Accelerating Value Realization from Cloud Investments

In today's cost-conscious business environment, it's essential for CIOs and business technology leaders to take the steps needed to define, track and optimize business outcomes from their cloud strategies. Here are some recommendations for getting the most out of your organization's cloud investments
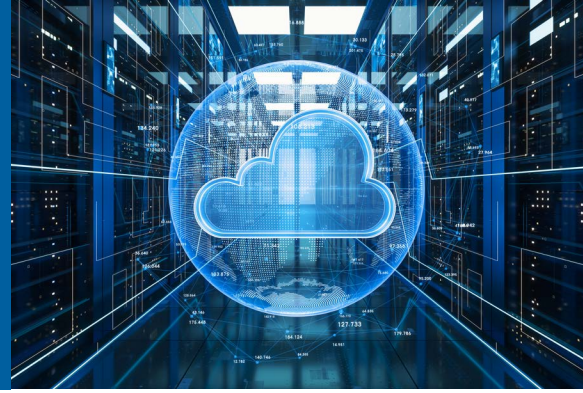

A RESEARCH REPORT FROM HMG STRATEGY AND NUTANIX

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EXECUTIVE OVERVIEW

There's a paradox in the cloud. Public cloud infrastructure has set the standard for increased agility and flexibility -- but the cost and refactoring effort is under scrutiny and challenging business' ability to take advantage of it. In fact, managing cloud spend is the number-one challenge cited by business leaders in the Flexera's 2023 State of the Cloud Report, with 82% of organizations putting it at the top of the list - even surpassing security concerns (79%).

On top of that, cost management initiatives result in businesses leveraging multiple clouds driving increased complexity. As a result, leaders are taking a second look at their cloud strategies to ensure they can drive the best outcomes.

"In the shift to the cloud during the pandemic, things were done fast," says **Lee Caswell**, SVP, Product and Solutions Marketing at Nutanix. "But in reality, when you do something fast, it's rare that you do it most efficiently."

Caswell draws an analogy to an airline passenger packing for a flight they're running late for. Clothes, toiletries and other items are tossed in quickly but there are often items missing when the passenger has reached their destination.

"Now that the pandemic has passed, people are opening up their suitcases and reorganizing where their applications and data should reside," adds Caswell.

Although optimizing cloud spend is a major goal for more than 70% of organizations polled by McKinsey & Company, realizing value remains elusive.

There are multiple ways to identify, track and optimize cloud investments in order to augment the value obtained from these investments while delivering increased value to the business.
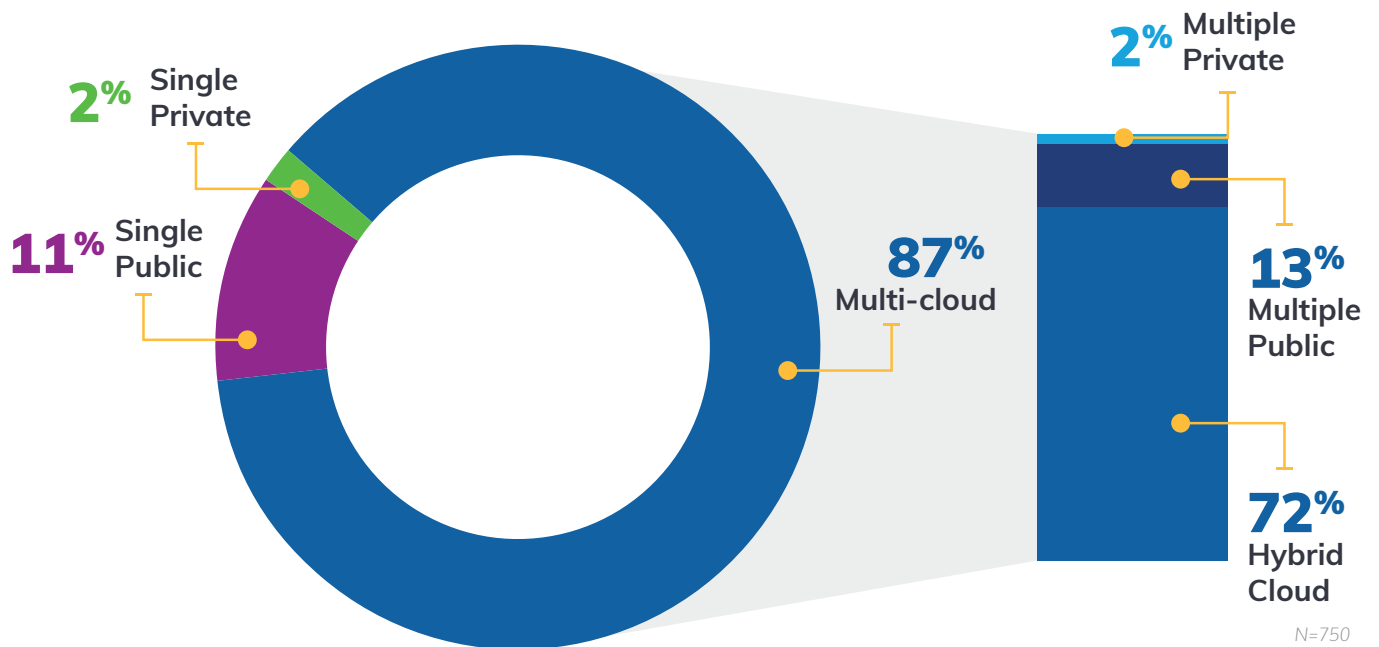
In this research report from HMG Strategy and Nutanix, we'll explore best practices to continue to innovate in a digital world while making the most of on-prem, managed and public cloud investments.

In this research report, you'll discover:

- Effective approaches to define the value and business outcomes driven by cloud strategies

- Recommendations to optimize spend and resources in a multicloud environment

- How to refine overall cloud strategy (e.g., public vs private vs hybrid)

- Different ways to increase value realization from cloud investments

- How to overcome cloud migration challenges

Figure 1: Organizations Embrace Multicloud

While companies rely upon a variety of cloud models (e.g.: public vs. private vs. hybrid), the majority of organizations are opting for a multicloud approach.

2% Single Private

11% Single Public

87% Multi-cloud

2% Multiple Private

13% Multiple Public

72% Hybrid Cloud

N=750
Source: Flexera 2023 State of the Cloud Report

"When you do something fast, it's rare that you do it most efficiently."

LEE CASWELL
SVP Product and Solutions Marketing
Nutanix

Defining the Value and Business Outcomes from Cloud Strategies

Many organizations have made the transition to some use of the public cloud due to a variety of factors. Resources in the cloud are highly scalable and can be accessed anytime anywhere by end users. Cloud and SaaS applications also provide easy access to data, applications, insights and collaboration with colleagues. And from a business standpoint, most cloud providers offer a 'pay-as-you-go' model where clients are charged based on usage.

But after organizations quickly pivoted from on-premises only models to transition some portion of their data, apps and storage to the cloud – especially during the rapid changeover that occurred at the onset of the pandemic – scant attention was paid to how effectively cloud assets were being utilized. In fact, an estimated **30% of cloud spending was wasted on unused resources in 2021 and that figure rose to 32% in 2022**, according to Flexera. Meanwhile, a survey of 131 IT professionals conducted by StormForge finds that **75% of organizations are seeing an increase in cloud waste**.

The good news is that **companies can quickly pare between 15%-to-25% of the costs of their cloud programs** while preserving value-generating capabilities through a variety of initiatives, according to McKinsey & Company. These opportunities include shutting down instances that are no longer being used, allocating the costs of products and services that use the cloud to business units as well as applying financial controls to actively manage and track budgets by different organizational teams.

There's no better time than the present to optimize cloud investments. "We're seeing a big shift from a cloud-first model to a cloud-smart model," says Caswell. What many customers have today is a multiple cloud model instead of a multicloud model, says Caswell. With a multiple cloud model, customers are running multiple clouds independently which is inefficient. "By taking a cloud-smart, multicloud approach, companies can achieve operational synergies by connecting cloud platforms – not to mention consistent compliance and consistent management," Caswell adds.

As companies have become more cost-conscious, Caswell is seeing a growing number of companies more closely scrutinize the rent vs. buy model for cloud capacity. At the onset of the pandemic, money was "free," meaning interest rates were extremely low and customers were more willing to rent capacity from a public cloud, notes Caswell. But now that companies are scrutinizing costs more closely, a growing number of companies are exploring opportunities to transition from a rent model to a 'buy' model.
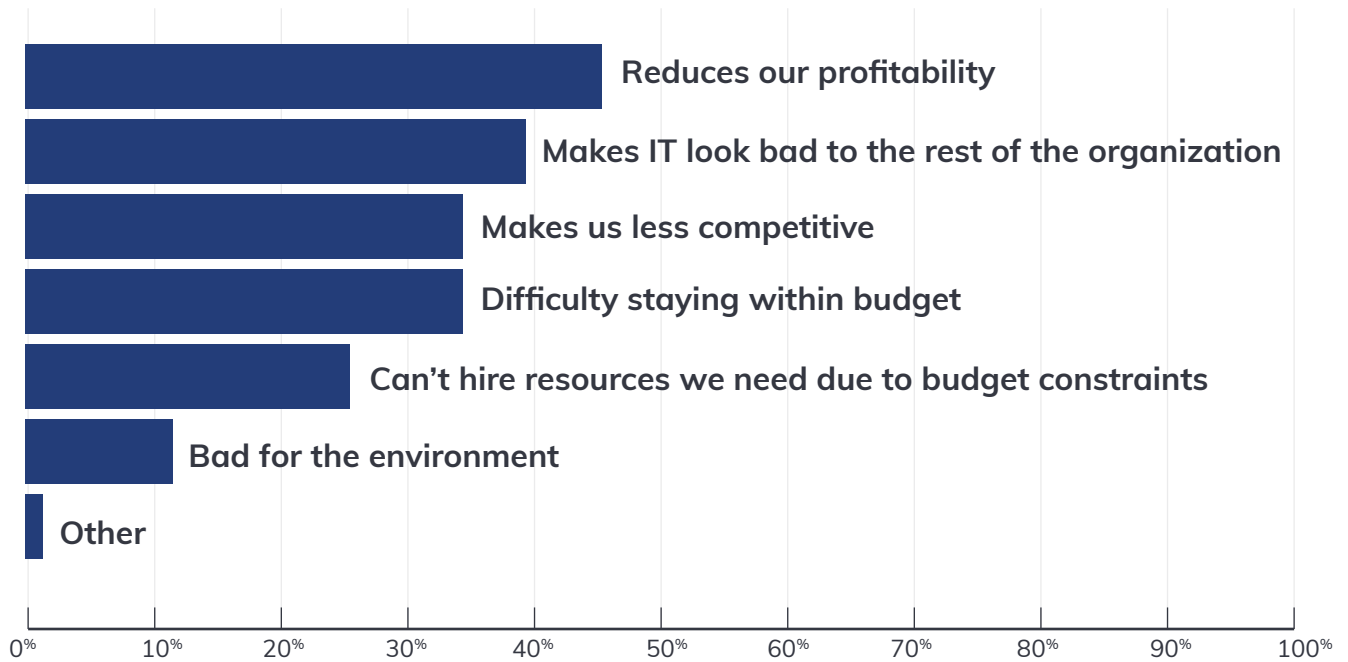
Other metrics that decision-makers should be evaluating more closely include the speed of deploying applications – including how quickly applications can get developed and tested in the cloud. "One of the things to think about tracking carefully are refactoring and replatforming costs," says Caswell. He points to a university client that transitioned a mainframe app to a cloud platform. That's helping the university to minimize its hardware maintenance costs.

"In addition to the hardware maintenance costs, executives need to calculate the refactoring and re-platforming costs that can affect portability across the hybrid cloud," Caswell adds.

As executives continue to gain more experience in utilizing cloud platforms, decision-makers are discovering rich opportunities to optimize spending and resources in a multicloud environment. In this next section of the report, we'll share recommendations for refining cloud strategies between public, private and hybrid cloud environments as well as opportunities to overcome cloud migration challenges.

Figure 2: The Impact of Cloud Waste

Cloud waste not only carries financial implications, it can also damage the reputation of the IT organization.

Reduces our profitability

Makes IT look bad to the rest of the organization

Makes us less competitive

Difficulty staying within budget

Can't hire resources we need due to budget constraints

Bad for the environment

Other

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Source: StormForge Cloud Waste Survey

"We're seeing a big shift from a cloud-first model to a model that optimizes workload placement across clouds"

LEE CASWELL
SVP Product and Solutions Marketing
Nutanix

Refining Cloud Strategies

As companies examine the environments they're utilizing (e.g. public clouds, private clouds, and hybrid multicloud environments) and how to utilize them most effectively, a recommended starting point is classifying the data and applications under the most suitable architectures based on cost, performance and data sovereignty.

A second and more recent focus area that's been accelerated by the hybrid multicloud movement is portability. This includes determining which applications to consider moving and the reasons for transferring them. This could include moving apps for costs or performance reasons. Other factors for moving apps include data gravity - is the data being generated and stored somewhere and where the app will be closest to the data? This could include moving an app that was once hosted in a cloud or a data center to the edge. Moving apps closer to the edge makes sense as researchers predict that 50% or more of data will be created at the edge in the next few years

"A company wants to develop a new app for customer experience, but they're not sure if it will be successful. It's faster to spin up resources in a public cloud and proves it works and adds value, then make the commitment to buy new infrastructure for it to run long-term on-prem," notes Caswell.

Then there are data sovereignty criteria to consider. "If there's geopolitical risk in a particular region, I might want to move my data and applications to another location that's safer for them," adds Caswell.

There are also cost considerations for cloud architectures being utilized. "If my company is using just a single cloud provider, then I have no negotiating leverage on costs over time," says Caswell.

Figure 3: The R's of Migration

| REHOST | REFACTOR | REARCHITECT | REBUILD | REPLACE | RETAIN | RETIRE |
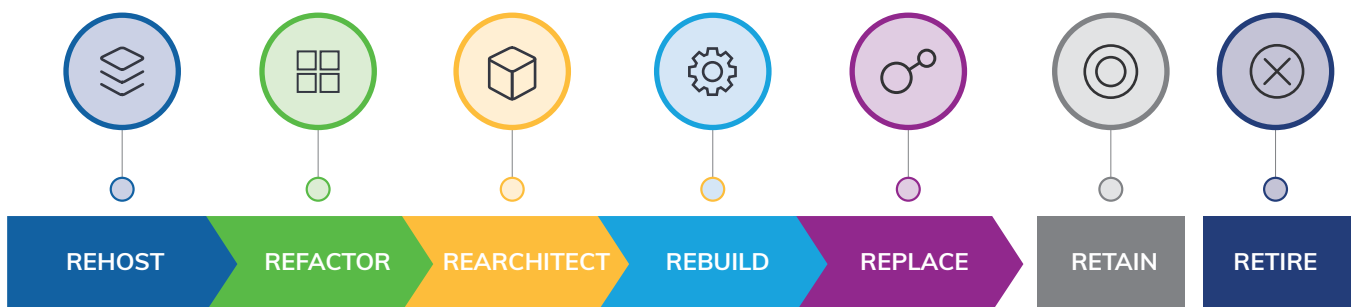
Source: Transparity/ballardchalmers

Optimizing Costs Across Cloud Providers

When companies utilize cloud services from major providers such as Microsoft or AWS, suffice it to say that applications and tools that are native to each cloud provider are optimized to run well in these respective cloud environments.

But if organizations decide to transition one or more applications to a different cloud provider, they need to be aware of onerous switching costs which in some cases can take months and large budgets to complete due to vendor lock-in.

"Let's say your organization is running a version of PostgreSQL, an open-source database, and you're thinking about cross-cloud capabilities. You want to be sure that portability between cloud environments isn't precluded by any of the cloud providers you're working with," says Caswell.

Moreover, there currently aren't any incentives for hyperscalers to offer a pathway for lower costs. However, by working with a hybrid multicloud platform, companies can obtain portable licenses to deploy applications on the cloud platform of their choice or move them over time.

Other ways to optimize cloud costs include automation and self-service, including the use of AI and automation tools to automate manual operations and speed time-to-value by enabling IT and developer teams ready access to what they need while maintaining control.

Additional steps include the avoidance of over-provisioning at the beginning and utilizing forecasting tools in the platform that can help plan and deliver just in time when more resources are needed.

Meanwhile, leveraging AI and machine learning capabilities available in the platform can help right-size and re-allocate resources as needed. These tools can also provide recommendations for right-sizing on deployment.
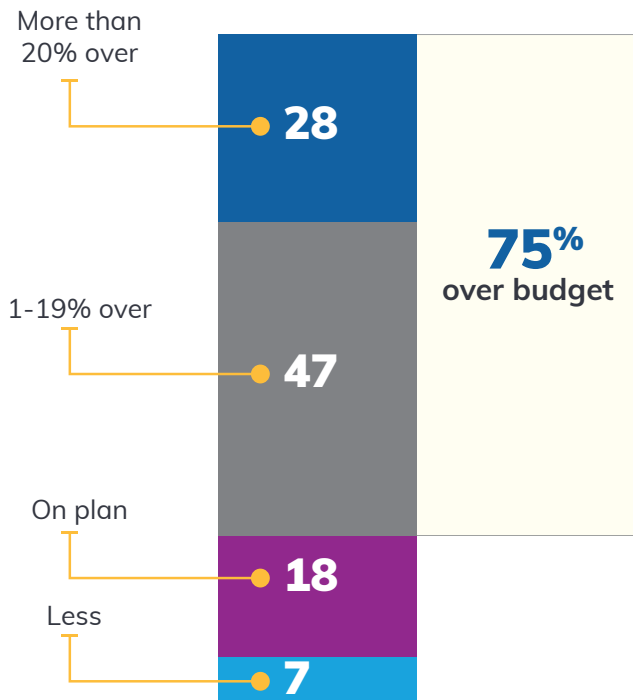
Cost governance, visibility and chargeback capabilities in the platform can enable decision-makers to understand where costs are coming from, report on zombie VMs, report on VM sizing to adjust and reduce waste and deliver costs back to users to help plan and manage costs through greater visibility.

New and emerging capabilities are enabling companies to advance their cloud strategies while optimizing – and in many cases – lowering the cost of operations. In the final section of the report, we'll share effective approaches to improve optimal workload placement strategies along with recommended next steps to succeed in the hybrid multicloud journey.
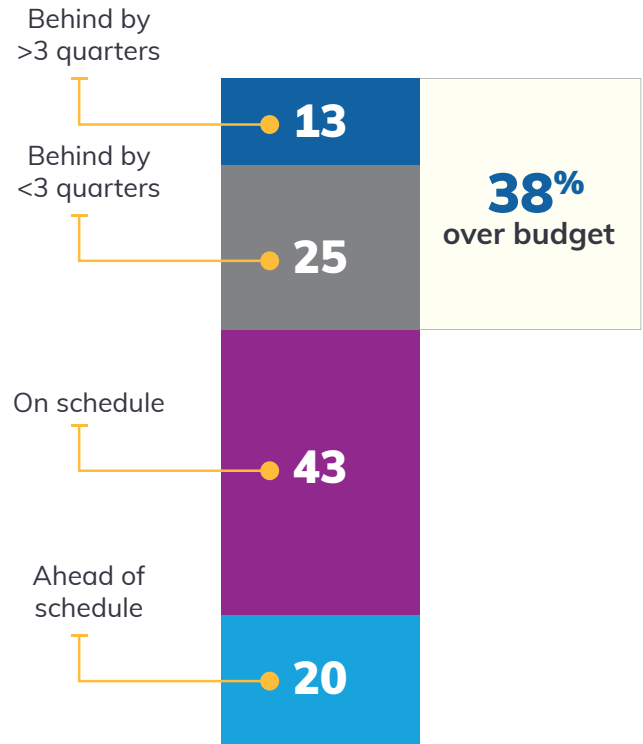
Figure 4: Cloud Migration Cost Overruns are Mounting

Budget for cloud mitigation vs. actual spend on cloud mitigation, % of respondents (n=443)

Planned cost per year [1]

- More than 20% over — **28**
- 1-19% over — **47**
- On plan — **18**
- Less — **7**

75% over budget

Planned timeline [2]

- Behind by >3 quarters — **13**
- Behind by <3 quarters — **25**
- On schedule — **43**
- Ahead of schedule — **20**

38% over budget

Degree to which spend was over budget by area, [3] % share of respondents (n=443)
(share of respondents who indicated over-budget spending)

Source: McKinsey & Company

■ 1-25% over   ■ More than 26% over

Reducing Pain Points with Cloud Migration Strategies

A well-planned cloud migration strategy can help to facilitate the smooth transfer of data, applications and workloads from on-premises environments to the cloud, back on-prem from cloud, and even between clouds.

And while there are challenges associated with cloud migration efforts, it's not stopping enterprise companies from shifting some of their IT operations to the cloud. More than a third of respondents to the latest Nutanix Enterprise Cloud Index survey say that multicloud is their primary deployment model, with adoption expected to surpass two-thirds over the next two years.

This maps with research from McKinsey which reveals that $8 out of every $10 spent on IT hosting will go toward the cloud (both public and private) by 2024.

One of the biggest pain points that Caswell is seeing among companies with their cloud migration efforts is the amount of time, effort and cost to re-platform and refactor applications into the cloud. However, those costs (and time delays) to re-platform and refactor applications can be avoided by using a cloud platform that allows the organization's on-premises environment to co-exist consistently with the public cloud.
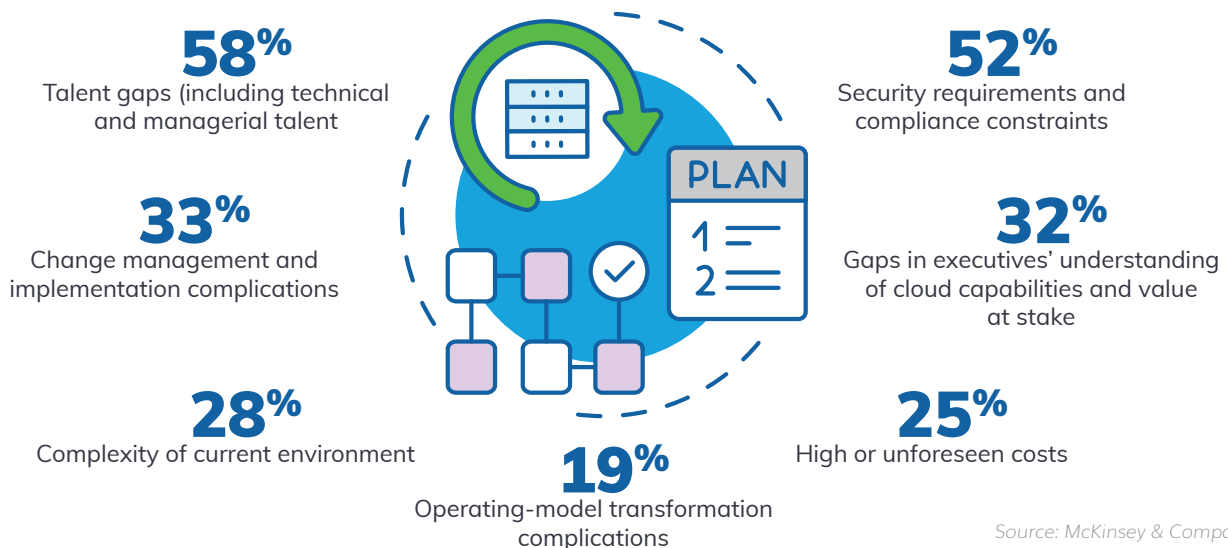
"This helps makes the cloud migration process 60% faster because you don't have to re-platform or refactor apps – you're basically just hosting them in a different location," says Caswell.

Meanwhile, for those companies that have cloud credits that are at risk of expiring, organizations that transition to a hybrid multicloud environment can tap into those credits and leverage these investments that have already been made, notes Caswell.

Figure 5: Organizations Struggle with Cloud Migration

Chief information officers face many challenges during cloud migration.

Top cloud transformation challenges faced by chief information officers (CIOs)
McKinsey cloud survey (~800 participants, 2015); McKinsey expert interviews (52 interviewees, 2019)

58%
Talent gaps (including technical and managerial talent

52%
Security requirements and compliance constraints

33%
Change management and implementation complications

32%
Gaps in executives' understanding of cloud capabilities and value at stake

28%
Complexity of current environment

19%
Operating-model transformation complications

25%
High or unforeseen costs

Source: McKinsey & Company

Next Steps in the Hybrid Multicloud Continuum

As companies continue to make the transition in their hybrid multicloud journeys, there are a few factors to consider.

First, as CIOs, CTOs and their teams have gained additional experience with managing cloud environments, a subset of companies have made the determination that not all of their applications are going to be transitioned to the cloud. In some cases, they like the notion of having some set of applications hosted by the company's servers in a highly controlled environment. In other cases, the cost to transition all of a company's applications to the cloud can be cost prohibitive. And increasing demands at the edge mean more compute and storage resources will be needed there.

Caswell likens the unfolding approaches to cloud, edge, and on-prem environments to the changes that have occurred since the introduction of the mobile phone. "At first there was the Nokia flip phone, and then over time, mobile phones added browsers, apps and other functionality – even flashlights!

That's what we're seeing now with cloud platforms built on hyperconverged infrastructure (HCI) where we have this exploding edge element, the data center itself and the public cloud – with an ability to bridge this all together," says Caswell.

An ideal HCI-based cloud platform enables companies to operate their data centers as private clouds while seamlessly integrating public and private clouds under a simplified, scalable and secure environment with low total cost of ownership (TCO). In today's challenging business environment, that's a cloud-smart and cost-effective approach.

About HMG Strategy

HMG Strategy is the world's leading digital platform for technology executives to reimagine the enterprise and reshape the business world. The HMG Strategy global network consists of more than 500,000 CIOs, CTOs, CISOs, CDOs, senior business technology executives, search industry executives, venture capitalists, industry experts and world-class thought leaders.

HMG Strategy's Global Advisory Services are a unique set of peer-driven research services that are designed to keep business technology executives up to speed on the latest leadership, business, technology and global macro-economic trends that are impacting businesses and industries.

About Nutanix

Nutanix is a global leader in cloud software, offering organizations a single platform for running apps and data across clouds. With Nutanix, companies can reduce complexity and simplify operations, freeing them to focus on their business outcomes. Building on its legacy as the pioneer of hyperconverged infrastructure, Nutanix is trusted by companies worldwide to power hybrid multicloud environments consistently, simply, and cost-effectively. Learn more at www.nutanix.com or follow us on social media @nutanix.