



Technical Debt Remediation: Get Control of Spend with FinOps



IBM
Platinum Partner



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Financial Discipline in a Hybrid World

For years, the primary goal was simple: get control of cloud spending. FinOps helped organizations do that. Visibility improved. Waste dropped. Accountability increased.

Now the question is broader.

Hybrid environments are the norm and modernization initiatives are accelerating, forcing financial management to extend beyond isolated cloud costs. Workloads now span public cloud, private infrastructure, and legacy systems. Labor, maintenance burden, integration complexity, and security risk all influence the true cost of delivering a business service. When those factors are not considered together, optimization efforts can improve efficiency in one area while constraints persist in another.

FinOps has evolved in response to this reality. What began as a discipline focused on controlling cloud spend is increasingly becoming a broader operating model for aligning technology investment with business priorities. Connecting infrastructure usage with cost and accountability enables leaders to move beyond



reactive cost management and make strategic choices that accelerate modernization and strengthen long-term value.

In a Modern Operations environment, the objective is not simply to reduce spend. It is to understand what services truly cost, where risk accumulates, and how investment decisions affect performance, resilience, and agility across the entire technology environment. When applied with this broader perspective, FinOps helps transform IT spending from a reactive cost-control cycle into a strategic capability.

• Making Cloud Costs • Predictable and Controllable

Whenever you adopt new tools or a new way of delivering something with technology, how you measure the costs will change — and not always in predictable or easily understandable ways. When the IT world shifted from mainframes to distributed computing, the cost model shifted with it. The transition to the cloud is similar.

While it's always been very important for organizations to understand the cost of IT to support the business, new tools and processes are now available to help us understand IT costs with more precision by helping organizations:

- Find and eliminate waste, such as overprovisioning
- Make data-driven decisions about the best platform for a workload: cloud or on-prem
- Continuously optimize workloads for cost and performance using AI and automation
- Accurately tie the true cost of a workload to a business service
- Make IT and the cloud a competitive advantage

Financial operations — or FinOps — promises to help organizations deliver services at a predictable and controllable cost. If you're running multiple applications for multiple outcomes on multiple platforms, FinOps can help you optimize your spend.



⋮ New Opportunities ⋮ for Cost Containment

Detailed invoicing from cloud service providers has opened a new opportunity to get equally detailed insight into cloud spending and bring that granularity down to on-premises data centers as much as possible for a more complete picture of how IT cost drives business value.

The result is that businesses make better decisions based on knowing what's driving revenue, and IT decision-makers can make better decisions knowing what's driving waste. By not following a FinOps approach, you're likely to make faulty assumptions based on generalizations and end up paying more than you need to.



What FinOps Does

The FinOps Foundation defines FinOps as “an operational framework and cultural practice that maximizes the business value of cloud, enables timely data-driven decision-making, and creates financial accountability through collaboration among engineering, finance, and business teams.”

On a more practical level, FinOps is a framework to control spending by reallocating costs or optimizing workloads. The idea is to connect insights derived from visibility into IT spending to your goals for growth and scale that efficiency as the business grows.

FinOps provides visibility into cloud spending as a basis for cost optimization.

Cost Visibility

The promise of lower costs in the cloud hasn't materialized for many organizations and is a huge area of concern. The FinOps framework enables visibility into spending across the organization, so you know exactly where spending is being applied and where it might be reallocated for cost efficiency without negatively impacting performance. Visibility leads to accountability and helps you connect spending to business strategy.

Cost visibility helps identify things like idle resources, overprovisioned workloads, and orphaned resources. Visibility helps you confirm that scaling doesn't cost more than the revenue it generates. And it provides a starting point for cost optimization, which is the ability to take action to cut unnecessary spending.





Cost Optimization

Once you have a better understanding of where money is going, you can begin to make adjustments. Cost optimization is the exercise of acting on opportunities for cost savings, either by reducing consumption, negotiating a better price, or both.

Automate FinOps for Continuous Optimization

Once an organization becomes familiar with FinOps, it can automate the process for continuous optimization across the enterprise. Automation can handle hundreds or thousands of cost optimization actions in real time across the entire application stack, infrastructure, and all resource dependencies.

Automation also helps take advantage of cloud elasticity — the ability to dynamically adjust resource configurations so applications get what they need when needed and adjust back when extra resources are no longer needed. This avoids using overprovisioning as a performance insurance strategy.

Why FinOps is Important in a Modern Operations Environment

Modern Operations is about making sure your hybrid environment operates as efficiently as possible in terms of required performance, security, resilience, and access.

The real question isn't just how to use the cloud. It's how to place workloads where they create the most business value. The cloud's ability to support rapid change delivers significant strategic advantage, and for certain workloads it can also reduce cost. But not every workload benefits equally. The key is evaluating whether each workload runs more efficiently in the cloud or on-prem, and making placement decisions that maximize speed, cost effectiveness, and overall business impact.

Dynamic, burst-heavy workloads, like spinning up thousands of VMs to train an AI model, are best suited for the cloud, where rapid scaling delivers maximum efficiency. Steady-state applications typically run more cost-effectively on-prem because they don't benefit from cloud elasticity and can take advantage of existing data center investments. In a hybrid environment, the goal is to place each workload where its operational cost and risk are optimized across both platforms.

Many businesses run mobile applications, which have very different usage patterns and performance needs than a steady-state workload. These applications require a dynamic environment. The cloud is well suited because it enables frequent updates and rapid response to customer demand, strengthening engagement and stickiness.

Once you determine the right environment for each workload, you can focus on optimizing its cost. Steady-state applications typically gain the most value from increasing resilience and efficiency on-prem, where predictable demand aligns with stable infrastructure. Dynamic workloads in the cloud require a different approach, which involves finding low-cost ways to absorb spikes without over-committing to capacity that is rarely used.

The ability to fine-tune cloud spend gives organizations the flexibility to align financial commitments with real business value delivered by cloud-based applications, while maintaining cost efficiency across both cloud and on-prem environments.

Technical Debt Remediation: Removing the Hidden Constraints

Organizations that adopt FinOps often see quick wins: reduced waste, better tagging discipline, and clearer accountability for cloud use. Yet even with the right sizing and cost controls, modernization can still be slow or costly. The underlying issue is often technical debt. Rigid systems, rising labor costs, and legacy integration challenges reshape the economics of IT. When those factors aren't included in financial decisions, organizations may optimize spend without addressing the constraints that actually limit change.

How Technical Debt Distorts Investment Decisions

Technical debt is often framed as a technology issue, but its impact is fundamentally financial. Systems burdened with technical debt are frequently stable and deeply embedded in business operations, which makes it easy to postpone upgrades. Over time, however, the rigidity, integration limits, and security risks of legacy platforms drive cost in ways that are not visible through traditional budgeting, reshaping the true economics of modernization.

For IT and business leaders, labor and extended maintenance are often the largest cost drivers. Legacy platforms often require specialized skills that are increasingly harder to find and more

expensive to retain. Much of the real effort, like overtime, informal support, and manual workarounds, do not appear in formal cost models, yet they consume budget and valuable engineering capacity. At the same time, maintenance contracts and extended support fees typically rise each year, even as the systems deliver less strategic value.

Integration adds further cost. As parts of the environment modernize, older systems often require custom connectors, manual workarounds, or additional tooling to remain functional. In some cases, teams rely on locally managed or unofficial tools to keep legacy platforms running.

These shadow systems may be critical to operations but sit outside formal governance and financial models, creating hidden risk and cost.

When these factors are excluded from reporting, the true cost of delivering a service becomes fragmented. Cloud consumption may be optimized, but labor, maintenance, and unofficial tooling continue to absorb budget and capacity. The result is an incomplete picture of what real cost constraints exist.

How Technical Debt Distorts Modernization Decisions

Technical debt does more than increase cost. It changes how modernization decisions are made. When financial visibility stops at cloud consumption, optimization efforts focus on what's measurable. Teams right-size workloads, eliminate idle resources, and renegotiate contracts. Those actions create value. But if legacy labor, maintenance burden, risk exposure, and integration overhead are not reflected in the model, investment decisions are based on partial data.

An organization might conclude that a steady-state workload is cheaper on-prem based only on infrastructure cost, overlooking the growing labor and maintenance burden required for aging systems. Conversely, cloud expansion may appear expensive without accounting for the operational burden it replaces. In both cases, the analysis is technically correct but strategically incomplete.

Technical debt also increases security and compliance risk. Legacy applications depend on outdated operating systems that are harder to patch, leaving gaps modern tools can't close. The financial impact of those risks rarely appears in standard cost models, yet they influence long-term budgeting investment decisions. When risk is separated from cost, optimization becomes disconnected from reality.

Optimizing IT operations solely on reported costs misses the opportunity to improve overall performance and reduce long-term expenses.

A more effective approach includes accounting for the resources required to maintain stable operations and integrate legacy systems. This shifts organizations from simply stabilizing cloud and storage spend to removing the deeper constraints that prevent modernization. As a result, IT investment decisions can more effectively support and accelerate strategic initiatives.





What a Disciplined Technical Debt Remediation Strategy Requires

A disciplined technical-debt remediation strategy begins with expanding financial visibility to capture the full cost of operating legacy systems, including labor, maintenance, and integration overhead, across all hybrid IT environments. Financial models must reflect the true cost of delivering services, not just infrastructure consumption.

In practice, this means integrating cost modeling, cloud allocation, and operational insight into a single decision framework. Planning should account for where engineering capacity is actually being spent, not just where infrastructure dollars flow. This clarity helps determine whether incremental optimization is sufficient or whether removing legacy constraints will unlock greater long-term value.

When technical debt remediation is integrated into financial planning, cost management moves beyond short-term budget control to strategic modernization. Leaders gain a more accurate view of what services cost, what risks they introduce, and where targeted investment will reduce operational friction. The focus shifts from trimming cloud spend and toward eliminating the underlying constraints that shape long-term technology decisions.

Common Challenges in Implementing FinOps

One of the biggest challenges for implementing FinOps is understanding how the application environment aligns with business services. The IT industry has been talking about this for decades but we're still not very good at it. For example, do you factor in the cost of application development effort? How much does a sprint cost? What does it take to deliver a banking application? If it involves DNS, are you counting the cost of DNS?

The second biggest challenge is properly tooling up to gather the data required for cost optimization. Application performance management (APM) or configuration management database (CMDB) tools can gather much of the required data.

Other tools, like IBM Cloudability, can gather quality data to implement FinOps, helping organizations jump common hurdles such as:

- Inconsistent tagging and costing across cloud providers
- Inability to easily detect cloud waste, anomalies, or orphaned or idle resources
- Inability to easily compare multi-cloud discount programs
- Inability to assign or reduce container costs in the cloud
- Inability to determine a complete set of cost drivers or allocate shared costs accurately
- Inability to connect cost and revenue data holistically
- Reliance on overprovisioning to ensure application performance
- Inability to align performance and cost to business requirements

Basic Components of a FinOps Approach

The maturity journey for FinOps starts with technical optimization, which helps ensure IT efficiency. Once that's accomplished, organizations can progress to engineering IT resources for a financial advantage, followed by business optimization, where organizations can begin to accurately map technical resources to business outcomes.

Technical Optimization — Low Hanging Fruit

While overprovisioning resources has its advantages in terms of resilience and customer experience, it comes at a high cost. The low-hanging fruit for FinOps is technical optimization. It's about right-sizing resources for the workload. For example, have you provisioned too much storage? Do you have more memory than you need? Have you picked a server size twice the number of processors needed to run the workload? Tightening up provisioning can deliver quick wins for a FinOps program.

Once you capture the data and have services correlated to the data being collected, financial and business optimization becomes fairly easy.

Financial Optimization — Engineering for Cost Reduction

Financial optimization is about financial engineering, for instance, making decisions about buying high-priced reserved instances or low-cost spot instances. Spot Instances offer up to 90% discount but carry the risk of interruption. Reserved Instances offer up to 70% decreased rates with high availability but come with long commitment periods.

Financial optimization is about how you design consumption and negotiate contracts with cloud providers to minimize cost and maximize value. For example, how many reserved instances do you really need? Maybe you can reduce them from 200 to 50 without impacting performance.

You can also implement new technology to automate cloud savings. For instance, sophisticated software can dynamically move workloads to take advantage of spot instances.



Business Optimization — Connect Spend to Value

Business optimization is where you connect the cost of an IT resource to the business value delivered. For example, the ability to show that a particular EC2 node and a particular storage pool tie back to a specific application, or the ability to correlate external IP addresses to an application. Business optimization is the gateway to reallocating IT savings to other areas of the business such as ongoing modernization, marketing, or product innovation.

To accurately correlate IT resources to business outcomes, it's crucial to have a strategy for tagging resources or otherwise identifying resources in an ongoing way. Detailed tagging enables you to see how technology integrates with the business services being delivered and better determine the cost of IT to support a business service.

In addition, organizations need to choose how mature they want to get with FinOps. You can theoretically get 100% visibility, but the time, effort, and resources to do that may be prohibitive. It's important to match your efforts to the amount of value you need. You don't need to overdo FinOps to get value from it.

Tools to Support FinOps

Modern FinOps requires more than dashboards. It depends on accurate financial modeling, detailed consumption visibility, and the ability to act on insights in real time. In hybrid environments, these capabilities must work consistently across cloud, on-prem, and mixed systems so organizations can make decisions based on a complete and comparable view of cost and performance

Together, these IBM tools help teams progress from financial clarity to continuous operational optimization.

IBM Apptio

IBM Apptio models and allocates technology costs across cloud, on-premises infrastructure, licensing, labor, and shared services. Rather than relying on isolated invoices or spreadsheets, organizations can use Apptio to build a consistent cost model that reflects how technology actually supports the business.

By allocating those costs to applications, services, and business units, Apptio clarifies what it truly costs to deliver a given service, including labor, maintenance, and support costs tied to legacy systems. This is particularly important in hybrid environments,

where modernization decisions require an accurate comparison of workloads across platforms.

Apptio also supports show-back and charge-back processes, helping finance and technology leaders move beyond reactive cost control toward structured planning and investment decisions. In addition, it enables organizations to compare technology spending against relevant peer groups, providing context for investment levels and highlighting areas where costs may be out of alignment with industry norms.

IBM Cloudability

IBM Cloudability provides detailed visibility into multi-cloud spending. While each hyperscaler offers its own reporting tools, most organizations operating across platforms need a consolidated view. Cloudability brings those data sources together so teams can see where cloud dollars are going and who is responsible for them.

By normalizing tagging and consumption data, Cloudability enables consistent allocation of cloud costs to applications, products, and

business services. It highlights patterns that are difficult to detect in raw billing files, such as idle resources, overprovisioned workloads, container sprawl, or unexpected spikes. This enables teams to focus optimization efforts where they will have measurable impact.

In hybrid environments, that clarity becomes essential. When organizations compare cloud expansion to on-premises alternatives or address technical debt in legacy systems, accurate cloud cost attribution helps ensure decisions are grounded in real consumption data rather than assumptions.

IBM Turbonomic

IBM Turbonomic automates FinOps execution across cloud, multi-cloud, and on-prem environments, ensuring performance and cost optimization anywhere applications run. While financial modeling and cost analytics provide visibility into spending, Turbonomic acts on that insight by adjusting resources in real time to balance performance and cost.

Using AI-driven analytics, Turbonomic evaluates application demand across cloud and on-premises environments and recommends or automatically executes actions such as resizing compute, reallocating resources, or shifting workloads. The result is reduced waste without sacrificing resilience or user experience.

As organizations modernize and introduce new architectures alongside legacy systems, automation helps maintain performance while lowering operational overhead.





Evolving Solutions complements these capabilities with its own tools to evaluate public cloud spending and optimization efforts.

How the IBM Tools Work Together

Apptio, Cloudability, and Turbonomic address different layers of the same challenge.

Apptio models and allocates technology costs across the enterprise. Cloudability delivers detailed insight into cloud consumption and allocation. Turbonomic applies automation to continuously optimize resource usage.

Taken together, the progression is straightforward: model the costs, allocate them accurately, and optimize based on real data. This connects financial oversight with operational execution and gives organizations clearer insight into what services cost, how resources are used, and where optimization can be sustained over time across cloud and on-premises systems.

How Evolving Solutions Is Uniquely Qualified to Help

Evolving Solutions has spent almost three decades helping organizations optimize their IT spending and correlate that spend back to business value. As cloud and data center operations experts, we understand the whole IT environment. We are uniquely qualified to help organizations optimize their IT operations for business value, including the knowledge and experience to help make judgments about the best environment to run a workload.

As an IBM Platinum Business Partner, Evolving Solutions can help you start and mature a FinOps program in your organization by working with you to identify the business and technical processes that support FinOps, such as identifying and implementing integrations to capture consumption and financial data for analysis. As your FinOps program matures, Evolving Solutions can help you automate the process for continuous dynamic technical optimization.

Let's Get to Work!

Our team members are among the most experienced in the industry — many have decades of experience working their way up to senior positions in the real world of systems administration, architecture, security, and operations, which gives us a unique empathy for our clients' challenges and opportunities.

Let us help you get started down the right path to FinOps.

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