MULTI-CLOUD INFRASTRUCTURE: A BUSINESS CATALYST FOR GLOBAL ENTERPRISES

Summary

In the recent past, business enterprises identified gaps in their legacy IT infrastructure. It motivated a cloud migration as part of a broader digital transformation. Significantly, this shift opened new business opportunities in the course of the cloud migration journey. In this point of view, we analyze challenges and address them without diluting the benefits of a cloud-based IT transformation.

Modern IT has becoming increasingly commoditized, with enterprises adopting a hybrid IT model to rationalize costs, accelerate time-to-market, and become agile in an intensely competitive marketplace.

A hybrid IT solution offers the flexibility to deploy and run applications on the most appropriate platform. The result: a paradigm shift in how enterprises operate, use and consume their IT resources. Consequently, modern IT infrastructure resembles a large, heterogeneous and complex landscape.

How did we get to this point where enterprises now make huge investments to pivot their IT stack to the cloud? Let us trace the journey of cloud adoption.

COVID-19 fallout

Cloud service providers (CSPs) such as AWS and IBM Cloud pioneered the delivery of cloud services. However, the tipping point was the COVID-19 pandemic when global CXOs accelerated the shift from on-premises to the cloud. It was followed by a spike in IT spend at a majority of global enterprises. A Gartner press release (1) in 2020 highlighted cloud services being the only bright spot in a declining trend of IT spending.

This technology shift contributed to a multi-year double-digit growth cycle for cloud transformation service providers coupled with business opportunities for design solutions to address challenges that arise from the consumption of cloud services.

Pivoting to the hybrid cloud

Global enterprises explored consumption of multiple cloud services from different providers to capitalize on best-in-class solutions of CSPs such as big data analytics or ML capabilities of the Google Cloud Platform and AWS for web app deployment. Moreover, enterprises evaluated the consumption of a hybrid public-private cloud to reduce the dependence on any one cloud platform and mitigate control as well as compliance and security risks. The benefits of scalability, agility and flexibility in IT operations for adopters provided the impetus for others to follow suit.

Operational challenges

Multi-cloud infrastructure presents new opportunities as well as unforeseen challenges that add to the complexity of adopting hybrid cloud infrastructure. Early adopters of this emerging cloud landscape were handicapped by a lack of standardization since every CSP has its own proprietary API. It is challenging to monitor deployment of apps since the environment undergoes dynamic changes at a rapid pace.

Moreover, monitoring is also challenging in the absence of a multi-platform monitoring tool to keep track of different sets of metrics generated by different cloud services, additional resources and skilled workforce for monitoring and maintenance, and infrastructure governance. Invariably, enterprises are constrained in the absence of a consolidated view of diverse environments running on multiple clouds leading to a siloed architecture.

Single unified platform

A unified management platform is a viable solution to manage the distributed and heterogeneous service model. This platform drives the orchestration, management, and governance of multiple cloud providers and enterprise ecosystems. It enables enterprises to view metrics and alerts generated from multiple cloud sources in an easy-to-manage and interactive dashboard.

A majority of platforms have evolved to add multiple layers of value-added functionality by adopting automation, artificial intelligence, deep learning, and analytics for superior efficiency. Such platforms boost productivity by reducing false or duplicate alerts, thereby reducing logged incidents and repetitive tasks.

This holistic cloud approach empowers enterprises to view, manage and govern their consumed hybrid IT services through a 'single pane of glass' while providing flexibility to IT and business units to enforce enterprise policies and processes.

Infosys polycloud platform, part of Infosys Cobalt, offers an intuitive, web- and persona-based, self-service portal to on-board, provision, monitor, and manage the IT lifecycle across multiple clouds in a unified manner with a single sign-on federated identity system. The platform leverages the rich experience of Infosys in cloud, infrastructure management and ITSM.

Conclusion

A multi-cloud management platform streamlines the process of consuming several cloud services concurrently by providing self-service capabilities to manage and govern services through a one-stop window.

About the Author

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Neerav adds value to global enterprises by leveraging advanced mathematics and machine learning. At Infosys, he is responsible for product development, product management, and product strategy.

References

1. Gartner Says Global IT Spending to Decline 8% in 2020 Due to Impact of COVID-19

Infosys Cobalt is a set of services, solutions and platforms for enterprises to accelerate their cloud journey. It offers over 35,000 cloud assets, over 300 industry cloud solution blueprints and a thriving community of cloud business and technology practitioners to drive increased business value. With Infosys Cobalt, regulatory and security compliance, along with technical and financial governance comes baked into every solution delivered.

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