EBOOK

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CLOUD IMPACT

STUDY

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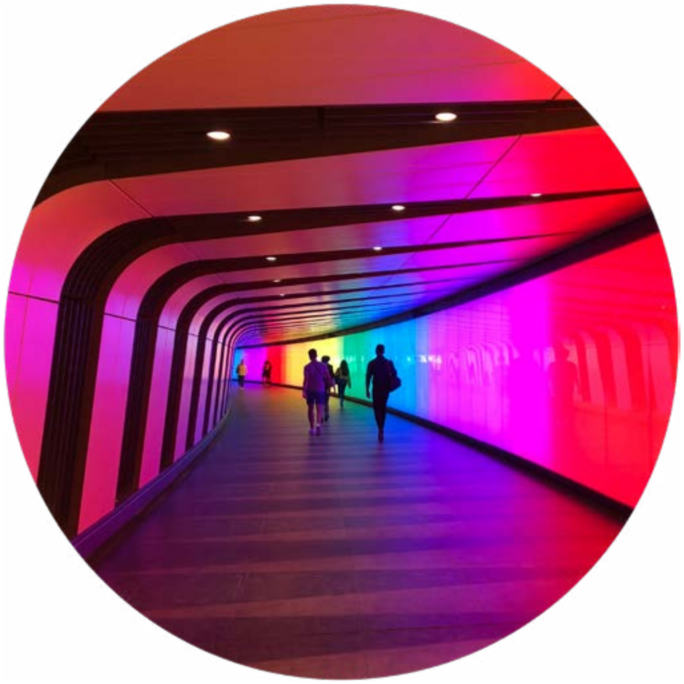
TAKING CONTROL OF CLOUD COSTS

INTRODUCTION

Pandemic-fueled cloud growth shows no sign of slowing, and with it the promises and benefits of cloud computing. Gartner predicts that by 2025, 51% of IT spending in application software, infrastructure software, business process services, and system infrastructure markets will be cloud-based, up from 41% in 2022.[i]

Building on the findings detailed in Part 2 of Aptum's 2022 Cloud Impact Study, this third report explores the financial impact of this mass migration on those companies making the move to the cloud. Our research, which involves interviews with 400 senior IT professionals in the US, UK and Canada, explores the trends in cloud cost management that were first noted in our 2021 study; and how these trends have changed a year later.

As companies' cloud transformations mature, there continues to be a significant increase in its benefits, but there are also growing budgetary challenges. In this Part 3 of the study, we investigate these challenges, taking a deep dive into what is happening and why.



> "Companies that shift to the cloud's OpEx-based payment structures avoid the rising capital cost of scarce equipment. Instead, they transfer some inflationary risk to cloud service providers with access to data center efficiencies and economies of scale. For many businesses struggling with looming economic concerns, the adoption of cloud will prove to be a beneficial financial decision. The problems of limited availability of hardware and increased energy prices are avoided by moving to the correct cloud model."
>
> – Richard Hotchkin,
> Director of Cloud Infrastructure
> Product Management, Aptum

EXECUTIVE SUMMARY

Volatile macroeconomic conditions have made companies more cost-conscious, placing the financial benefits of cloud transformation under growing scrutiny.

Increases in inflation rates have driven the consumer price index up 10.5% year-on-year across the OECD region as of July 2022. In May it grew 9.6%, representing the sharpest annual price increase since August 1988.[ii] So it is no surprise that inflation has become the primary concern for commercial organizations, according to a global McKinsey survey, with 50% of them seeing it as a significant threat to their countries' economies.[iii]

The cost implications of inflation represent some of our respondents' most significant worries. In fact, cost cutting was the fourth-ranked driver for cloud transformation at 37%. At the same time, almost as many organizations (35%) anticipate that controlling cloud costs will be their biggest challenge.

There is clear evidence that the benefits of cloud can have a positive influence on business financials, with 90% of organizations surveyed saying cloud computing has delivered on expected efficiencies. However, one of the big challenges for companies lies in their technical and strategic approach to cloud transformation, and whether they have the resources to deliver on an effective approach.

MOVING TO THE CLOUD FOR FINANCIAL SECURITY

Comparing the findings of this 2022 study with those of 2021, there is clear growth of confidence in the financial security cloud computing provides. This year, 86% of respondents feel cloud computing is essential to the financial security of their organization, a 6% increase from 2021. Respondents also recognize some other gains from the cloud, with almost two-thirds of respondents (63%) asserting that the rate of their cloud transformation had a positive effect on the business.

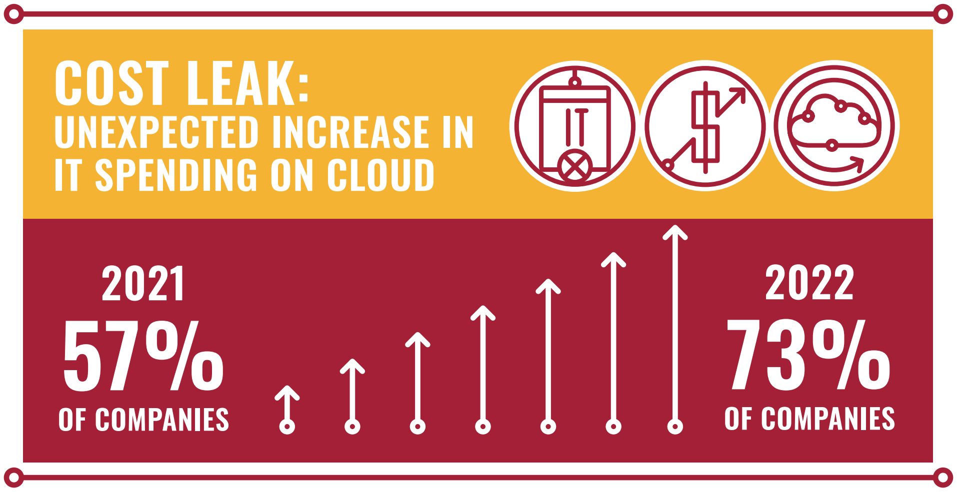
The shift from capital expense (CapEx) to operating expense (OpEx) plays a key role here. Eliminating up-front CapEx provides enormous benefits to finance departments eager to increase working capital during volatile times. They avoid large up-front investments with the intention of gaining future financial returns, and lower the barriers to innovation.

Companies appreciate the advantage OpEx models bring in expense regulation and operational planning, with 71% of respondents stating that cloud transformation has positively impacted their operational efficiency. For many companies, it is easier to measure usage in the cloud by using service providers' dashboards and other monitoring services.

Software-as-a-Service (SaaS) remains the most popular form of cloud computing, due partly to ease of entry and its pricing model. Companies can purchase SaaS services for a predictable, relatively inexpensive monthly per-user fee, eliminating the cost and risk of developing or refactoring their own applications.

AVOIDING COST LEAKS

Despite the financial benefit of cloud computing, respondents to the Aptum survey still report some cost-related challenges. One issue is an unexpected increase in IT spending incurred for cloud computing, a problem for 73% of companies. This is a notable 28% increase from just over half (57%) of companies in the previous year (2021).



So, what's behind this increase?

For most organizations, cost leaks are common but avoidable issues that usually result from poorly managed infrastructure. So, a well-conceived cloud strategy must include ways to mitigate these unforeseen but avoidable cloud costs.

Aptum has identified six primary causes of cost leaks, and ways to avoid them to keep costs down:

- **Lack of familiarity with the cloud**
  Just 20% of our study respondents had a holistic strategy in place before beginning their cloud transformation journey. Many (48%) still considered themselves relative observers, beginners, or intermediaries in their cloud deployments. This is common where an organization lacks the internal skills or resources to effectively set up, manage, and maintain a cloud strategy. A good strategy is to work with a third-party managed service provider (MSP) that can provide the necessary expertise to do this for them. This will noticeably reduce unexpected costs at source.

- **Runaway cloud costs**
  Businesses can consume more resources than required if they do not configure cloud to scale up and down effectively. This, in turn, leads to inefficient cloud usage and needlessly escalating costs. In fact, nearly two-thirds of study respondents (65%) admitted to wasting significant IT spending due to inefficiencies in their cloud deployments. This is up significantly compared to last year when 35% of companies reported financial inefficiencies. To overcome runaway cloud costs, organizations must incorporate planning into their cloud deployments as a continuous metric, not just at the start of a project.

COST LEAKS? WHY?

- Lack of familiarity
- Runaway costs
- 'Hotel California of Clouds'
- Hybrid complexity
- Cloud modernization
- Wrong consumption model

> "Unforeseen costs associated with the cloud can be a challenge for businesses that lack a comprehensive cloud strategy. Typically, unanticipated costs come about due to a lack of familiarity with the cloud. Businesses don't always fully understand how consumption models work, and which one is best for their organization. For example, the original migration can often cause a peak in price due to lack of successful refactoring of applications. This price increase can be large, and isn't always explained to businesses, causing unnecessary concern."
>
> – Marvin Sharp,
> VP Product & Strategy, Aptum

The 'Hotel California of Cloud' effect

For some, the cloud is like the infamous 'Hotel California' – tempting and easy to enter but hard to leave. Companies that pour their data into the cloud without considering the implications cannot always get it out again without paying costly egress charges. This issue is avoidable by planning appropriate workloads for their cloud infrastructure.

Hybrid complexity

Companies are increasingly adopting multi-cloud (44%) or hybrid (42%) cloud infrastructures to find the optimum mix of on-premises and cloud service providers. But there is complexity in this strategy that can result in unexpected costs. Organizations that lack sufficient in-house skills to navigate these complexities might struggle to reap all the benefits hybrid cloud offers. Outsourcing and using external advice and skills from a credible MSP will help guide businesses through the complexity.

Cloud modernization

Organizations are increasingly looking to modernize their cloud applications. Twenty-two percent of study respondents plan to expand use of containers, CI/CD, and DevOps over the next year. However, lack of expertise and legacy systems often add complexity and costs for those looking to do this. When asked what is holding their organization back from using advanced cloud services such as DevOps, study respondents said the barriers to modernization include: legacy applications needing significant refactoring (34%); it's too expensive to modernize (32%); and the application portfolio is too complex (27%). Working with an expert MSP allows organizations to avoid these issues by gaining access to resources, expertise, and best-in-class solutions that ensure modernization is built into the overall architecture of the IT environment, saving both time and money.

Wrong consumption model

Companies that are not familiar with cloud may find themselves adopting the wrong consumption model. This can incur unprecedented extra costs caused by having certain workloads on the wrong cloud model. Careful planning to ensure you have the right consumption model enables businesses to reap the benefits of cloud.

CONSUMPTION MODELS AND HOW THEY IMPACT COST

Service providers offer a menu of cloud consumption models to fit businesses and their varying cloud requirements. Offering trade-offs between convenience and cost directly correlates to the customer's level of planning, and what they can expect to pay. With differing models available, companies can realize huge potential savings by implementing the right one:

- **Pay-As-You-Go**
  Users pay for computer, networking, and storage as needed, typically per second. This guarantees them the cloud resources they need on demand, and ensures they will only pay for what they need. However, if the pay-as-you-go model is not planned effectively, it can result in some higher-than-expected costs. Organizations looking to use this model need to ensure they have a team in place with the expertise to manage it.

- **Subscription**
  Customers pay for resources regularly, such as a per-month plan. This model provides predictability and control over costs. But the downside to a subscription-based model is that it is often more expensive, as companies often have to over-subscribe to higher capacity than is actually needed, meaning resources can go to waste.

- **Reserved instances**
  Companies with more certainty over their long-term cloud computing needs can reserve computing instances for longer than a regular subscription model. This gives them a lower price because it allows the cloud service provider to plan computing capacity. Analyzing historical resource usage to help project future computing demand might enable a switch to lower-cost reserved instances from on-demand ones. However, a major drawback to a reserved instance is that, once purchased, it can't be easily cancelled. This limits the flexibility that other cloud models offer.

- **Spot instances**
  This model allows cloud service providers to sell their excess computing power. Customers pay for computing capacity that isn't being used, often securing it at very short notice. The benefit is a cost saving of up to 90% over pay-as-you-go models, according to one of the hyperscalers. The downside is that this computing capacity is not guaranteed, so it can disappear mid-job. Spot instances can be a good option for stateless workloads, but takes careful planning and astute management.

> "Planning is so crucial to a successful cloud journey, particularly when measuring ROI. Businesses that don't appreciate the financial benefits cloud has to offer are often those that don't lay out what success looks like to them from the start. If you can define success, you can measure it."
>
> – Richard Hotchkin,
> Director of Cloud Infrastructure
> Product Management, Aptum

CAREFUL PLANNING CONTROLS CLOUD COSTS

While 89% of organizations are likely to measure their ROI on cloud investments over the next year, there is little consensus on how to do it. Operational resilience was the top ROI metric (22%), followed by scalability, agility, and continuity (16%). Use of other metrics was divided relatively evenly – speed of innovation (12%), increased revenue (13%), reduced IT cost (13%), and increased efficiency (12%).

A key reason for this disparity is the relative immaturity of financial management in cloud computing. For most organizations, there is not yet a single metric that best represents ROI, especially since cloud investments are often business-driven and have varying motivations.

With diverse business drivers and technology goals, cloud design teams need to decide which metrics best match their success criteria. This means identifying those criteria with stakeholders in the first place.

When cloud computing is implemented with careful planning, the financial benefits can help offset costs that may rise in a fluid business environment. Reducing capital expenditures and energy costs are the most obvious cost-saving benefits of cloud computing – it also enables increased business efficiency through automation, enabling teams to increase focus on business-critical work.

MEASURES OF CLOUD ROI

- **22%** Resilience
- **16%** Scalability & Agility
- **13%** Increased Revenue
- **13%** Reduced IT Cost
- **12%** Speed of Innovation
- **12%** Increased Efficiency

However, securing these benefits requires a holistic plan for cloud transformation. This involves considering all aspects of cloud use – including people, processes, and technology – and then making strategic decisions to yield the best outcomes for all. This will help steer your cloud project through requirements analysis, workload planning, process modernization, application migration, and service cost analysis.

"Lack of in-house skills and resources is a common challenge for many companies, especially with the current skills shortage in the technology industry. When it comes to managing and operating the cloud, there is a very specific set of skills that a company needs to have access to, and this is where MSPs can really help."

– Marvin Sharp,
VP Product & Strategy, Aptum

CONCLUSION

Creating a strategic plan is key to taking control of the cloud, and dramatically improving cost savings on computing resources. You wouldn't set out on a journey without a map, and embarking on a cloud transformation without a plan is no different. Careful planning with well-defined goals enables businesses to reap all the financial benefits cloud has to offer.

However, some cloud strategies still need work – 14% of study respondents identified strategy improvements among their top three priorities for 2022. The help of a trusted MSP with a strong history of effective cloud consulting expertise can be invaluable. It ensures that the right operating model and cost model are implemented, and helps take control of costs. Working with an MSP avoids possible 'wrong turns' in business operations and finances, and makes moving to the cloud a seamless and cost-effective experience.

i Gartner Says More Than Half of Enterprise IT Spending in Key Market Segments Will Shift to the Cloud by 2025
ii OECD Inflation Data
iii McKinsey & Company – Economic Conditions Outlook, September 2022

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