

FinOps in Practice: Financial Operations in the Cloud

**The Comprehensive Guide to
FinOps Practitioner Certification**

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FinOps in Practice: Financial Operations in the Cloud

The Comprehensive Guide to FinOps Practitioner Certification

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About the Author

Francisco Sepúlveda is a seasoned instructor and consultant in cloud computing and FinOps, with over 12 years of experience in the industry and 24 years of experience in IT training and consulting.

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- AWS Certified Solutions Architect Professional
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- Google Cloud Authorized Trainer
- FinOps Certified Practitioner

Francisco wrote this book to provide practical guidance to organizations seeking to bridge the gap between technical and financial teams. His aim is to empower readers with actionable insights and proven strategies to adopt FinOps successfully.

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Content

FinOps in Practice.....	1
Introduction to FinOps	9
Inform Phase	43
Preparation and Initial Insight.....	43
Implementation of Cost Allocation.....	74
Forecast and Budgets.....	114
Optimize Phase	134
Resource Usage Optimization.....	134
Cost Optimization Strategies	171
Sustainability and FinOps	202
Operate Phase.....	218
Organizational Alignment	218
Metrics and KPIs	249
FinOps and Other Frameworks.....	268
Towards FinOps Excellence	291
Practice Questions	323
Practice Questions: Answers.....	330



Welcome to
FinOps in Practice:
Financial Operations in the
Cloud

The Comprehensive Guide to FinOps Practitioner Certification

Our coming days



- ✓ Safety
- ✓ Breaks
- ✓ Lunch
- ✓ Exercises
- ✓ Phones/Computers

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2

Our coming days



- ✓ Active participation!
- ✓ Ask questions
- ✓ Theory (a lot)
- ✓ Some homework
- ✓ Group dialogues

Presentation



My questions:

- ✓ Who are you?
- ✓ What experience do you have from Cloud Computing and FinOps?
- ✓ What is your role at work?
- ✓ What are your expectations?



Course schedule

- Day 1: Introduction to FinOps and Inform Phase
 - Introduction to FinOps
 - Preparation and Initial Insights
 - Implementation of Cost Allocation
 - Forecasts and Budgets
- Day 2: Optimize and Operate Phases
 - Resource Usage Optimization
 - Cost Optimization Strategies
 - Sustainability and FinOps
 - Organizational Alignment and Automation
 - Metrics and KPIs for Continuous Optimization
 - Connectivity with Other Frameworks
 - Advancing Towards FinOps Excellence

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5

FinOps is evolving...

- ✓ From cost management to strategic value optimization,
- ✓ From isolated cloud spending to comprehensive IT financial governance,
- ✓ From periodic budget reviews to real-time financial agility,
- ✓ From departmental cost centers to collaborative value creation.

FinOps began as a response to the complexities of managing cloud costs, focusing on financial accountability and cost transparency in cloud computing. It evolved into a broader IT financial management practice, addressing budgeting, forecasting, and value realization across all IT spending. Today, FinOps is integral to strategic business planning, emphasizing cross-functional collaboration, data-driven decision-making, and maximizing the business value of IT investments.

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6

FinOps is evolving...

This concept highlights the transition of FinOps from a traditional, limited financial oversight role to a comprehensive and strategic IT financial governance approach:

- From cost management to strategic value optimization: FinOps has shifted its focus from merely tracking and controlling costs to maximizing the value derived from IT investments, aligning spending with business goals.
- From isolated cloud spending to comprehensive IT financial governance: Instead of treating cloud expenditures as separate, FinOps integrates these costs into a unified financial management strategy covering all IT operations.
- From periodic budget reviews to real-time financial agility: FinOps enables organizations to monitor and respond to financial performance in real-time, improving flexibility and decision-making.
- From departmental cost centers to collaborative value creation: It encourages collaboration across teams, transforming cost centers into areas where cross-functional efforts drive shared value.

FinOps originated to address the challenges of managing cloud costs, emphasizing financial accountability and transparency. Today, it encompasses broader IT financial management practices, including budgeting, forecasting, and ensuring value realization across IT spending. Its modern role involves strategic business planning, fostering collaboration, enabling data-driven decisions, and maximizing the business impact of IT investments.

FinOps core concept

The core concept of FinOps is to maximize the business value of cloud and IT investments through financial accountability, transparency, and operational efficiency.

It focuses on bridging the gap between finance, technology, and business units to make informed decisions that align with strategic goals, ensuring efficient use of resources and optimizing costs while fostering innovation and agility.



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7

The core principle of FinOps is about maximizing the business value obtained from cloud and IT investments. This is achieved by prioritizing **financial accountability, transparency, and operational efficiency**. It ensures that spending is aligned with strategic goals, enabling businesses to realize the full potential of their technology investments.

Key focus areas:

- **Bridging gaps:** FinOps connects **finance, technology, and business units**, creating a collaborative environment where decisions are informed by shared data and objectives.
- **Efficient resource use:** It emphasizes using cloud and IT resources efficiently, avoiding waste while ensuring that investments contribute to innovation and business agility.
- **Cost optimization:** FinOps drives strategies to optimize spending, ensuring costs are justified by the value they generate.

The overall aim is to integrate financial management into operational processes, helping businesses balance innovation, agility, and cost control effectively.

Cloud financial management

There is a growing movement within IT finance towards adopting FinOps, a practice that merges financial principles with operational strategies from diverse sectors like technology and business management.

Organizations possess or access an array of assets (and capabilities) which, when strategically managed, optimize cloud and IT expenditure for value maximization. FinOps frames these expenditures as investments in services and infrastructure that drive business value.



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8

Financial principles are integrated with operational strategies from sectors such as technology and business management. This merging of disciplines is essential in the cloud era, where dynamic and scalable environments demand a balance between cost control and value creation.

Key points:

- **Strategic asset management:** Organizations have access to a wide range of assets and capabilities (e.g., cloud services, infrastructure, and tools). FinOps emphasizes managing these assets strategically to optimize cloud and IT spending.
- **Value-driven investments:** Instead of treating cloud costs as expenses, FinOps reframes them as **investments** in infrastructure and services that contribute to driving business value. This mindset helps prioritize initiatives that deliver the most significant impact.

By aligning financial strategies with operational goals, FinOps ensures that every dollar spent on cloud resources maximizes return on investment while supporting innovation and business growth.

INTRODUCTION TO FINOPS

Understand why FinOps is
necessary, its benefits and the
lifecycle

Introduction

As cloud adoption grows, managing costs and optimizing resources becomes crucial.

This module will equip you with the fundamentals of FinOps, a framework that fosters collaboration between finance, engineering, and business teams to maximize the business value of cloud services through informed decision-making and cost optimization.

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10

As cloud adoption expands, managing costs and optimizing resources becomes a vital challenge for organizations. This module introduces the need for a framework like **FinOps**, which is designed to address these challenges effectively.

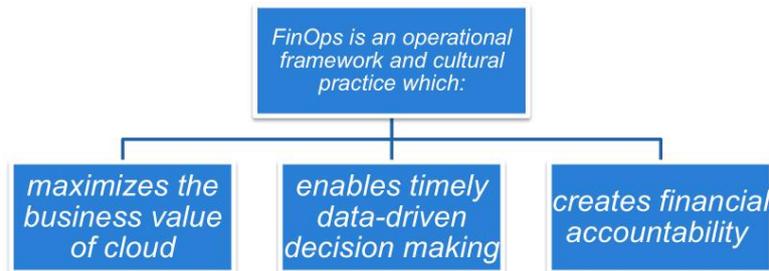
Core idea:

- FinOps brings together **finance, engineering, and business teams** to collaborate on maximizing the business value of cloud services.
- It focuses on **informed decision-making** and **cost optimization**, ensuring that cloud spending aligns with organizational goals and delivers measurable outcomes.

This module serves as a foundational guide to understanding FinOps principles and practices, equipping participants with the skills to manage cloud costs strategically and foster cross-functional collaboration.

FinOps definition

As of February 5, 2024, the FinOps Foundation's updated definition of FinOps is:



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11

The definition emphasizes that FinOps is both an **operational framework** and a **cultural practice**, highlighting its dual role in managing cloud financial operations and fostering collaboration across teams.

Key components:

1. **Maximizes the business value of cloud:**
FinOps ensures that cloud investments are strategically utilized to deliver the maximum return and align with organizational goals.
2. **Enables timely, data-driven decision-making:**
It promotes real-time visibility into cloud spending, enabling decisions based on accurate, up-to-date financial data.
3. **Creates financial accountability:**
FinOps fosters a culture where teams take ownership of their cloud usage and costs, ensuring transparency and responsible spending.

This definition encapsulates FinOps as a discipline that bridges financial oversight and cloud management, driving value through collaborative and informed practices.

FinOps Principles

We use the FinOps Principles as a roadmap to guide our FinOps initiatives:



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12

These principles emphasize collaboration, accountability, and optimized cloud spending.

Key principles:

1. **Teams need to collaborate:**
Successful FinOps relies on cross-functional collaboration between finance, engineering, and business teams to align goals and strategies.
2. **Decisions are driven by business value of cloud:**
All decisions regarding cloud usage and spending should prioritize maximizing business outcomes rather than focusing solely on cost minimization.
3. **Everyone takes ownership for their cloud usage:**
Teams using cloud resources must be accountable for their spending, promoting transparency and responsibility across the organization.
4. **FinOps data should be accessible and timely:**
Accurate and real-time financial data must be available to all stakeholders to enable informed and agile decision-making.
5. **A centralized team drives FinOps:**
A dedicated team ensures consistent implementation of FinOps practices and facilitates collaboration across departments.
6. **Take advantage of the variable cost model of the cloud:**
Cloud's pay-as-you-go model should be leveraged to align costs with actual usage, providing flexibility and scalability.

These principles create a foundation for managing cloud finances strategically, ensuring value creation and operational efficiency.

FinOps Principles

Teams need to collaborate:

- Cloud's real-time billing necessitates close collaboration across Finance, Technology, Product, and Business teams. This ongoing partnership fosters a culture of continuous improvement, driving both cost-efficiency and innovation.

Decisions are driven by business value of cloud:

- To optimize cloud for business impact, prioritize unit economics and value-based metrics over raw spend, and make strategic trade-offs between cost, quality, and speed, leveraging the cloud as a catalyst for innovation.

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13

- **Teams need to collaborate:**
 - The real-time nature of cloud billing requires active collaboration among **Finance, Technology, Product, and Business teams**.
 - This partnership fosters a culture of continuous improvement, where all teams work together to balance cost-efficiency and innovation effectively.
 - Collaboration ensures alignment between financial accountability and operational needs, driving better outcomes for the organization.
- **Decisions are driven by business value of cloud:**
 - The focus is on optimizing cloud resources to maximize business impact rather than merely reducing costs.
 - **Unit economics** and **value-based metrics** take precedence over raw spending figures.
 - Strategic trade-offs between **cost, quality, and speed** are encouraged to leverage the cloud as a tool for innovation, ensuring the best overall outcomes for the business.

These principles emphasize the importance of teamwork and strategic thinking in realizing the full potential of cloud investments.

FinOps Principles

Everyone takes ownership for their cloud usage:

- Empowering engineers and product teams with cloud cost ownership fosters a culture of accountability. This means considering cost-effectiveness from design inception, enabling teams to make decentralized decisions about resource usage and optimization strategies, all while managing their cloud spend against set budgets.

FinOps data should be accessible and timely:

- By instantly processing and sharing cost data, you create a feedback loop that empowers teams to make efficient decisions. Consistent visibility across all levels fosters proactive financial management. Leverage trending and variance analysis to understand cost fluctuations. Additionally, industry benchmarking lets you assess your cloud cost performance against competitors.

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14

- **Everyone takes ownership for their cloud usage:**
 - Empowering engineers and product teams with responsibility for their cloud costs promotes a culture of accountability.
 - Teams are encouraged to consider **cost-effectiveness** early in the design phase and take responsibility for optimizing resource usage and adhering to budgets.
 - Decentralized decision-making allows teams to tailor strategies for cloud resource management while maintaining financial discipline.
- **FinOps data should be accessible and timely:**
 - Providing **real-time cost data** establishes a feedback loop that helps teams make informed decisions quickly.
 - Visibility at all organizational levels supports **proactive financial management**, enabling teams to track cost trends, analyze variances, and respond to fluctuations.
 - Industry benchmarking further enhances this process, allowing organizations to assess their cost performance against competitors and refine their strategies.

These principles highlight the importance of empowering teams with data and accountability to optimize cloud spending and drive efficiency.

FinOps Principles

A centralized team drives FinOps:

- FinOps fosters a shared accountability model, similar to security. A central team encourages best practices and enables their adoption across the organization, while individuals remain responsible for their own cloud environments.

Take advantage of the variable cost model of the cloud:

- Embrace just-in-time provisioning and agile planning, allowing you to adapt to changing needs rather than being locked into static commitments. This fosters proactive system design with continuous optimization, enabling you to avoid expensive clean-up efforts.

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15

- **A centralized team drives FinOps:**
 - FinOps operates with a **shared accountability model**, where a central team acts as a guide to establish and promote best practices across the organization.
 - This team provides expertise, tools, and processes to ensure consistency while individual teams maintain responsibility for managing their specific cloud environments.
 - The approach parallels models in other domains, such as security, where a central team oversees frameworks while delegating operational responsibilities.
- **Take advantage of the variable cost model of the cloud:**
 - The cloud's **pay-as-you-go** pricing enables organizations to adapt to changing demands through **just-in-time provisioning** and agile resource planning.
 - This flexibility avoids overcommitting to static costs, fostering continuous optimization and proactive system design.
 - By embracing this model, businesses can avoid unnecessary expenses, such as costly cleanup or unoptimized resource usage, while maintaining operational efficiency.

These principles underscore how FinOps combines structure and flexibility to maximize value from cloud investments.

Benefits of adopting FinOps

- FinOps goes beyond cost control. It's a cultural shift that empowers engineering, finance, and business teams to make cloud decisions that maximize business value. This is achieved through a framework of best practices and shared accountability for the variable spending model of the cloud.



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16

Benefits of adopting **FinOps** as a practice:

1. **Beyond cost control:**

- FinOps is more than just managing expenses. It represents a **cultural shift** that integrates **engineering, finance, and business teams**.
- By working together, these teams can make decisions that not only control costs but also **maximize business value**.

2. **Framework of best practices:**

- FinOps operates through established **best practices**, promoting efficiency and value-driven decision-making.
- It fosters a culture of **shared accountability**, where all stakeholders play a role in managing the variable spending nature of cloud resources.

3. **Empowerment through collaboration:**

- The shared responsibility model empowers teams to make **informed and strategic decisions**, ensuring the organization gets the most out of its cloud investments.

By adopting FinOps, organizations align their cloud usage with business goals, enabling innovation and financial optimization in a collaborative framework.

Benefits of adopting FinOps

- Through a structured approach, you gain a toolkit of best practices for effective cloud cost management.
- With FinOps, distributed teams work together to make informed choices, weighing speed, cost, and quality for optimal cloud resource allocation.
- FinOps empowers teams to take ownership of their cloud usage, backed by a central group dedicated to best practices.
- FinOps provides organizations with greater visibility and control over both cloud costs and resource utilization.
- FinOps transcends cost savings. It's a strategic approach to unlock the full potential of cloud investments. By optimizing costs and driving efficiency, FinOps empowers businesses to deliver faster, higher-value services.

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17

Advantages of integrating FinOps into an organization's cloud management strategy:

1. **Structured approach and best practices:**

- FinOps provides a **toolkit of best practices** that guide organizations toward effective cloud cost management, ensuring consistent and measurable results.

2. **Collaboration for informed decisions:**

- FinOps encourages **distributed teams** (engineering, finance, and business) to collaborate and make informed decisions. These decisions balance **speed, cost, quality, and efficiency**, optimizing cloud resource allocation.

3. **Empowered teams with centralized support:**

- Teams are empowered to take ownership of their cloud usage, supported by a **central group** that establishes and promotes best practices, fostering a culture of accountability.

4. **Enhanced visibility and control:**

- FinOps provides organizations with **greater visibility** into cloud costs and usage patterns, enabling better control over resource utilization and financial outcomes.

5. **Strategic cost management:**

- FinOps transcends traditional cost-cutting. It is a **strategic approach** that unlocks the full potential of cloud investments, helping businesses **deliver faster, high-value services** by optimizing costs and driving efficiency.

These benefits illustrate how FinOps aligns technical and financial objectives, fostering innovation and agility while maintaining cost discipline.

Unit Economics

Unit Economics is one of the most important terms in FinOps:

- Is a method for analyzing cloud costs in relation to the value they deliver (measured by unit revenue for businesses or success of service delivery for non-profits/public sector).
- Leverages marginal cost (unit cost metrics) and marginal revenue (unit revenue metrics) specific to cloud-based services.
- Focuses on the difference between these metrics to identify the point where cloud operations become profitable (break-even point for non-profits/public sector).



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18

Unit Economics is a core concept in FinOps, focusing on evaluating cloud costs relative to the value they provide. It helps organizations optimize spending and align it with measurable business outcomes.

1. Definition:

- Unit Economics analyzes cloud costs against the **value delivered**, measured by **unit revenue** for businesses or **success of service delivery** for non-profits and public sector entities.

2. Key metrics:

- It uses two main metrics:
 - **Marginal cost** (unit cost metrics): The cost associated with delivering a single unit of service or product.
 - **Marginal revenue** (unit revenue metrics): The revenue or value generated from that single unit.

3. Objective:

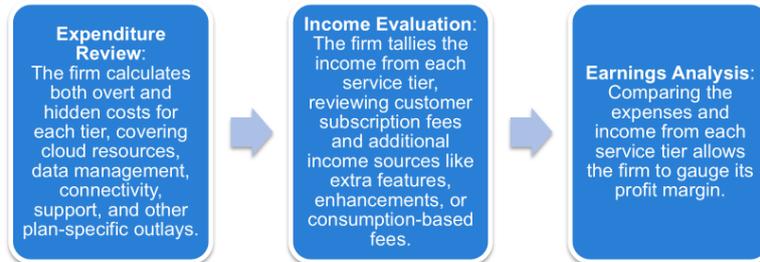
- The goal is to determine the **break-even point**, where marginal cost equals marginal revenue, to identify profitability (or service efficiency for public sector entities).
- This enables organizations to assess where cloud operations start delivering value over costs, ensuring efficient resource utilization and strategic spending.

By focusing on Unit Economics, FinOps aligns cloud investments with tangible business or service outcomes, providing actionable insights to improve cost efficiency.

Unit Economics: Example

Imagine a firm offering a cloud-based software-as-a-service (SaaS) platform, with various subscription options featuring distinct capabilities and resources for clients.

To scrutinize the unit economics, the firm could dissect the financial health of each service tier. Here's the approach:



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19

Let's explain how a firm, such as a provider of cloud-based Software-as-a-Service (SaaS), can analyze **Unit Economics** to evaluate the financial performance of different service tiers.

Scenario:

The firm offers various subscription tiers, each with unique features and associated costs. To scrutinize its Unit Economics, the company can break down financial health at each service tier through the following steps:

1. Expenditure Review:

- Calculate **both overt and hidden costs** for each subscription tier.
- This includes expenses such as cloud resource usage, data management, connectivity, customer support, and other plan-specific costs.

2. Income Evaluation:

- Assess the **revenue** generated by each service tier.
- This involves reviewing **subscription fees, add-on features,** or **consumption-based charges** that contribute to the tier's total income.

3. Earnings Analysis:

- Compare the total **expenses** and **income** for each service tier.
- This step identifies the **profit margins**, helping the firm determine which tiers are profitable and where adjustments might be needed to enhance profitability or cost efficiency.

By following this structured approach, the firm can identify underperforming tiers, optimize pricing strategies, and make data-driven decisions to maximize financial value.

Unit Economics: Example

Take, for example, a specific service tier with high infrastructure expenses due to advanced features yet attracts lesser income than others. Here, the unit economics might signal the tier's unsustainability, signaling a need for reevaluation or cessation.

Through unit economics evaluation, businesses can finely comprehend the fiscal results of distinct offerings, tiers, or services. This process aids in pinpointing avenues to refine costs, bolster income, or tweak pricing models to elevate profit margins.

In the realm of FinOps, unit economics is invaluable as it allows for informed, data-backed choices and the strategic deployment of resources corresponding to the fiscal results of particular cloud-based segments.

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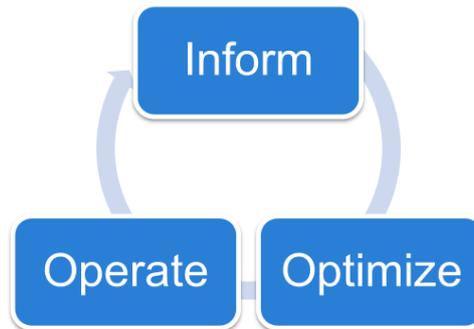
20

- **Scenario:**
 - Consider a service tier with **high infrastructure costs** due to advanced features.
 - If this tier generates less income than its costs, it may indicate **unsustainability**, prompting the need for **reevaluation** or even discontinuation.
- **Purpose of evaluation:**
 - Unit Economics helps businesses deeply understand the **financial outcomes** of each offering or tier.
 - This analysis identifies opportunities to:
 1. **Reduce costs**
 2. **Increase income**
 3. **Adjust pricing models** to enhance profitability.
- **Strategic importance in FinOps:**
 - In the context of FinOps, Unit Economics serves as a critical tool for making **informed, data-driven decisions**.
 - It ensures that resources are allocated strategically, focusing on the most financially sustainable and impactful areas within cloud-based operations.

This example highlights how Unit Economics enables businesses to maximize financial efficiency and operational effectiveness.

FinOps Lifecycle

The FinOps Lifecycle outlines the iterative process that organizations go through to manage their cloud costs effectively. It is a cycle that fosters continuous improvement and is divided into three phases:



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21

The **FinOps Lifecycle** describes the iterative process that organizations follow to manage cloud costs effectively. This lifecycle promotes **continuous improvement** and is divided into three interconnected phases:

1. Inform:

- This phase focuses on creating **visibility and transparency** into cloud spending.
- Teams gather and analyze data to understand usage patterns, costs, and performance metrics.
- It sets the foundation for decision-making by ensuring stakeholders are informed about the financial implications of cloud usage.

2. Optimize:

- In this phase, organizations focus on identifying and implementing strategies to **reduce costs** and maximize the value of their cloud investments.
- This includes actions like rightsizing resources, eliminating unused resources, and taking advantage of discounts or pricing models.

3. Operate:

- The final phase emphasizes **day-to-day management** of cloud resources, ensuring that cost optimization strategies remain effective over time.
- It involves monitoring, governance, and continuously aligning cloud usage with business objectives.

Key takeaway:

The FinOps Lifecycle is a continuous loop where organizations **inform, optimize, and operate** to ensure their cloud spending aligns with business goals while driving financial efficiency.

FinOps Lifecycle: Inform

This phase is about gaining visibility into cloud spending and usage. Organizations collect data to understand where and how their cloud budget is being used. This includes setting up tagging and allocation strategies to attribute costs accurately to the correct teams or projects, providing transparency and accountability.



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22

The **Inform** phase is the foundation of the FinOps lifecycle. It focuses on creating **visibility and transparency** into cloud spending and usage to enable informed decision-making.

- **Purpose:**
 - Organizations collect and analyze data to understand **where** and **how** their cloud budget is being utilized.
 - This helps identify trends, usage patterns, and cost drivers.
- **Key Activities:**
 - Setting up **tagging** and **allocation strategies** to track costs accurately.
 - Attributing expenses to the correct teams, projects, or departments, ensuring **transparency** and **accountability** in cloud spending.
- **Outcome:**
 - By gaining a clear view of costs, stakeholders can make data-driven decisions and set a solid foundation for the subsequent **Optimize** and **Operate** phases.

The **Inform** phase empowers teams with actionable insights, ensuring that cloud investments align with organizational objectives.

FinOps Lifecycle: Optimize

With clear information, organizations can take action to optimize their cloud spending. This involves identifying inefficient or unnecessary expenditure, choosing the right-sized resources, and taking advantage of discounts or reserved instances (RI). It's also about making cost-effective architectural decisions and encouraging a cost-aware culture.



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23

The **Optimize** phase focuses on taking action based on the insights gained during the **Inform** phase to maximize the value of cloud investments.

- **Purpose:**
 - Identify and address **inefficiencies** or **unnecessary expenditures** in cloud usage.
 - Ensure resources are **right-sized** to match workload requirements, avoiding overprovisioning or underutilization.
- **Key Actions:**
 - Leverage cost-saving opportunities such as **discounts, reserved instances (RI)**, or other pricing models offered by cloud providers.
 - Make **cost-effective architectural decisions**, optimizing how resources are deployed and used.
 - Encourage a **cost-aware culture** across teams to ensure ongoing financial discipline in resource management.
- **Outcome:**
 - The result of the Optimize phase is a significant reduction in waste and improved alignment of cloud spending with business objectives, preparing the organization for efficient operations in the **Operate** phase.

This phase is critical for ensuring that cloud spending drives maximum value while maintaining a balance between cost and performance.

FinOps Lifecycle: Operate

This phase involves putting the insights and optimization strategies into practice. Organizations automate cost-optimization processes, establish governance to keep spending in check, and integrate financial accountability into their operational routines. The focus is on operational excellence and embedding cost optimization into the business's day-to-day operations.



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24

The **Operate** phase focuses on embedding the insights and optimizations from the previous phases into the organization's **daily operations**. This phase ensures that cost management becomes a sustainable and routine aspect of cloud governance.

1. Purpose:

- Translate optimization strategies into practical, day-to-day operational processes.
- Integrate financial accountability and governance into ongoing cloud management.

2. Key Activities:

- **Automation of cost-optimization processes:** Implement tools and workflows to continuously manage costs without manual intervention.
- **Establish governance:** Ensure policies are in place to monitor and control cloud spending.
- Embed cost optimization as a regular part of operational routines, making it a natural part of business practices.

3. Outcome:

- The Operate phase emphasizes **operational excellence**, maintaining a balance between cost efficiency and the performance of cloud services.
- Organizations achieve a culture where cost management is integrated seamlessly, supporting long-term financial health and scalability.

By operationalizing cost management, the Operate phase ensures that organizations maintain financial discipline while continuing to innovate and grow.

FinOps Domains

As of March 21, 2024, a revised FinOps framework with four domains has been released:

<https://www.finops.org/framework/>

The four framework domains are described as key areas that yield tangible business results and the primary goals that organizations should focus on when implementing FinOps.

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25

The updated **FinOps framework**, which, as of March 21, 2024, is structured around **four key domains**. These domains represent the critical focus areas for organizations when implementing FinOps practices.

1. Framework Update:

- The revised framework is accessible via the provided link: <https://www.finops.org/framework/> .
- It reflects the evolving best practices in cloud financial management.

2. Purpose of the Domains:

- The four domains are designed to yield **tangible business results**.
- They highlight the **primary goals** organizations should achieve to maximize the value of their cloud investments.

3. Implementation Focus:

- These domains serve as a roadmap, guiding businesses in aligning cloud spending with strategic objectives while fostering accountability and operational efficiency.

Takeaway:

The revised framework provides organizations with a clearer structure for adopting FinOps effectively, ensuring that all efforts lead to measurable outcomes.

FinOps Domains

Understand Cloud Usage & Cost:
This means gaining a clear insight into how cloud resources are being used and what they are costing the organization. It's about having detailed visibility and comprehension of the entire cloud spend landscape.

Quantify Business Value:
This involves measuring the value that cloud investments bring to the business. It's not just about tracking costs but also about understanding the return on investment and the impact on business objectives.

Optimize Cloud Usage & Cost:
Here, the focus is on refining and improving the use of cloud resources to get the most value for the money spent. This means making adjustments to ensure efficiency and cost-effectiveness in the cloud services used.

Manage the FinOps Practice:
This is about overseeing and directing the FinOps activities within an organization. It's the governance aspect, ensuring that the principles of FinOps are being applied consistently and that the organization's FinOps practices are mature and evolving.

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26

- **Understand Cloud Usage & Cost:**
 - Gain a **clear insight** into how cloud resources are used and their costs.
 - This domain emphasizes **visibility** and a complete understanding of the cloud spending landscape to identify areas for optimization and efficiency.
- **Quantify Business Value:**
 - Focus on measuring the **value** cloud investments deliver to the business, not just tracking costs.
 - It involves understanding the **return on investment (ROI)** and aligning spending with broader **business objectives**.
- **Optimize Cloud Usage & Cost:**
 - Refine and improve the use of cloud resources to ensure **maximum value** for money spent.
 - This involves making adjustments to enhance **efficiency** and **cost-effectiveness**, ensuring cloud services align with organizational needs.
- **Manage the FinOps Practice:**
 - Oversee and direct FinOps activities within the organization.
 - This governance-oriented domain ensures that FinOps principles are applied **consistently** and that the practice evolves with the organization's maturity.

FinOps Capabilities

FinOps capabilities represent the specific tasks and skills required to address the challenges of implementing FinOps practices.

These capabilities are like building blocks that enable effective FinOps implementation. They provide the foundation for:

- **Education:** Educating stakeholders on FinOps principles and best practices.
- **Actionable Tasks:** Translating broad FinOps goals into practical activities for different FinOps personas (e.g., FinOps engineer, business manager).
- **Bridging the Gap:** Connecting technology decisions with business objectives, ensuring cost optimization efforts align with overall business goals.

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27

These capabilities act as **building blocks** for organizations adopting FinOps, enabling them to overcome challenges and achieve their goals.

Key Components:

- **Education:**
 - Focus on educating **stakeholders** about FinOps principles and best practices.
 - Ensures that everyone involved understands the goals and methods of FinOps, fostering alignment and collaboration.
- **Actionable Tasks:**
 - Translate broad FinOps goals into **practical activities** tailored to specific roles, such as FinOps engineers, finance teams, or business managers.
 - These tasks bridge the gap between theory and execution, enabling teams to take direct actions that align with FinOps objectives.
- **Bridging the Gap:**
 - Connect **technology decisions** with **business objectives** to ensure that cost optimization aligns with overall business goals.
 - This capability emphasizes collaboration across teams to integrate FinOps into both technical and strategic planning processes.

FinOps Capabilities

After the 2024 revision, the FinOps framework defines 22 capabilities:

Forecasting	FinOps Education & Enablement
Cloud Policy & Governance	Onboarding Workloads
Unit Economics	Reporting & Analytics
Anomaly Management	Budgeting
Data Ingestion	Invoicing & Chargeback
Rate Optimization	Intersecting Disciplines
Planning & Estimating	Benchmarking
Architecting for Cloud	Licensing & SaaS
Cloud Sustainability	FinOps Assessment
FinOps Tools & Services	Allocation
Workload Optimization	Managing Practice Operations

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28

After the **2024 revision**, the FinOps framework identifies **22 capabilities**, which represent the skills and practices required for successful FinOps implementation. These capabilities address various aspects of managing cloud financial operations and provide a comprehensive framework for organizations.

FinOps Capabilities

Every capability comes with its own set of processes, tools, and recommended approaches, and mastery in these areas develops gradually through practice.

It's normal for a team to be more advanced in one area, such as fully understanding the comprehensive costs involved with cloud services, while still developing expertise in another, like refining how cloud resources are used for maximum efficiency. This is completely fine, especially if the strengths align with the organization's unique way of leveraging cloud services.

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29

Each **FinOps capability** involves distinct **processes, tools, and approaches**, which are developed progressively over time as organizations gain experience.

- **Gradual Mastery:**
 - Mastering FinOps capabilities is a step-by-step process. Teams learn to adopt and refine the tools and practices specific to each capability based on their organization's needs and maturity level.
- **Focus on Strengths:**
 - It's natural for a team to excel in certain areas (e.g., understanding cloud service costs in-depth) while still working to improve others (e.g., optimizing resource usage for efficiency).
 - This phased development is acceptable and even expected, as capabilities often grow at different rates.
- **Alignment with Organizational Goals:**
 - What matters most is that the team's strengths align with the organization's unique way of leveraging cloud services.
 - Tailoring the focus to match business priorities ensures that FinOps efforts have the greatest impact.

FinOps Capabilities

The organization should not feel pressured by the complexity, or the multitude of steps involved in FinOps. These skills are meant to be refined over time.

With each cycle of the FinOps process, there's an opportunity to concentrate on different activities that match the current priorities and requirements of the organization. So, each pass through the cycle is a chance to improve in different areas of the FinOps framework, step by step, according to what the organization needs most at that time.

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30

The key is to approach the process as a **gradual journey** of continuous improvement.

1. Refining Skills Over Time:

- FinOps skills and processes are designed to be **refined incrementally** rather than mastered all at once.
- Organizations should focus on **progress**, not perfection, as they develop these capabilities.

2. Iterative Improvement:

- Each cycle of the FinOps process presents an opportunity to focus on specific **activities** and **priorities** that align with the organization's immediate needs.
- This iterative approach allows teams to improve in targeted areas of the FinOps framework step by step, ensuring practical and meaningful progress.

3. Tailored Focus:

- Organizations can choose to prioritize the capabilities that have the most significant impact on their goals during each cycle.
- This ensures that FinOps practices evolve in a way that best supports the organization's strategic objectives.

Takeaway:

Organizations should adopt FinOps at a **manageable pace**, concentrating on what matters most during each phase. This ensures consistent growth without being overwhelmed by the framework's complexity.

Crawl, Walk, Run

The "crawl, walk, run" approach to FinOps is a metaphor for describing the maturity stage an organization goes through to adopt and apply FinOps principles and practices

This step-by-step approach recognizes that knowledge does not happen overnight, and rather it is built through a progressive journey of learning, application and change.



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31

The "**crawl, walk, run**" approach is a metaphor used to describe the stages of maturity an organization undergoes when adopting and applying FinOps principles and practices. It emphasizes a **progressive journey** of learning, applying, and evolving FinOps within an organization.

1. **Crawl (Foundation Stage):**

- At this stage, organizations are just starting their FinOps journey.
- Focus is on building **awareness**, creating **visibility** into cloud spending, and introducing basic FinOps principles.

2. **Walk (Intermediate Stage):**

- Organizations begin to refine their FinOps processes, introducing **governance** and **accountability**.
- Teams start collaborating effectively, and optimization strategies are implemented more systematically.

3. **Run (Advanced Stage):**

- At this stage, FinOps is fully integrated into the organization's culture and operations.
- Decisions are **data-driven**, cost optimization is continuous, and cloud spending aligns with strategic business goals.

Key Takeaway:

This step-by-step progression ensures that FinOps adoption is manageable and sustainable. It recognizes that achieving maturity takes time and builds on the foundations laid in earlier stage

Crawl, Walk, Run

Crawl:

- An organization is beginning to understand what FinOps is and begins to recognize the importance of managing cloud spend.
- Teams learn the basics, such as tagging resources for better visibility or simply accessing billing data.
- The focus is on fundamental practices such as cost visibility and establishing accountability.
- Efforts are often reactive rather than proactive.

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32

The **Crawl** phase represents the foundational stage where organizations are just starting to adopt FinOps principles. This stage is characterized by basic awareness and initial actions toward managing cloud spend.

- **Understanding FinOps:**
 - The organization begins to recognize the importance of cloud financial management and the value FinOps brings.
 - Teams start learning fundamental concepts, such as tagging resources for visibility and accessing billing data.
- **Focus on Fundamentals:**
 - Key practices include establishing **cost visibility** and building **accountability** frameworks.
 - The emphasis is on laying the groundwork for more advanced FinOps practices.
- **Reactive Efforts:**
 - At this stage, actions are often **reactive**, responding to immediate issues rather than proactively managing cloud spend.
 - There is limited strategic planning, with the organization focusing on understanding its current cloud usage and costs.

Crawl, Walk, Run

Walk:

- Organizations have a better understanding of cloud cost management and begin to incorporate FinOps practices into their operations in depth
- There has been a shift to adopting more efficient strategies, and organizations have begun to standardize FinOps practices.
- The focus shifts to consistently applying FinOps principles across teams, with cloud spend better aligned to value.
- Processes begin to be standardized and sophisticated, such as implementing cost allocations and optimizing resource usage.

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33

The **Walk** phase signifies progress in adopting FinOps practices. Organizations at this stage have moved beyond the basics and are incorporating FinOps more deeply into their operations.

- **Deeper Understanding:**
 - Organizations now have a better grasp of **cloud cost management** principles.
 - They start integrating FinOps practices into their workflows and daily operations.
- **Shift Toward Efficiency:**
 - There is a transition to adopting **more efficient strategies**, such as rightsizing resources and optimizing costs.
 - Teams begin to **standardize FinOps practices**, ensuring consistent application across departments.
- **Alignment with Value:**
 - Cloud spending becomes more closely aligned with the **value** it generates.
 - Teams focus on applying FinOps principles systematically, ensuring cost management supports business objectives.
- **Standardized Processes:**
 - Processes such as **cost allocation** and **resource optimization** become more sophisticated and standardized.
 - Organizations leverage data and tools to make informed decisions.

Crawl, Walk, Run

Run:

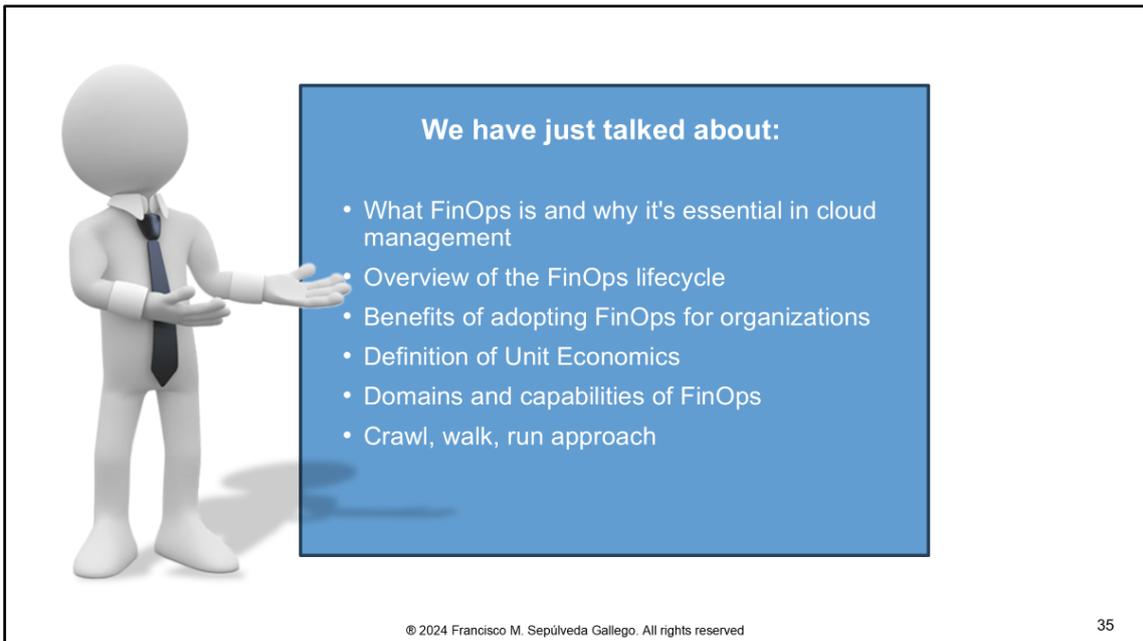
- The "run" phase makes FinOps a well-integrated part of the organization's culture.
- Cloud spending is strategic, with advanced practices fully categorized.
- The focus is on continuous quality and outstanding financial performance, driven by data and research.
- Today, organizational agility even targets real-time decisions, for which there is a mature understanding of the interplay between technology and the levers of finance and operations.

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34

The **Run** phase represents the point where FinOps is fully integrated into the organization's culture and operations. It signifies a high level of maturity in managing cloud financial operations.

- **Cultural Integration:**
 - FinOps becomes a **core part of the organization's culture**, embedded in decision-making processes and operational strategies.
 - Teams work seamlessly across finance, engineering, and business units.
- **Strategic Cloud Spending:**
 - Cloud spending is now fully **strategic**, with advanced practices implemented and categorized.
 - Decisions are aligned with long-term business goals and financial performance metrics.
- **Focus on Continuous Excellence:**
 - The emphasis is on achieving **continuous quality improvements** and ensuring outstanding financial performance.
 - Decisions are driven by **data and research**, ensuring accuracy and alignment with organizational objectives.
- **Real-Time Agility:**
 - The organization can make **real-time decisions**, leveraging a mature understanding of the interplay between technology, finance, and operations.
 - This agility ensures swift adaptation to changes in cloud usage or business priorities.



- **What FinOps Is:**
 - An introduction to **FinOps** as a framework for managing cloud costs and its importance in modern cloud environments.
- **Overview of the FinOps Lifecycle:**
 - A detailed look at the three stages: **Inform, Optimize, and Operate**, and how they enable organizations to manage cloud spending effectively.
- **Benefits of Adopting FinOps:**
 - The organizational advantages, including **cost efficiency, financial accountability**, and **strategic alignment** with business goals.
- **Definition of Unit Economics:**
 - Understanding how to evaluate cloud costs relative to the **value delivered**, using metrics like marginal cost and revenue.
- **Domains and Capabilities of FinOps:**
 - An exploration of the **four domains** and **22 capabilities**, which guide the implementation of FinOps practices.
- **Crawl, Walk, Run Approach:**
 - A maturity model that outlines the progressive journey of adopting and mastering FinOps, from foundational practices to full integration.

Knowledge Check

Identify the option that does not represent a fundamental principle of FinOps:

- A. Collaboration among teams is essential
- B. Context is provided through performance benchmarking
- C. Cloud decisions are driven by business value
- D. FinOps is directed by a central team
- E. Cloud usage responsibility is shared by all



Knowledge Check

Identify the option that does not represent a fundamental principle of FinOps:

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- B. Context is provided through performance benchmarking
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- D. FinOps is directed by a central team
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37

Correct Answer: B - Context is provided through performance benchmarking

While **performance benchmarking** is an important practice in cloud financial management, it is not one of the **core principles** of FinOps. The principles focus on collaboration, accountability, and decision-making driven by business value.

Explanation of Other Options:

- **A. Collaboration among teams is essential:**
Collaboration between finance, engineering, and business teams is a key pillar of FinOps.
- **C. Cloud decisions are driven by business value:**
This principle ensures cloud spending aligns with strategic goals and delivers measurable outcomes.
- **D. FinOps is directed by a central team:**
A centralized team provides governance and guidance for consistent FinOps practices across the organization.
- **E. Cloud usage responsibility is shared by all:**
FinOps emphasizes shared accountability for cloud spending among all stakeholders.

Knowledge Check

Identify which of the following does not describe a characteristic of FinOps:

- A. It is a structured approach
- B. It aims for business benefits
- C. It centers on unit economics
- D. It unites Finance, Technology, and Business disciplines
- E. FinOps needs to be finalized before starting cloud migration



Knowledge Check

Identify which of the following does not describe a characteristic of FinOps:

- A. It is a structured approach
- B. It aims for business benefits
- C. It centers on unit economics
- D. It unites Finance, Technology, and Business disciplines
- E. **FinOps needs to be finalized before starting cloud migration**



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39

Correct Answer: E - FinOps needs to be finalized before starting cloud migration

FinOps does not need to be fully implemented before starting cloud migration. In fact, it is often adopted progressively **during** cloud usage as organizations refine their cloud cost management practices.

Explanation of Other Options:

- **A. It is a structured approach:**
FinOps provides a well-defined framework with clear principles and processes to manage cloud costs effectively.
- **B. It aims for business benefits:**
FinOps aligns cloud spending with organizational goals, ensuring tangible business value.
- **C. It centers on unit economics:**
A key focus of FinOps is understanding the relationship between costs and the value generated, which is the essence of unit economics.
- **D. It unites Finance, Technology, and Business disciplines:**
Collaboration across these disciplines is fundamental to the success of FinOps, ensuring alignment and shared accountability.

Knowledge Check

What is the most accurate description of unit economics within FinOps?

- A. The additional cost of a new service after determining the expenses of current cloud services
- B. The average cost of individual computing instances, considering all accounts, subscriptions, and projects in cloud utilization
- C. The analysis of overall cloud expenses incurred to generate a specific unit of value for the organization



Knowledge Check

What is the most accurate description of unit economics within FinOps?

- A. The additional cost of a new service after determining the expenses of current cloud services
- B. The average cost of individual computing instances, considering all accounts, subscriptions, and projects in cloud utilization
- C. The analysis of overall cloud expenses incurred to generate a specific unit of value for the organization



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41

Correct Answer: C - The analysis of overall cloud expenses incurred to generate a specific unit of value for the organization

This definition highlights that unit economics is about understanding the **relationship between costs** and the **value delivered**, providing insights into how cloud resources contribute to organizational goals.

Explanation of Other Options:

- **A. The additional cost of a new service after determining the expenses of current cloud services:**
While this describes incremental cost analysis, it does not capture the broader concept of unit economics, which focuses on cost-value alignment.
- **B. The average cost of individual computing instances, considering all accounts, subscriptions, and projects in cloud utilization:**
This describes resource-level cost analysis but does not connect these costs to the value generated, which is central to unit economics.



Course schedule

- Day 1: Introduction to FinOps and Inform Phase
 - ✓ Introduction to FinOps
 - Preparation and Initial Insights
 - Implementation of Cost Allocation
 - Forecasts and Budgets
- Day 2: Optimize and Operate Phases
 - Resource Usage Optimization
 - Cost Optimization Strategies
 - Sustainability and FinOps
 - Organizational Alignment and Automation
 - Metrics and KPIs for Continuous Optimization
 - Connectivity with Other Frameworks
 - Advancing Towards FinOps Excellence

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42