TATA CONSULTANCY SERVICES

Building on belief

Four key pillars of strategic cloud cost management

The accelerated pace of innovation by various cloud providers makes cloud the de facto technology for new digital services. Gartner estimates[1] that more than 40% of enterprise workloads will be deployed in the cloud by 2023. The COVID-19 pandemic has accelerated cloud migration for collaboration and mobility to enable a distributed and secure workforce. This is leading to increased cloud spend by enterprises along with accelerated public cloud usage. According to recent Flexera report[2], organizations are struggling to get a handle on the growing cloud spend, and have spent over budget by an average of 24%. Respondents estimate organizations waste about 30% of their cloud spend.

Finops matters now more than ever

TCS 2020 CFO study report[3] revealed that CFOs expect to be the catalysts in the digital age. Their priorities for development include improving the finance organization's ability to chart strategic direction for the business and ensuring the function understands the latest technologies and tools.

According to FinOps Foundation[4], finops is the practice of bringing financial accountability to the variable spend model of cloud, enabling distributed teams to make business trade-offs between speed, cost, and quality.

With cloud adoption, traditional technology consumption models as well as traditional procurement cycles have been challenged. Spend is no longer known upfront until far after the fact. Given the rising expenses and the importance of cloud services to the business, it is important to understand the real costs of available cloud options to formulate an expansive and forward-looking strategy to make the best use of the value provided by cloud. Enterprise IT leaders must consider costs related to the full life cycle of the cloud service, including the initial migration, operations, and end-of-term implications, licensing impact along with a consideration of the operational risks. An integrated financial management capability to manage various clouds is required. Building finops capability within the organization will help to address these challenges.

Recommendations for a truly digital business

Thriving in this new digital economy will require a laser focus on cloud cost management with appropriate controls, without stifling innovation. It requires correlating cloud costs to business value.

Effective cloud cost management requires:

1. Collaboration between finance and technology teams: Finops requires a cultural shift for successful cloud cost management. While procuring a specific cloud service is now in the hands of developers, through a self-service model, a multi-departmental approach is required, where finance teams and technology teams work together for effective resource management. Effective resource management of the cloud starts with proper stewardship, with a collaboration between finance and technology teams in optimizing overall spend though consolidation and license optimization.

> “Do not save what is left after spending but spend what is left after saving.”
>
> Warren Buffet

2. Improving visibility on cloud spend: Having a centralized team would help in consolidation of services, negotiating contract rates, availing volume discounts, judicious use of reserved instances and availing committed usage discounts. While cloud service providers facilitate tagging of resources, a mechanism needs to be established for appropriate charge back and cost allocation for common services. It is equally important to track the spend in near real-time basis to avoid any surprises at the end of the month. Forecasting and variance analysis for individual cost centers would give enough visibility to IT and the business in taking appropriate corrective action. In today’s era of rapidly changing technological choices, enterprises are also looking forward to either multi-cloud or hybrid cloud solutions. Multi-cloud adoption can happen due to a variety of reasons such as mergers and acquisitions, regulatory requirement for resilience, multi-vendor strategy to name a few. In such scenarios, improving visibility on cloud spend becomes all the more important.

3. Continuous optimization: As the rate of cloud adoption increases within the organization, optimization opportunities need to be continuously evaluated. Be it right sizing of resources using spot market to utilize ‘spare capacity’ of a cloud service provider or releasing of unused resources.

4. Automation and standardization: As optimization opportunities are explored, centralized governance will provide a standardized way of consuming the services, and appropriate automation for provisioning the services as well as spend visibility. This process will also improve knowledge percolation across multiple teams.

The first step forward

To achieve a strategic cloud cost management, companies should embark on adopting cloud financial management practices in increments, building on best practices from each iteration.

1. Define business KPIs

   While enterprises would like to bring costs down, it should not be done at the expense of being unable to fully support the business goals. As companies adopt more cloud services, it might also happen that new workloads get onboarded and overall cost goes up. Hence it is better to have a unit cost. For example, mobility service provider Lyft measures its business value by cost per ride to track unit cost. Correlating that KPI to their cloud costs allows Lyft to ensure spending growth does not outpace growth in the number of rides. Enterprises must define the business KPIs that could be corelated with cloud costs to manage the spending and assess the business impact on overall cost growth and optimization.

2. Establish continuous visibility of the current cloud operation and spend

As a first step, understanding the fully loaded costs is important. Establishing a tagging strategy helps in mapping the spend data to the organizational hierarchy by cost centers, applications, and business units. Defining a budget and developing a forecast by application or project of a business unit is the next step. Cost management services provided by hyperscalers as well as third-party tools can help here. Once the resources are tagged appropriately, it is easier to push spend accountability and ownership at the edge of an organization through appropriate showback or chargeback mechanism. The cost transparency will also bring in cultural change and will lead to less incidences of forgotten workloads.

By tracking costs per ride and dividing AWS costs by the number of rides, Lyft was able to more clearly understand its AWS spend. By using AWS Cost Management services and internal tools, Lyft[5] reduced costs per ride by 40% in six months. Thales[6] Digital Identity and Security (DIS) leveraged budget forecasting feature of CloudHealth by VMware. Based on past usage data, Thales DIS was able to forecast total cloud costs for future quarters, vital information for its key business stakeholders.

3. Start tracking utilization and optimization opportunities that arise over a period of time

Once cost data is available, through a data-driven framework, it is easier to identify expensive, low-utilization or oversized resources. Based on utilization data, enterprises can decide the reserved or committed capacity required, keeping in mind future requirement and flexibility required for the business case. Native services such as Azure Advisor, AWS Compute Optimizer, GCP Recommender can be utilized to get recommendations around rightsizing the resources on respective platforms.

Granular utilization data helped News UK to easily identify instances that required rightsizing. News UK[7] saved 40% on monthly cloud spend by managing their reserved instance with CloudHealth. Through spend analytics, Ibotta[8], a mobile technology company based in Denver, was able to increase the reserved AWS instance coverage and purchase reserved Amazon DynamoDB capacity, resulting in savings of more than $1 million.

4. Monitor ongoing improvements and changes, and implement corrective actions

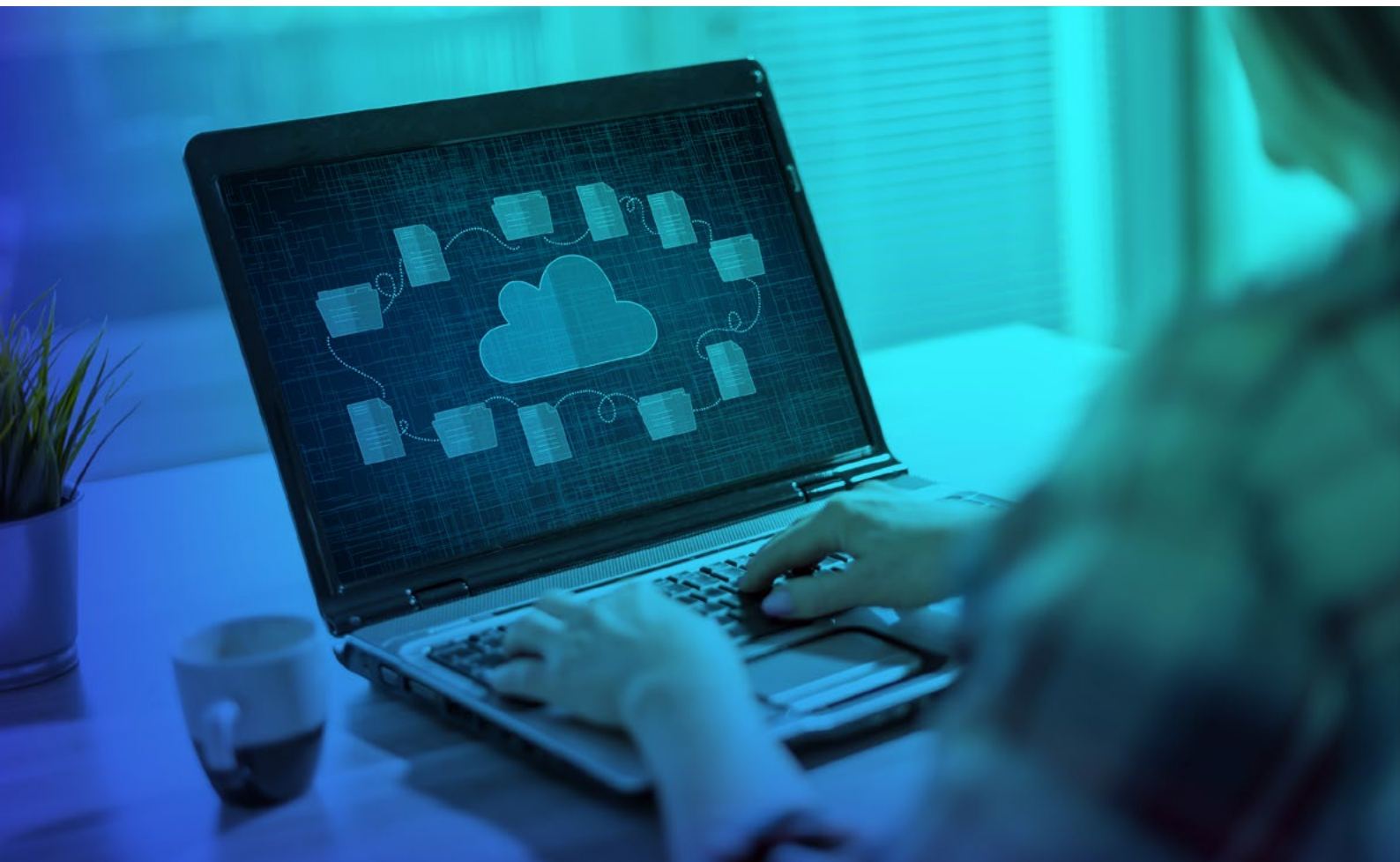
While opportunities are identified, a follow through is required for identified business case context. Establishing a policy-driven cleanup, as well as storage life-cycle management is required. A metrics-driven cost optimization approach needs to be taken to drive actions. It is a continuous process to improve efficiency and innovation. Apart from cultural changes, appropriate governance and control needs to be defined to avoid runaway costs.

BP[9] makes extensive use of Azure Policy, which offers audit, enforcement, and remediation controls over all Azure services. Global transportation and logistics leader Maersk[10] has implemented organization-wide Azure cost optimization, as an ongoing process that grows and evolves along with the organization, and with the developing demands the organization places on Azure services.

As cloud adoption continues to accelerate across all industries, TCS believes global businesses will undergo multi-year transformations to solve immediate problems as well as open-ended landscape of future problems. To deliver value, cloud adoption and associated transformations need to be managed cost effectively. A suitable cloud strategy and transformation consulting[11] can help customers to create new business models and unlock use cases to leverage cloud-native solutions and ecosystems to accelerate business value. A cloud management and orchestration platform[12] can help enterprises seamlessly manage their multi-cloud footprint cost effectively with out-of-the-box reporting views and heat maps on cloud utilization, tenancy, resource utilization, and predictive costs. Customers can leverage these strategies to stay ahead of the curve.

References

1. https://www.gartner.com/smarterwithgartner/gartner-predicts-the-future-of-cloud-and-edge-infrastructure/
2. https://www.flexera.com/blog/cloud/cloud-computing-trends-2021-state-of-the-cloud-report/
3. https://www.tcs.com/perspectives/articles/tcs-2020-cfo-study-executive-summary
4. https://www.finops.org/introduction/what-is-finops/
5. https://aws.amazon.com/solutions/case-studies/lyft-cost-management/
6. https://www.cloudhealthtech.com/resources/case-study/thales
7. https://www.cloudhealthtech.com/resources/case-study/newsuk
8. https://aws.amazon.com/blogs/awsmarketplace/ibotta-saves-1-million-with-cloudability-from-aws-marketplace/
9. https://customers.microsoft.com/en-us/story/729853-bp-governance-energy-azure
10. https://customers.microsoft.com/en-us/story/1332544709184763112-maersk-travel-and-transportation-azure
11. https://www.tcs.com/cloud-strategy-transformation-consulting
12. https://www.tcs.com/tcs-cloud-exponence-platform-on-microsoft-azure-greater-enterprise-agility



About the author

Sumedh Waikar

Business & Technology Services, TCS

Sumedh has 26 years of industry experience and held key roles in incubating and building emerging digital technology practices, leading sales and client engagements, providing architectural guidance to ongoing engagements, nurturing alliance relationships and developing go-to-market strategies.

In his current role, Sumedh works with a global clientele across industries to conceive, craft and deliver large, multi-disciplinary digital transformation initiatives.

TATA CONSULTANCY SERVICES

Awards and accolades

#1 IN CUSTOMER SATISFACTION 2020/21 EUROPE Whitelane Research

top EMPLOYER NORTH AMERICA 2021 CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

top EMPLOYER GLOBAL 2020 CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

ASIA'S OUTSTANDING COMPANIES POLL 2020 ASIAMONEY

STEVIES 2020

CONGRATULATION CIO100 WINNERS 2020

FinanceAsia ASIA'S BEST COMPANIES 2020

DIGITAL IMPACT AWARDS WINNER

CANADIAN HR AWARDS 2020

THE CIVIC 50 POINTS OF LIGHT

FTSE4Good

CDP DISCLOSURE INSIGHT ACTION

2020 Brand Finance® Awards

TOP 3 IT SERVICES BRAND

2020 Brand Finance® Awards

FASTEST GROWING IT SERVICES BRAND FOR THE DECADE 2010 - 2020

AWARDED Superbrands BRITAIN'S CHOICE 2020

AWARDED Superbrands AMERICA'S CHOICE 2020

Contact

Visit the Business & Technology Services page on www.tcs.com

Email: BusinessAndTechnologyServices.Marketing@tcs.com

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is a purpose-led transformation partner to many of the world's largest businesses. For more than 50 years, it has been collaborating with clients and communities to build a greater future through innovation and collective knowledge. TCS offers an integrated portfolio of cognitive powered business, technology, and engineering services and solutions. The company's 500,000 consultants in 46 countries help empower individuals, enterprises, and societies to build on belief.

Visit **www.tcs.com** and follow TCS news **@TCS**.

Corporate Marketing | Design Services | M | 10 | 21