the bank grew up to 200,000 customers, it sought a fully digital solution to support its expansion. The decision to move to the AWS was driven by the need for improved agility, security, and the ability to focus on product development rather than IT management. With AWS, Northmill automated tasks that had previously taken up a week, enabling faster launches of new services. The bank rolled out eight new products in the first year alone, including savings accounts, and a solution to reduce interest rates on existing credit (AWS, 2020).

By utilizing AWS's managed services, Northmill was able to streamline compliance with regulatory requirements, enhance security, ensure data integrity, and prevent tampering. With the flexibility of the AWS, Northmill plans to continue innovating and rolling out new products at speed, maintaining its competitive edge in the financial sector. The move to AWS not only increased the bank's speed to market but also enabled tighter security controls and the automation of key compliance processes (AWS, 2020).

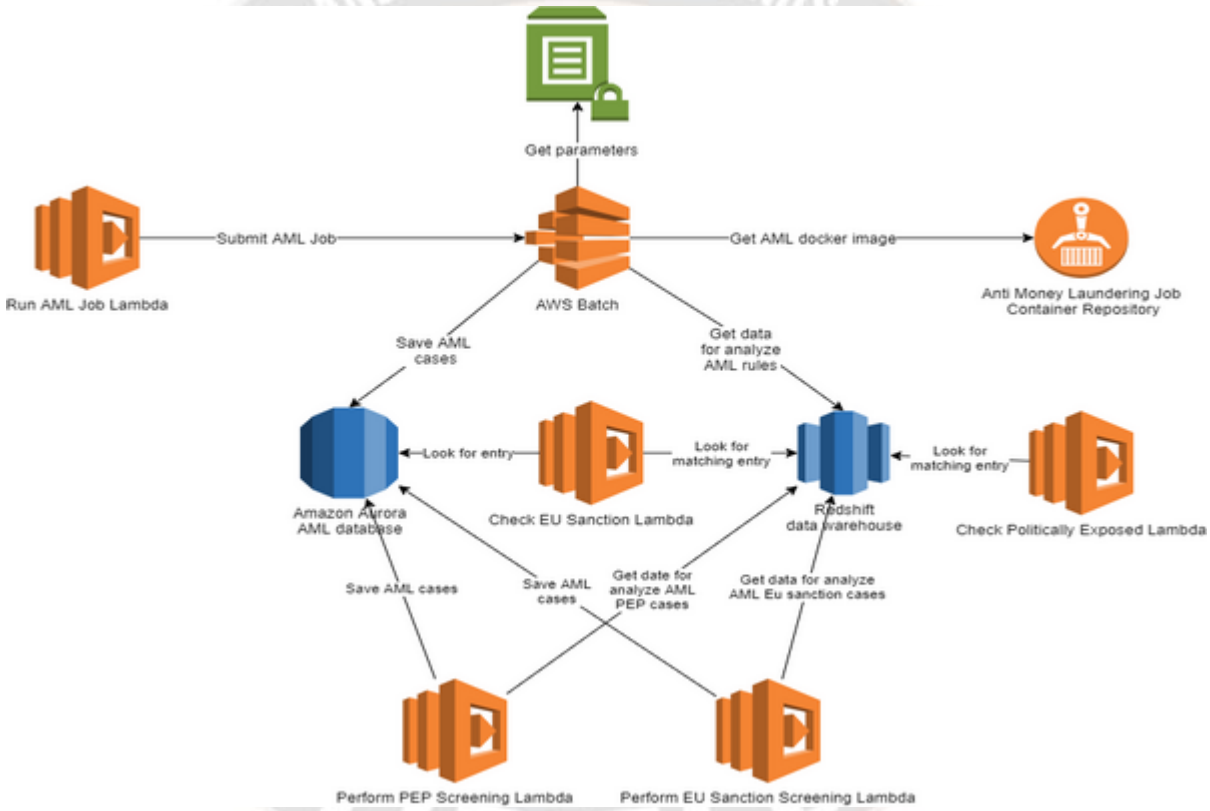

Figure 4: Northmill Bank's AWS architecture diagram - Source: (AWS, 2020)

5. Conclusion

In conclusion, FinOps has rapidly evolved into a "day zero" consideration for organizations embarking on cloud journeys or developing an IT infrastructure. As cloud usage grows, FinOps provides an essential framework that aligns financial accountability with technical and business goals, ensuring that cloud costs are strategically managed from the outset. Public cloud providers, such as AWS, Azure, and Google Cloud, are increasingly integrating cost calculators, monitoring tools, and real-time dashboards, enabling teams to make informed decisions, optimize resources, and track cloud expenses efficiently. These tools, coupled with FinOps principles, allow organizations to continuously assess and adapt cloud spending to business needs.

Additionally, the rise in sustainability and security concerns has brought further significance to FinOps. As cloud usage grows, FinOps provides an essential framework that aligns financial accountability with technical and business goals, ensuring that cloud costs are strategically managed from the outset. Public cloud providers, such as AWS, Azure, and Google Cloud, are increasingly integrating cost calculators, monitoring tools, and real-time dashboards, enabling teams to

make informed decisions, optimize resources, and track cloud expenses efficiently. These tools, coupled with FinOps principles, allow organizations to continuously assess and adapt cloud spending to business needs.

Additionally, the rise in sustainability and security concerns has brought further significance to FinOps. Cloud service providers now focus not only on cost optimization, but also on meeting sustainability targets by promoting energy-efficient practices and security compliance within cloud environments. Collaboration among public cloud vendors, systems integrators, and ISVs is expanding the capabilities of FinOps, offering specialized solutions that help enterprises balance cost management with innovation, sustainability, and security. Ultimately, FinOps empowers organizations to innovate responsibly, ensuring that cloud resources are used efficiently, while fostering collaboration across IT, finance, and business teams to drive long-term business growth and resilience.

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