

EDITOR'S LETTER

Managing Cloud Costs With FinOps

Inflation and economic uncertainty is hitting everyone hard–for consumers, everyday necessities like food, transportation, clothing are more expensive (my grocery bill doubled, and I can't blame it all on my pre-teen, though he and his friends certainly do their part to keep the cupboards bare!). But organizations, too, are seeing increases, especially when it comes to cloud. This is especially surprising for those who moved to the cloud to save money and gain efficiencies—those promises haven't been fulfilled. Now, the focus turns to doing more with less. How can IT leaders and CFOs work together to keep cloud costs down? Thankfully, there's an entire practice that's sprung up to answer just that question: FinOps.

FinOps is a portmanteau of finance and DevOps, and it attempts to apply the same methodologies that work to streamline, accelerate and make software development more effective and cost-efficient to finance. FinOps practices accelerate business value realization, drive financial accountability, cost efficiency, trust and collaboration across an organization, according to Google's definition. Sounds awesome, right? But how can you put it into practice? As with most things in life and in business, you have to crawl before you walk before you can run-the same applies to FinOps. But adopting these practices will not only help cut costs, it will help improve collaboration and trust across the entire organization. That's a great investment. Now, if only I could use that for my grocery budget...







FEATURES



THE CHANGE AGENT

Using FinOps will enable cross-functional teams to work harmoniously to gain more financial control and predictability, reduce friction, and deliver products faster.





MARKET PERSPECTIVE

Senior labor economist at Lightcast Ron Hetrick shares his insights on the economy and offers advice to CEOs as they try to navigate market uncertainty.

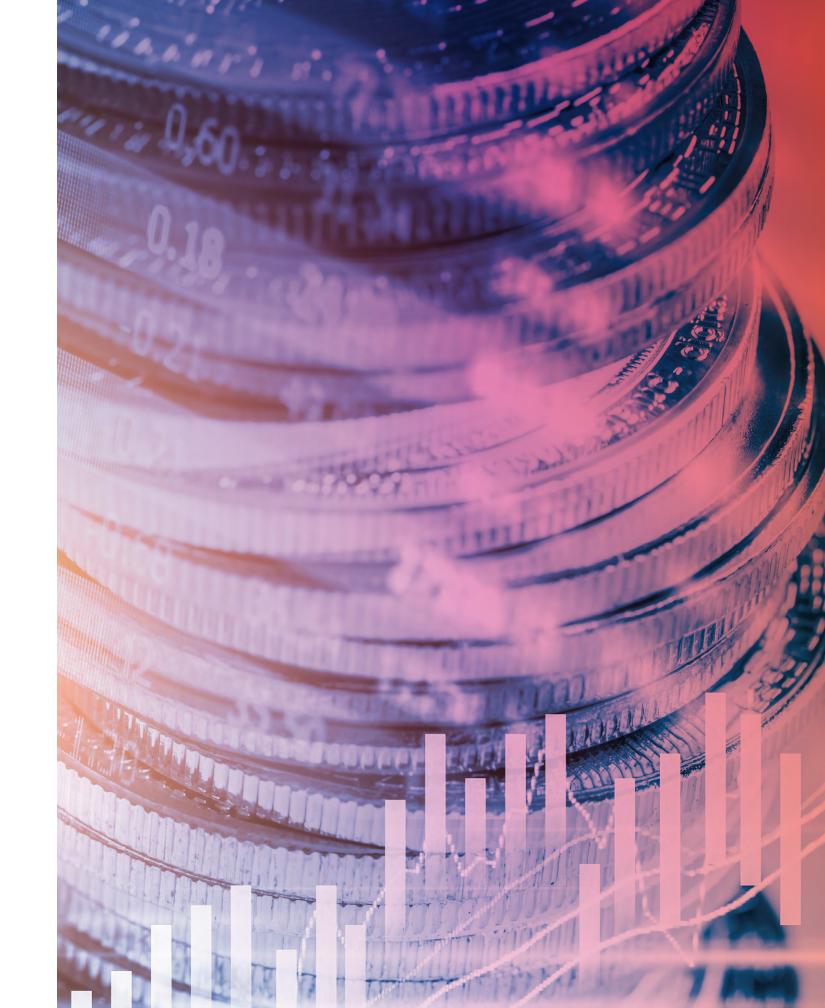
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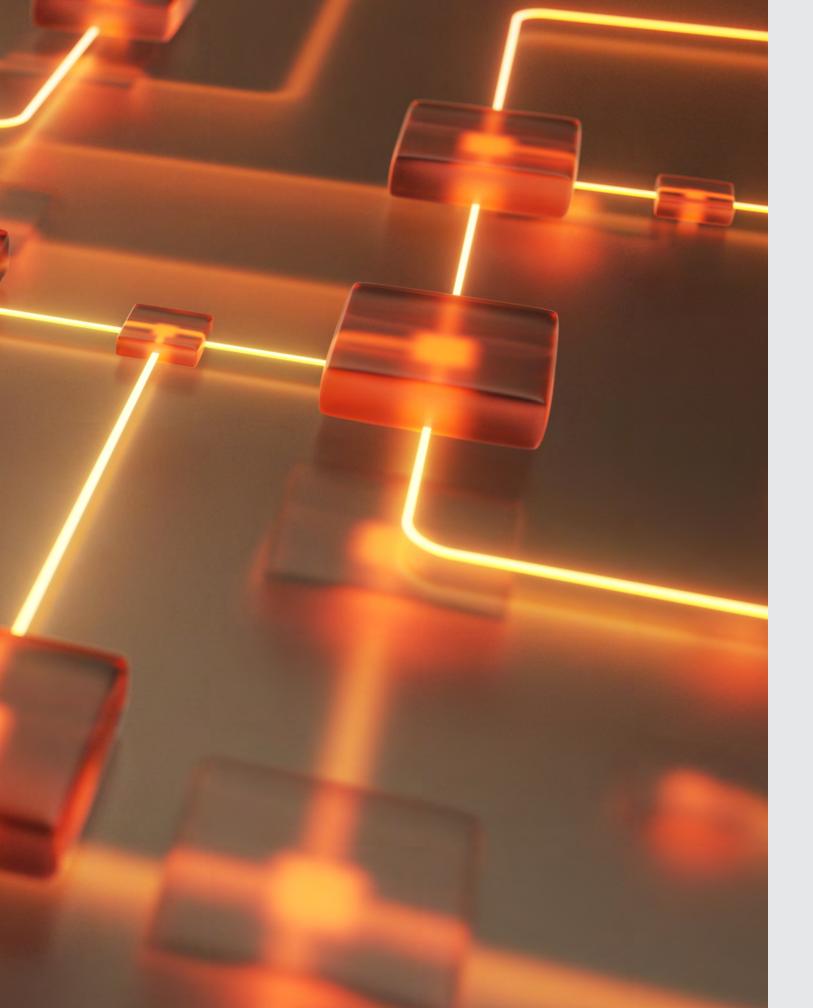


TEKSYSTEMS' PERSPECTIVE

TEKsystems leaders Anil Lingutla, Jay Mozo and Kalika Prasad Maheshwari share their points of view on how organizations can effectively manage cloud costs and drive business value through their FinOps practices.

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Leveraging FinOps for Better Business Outcomes

From inflation to chip shortages to a historically tight labor market, organizations face a litany of economic challenges. And organizations are also navigating a growing set of economic and geopolitical disruptions, which makes it even more important to focus on actions that ensure they are maximizing the return on their technology investments. Organizations must find ways to increase efficiency and curtail costs to preserve their bottom line—CFOs are feeling the pressure from all sides.

But that doesn't mean organizations can slow down the pace of change. As the world becomes increasingly digital, organizations are accelerating their rate of technology investment and strategically applying technology to enable business transformation. Cloud technology enables much of that transformation, promising to improve efficiency and competitiveness. However, with the rise of inflation, companies are struggling to manage the costs associated with cloud infrastructure and services. At the same time, two-thirds of organizations report that cloud compute resources are underutilized.¹

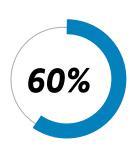
With growing cloud footprints, the challenge of managing cloud spending has become increasingly complex. Cloud spending can quickly get out of hand without proper financial management practices in place.





This is where FinOps comes into play. FinOps is a set of practices that brings together IT, finance, and business teams to optimize cloud spending and align it with business objectives. The goal of FinOps is to create a culture of accountability, ownership, and collaboration among all stakeholders. Inflationary pressures create a challenge for FinOps practitioners, who must find innovative ways to manage costs and remain competitive in a rapidly evolving market.

Companies are struggling to manage cloud costs effectively and are facing pressure to reduce spending and optimize usage. As a result, FinOps practices are becoming more critical than ever, as they provide a framework for managing cloud costs and identifying areas of waste and inefficiencies.



of organizations will encounter public cloud cost overruns.²



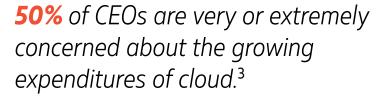
Before incorporating FinOps into an organization, one must ensure a strong understanding of the three phases of FinOps—Inform, Optimize, and Operate.

Inform: This phase promotes a better understanding of cloud costs, analyses, and benchmarking of performance both internally and against peers.

Optimize: Includes multiple optimization levers. Organizations can, for example, leverage rightsizing insights, automate on and off times for workloads that don't need to run continuously, and improve reservation planning (taking advantage of the discounts that cloud providers offer in exchange for longer-term commitments).

Operate: Organizations continuously evaluate business metrics, measure business alignment, define policies, and build processes and workflows to further optimize the value of cloud.







With any new practice, there are bound to be hurdles to overcome.

Key Challenges Include:

Navigating a multicloud environment: The added complexity of multicloud environments demands more time and resources to manage. The lack of transparency and cloud spending sprawl drive up costs. Additionally, cloud technology is constantly evolving, requiring organizations to continuously learn and adapt to new services and features.

Managing shared resource costs: In many organizations, IT, finance, and business teams work independently, making it difficult to collaborate effectively and create a culture of ownership and accountability. These silos, in turn, make it difficult to create a cost-conscious culture across technology, product and business teams.

Developing an accurate forecast of cloud consumption: Organizations may have limited visibility into their cloud usage, particularly if they have a decentralized cloud environment or are using multiple cloud providers. Limited visibility can make it challenging to identify areas of waste and inefficiency, and accurately forecast cloud consumption.

Implementing a practical FinOps model: Establings a FinOps foundation requires a range of skills and expertise, including financial management, cloud technology, and data analytics. Many organizations may not have the necessary expertise in-house to develop and implement a FinOps strategy.

To overcome these challenges, companies must adopt a strategic approach to cloud financial management, leveraging the principles of FinOps to optimize cloud spending, reduce waste, and align spending with business objectives. By doing so, they can ensure that their cloud spending remains under control, even in an environment of rising costs and inflation. The adoption of FinOps practices can help companies stay competitive, reduce costs, and drive business value, even in challenging economic environments.





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MARKET PERSPECTIVE

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We have inflation, layoffs, talk of recession, rate hikes from the Fed, and at the same time continued consumer spending and some of the lowest unemployment rates in history. Can you help make sense of these seemingly conflicting signals in the economy?



RH: When you're talking about a downturn, a recession is a correction for an overheated economy. It's easy to say yes, it's overheated because we pumped \$2.5 trillion pandemic aid dollars into the market. But the interesting part, and why inflation has gone up so much, is that consumers were trying to purchase goods with that money that no one was producing. We had massive demand, paired with a supply chain that was missing the workers needed to keep things moving, which is why it got so tangled up, it just wasn't used to that level of demand. Inflation spiked because we weren't producing to the level of demand. That (overheating) would typically be your trigger for what would happen next and why people called for a recession. But, early last year, we already had two quarters of negative GDP, so was that it? Are we done?

New orders for nondefense capital goods for manufacturers are still up in the stratosphere. So demand is still there. We've continued to place orders for goods but we've never been able to produce enough to fill the orders, which has acted like a muffler on the economy. If we had produced more supply, we could have really overheated the economy. But we didn't. This is what the Fed is trying to grasp. The market dynamics have changed—permanently. Chairman Powell is trying to cool off an economy that he can't because employers could never hire to meet the demand they were getting so prices are still high.

Another element to this, particularly in IT, you had two years of massive venture capital investment. 2021 was the all-time record for VC investment and 2022 was right behind it as the next all-time record. But in the 4th quarter, IT venture capital spending plummeted. The money that was fueling all of these startups dried up, and the SVB collapse



reflected that. So now companies have eased off the market, but most believe that's only temporary. VC firms are holding to evaluate the market and then plan to reinvest.

So, back to the recession talk. When exactly is the recession going to begin? You can't just say because the Fed is raising interest rates, we're going to have a recession. Many have tried for months but this is the first labor shortage in modern U.S. history. So, we've never had an interplay where we have rising interest rates, in a market that couldn't hire in the first place. We're no longer in an environment where you have this inference that, just because the Fed is doing one thing, you will in turn have a recession. That just doesn't work anymore.

Think about what an interest rate is meant to do. The Fed increases the rate and in turn, companies can't afford the cost of borrowing money to expand their business. But they don't need that money, corporate profits were up 40% over the last two years. Their labor costs were really low because they couldn't hire anybody. When they couldn't hire them, it permanently changed the dynamic of how economics is going to work moving forward. Had we hired all of the people we needed, then we truly would've overheated and the correction would be easier to predict.

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"Instead of trying to make sense of what the Fed is communicating about interest rates, stop and look at what's actually happening in the economy."



Ron Hetrick
Senior Labor Economist, Lightcast



The skills gap in IT and engineering fields is pervasive, how should organizations evolve their approach to addressing the skills gap?





RH: To answer that, let's go back in time to the 1950s and 1960s. Typically, new hires started off working the assembly line. A few years later those employees are managers. And then years after that they're senior leaders running the company. Your employee's career and the company grew together. Then we had a shift in the labor force. We had the baby boomer generation coming of age and at the same time, we had a large number of women entering the workforce. Suddenly companies could be very demanding because, for every job opening, they had this glut of people in the workforce. In response, companies came up with screenings and requirements, like degrees, for all of their job openings. Over time those excessive screenings bounced everyone out of the system. Employers need to start to unwind all of these systems and evaluate the requirements for any given job opening because they're screening out a ton of qualified people who could perform the job. The systems often are the problem. Companies turn it on and don't realize a lot of quality people are being turned away.

One approach to solving a skills gap is through apprenticeships. Most people see apprenticeships and think about carpenters or electricians but that's not necessarily true. Yes, there are a lot of registered apprenticeships in trade skills but there are twice the number of informal programs, some of which are in high-demand areas like cybersecurity.

Take India for example. Even though only 8.2% of the population possesses a college degree, India is the largest IT offshoring destination in the world. How is that possible? It's because they train each other. A senior developer trains a junior developer and then they train the next group and so on. So, the college degree is not what's missing here. It's the willingness to invest in talent, using your own labor force to help build the skills of your new hires. We're at the beginning of what will be the norm over the next 15-20 years. Companies need to get used to hiring people that don't have every skill they want. Organizations are going to have to build their talent into what they want. Some hires will become rockstars. Some hires will wash out. But that's what happens. Companies need to examine their systems and break them down into something that will actually work, otherwise, they'll continue to lose out on potential rockstar candidates.

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SECTION 02



What advice do you have for CEOs as they try to navigate market uncertainty in 2023?



RH: Instead of trying to make sense of what the Fed is communicating about interest rates, stop and look at what's actually happening in the economy. Are people spending money? And more importantly, if they're not spending—why?

For example, people aren't buying homes right now. Is it because they don't have the money? No. People aren't buying because there aren't any homes available. The active listing count is hovering around historical lows, combined with the fact that home prices are extremely overinflated right now. A few years ago, the average mortgage for the average housing price was 14% of a home buyer's income. Today it's 26%. The housing market has to come back down but we need more supply to make that happen.

Take the auto industry as another example. People aren't buying cars. Why? We don't have any cars. Domestic auto inventory is at historic lows and automakers have said they're never going to build that inventory back up again. They like price control. They don't want dealers to have too much inventory because then they have to offer discounts and incentives to buy. Cars are a lot more expensive because the supply is incredibly low. People aren't spending because they can't get what they want at the proper price point. It isn't about having the money, they have money, but what they want to buy is not priced correctly. Why do I know people have the money?

We have almost 11 million jobs we can't fill. Almost anyone who wants a job has a job. That's not a formula for a recession. Companies need to look to consumer behavior rather than the actions of the Fed, which are not really tied to consumer behavior anymore. Don't lose sight of the bigger picture. Which is, if everyone has a job, they're going to spend money. Don't get caught up in the headlines. Don't let the narrative be told to you. Train your people and your key advisors to look for the data points that matter to your industry.



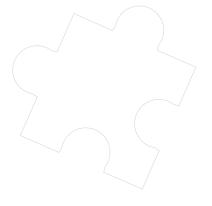
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OUR PERSPECTIVE

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Crawl, Walk, Run

As enterprises rush to migrate to the cloud, suboptimal techniques and a lack of guardrails can greatly increase costs—sometimes unexpectedly. Overprovisioning of infrastructure, lack of operational guardrails and lack of proper infrastructure sizing contribute to a surge in costs. When organizations lift and shift legacy applications that work on-premises and move those applications to the cloud, they do so because they believe they'll quickly reap the promised benefits, gaining agility, improving efficiency and realizing cost savings.

But once in the cloud, that's not often the case. In fact, many organizations find there are no discernable benefits over remaining on-premises. In some cases, enterprises actually find that cloud spending increases. A major obstacle is the approach to how organizations structure their technology ecosystem. On-premises versus cloud is very different. To realize the cost savings and other benefits of the cloud and accelerate the business, organizations must take a measured, systematic approach to their cloud strategy.

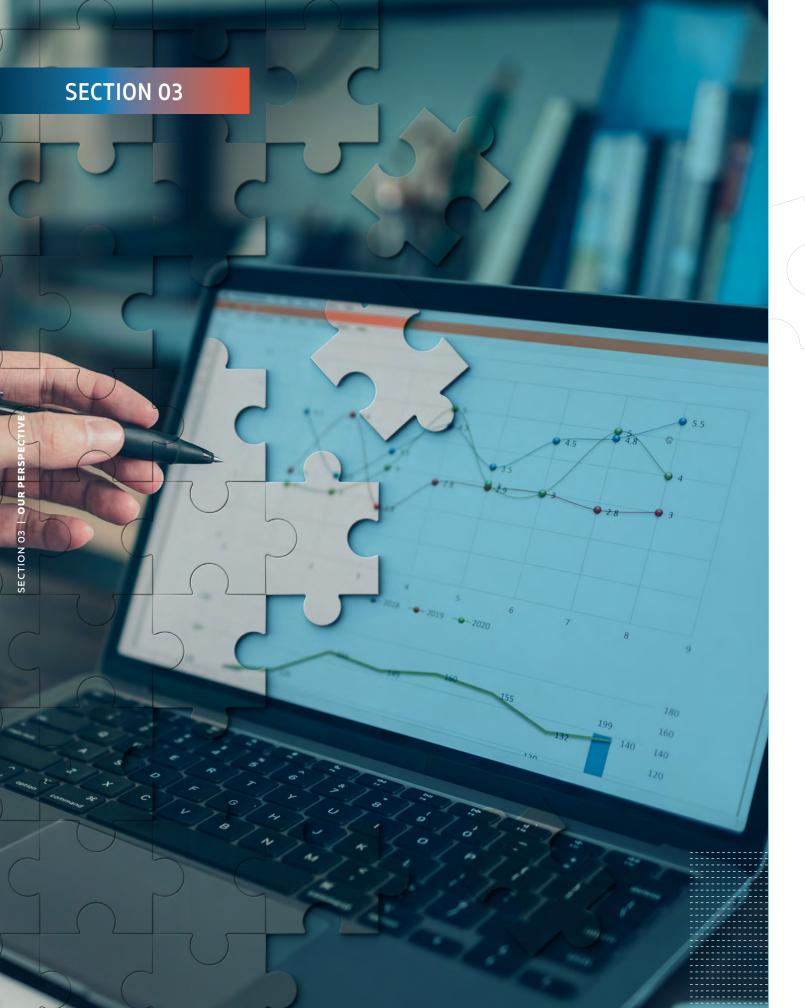
Tracking and optimizing cloud spend should be everyone's concern in the organization. With FinOps, the organization achieves a complete program-level view of how cloud resources are being utilized. That visibility creates synergies and accountability for cross-functional teams. Those teams can then work together to gain more financial control and predictability, reduce friction, and deliver products and services faster.

"FinOPs requires a **systematic approach** to identify, optimize, monitor and manage multicloud infrastructure spend."











At its core, FinOps is an operational framework and cultural shift that brings technology, finance and operations together to drive financial accountability and accelerate business value realization through cloud transformation. There are four key principles to consider:

- 1. Culture and awareness: Empowering teams create a culture of ownership and accountability, where everyone understands the impact of their actions on cloud spending. The goal is to increase awareness and visibility into cloud costs and promote a culture of cost optimization.
- 2. Data-driven business decisions: Involves using data and analytics to gain insights into cloud spending and usage patterns. Using industry peer-level benchmarking identifies areas of waste, inefficiencies, and opportunities for optimization.
- 3. Automation and tooling: Leveraging automation, tools, and accelerators can help manage cloud costs and create faster feedback loops. The focus is on automating processes and reducing manual effort, allowing teams to focus on higher-value activities.
- **4. Business and financial management**: Cloud spending must align with business objectives and financial goals. Ensure that cloud spending is aligned with the organization's strategic priorities and that all stakeholders are aware of the financial implications of their decisions.

Change is never easy. As companies are forced to manage change at an accelerated rate, they must map out their journey so they can successfully move the business forward. A crawl, walk, run approach to implementing FinOps provides an initial framework to implement FinOps.

A crawl, walk, run approach can be a helpful framework for any complex business problems, not just cloud spending, because it allows organizations to gradually build the necessary skills, processes and tools required to implement a solutions framework effectively. The process begins by intentionally mapping out the direction and then the pace of change increases as you move along the journey. With FinOps, that starts with taking a phased approach.

"Cost is obviously a driving factor but the integration of teams and the optimization gained through FinOps cannot be understated."



Kalika Prasad Maheshwari

Director, TEKsystems

Director, I EKsystems

Taking a phased approach:



Crawl: The starting point should include a workshop-style analysis to validate the organization's cloud FinOps objectives and complete an honest assessment of capabilities maturity. Next, focus on building the foundation of the FinOps strategy. This involves establishing a baseline of cloud spending, gaining visibility into cloud usage, and identifying areas of waste and inefficiency. Clearly define quick-win themes to help measure success and build the overall FinOps roadmap that will guide the program.



Walk: At the walk phase, the FinOps framework has been established. The teams concentrate efforts on leveraging FinOps principles and foundation, onboarding the FinOps team and minimum viable product (MVP) implementation.



Run. At this phase, organizations are focused on the enablement and adoption of the FinOps strategy. Continually look for ways to drive business value with an iterative FinOps maturity assessment and reporting.

The complexity of FinOps implementations can be just as challenging as the problem it is intending to solve. But through the adoption of a systematic approach to identifying, optimizing, monitoring and managing multicloud infrastructure spending, organizations can effectively manage cloud costs and drive business value through their FinOps practices.

"Organizations are looking for ways to optimize their expenditures across people, process and technologies due to uncertainties in the market and are looking at FinOps to provide data-driven solutions that will allow them to maintain business continuity and maintain continuous innovation focus for organizational agility."







Real-World Application: **Airbnb**

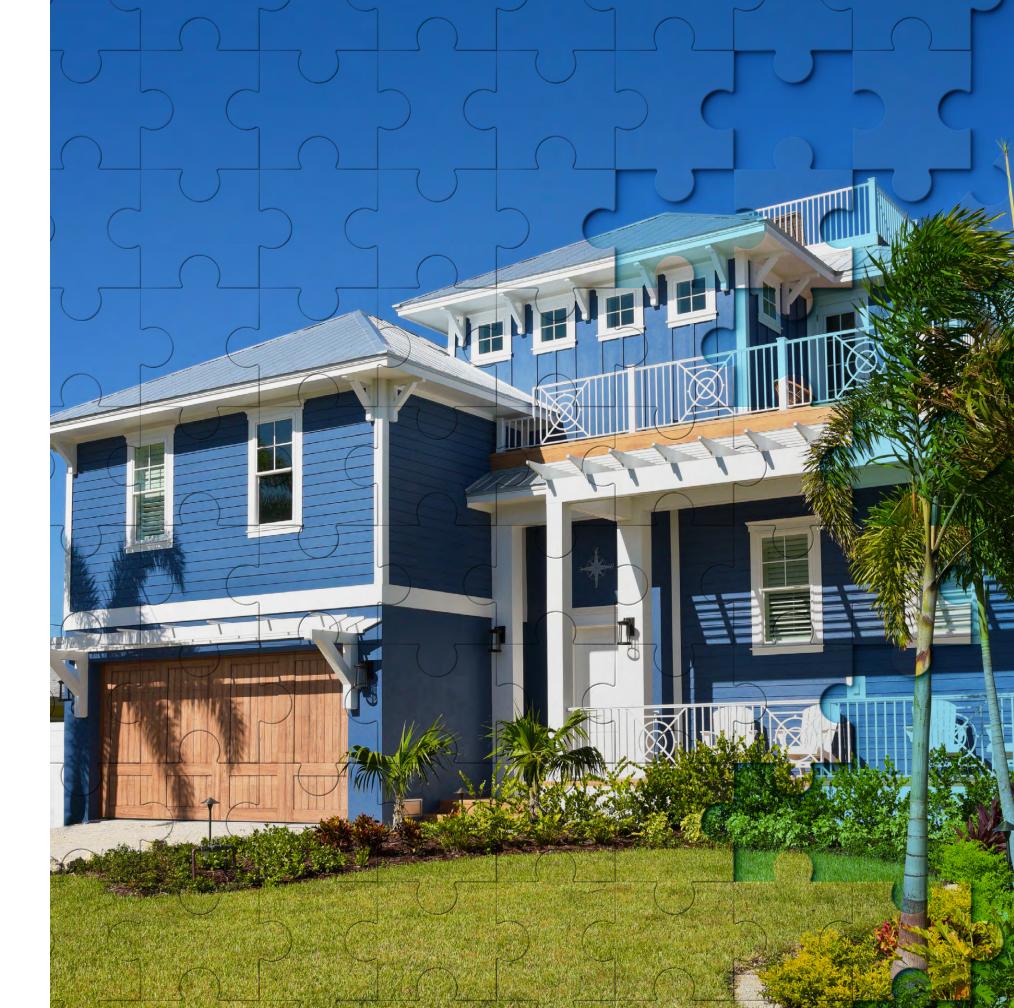
<u>Airbnb's</u> story began in 2007 when its first two hosts (and founders) welcomed three guests into their home in San Francisco, California. Since those humble beginnings the company has grown to over to over 4 million hosts who have welcomed 1.4 billion guest arrivals in almost every country across the globe.

From the beginning Airbnb turned to the cloud to power its business, using cloud services from Amazon Web Services (AWS). As the company grew in size and scope, they soon realized they had a problem. Their cloud costs were growing faster than company revenue. They lacked visibility and understanding of how the quickly growing organization was leveraging its cloud resources. Airbnb engineers Jen Rice and Anna Matlin wrote in a company blog post, "Recognizing we had a problem was the easy part. Deciding what to do proved more challenging". The company needed to develop a cost efficiency strategy to help get costs under control. The organization pivoted and embraced a FinOps-driven culture toward cost awareness and financial management.

The engineers <u>noted</u>, "This shift was both top-down and grassroots.

Leaders mentioned the company-wide cost goal during all-hands meetings. The finance team created a company-wide award for financial discipline, presented by the CFO, which recognized employees who had driven important cost-savings initiatives. According to <u>AWS</u>, Airbnb reduced storage costs by approximately 27 percent.

All information shared herein was accessed from public sources as indicated.



TEKsystems Portfolio

 Delivering expertise in modern cloud analytics, data modernization service, AI and machine learning, master data management, data governance and quality, real-time analytics and IoT across 300+ customers, including 20% of the Fortune 100.

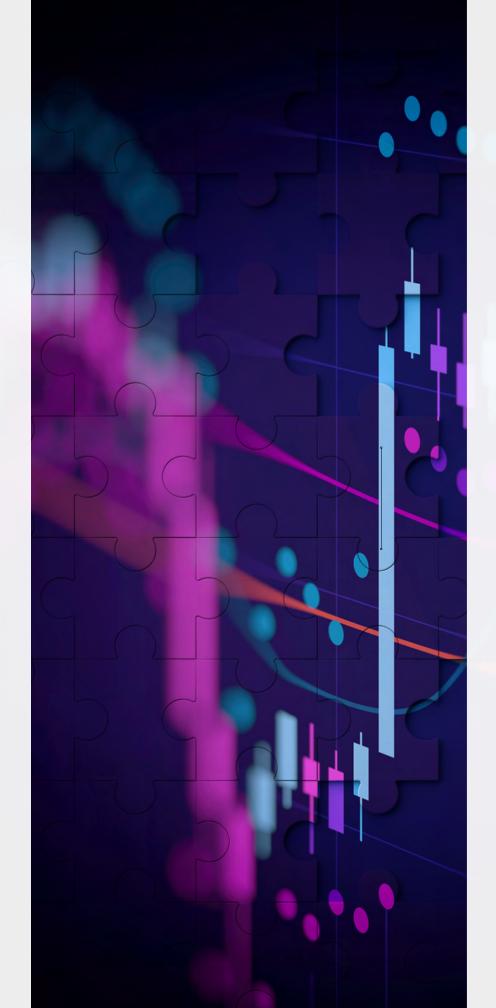
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- Proprietary tools to accelerate timelines and deliver results with a million+ lines of code of TEKsystems
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- With 30+ SnowPro certified architects, our <u>Snowflake Elite Partner</u> status highlights our proven skills and experience to help you leverage <u>Snowflake's innovative technology and achieve</u> <u>data-driven results.</u>
- As a <u>Tableau Premier Partner</u>, you'll benefit from our 30+ data and analytics accelerators and a library of BI platform capabilities, processes and proven frameworks that are agile, repeatable and scalable across a Tableau environment.
- In good company

Transformational technologies demand equally transformative partnerships. Full-stack capabilities coupled with depth and diversity of experience in leading platforms that help organizations grow, innovate and thrive.

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Meet Our Contributors



Anil LingutlaPractice Director | TEKsystems



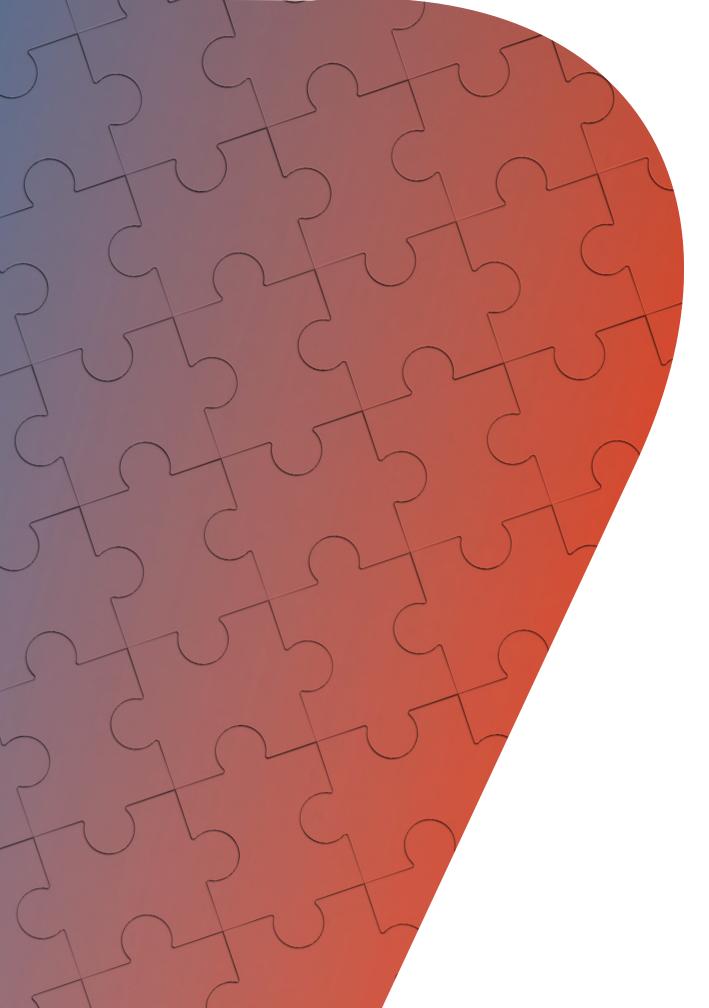
Kalika Prasad Maheshwari Senior Director | TEKsystems



Jay Mozo *Director, Transformation Services* | TEKsystems



Ron Hetric Senior Labor Economist | Lightcast



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Sharon Florentine, Contributing Editor



Sharon Florentine is the contributing editor for Version Next, Now, TEKsystems' quarterly publication. She is an award-winning independent writer and editor with more than 20 years of experience in the tech industry. Her work has appeared in Computerworld, PC Magazine, CRN and eWEEK, among others, and she is a passionate advocate for equity, diversity and inclusion in tech and beyond. Most recently, Sharon was a senior writer for ClO.com, where she covered software development, Agile, IT careers, learning and development, and DE&I. She lives near Philadelphia.

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Don't miss our perspective on <u>The Agile World podcast</u>. In a three-part series, host, author and business expert, Greg Kihlström, sits down with experts from TEKsystems to discuss FinOps.



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