

Take Control of Cloud Costs with FinOps



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Executive summary

When enterprises moved to the cloud, they put infrastructure provisioning in the hands of engineering teams.

But in many cases, enterprises didn't incentivize these teams to control costs, nor did they enable a framework to show how cloud spending was allocated. Costs often spiraled out of control and couldn't be linked back to business value or continually optimized.

Going forward, technology and business leaders must implement effective FinOps programs in order to obtain full value from the cloud for their enterprises.



Background

Nature of the Opportunity

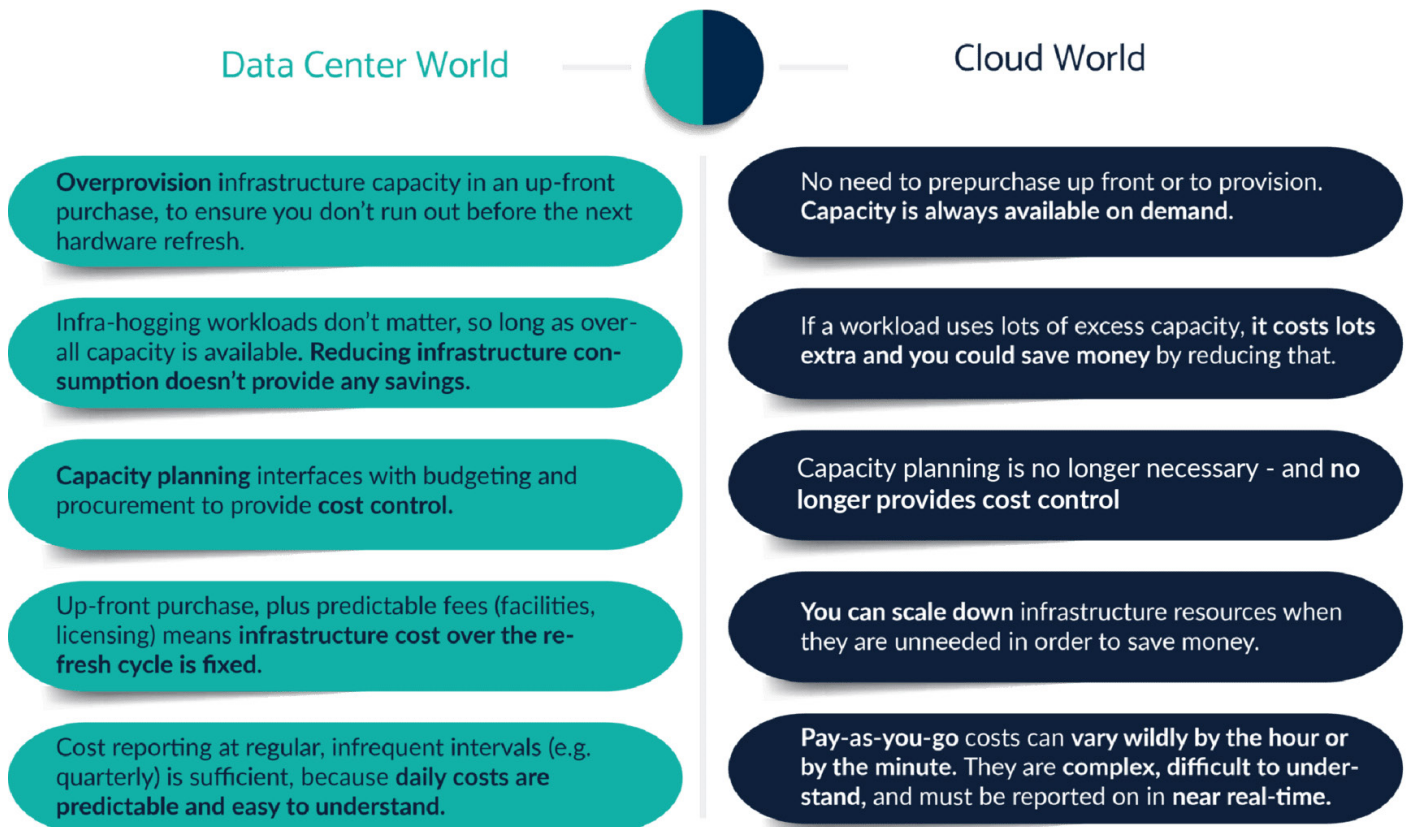
We're not in Kansas anymore...

Many organizations have moved to deploy cloud technology, but they haven't maximized the cloud's value because their way of working hasn't changed.

Enterprises traditionally procured infrastructure through large capital expenditures for data center hardware. After each expenditure, costs were relatively stable, predictable, and easy to understand until the next refresh.

Such large capital expenditures often irked CFOs, but executives and finance teams at least had visibility into the costs and could approve spending in advance.

The shift to the cloud heralded a sea change in the procurement and deployment of infrastructure resources. Massive differences in cloud vs. on-premises infrastructure have huge implications for how organizations operate, as seen in the chart on the right:



Organizations often overspend on the cloud because they ignore these crucial distinctions and continue to operate as if the cloud were an on-premises data center.

For example, HYCU's Kim King, Senior Director of Product Marketing, says "one of the biggest culprits of cloud overspend is neglecting to terminate cloud instances when they are no longer needed."

Stratascale Field CTO Jason Hood has other good advice about the developer's sandbox:

Be on the lookout for 'sandbox costs' too, which can happen when a business stands up new environments to support app development and then forgets to shut them down... Take the opportunity to focus on how to shut down environments when not in use. Development, redundant application servers, and disaster recovery (DR) servers are all great candidates.

If organizations continue to operate in the cloud like they did in the data center, they will at best leave money on the table, and at worst hemorrhage massive amounts of cash.

Nature of the Opportunity/Problem

The FinOps Imperative

When organizations deploy infrastructure in the cloud, they move from buying "things" to buying "proportions of usage of things over time." Their developers—many of whom can't even buy stationery without a signed purchase order—can now provision multimillion-dollar run-rate environments with the call of an API.

Every organization either has reached or will reach a tipping point where an executive questions the spend on cloud infrastructure resources. For some organizations, that might be \$20 million per year. For others it might be 200 million per year. Either way, eventually someone asks, "Why are we spending this much?"

Without a mature FinOps program, no one in the organization will be able to answer this question, and not being able to explain why the enterprise spent \$200 million dollars could be embarrassing.

An effective FinOps program allows organizations to:

- Reduce cloud infrastructure costs by 30-70%, which could equate to millions or billions of dollars saved annually.
- Accurately charge back cloud infrastructure costs to the appropriate cost center or line of business.
- Report on the value created by spending on cloud infrastructure resources.
- Hold engineering teams and product teams accountable for running infrastructure in a cost-effective way.
- Enable the organization's executive leadership to make informed decisions about trade-offs between speed, cost, and quality.

Solutions

Implementing FinOps

Taking an iterative approach...

An effective FinOps program requires accountability, visibility, and processes and procedures that enable sound governance.

To implement FinOps effectively, organizations must change their culture and their way of working. Such a project can be a heavy lift.

Organizations may be tempted to tackle this as a “big bang” waterfall-style project. But it’s more effective and less risky to take an iterative approach where the organization proceeds through a process loop multiple times to reach the “end state” of an effective FinOps program.

The approach would look something like the image below:





Depending on an organization's level of maturity, their FinOps program would have different levels of capabilities and different objectives, as set out in the chart below:

	Beginner Goals ▼	Intermediate Goals ▼	Advanced Goals ▼
Reporting & Spend Allocation	Stop relying on just cloud provider invoices + manual reconciliation alone	Target frequency at >1-day lag. Strive for partial visibility. Start using detailed past billing data, even though some usage may still be limited and/or incomplete	Target frequency at <1 hour, or near real time. Achieve full visibility of all spend. Integrate with detailed and complete past billing data
Showback/ Chargeback	Start implementing showback/chargeback	Apply showback/chargeback based on estimates	Operate showback/chargeback based on actual usage, and teams understand it
Budgets & Forecasting	Start to establish budgets, forecasting at the team level	Operational budgets, forecasting at the team level	Teams own active budgeting, forecasting, and tracking of current, projected spend against budget
Discounted Pricing	Take early steps to achieve initial 20-40% utilization of discounted pricing	Achieve 40-50% utilization of discounted pricing	Achieve 80-100% utilization of discounted pricing
Removal of Idle Resources	Start to remove idle resources more often than once per quarter	Remove idle resources on a weekly basis	Automate the removal of idle resources, based on defined policies

Considerations

Key Considerations

Developing an approach for your organization.

Centralized vs decentralized budget model:

Organizations must decide how they're going to handle the budgeting. They'll first need to determine whether to centralize or decentralize their budgeting for cloud infrastructure. For most enterprises, a centralized IT budget is best. But a conglomerate, holding company, or private equity firm might prefer decentralized budgets. The choice will have an impact on finance, operations, and budgeting as well as on how the organization manages the accounts and set up with the public cloud provider.

Products: The organization's mix of revenue-generating vs non-revenue-generating products will have an impact on budgeting and reporting. Revenue-generating products should involve a P&L (profit and loss) for reporting, whereas non-revenue-generating products are cost centers but should still report on business value in some way (e.g., number of transactions processed, number of users supported).decisions and implement governance around both cost and environmental impact.

In-house vs outsource: At a smaller level of cloud spend, managed services may be an appropriate way for organizations to keep cloud costs in check. But once an organization achieves even a modest level of spend (>\$6 million/year), they can likely achieve a worthwhile ROI (return on investment) by establishing a dedicated FinOps team in-house.

How to split shared costs: Not all costs can be directly allocated back to a single product or line of business. Organizations will need to determine how to split up shared costs such as a data lake used by multiple teams, or licensing and support costs for end-to-end monitoring tools that cover multiple applications. Generally, organizations will choose one of the following methods for divvying up shared costs:

- **Proportional:** according to the percentage of direct costs
- **Even split:** equally across all the business units
- **Fixed:** based on set amounts defined by the organization





Recommendations

Focus on organizational change

Establish strong executive sponsorship: Since enabling an effective FinOps program requires a large amount of organizational and cultural change, organizations are far more likely to achieve success if a strong, highly visible, and involved executive sponsor works to drive the change.

Build out a communication plan: A well-thought-out and professional communication plan will help to establish buy-in. It also ensures that everyone knows how the changes affect them, and what will be expected of them and their team.

Staff the project with those skilled in organizational change: Changing people's way of working is much more difficult than changing technology or writing a new policy. Personnel with a background in communications disciplines such as program or project management, marketing, public relations, education, or corporate training can be valuable for driving the sponsor's vision to the front lines.

Drive desired behavior: When you implement FinOps, you're asking many people to change how they work in a drastic way. What's in it for them? As part of the program, you need to design, communicate, and put in place incentives that reward people for doing what you want. For example, evaluating the performance of engineering teams based on achievement of target budgets, not just on feature releases. You could also consider implementing gamification, for example, by establishing a leaderboard for engineering teams and having them compete over how much cost savings they can realize.

Take an iterative approach: Attempting to implement massive organizational change such as FinOps through a "big bang" approach is generally a recipe for disaster. It's less risky and more effective to work toward multiple feedback loops, to gradually iterate toward the desired end state. For example, you might start by implementing showback, and then later move to chargeback.

Use automation to close the loop: Many cloud cost optimization platforms will produce recommendations automatically, but it can prove challenging to get those recommendations actioned. In cases where human decision making is required, organizations should make it easy—or effortless—for someone to do the “right thing.” For example, a ticket could be generated to rightsize a resource. This is what good-better-best might look like at different stages of organizational maturity:

- **Good:** Ticket is automatically assigned to the owner of the resource, who is then held accountable for rightsizing the resource. If the owner does not rightsize the resource within a set period, the ticket is automatically escalated to their manager.
- **Better:** Ticket is automatically assigned to the owner of the resource, along with specified right-sizing actions. The owner can click a button to kick off automation that will right-size the resource based on the defined specifications, or they can modify those specs if necessary. If the owner does not rightsize the resource within a set period, the ticket is automatically escalated to their manager. **Work with a consultant:** FinOps may still be relatively new, or a relatively large shift for many organizations. But there are experts out there who have done this before. Most organizations will benefit from bringing in someone with expertise to help guide their program.
- **Best:** Ticket is automatically assigned to the owner of the resource, along with specified rightsizing actions. The owner may edit the rightsizing specs or opt out. If no action is taken within a set period, the resource is automatically rightsized.



Summary and Conclusion

As enterprises continue to shift more workloads into the cloud and stand up more cloud-native workloads, their spending on cloud infrastructure resources will only continue to increase. An effective, mature FinOps program is the only way to answer questions about who is spending what, and to enable business leaders within the organization to make informed decisions about the trade-offs between speed, cost, and quality.

FinOps will soon be table stakes for any organization running in the cloud, and leaders who establish mature FinOps capabilities will be setting their organizations up for success in the digital economy.

Related Research

[Stratascale Horizon Report on Cloud Ascension \(Vol. 1\): Cloud Cost Optimization](#)





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Questions? Comments? Feedback?

Contact us at Stratascale.com

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He has almost 30 years of experience running cloud, infrastructure (server, storage, and network), desktop, service desk, security, HPC, and data teams for both Fortune 500 and private equity-funded companies. Most recently, he has focused on the operations side of large data centers, IT modernization, and cloud migrations.



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Josh leads the Stratascale Enterprise Cloud Solutions Architecture practice, bringing years of Fortune 20 cloud architecture, strategy, and FinOps experience to solve the cloud adoption, operations, and optimization challenges large enterprises face.



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Kim is senior director of product marketing at HYCU. She has over 15 years' experience driving, managing, and executing strategic go-to-market initiatives in healthcare and technology, and is an enthusiastic leader with a passion for people development.



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Derek is head of research at Stratascale's Innovation Labs. Throughout his career—from academia to personal finance to IT research—he has focused on uncovering insights and helping people put those insights to good use.

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Thank you
for reading.

