aptum

CLOUD IMPACT STUDY

A BRIGHT FORECAST ON CLOUD
BUT ACHIEVING CLOUD ROI HINGES ON INTELLIGENT PLANNING

INTRODUCTION

A Bright Forecast on Cloud is the third report in a four-part series that evaluates the findings of Aptum's Global Cloud Impact Study. This study, which surveyed 400 senior IT decision-makers across the UK, the US, and Canada, reveals powerful insights into cloud adoption practices.

The first report in the series examines cloud business drivers and the main obstacles impacting cloud transformation, and the second report explores common security, compliance, and governance challenges affecting organizations as they digitally transform.

Building on these initial findings **A Bright Forecast on Cloud** provides valuable insight into some of the real-world benefits of cloud adoption and examines the cost implications that can occur if cloud is not implemented correctly. The report concludes by charting a migration path that will help organizations to unlock the full potential of cloud and avoid common mistakes that often result in increased cloud expenditure.

EXECUTIVE SUMMARY

With the onset of the pandemic at the start of 2020, cloud adoption rates have significantly increased as organizations worldwide implemented work-from-home strategies. The move to public cloud infrastructure is accelerating, according to Gartner, which has forecast public cloud spending to grow 18 percent during 2021 to reach $304.9bn, up from $257.5bn in 2020. This forecast represents a marked increase in cloud growth rates, which reached 6.12 percent in 2020.

The cloud is praised for having many business benefits. But there are two stand out contributing factors to cloud adoption:

- Its ability to scale at will enables it to flex with business requirements. Businesses can add and subtract computing power on demand, which is especially important in a volatile economy.

- The second capability is application integration. Application programming interfaces (APIs) have become the lingua franca of the cloud, enabling organizations to piece together composite applications both internally and with third-party services. The ability to do both increases agility and speed of innovation.

We see organizations embracing more sophisticated capabilities as they move beyond pre-configured cloud-based applications to create and configure their own infrastructures.

Additionally, more organizations are exploring application infrastructure services (platform as a service), which depends heavily on API integration. PaaS will see a 26.6 percent growth in 2021, according to Gartner. Cloud system infrastructure services (infrastructure as a service) will see similar growth this year.

However, this increasing sophistication of cloud transformations carries both opportunities and challenges. **A Bright Forecast on Cloud** highlights the real-world business benefits of cloud computing but also explores the potential dangers organizations face by failing to plan, implement, and optimize their cloud deployments properly. Finally, the report reveals how CIOs and IT teams can keep cloud migrations and budgets on track to ensure they are maximizing the value of their technology investments.

THE COST BENEFITS OF CLOUD TRANSFORMATION

Organizations that include intelligent planning and preparation into their cloud transformation initiatives see efficiency and profitability benefits. Aptum's survey finds 80 percent of respondents report increased profitability when delivering services via the cloud. Cloud can make organizations more agile, accelerate new product deployment while shrinking time to market, increasing revenue and improving margins.

Efficiency is also a significant benefit, with 78 percent of respondents noting this is due to cloud adoption. Businesses are therefore using resources such as compute, storage, and capital more effectively than they did before.

Cloud computing payment structures are one way that organizations can maximize capital resources. Traditional capital expenditure (CapEx) models force organizations to buy more hardware than they need, to plan for additional capacity, and many underuse it as workloads fluctuate.

On the other hand, operating expenditure (OpEx) models and scalable infrastructure on demand mean businesses only pay for what they need, when they need it, so they don't need to populate their balance sheet with financial liabilities. It's no wonder, then, that 80 percent of respondents agree that cloud computing is essential for their organization's financial security.

The other resource that the cloud frees up is the most valuable of all: human capital. With the time savings gained from cloud-based automation, staff can concentrate on other more tactical and strategic tasks to further enhance operations.

THAT IS WHY THE FOLLOWING ARE THE TOP DRIVERS BEHIND CLOUD COMPUTING INVESTMENTS:

72%
OF RESPONDENTS CITE
EFFICIENCY

48%
OF RESPONDENTS CITE
BUSINESS CONTINUITY

56%
OF RESPONDENTS CITE
INCREASED BUSINESS AGILITY

39%
OF RESPONDENTS CITE
INCREASED PROFITABILITY

"The greater operational efficiency and flexibility that cloud promises can grant organizations opportunities to unlock new performance capabilities and help cut costs. But most businesses don't have the in-house expertise to effectively specialize and manage a range of environments and stay current with the rate of change in technologies. Through partnering with a technology expert such as Aptum, organizations can align their cloud strategies with overall business objectives to unlock the full potential of their cloud investments."

– Leigh Plumley, Chief Revenue Officer, Aptum

ROBUST PLANNING ESSENTIAL TO AVOID UNEXPECTED CLOUD COSTS

The cloud's financial and efficiency benefits are not guaranteed. Indeed, over half of Aptum's survey base (57 percent) say they have experienced higher costs than they originally anticipated from cloud computing.

These additional costs associated with inefficient cloud deployments are a common concern for many respondents with over a third (35 percent) reporting they are wasting significant IT budget due to inefficient cloud platforms. This figure rises to 41 percent in the UK. With the average business spending over a third (36 percent) of its technology budgets on cloud computing, this is a challenge that many organizations can avoid with sufficient planning.

Higher than anticipated costs are not an inevitable result of cloud computing. Rather, these findings highlight the need for intelligent planning and alignment to proven best practices to keep costs in line while achieving the efficiencies that we know the cloud delivers.

AVOIDING COMMON MISTAKES

Unanticipated fees and extended costs typically stem from several common mistakes that businesses make when migrating to the cloud.

One-size-fits-all

One of the most frequent mistakes is a failure in planning. Migration teams should assess the desired end state of their environment early in the design process. Ideally, the cloud infrastructure they envision should differ from their legacy on-premises infrastructure.

In the nascent stages of cloud computing, many organizations migrated existing architecture to the cloud to run it unchanged in a virtual environment. They assumed that this approach – known colloquially as 'lift and shift' – would reduce cost. In practice, it often fails to unlock all the benefits offered by solutions designed from the ground up for cloud environments (cloud-native).

It is crucial to design a post-migration architecture that is integrated with the cloud rather than simply sitting on top of it. A thorough architectural design will ensure that environments are optimized for specific applications and workloads, and that organizations are migrating the right workloads, to the right cloud, for the right reasons.

Lack of oversight

Another challenge is lack of operational oversight. The cloud eliminates friction when provisioning resources, including virtual machines, containers, and storage. Depending on the implementation, this ease of use can be both its most powerful strength and its biggest hindrance.

> "As IT environments become more complex, it becomes harder to keep abreast of cloud spending and total overrun. Without clear oversight, cloud sprawl is unavoidable. A lack of visibility and governance can contribute significantly to the challenges of excessive cloud spend. Businesses must ensure that cloud cost management is a company-wide initiative, with compliance, finance and other key stakeholders aware of cloud distributions and that IT teams have access to the expertise and tools to control it effectively."
>
> – Leigh Plumley, Chief Revenue Officer, Aptum

Without proper oversight and controls, friction-free provisioning can lead to sprawling virtual infrastructure with idle resources and create virtual resources that cost more than they need to. Inexperienced operations teams might use on-demand instances when cheaper reserve instances or even spot instances may be more workable. AWS' own pricing on spot instances, for example, offers 50-90% savings, with no commitment on the buyers' side.

In many cases, a lack of reporting exacerbates these problems, making it difficult for organizations to trace and identify the causes of cost overruns.

Reactive hybrid setups

Well-planned hybrid cloud architectures can balance cost savings, efficiency, security, and compliance. Conversely, poor planning can introduce unexpected costs and complications.

Moving inappropriate workloads to the public cloud is a common side effect of poor migration planning and operations. Applications in unsuitable locations can lead to unplanned hybrid cloud implementations as businesses repatriate workloads to on-premises or hosted private cloud environments.

Moving data into and out of the public cloud creates additional costs, not only in terms of time, organizational costs, and business disruption, but also in data egress fees from public cloud environments.

Poorly planned hybrid models also create other complexities, especially around visibility and security. Part two of the Aptum study, **The Security and Compliance Barricade**, found that a lack of visibility into cloud operations through a single portal is a challenge for 81 percent of respondents, while 82 percent state insufficient access control to cloud environments is a top issue.

Visibility across all data and workloads, whether located on-premises, in the public cloud, or private cloud, is vital to compliance and avoiding fines. Additionally, visibility tools provide performance insights that allow businesses to identify opportunities to cut costs and optimize efficiencies.

The pace of change is also a challenge for organizations that have refactored their cloud environments after migrating. The rate of cloud transformation has negatively affected many respondents (70 percent), with 27 percent or organizations revealing that too much change too quickly has impacted operational efficiency.

As hybrid cloud models are so varied, incorporating different cloud service providers that each have its own technical requirements creates additional complexity. Organizations rarely have the in-house skills to handle this broad technology landscape and cannot plan or manage such wide-ranging architectures for connectivity, security, or resilience. Organizations often fail to plan for these challenges or factor them into the total cost of ownership, leading to an increase in unplanned cloud expenditure.

"Assessing the desired end-state of an environment is an unmissable step in effective cloud cost control. Identifying a comprehensive hybrid-cloud approach may be key to this. Organizations sometimes place precedence on public cloud platforms, and later realize that not all workloads should reside there. A bigger pull-on resource is created, as well as higher costs from consumption. Organizations must return to that first step and assess the data requirements and identify what workloads are suited to on-premises, public cloud, or private cloud. Assessing the desired outcomes at the start of a migration journey, and continuously optimizing workloads with that in mind, will naturally keep costs down."

– Leigh Plumley, Chief Revenue Officer, Aptum

THE SHIFT TO A HYBRID CLOUD APPROACH

Many businesses are increasingly moving to a hybrid cloud approach in which their applications and data are distributed between one or more public cloud providers along with on-premises infrastructure and hosted private cloud environments.

Part one of Aptum's Cloud Impact Study, **Bridging the Cloud Transformation Gap**, found 59% plan on decreasing on-premises infrastructure in the next 18-24 months. 59% expect to shift more infrastructure to the public cloud. 66% plan to expand their private cloud workloads, primarily driven by security concerns.
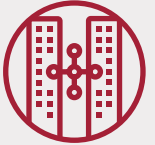
OPTIMIZATION

The first stage to successful cloud deployment, is understanding that cloud transformation involves hidden technical complexities that can increase budgets beyond initial expectations. Keeping costs low and hitting efficiency and profitability targets requires holistic approach to cloud migration, where organizations incorporate assessment, adoption, and optimization into their processes.

69% of respondents state that they want to accelerate their cloud deployments but need help.

A granular approach to cloud transformation is also necessary to understand the different needs and nuances of individual workloads. Not all business functions and applications require the same level of security, resilience, or performance. For example, not all business processes will need the same recovery time or recovery point objectives from a cloud-based disaster recovery solution (a common use case for hybrid cloud scenarios).

The cloud adoption stage should set operations teams up for an optimization phase that will become continuous. By taking a comprehensive view of cloud environments in tandem with wider use of data analytics, organizations can continually evolve operations, reflecting new lessons and changing business requirements.
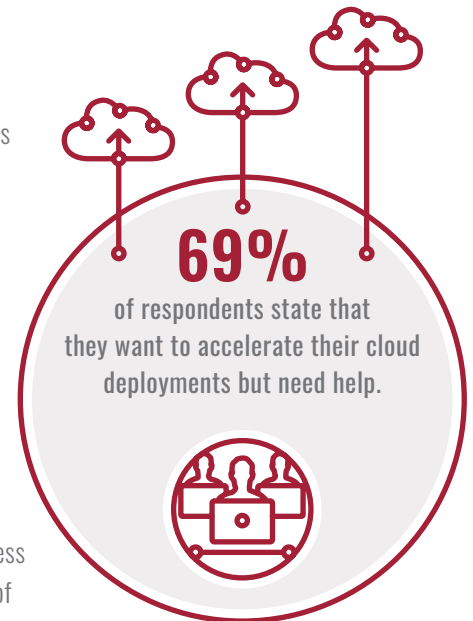
"A cloud partner can help organizations harness the power of cloud to deliver greater efficiencies. Partners like Aptum will provide a holistic approach encompassing best-practice architecture, security, resilience, and cloud-connectivity. For businesses to understand the true total cost of ownership and deliver maximum value from their cloud investments, it's essential to consider all these components of cloud architecture."

– Leigh Plumley, Chief Revenue Officer, Aptum

CONCLUSION

The cloud is already driving efficiencies for many businesses worldwide, creating cost savings and making them more agile. Newfound efficiency has created powerful competitive advantages by making organizations more responsive to customer needs and fueling innovation in product and service delivery.

However, most organizations need help unlocking the value of the cloud. By working with a managed service provider with a strong heritage of cloud consulting and integration expertise, organizations can build robust, high-performance cloud strategies that maximize business outcomes to drive business transformation and success.

TO LEARN MORE ABOUT HOW OUR SERVICES CAN HELP YOUR ORGANIZATION, PLEASE VISIT:

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