CLOUD
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CLEAR SKIES AHEAD: AVOIDING CHAOS IN THE CLOUD

"At Aptum, we believe it is important to help businesses navigate the current economic environment, stay ahead of the curve in cloud computing, and ultimately succeed in the 'Cloud Era'. This is why we commissioned the Cloud Impact Study, which is based on a survey of 400 senior IT professionals. The survey results help us understand the business drivers behind cloud transformation, and the challenges organizations face in realizing maximum benefits from cloud computing. The Study provides valuable insights into these challenges, and reveals practical strategies to unlock the full potential of cloud computing."

– Susan Bowen, CEO, Aptum

INTRODUCTION

Three years on from the global pandemic, and the results are clear. Organizations across the US, UK and Canada are confidently embracing more sophisticated cloud technologies to drive ever-greater innovation and benefits.

In 2023, technology leaders face a strategic imperative to deliver IT strategies that will drive innovation and growth. At the heart of this vision are hybrid cloud architectures and continued investment in optimization of cloud infrastructure. Our survey reveals significant benefits of cloud adoption, including better flexibility, improved security, and faster innovation.

Clear Skies Ahead is the first part of Aptum's 2023 Cloud Impact Study. The study polled 400 senior IT professionals to understand the business drivers behind their cloud computing infrastructure, and the successes and challenges they face.

IT leaders are enthusiastic about adopting hybrid cloud. A combined public and private cloud environment that works alongside legacy infrastructure is becoming the de facto standard for many enterprise IT departments.

However, IT professionals are still facing hurdles around cloud optimization, especially within their hybrid infrastructures. Some organizations simply cannot embrace advances in cloud technology because of the complexity of moving legacy applications and data into the cloud. A lack of skills and a poor understanding of costs can make life difficult for IT departments.

Clear Skies Ahead reveals a wealth of untapped potential in enterprise cloud adoption. If IT leaders can implement effective CloudOps and FinOps practices to bring control and predictability to cloud costs across complex environments, they will see more cost-effective cloud consumption in the years ahead.

EXECUTIVE SUMMARY

In recent years cloud has become an integral part of most enterprise IT strategies, and our survey shows that the majority of IT leaders say they have delivered business value from cloud, with 94% of respondents agreeing that cloud had delivered the expected efficiencies within their organizations – an increase of 5% on last year's findings. However, there are potential challenges ahead that organizations need to mitigate.

Last year, we found that while IT leaders were planning to add more cloud services to their technology stack, only 20% had a comprehensive approach to cloud management and costs. The reality of this choice is hitting home in 2023, as more organizations have a technology stack that uses a combination of legacy systems, private cloud, and public cloud services. The management and optimization of cloud is becoming of critical importance in these more complex environments.
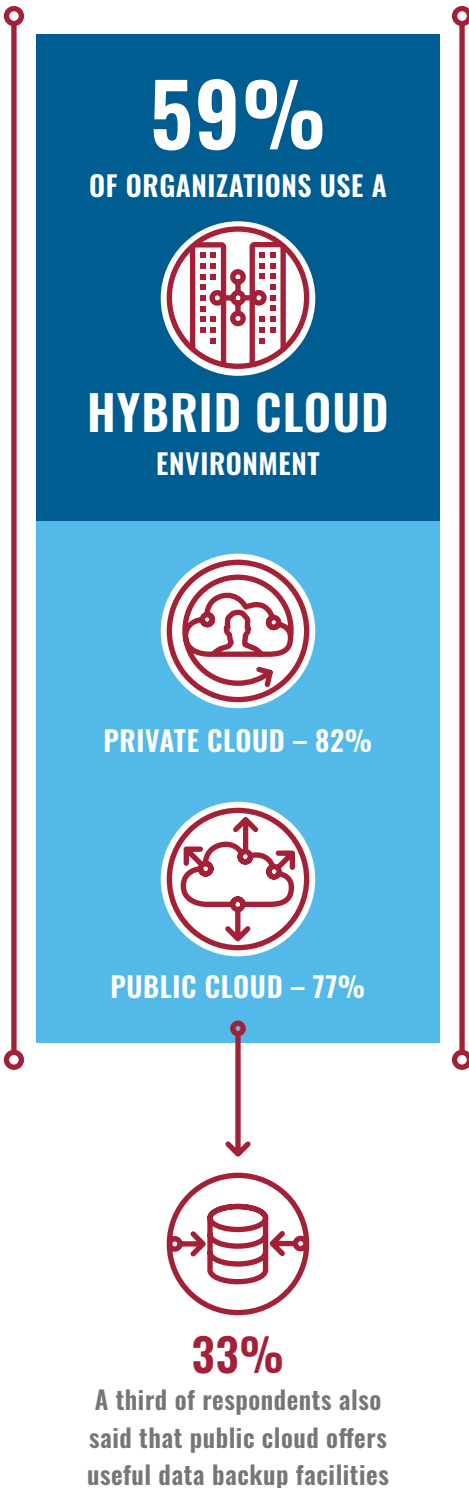
Study respondents reveal that complexity is a key issue holding back the adoption of more advanced cloud technologies, and many organizations admit to a lack of visibility into cloud cost and performance. Over 6 in 10 respondents said they wanted to accelerate their cloud adoption but lacked the internal expertise to do it – which shows a very similar story to last year where 70% of respondents had the same challenge.

A key challenge for most, is an unexpected increase in IT spending incurred for cloud computing, with almost three quarters (73%) of survey respondents stating that cloud costs are higher than expected in their organization. In 2022, this figure was the same. This is a notable 28% increase from just over half (57%) of companies in the previous year (2021). On top of this, 34% of this year's respondents agree that improving cloud analytics and reporting is a top priority for the year ahead.

This challenge can be mitigated by the adoption of comprehensive cloud strategies, and the implementation of FinOps practices. FinOps is an approach to cloud that brings together financial, IT, and DevOps teams to manage costs collaboratively across the enterprise.

FinOps can also help organizations to gain greater visibility of cloud costs, meaning IT leaders can plan more cost-effective cloud consumption in the challenging years ahead. Adopting FinOps in a complex cloud environment can reduce cloud costs by as much as 30%, according to McKinsey [1].

59%
OF ORGANIZATIONS USE A

HYBRID CLOUD
ENVIRONMENT

PRIVATE CLOUD – 82%

PUBLIC CLOUD – 77%

33%
A third of respondents also said that public cloud offers useful data backup facilities

WHY HYBRID CLOUD?

Looking back to last year's Cloud Impact Study (2022), 86% of respondents said they planned to adopt a hybrid or multi-cloud approach, recognizing that cloud is not a one-size-fits-all solution.

This year we see continued interest in hybrid and multi-cloud environments, with 59% of respondents using a combination of public and private cloud services. Organizations are evaluating the infrastructure stack and taking a flexible approach that delivers improved overall governance, flexibility, and performance.

Hybrid environments that mix traditional infrastructure with one or more cloud providers are becoming the de facto standard for enterprise IT departments. Gartner forecasts that 85% of businesses will embrace a cloud-first principle by 2025[2]. The method of cloud adoption varies; however, predictions suggest that businesses are leaning more toward hybrid cloud strategies. The results of the Aptum Cloud Impact Study 2023 confirm this. It found that the use of both public and private cloud services is high. Some 82% of IT leaders use private cloud infrastructure, while 77% use public cloud services.

Investment in cloud over the coming year is being driven by a need for increased efficiency, cited by 53% of respondents, and improved agility, cited by 48% of respondents. These factors are strategically more important than cost savings, which was an important factor for 32% of public cloud users and 33% of private cloud users.

SO, WHAT GOVERNS THE CHOICE BETWEEN A PUBLIC OR PRIVATE CLOUD ENVIRONMENT?

In many cases, issues around governance and security swing organizations towards a private cloud environment. A third (34%) of IT leaders said that security and governance were important factors in choosing a cloud environment. This reflects the continued importance of regulatory compliance and data residency in certain industries, where organizations need control over where sensitive or valuable data is kept.

Private cloud services may offer the benefit of lower total-cost-of-ownership (TCO) because internal staff are highly familiar with the infrastructure and services that are built and designed to exactly match the organization's needs. Public cloud services reduce on-site capital and up-front capital investment. They can be rapidly deployed, with high levels of flexibility, and quickly scaled up or down. This makes them a good choice for organizations prioritizing agility, flexibility, and scalability.

A third (33%) of respondents also said that public cloud offers useful data backup facilities, which can be essential for certain industries and for certain categories of data. However, public cloud services can be expensive, particularly if the organization needs to move data in and out on a large scale.

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"Private cloud gives customers the benefits of virtualization, with the additional advantages of their own infrastructure so they have complete ownership and control of security from the foundations up. For companies that operate in highly regulated industries, such as public sector, government, or financial institutions, there is a need to have this level of control and governance that private cloud provides."

– Ron Bradburn,
Director of Technology, Aptum

MEETING FLUCTUATING ECONOMIC CHALLENGES

Gartner predicts that spending on public cloud technology will increase by just over 20% in 2023, to more than $591 billion[3]. Meanwhile, Google reports that 41% of business and tech leaders plan to increase spending on cloud services in 2023 in response to the current economic climate[4].

Although Gartner expects IT spending to increase by 2.4% in 2023, the analyst firm says inflation will pressure CIOs and technology leaders to optimize spending to maintain service levels. IT departments are grappling with soaring energy costs and inflation-related price increases across the board[5].

It's hardly surprising that just over half (51%) of respondents say cloud is a key part of their strategy to weather the economic downturn by helping reduce costs. The same number (51%) of respondents say that cloud investment is already helping to reduce costs. A third (33%) of organizations say that cloud is vital in creating predictability and avoiding unexpected costs.

Cloud is also helping organizations to optimize spending and develop new services. Half of those surveyed (49%) report that cloud is helping to drive innovation and new services, while 48% say cloud data allows them to make better decisions, and a third (35%) say that it drives better customer experience.

CLOUD ENHANCES BUSINESS OUTCOMES

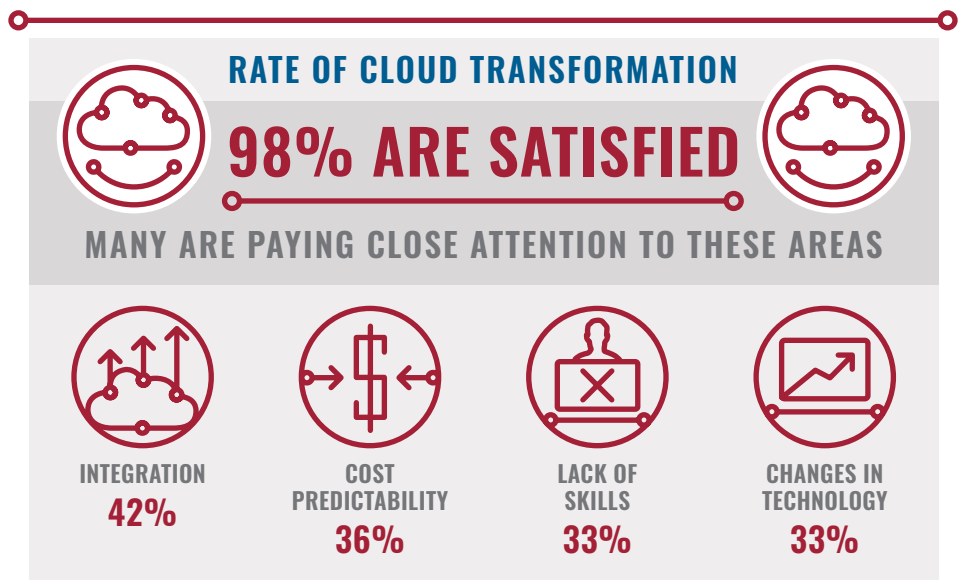| **49%** Drives innovation	**48%** Enables better decisions	**35%** Improves customer experience

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CHALLENGES AROUND CLOUD COMPLEXITY

The vast majority (98%) of respondents in the latest Cloud Impact Study are satisfied with the rate of cloud transformation in their organization. However, only 41% say they are completely satisfied, showing that barriers and challenges remain around the management and optimization of cloud spending.

Respondents say their key challenges in cloud management today are integration (42%), delivering cost predictability (36%), and a lack of skills combined with changes in technology (33%). Not having the in-house skills to manage the integration of cloud and legacy applications is also a top barrier. This year just over a third (33%) of respondents stated that a lack of skills was a challenge. In addition to this, complexity and choice was listed as a top challenge by respondents, when trying to decide on the right cloud strategy (72%). Last year, we saw a similar picture with 80% of respondents citing the same challenge.

RATE OF CLOUD TRANSFORMATION

98% ARE SATISFIED

MANY ARE PAYING CLOSE ATTENTION TO THESE AREAS

INTEGRATION	COST PREDICTABILITY	LACK OF SKILLS	CHANGES IN TECHNOLOGY
42%	36%	33%	33%

It is clear that after rushing to implement cloud services during the pandemic, many organizations are paying the price for doing it without the benefit of a comprehensive management strategy and effective FinOps practices.

Organizations' vision of creating a seamless service that spans on-premises, private, and public cloud services is a struggle to realize because of the need for expertise, mature practices, and effective tooling across multiple cloud technologies. Thirty-five per cent of respondents say they struggle to move applications or data into the cloud, and a further 34% say they are held back from advancing their cloud maturity because of the complexity of their legacy systems and a lack of in-house knowledge (31%).

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"Historically, organizations often opted for a "lift and shift" migration to the public cloud to move quickly or due to lack of experience. However, they have since recognized that this approach to cloud computing falls short of delivering the expected long-term benefits due to rising costs and resiliency issues. The main reason for this is that achieving the full business benefits of cloud requires re-architecting systems, applications, and processes to function optimally in the cloud environment."

– Marc Paré, General Manager – Advisory & Consulting, Aptum

UNLOCKING THE POTENTIAL OF FINOPS

If possible, organizations should implement FinOps before deploying cloud, but McKinsey points out that it's never too late to benefit, saying: "Most enterprises would benefit greatly from introducing FinOps capabilities early in the cloud journey. The longer a company waits to implement FinOps, the greater the cost and effort it takes to move away from a data centre mentality towards cost-effective cloud [6]."

As customers gain maturity in their cloud journey, they apply the right architecture and operations for each workload. Inevitably this brings them into a hybrid, multi-cloud platform approach that requires consistent support and management practices to compensate for the diversity of the underlying technologies.

To fully harness the potential of FinOps, companies must prioritize an engineering-first approach before committing to savings plans. By focusing on developing robust and efficient systems, organizations can lay a solid foundation that enables effective governance and enhanced ROI, allowing CIOs to implement well-informed cost control strategies.

FinOps emerges as a vital discipline, blending finance and operations to empower businesses in optimizing cloud expenditure and maximizing ROI. This approach reaches its full potential when backed by ample experience and expertise.

A prime example involves the collaboration between IT teams and finance departments to demonstrate the cost breakdown of projects to respective business units.

In the pre-cloud era, IT predominantly functioned as a cost center with substantial capital expenses. However, with the cloud now serving as a utility accessed through automation, businesses can clearly showcase their expenditures and identify cost optimization opportunities that cater to the specific needs of workloads in the cloud.

To truly benefit from a sustainable FinOps approach, companies must go beyond merely committing to a spending level for cost reduction. By engineering solutions that focus on efficient resource management—utilizing automation, auto-scaling, and contemporary architectural patterns—organizations can achieve more effective use of electricity, cooling, and financial resources.

> "Our customers come to us because they need the technical and strategic support to effectively manage intricate hybrid and multi-cloud environments. With a reputable track record in deploying hybrid and multi-cloud solutions, an external provider, such as Aptum, can assist organizations in assessing their application portfolios and making the all-important informed decisions on the most suitable hosting location for each workload. A partnering MSP will guide companies in determining where to host applications and workloads, and will develop a holistic strategy to cloud computing, that is aligned to business goals and delivers on expected benefits."
>
> – Susan Bowen, CEO, Aptum

CONCLUSION AND RECOMMENDATIONS

The hybrid cloud environment is gathering momentum and delivering benefits to organizations. However, these benefits are often unclear or limited by a lack of visibility and understanding of cloud infrastructure.

Organizations can overcome the challenges of cloud complexity and prevent out-of-control costs by understanding and optimizing their cloud architectures. To achieve this and ensure business success, IT leaders should consider implementing the following three action points, emphasizing the importance of development team practices and tools while incorporating DevOps and FinOps principles:

1. Conduct a comprehensive cloud assessment: Begin by evaluating your existing cloud infrastructure, services, and applications, taking into account your organization's DevOps and FinOps practices. Identify areas of inefficiency, redundancy, or misalignment with business objectives. This assessment will provide valuable insights into potential improvements and optimizations, allowing for better integration of DevOps and FinOps principles.

2. Implement cloud governance and cost management policies: Establish clear guidelines and policies for cloud resource usage, including budget allocation, cost monitoring, and reporting, while keeping DevOps and FinOps objectives in mind. Ensure that all stakeholders are aware of these policies and adhere to them. Regularly review and update these policies to maintain alignment with business goals, DevOps, and FinOps best practices.

3. Leverage automation, monitoring tools, and development team practices: Utilize cloud-native or third-party tools to automate repetitive tasks, such as provisioning, scaling, and deployment, in line with DevOps practices. These tools can help identify and remediate inefficiencies, reducing the risk of human error and streamlining cloud management.

Additionally, implementing monitoring solutions to track performance, usage, and costs in real-time, enables organizations to make proactive adjustments to optimize performance in line with FinOps principles. This should include adopting best practices and tools that foster collaboration, efficiency, and continuous improvement in both DevOps and FinOps contexts.

By focusing on these action points and emphasizing the importance of development team practices and tools, while incorporating DevOps and FinOps principles, IT leaders can effectively address the challenges of cloud complexity and maintain control over costs while ensuring business success.

1   (McKinsey, The FinOps way: How to avoid the pitfalls to realizing cloud's value, 2023)

2   (Gartner, Gartner forecasts that 85% of businesses will embrace a cloud-first principle by 2025, 2021)

3   (Gartner, Gartner Forecasts Worldwide Public Cloud End-User Spending to Reach Nearly $600 Billion in 2023, 2022)

4   (Google, The digital forecast: 40-plus cloud computing stats and trends to know, 2023)

5   (Gartner, Gartner Forecasts Worldwide IT Spending to Grow 2.4% in 2023, 2023)

6   (McKinsey, The FinOps way: How to avoid the pitfalls to realizing cloud's value, 2023)

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ABOUT APTUM

Aptum enables customers to "Own your destiny in the cloud™" by solving complex technology challenges with truly comprehensive, outcome-based solutions across multiple public and private clouds. We are a global provider of Managed Services and Advisory & Consulting Services, enabling customers to control and optimize workloads across hyperscale, regional, private, and edge cloud platforms.

The Aptum approach is cloud platform-agnostic, empowering customers to improve performance and security of workloads; enable workload portability and optimization; and drive greater flexibility and agility while lowering costs; all with unified management and reporting which span North America, Latin America, UK, and Europe.

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