Transitioning to Hybrid Cloud Offers Greater Operational Choice & Improved Agility

By effectively taking advantage of the operational efficiencies that public and private cloud offer, organizations can not only keep costs low, but they can simplify IT management and keep critical business information secure.

Executive Summary

Today's enterprises are realizing the potential of "digital" as a way to boost agility, reduce operating costs and accelerate the delivery of business outcomes. With different cloud options and viable hybrid solutions available, however, it behooves organizations to take the time to determine which hybrid cloud solution and migration path is the most effective, based on their industry and organizational requirements.

This white paper explores the advantages of deploying a hybrid cloud solution in a large enterprise environment, the downstream tangible benefits of adopting such solutions and approaches for enterprises to optimize deployment in a purposeful, holistic and seamless manner.

August 2019

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The growing movement toward hybrid

Digital now transcends buzzword status. It's a strategic imperative for enterprises seeking to maintain or extend their competitive edge. Being digital enables organizations to effectively leverage modern technology, automate processes, optimize the end-user experience, speed decision-making, accelerate time-to-market and so much more.

While the benefits of digital are clear, the path for getting there is far from straightforward. This is why many enterprises are creating a digital infrastructure foundation that is powered by a hybrid cloud — using the cloud in combination with other cloud or non-cloud technologies — as a way of taking advantage of the flexibility and cost benefits of virtual infrastructure. The ability to seamlessly move workloads across hybrid cloud locations delivers greater levels of agility, automation, and security; cost transparency; and control over the placement of business-critical workloads. It's a growing trend that shows no sign of slowing, with the hybrid cloud market expected to reach $97.64 billion by 2023.[1]

Clearly, employing hybrid cloud solutions is a top priority for many enterprises that are pivoting to digital, end-to-end. Those that make the investment today will have a sustainable business advantage moving forward.

The advantages of hybrid cloud

Organizations on the path to hybrid cloud can leverage on-premises private cloud resources such as compute, storage, database, etc. and tap into the potential of the public cloud, utilizing the best of both the private and public cloud worlds. Hybrid deployments enable distinct use cases that are particularly attractive to organizations, which want greater choice and agility, but not at the expense of security or control.

Control is a key objective of moving to hybrid, specifically the ability to simply and effectively manage both platforms with uniform KPIs and SLAs while maintaining strong security and governance.

Hybrid solutions allow customers to:

- **Gain workload portability and flexibility.** The ability to easily transport certain workloads between on-premises resources and the public cloud provides the agility necessary to meet the disparate workload requirements that many organizations face — such as web applications that receive maximum user visits during festivals or special offers, and need additional resources to meet such seasonal demands. Organizations can extend workloads to the public cloud platform to meet spikes, quickly set up dev/test environments, integrate with cloud-native services and respond more quickly to changing business needs.
- **Optimize collaboration across IT teams and business processes.** A well-planned and integrated hybrid infrastructure will increase collaboration by leveraging unified management support. This will enable faster response times to change requests and shorter workload deployment cycles between once-siloed IT departments and business processes.
- **Maintain existing infrastructure while extending to the public cloud platform.** An effective hybrid solution will allow organizations to continue to use their existing infrastructure and take advantage of the public cloud for specific requirements such as dev/test, capacity bursting, backup or disaster recovery.
- **Consolidate and migrate noncritical workloads to the public cloud platform.** Consolidate noncritical workloads that often reside on underutilized IT resources and rely on the public cloud to support them.

Key expectations of hybrid cloud

In addition to utilizing a hybrid cloud infrastructure for specific use cases, organizations also have distinct expectations about what their hybrid environment enables, as well as the user experience they'll achieve.

For example, customers are looking to further monetize their existing IT investment with seamless integration of current IT assets and the public cloud platform. The expectation is to promote agility and cost-effectiveness by adopting a fail-fast mechanism and enabling change management activities to be equally connected and fluid. Others want seamless integration between current IT assets and their public cloud platform — and in line with that, they want change management activities to be equally connected and fluid.

To ensure consistent user experience and service availability, there is also a demand for operational consistency across on-premises resources and the public cloud — a consistency that applies to service levels as well. Of course, control is a key objective of moving to hybrid, specifically the ability to simply and effectively manage both platforms with uniform key performance indicators (KPIs) and service level agreements (SLAs) while maintaining strong security and governance.

Downstream benefits of hybrid cloud deployments

If done right, a hybrid cloud solution can meet these expectations and deliver a range of other distinct IT and business benefits. It can enable organizations to automate dynamic application workload placement between the public and private cloud, based on changing business conditions, by unifying the underlying architecture with integrated processes, tools and comprehensive governance.

Hybrid cloud solutions foster agility by enabling faster application development and service deployments. Usage of continuous integration and development shortens the entire application and service development cycle and enables efficient collaboration across teams (development, service integration, managed support, etc.). This speeds up the overall time-to-market and provides a significant competitive edge.

Finally, it can also deliver substantial improvements in business continuity, helping organizations move from CapEx to OpEx, boosting innovation and, according to some analysts, reducing total cost of ownership (TCO) by 24%.[2]

Addressing hybrid deployment challenges

A hybrid cloud environment can deliver the aforementioned benefits, but getting there requires careful planning, migration and management to avoid contributing to additional costs and complexities that can occur with a multi-platform approach. It's up to each enterprise to look at their complete, end-to-end picture and determine the right hybrid cloud approach — one that serves their business interests, simplifies IT, and maintains security and control.

Achieving hybrid cloud's potential

A software-defined data center (SDDC) hybrid cloud solution is an ideal approach because it standardizes the virtualization and management platform across the private and public cloud. As an example, most enterprises utilize VMware® for their on-premises private clouds.

With VMware Cloud™ on AWS, organizations can extend their existing VMware enterprise-class SDDC platform into the AWS public cloud for a hybrid solution that opens the door to greater agility and scalability while maintaining the security and control of on-premises storage. Even better, it also eliminates much of the management complexity that has traditionally plagued hybrid cloud deployments.

The VMware Cloud on AWS solution gives organizations the flexibility to treat their private cloud and public cloud environments as equal partners, and easily transfer workloads between them. This enables organizations to run production applications on both their private and public cloud environments based on a common VMware SDDC platform consisting of vSphere®, vSAN™ and NSX® — and with optimized access to AWS services.

Hybrid cloud solutions can foster agility through continuous integration and development, enabling more efficient collaboration across teams and business processes, speeding up overall time-to-market and providing a significant competitive edge.

As more businesses transition to hybrid cloud, it's also estimated that by 2020, 90% of organizations will adopt hybrid infrastructure management capabilities.[3] Services to support hybrid cloud implementations can help optimize every aspect of deployment, from strategy and design to management and support.

Enterprise customers can benefit from industry-leading hybrid cloud solutions that enhance productivity, agility, choice and control. They need to work with credible partners to effectively plan and extend their VMware SDDC on-premises resources into the public cloud.

We deployed an integrated hybrid cloud solution for one of our large energy and utilities customers, based in the UK, by taking a holistic approach covering business and IT needs. The objective is to maximize our customer cloud strategy — to become more agile, efficient and business-centric. We created utility-based service catalogs aligned to business needs, automated processes for service support and delivery, and implemented proprietary process frameworks and IPs to enable faster service augmentation. Our solution helped the customer gain market share, improved their customer experience and significantly reduced overall TCO.

Looking ahead: digital assets optimization is critical

As businesses look to transform their legacy infrastructure and reap the advantages of digital thinking and technology, it's critical to choose a path that serves the organization from all vantage points. Businesses can spark transformation with a hybrid cloud solution that delivers greater choice and agility, along with the security and control that is now more important than ever. It's just a matter of planning and then execution in a manner that allows the organization to extract the most from their cloud and on-premises technology investments moving forward.

We, VMware and AWS, bring together the best of expertise and technologies to help enterprises plan, migrate and manage a secure, agile and cost-effective hybrid cloud solution. Our hybrid cloud service provides an integrated and comprehensive solution with prepacked service catalogs tailored to the unique business and IT application needs.

To learn more, please visit the Cognizant Infrastructure Services section of our website, or contact us.

Endnotes

1 "Hybrid Cloud Market by Component, Service Type (Cloud Management and Orchestration, Disaster Recovery, and Hybrid Hosting), Service Model, Organization Size (SMEs and Large Enterprises), Vertical, and Region – Global Forecast to 2023," MarketandMarkets, www.marketsandmarkets.com/Market-Reports/hybrid-cloud-market-1150.html.

2 "Hybrid Cloud Computing: The Great Enabler of Digital Business," IDG Survey, www.emc.com/collateral/analyst-reports/idg- research-hybrid-cloud-white-paper.pdf.

3 Ibid.

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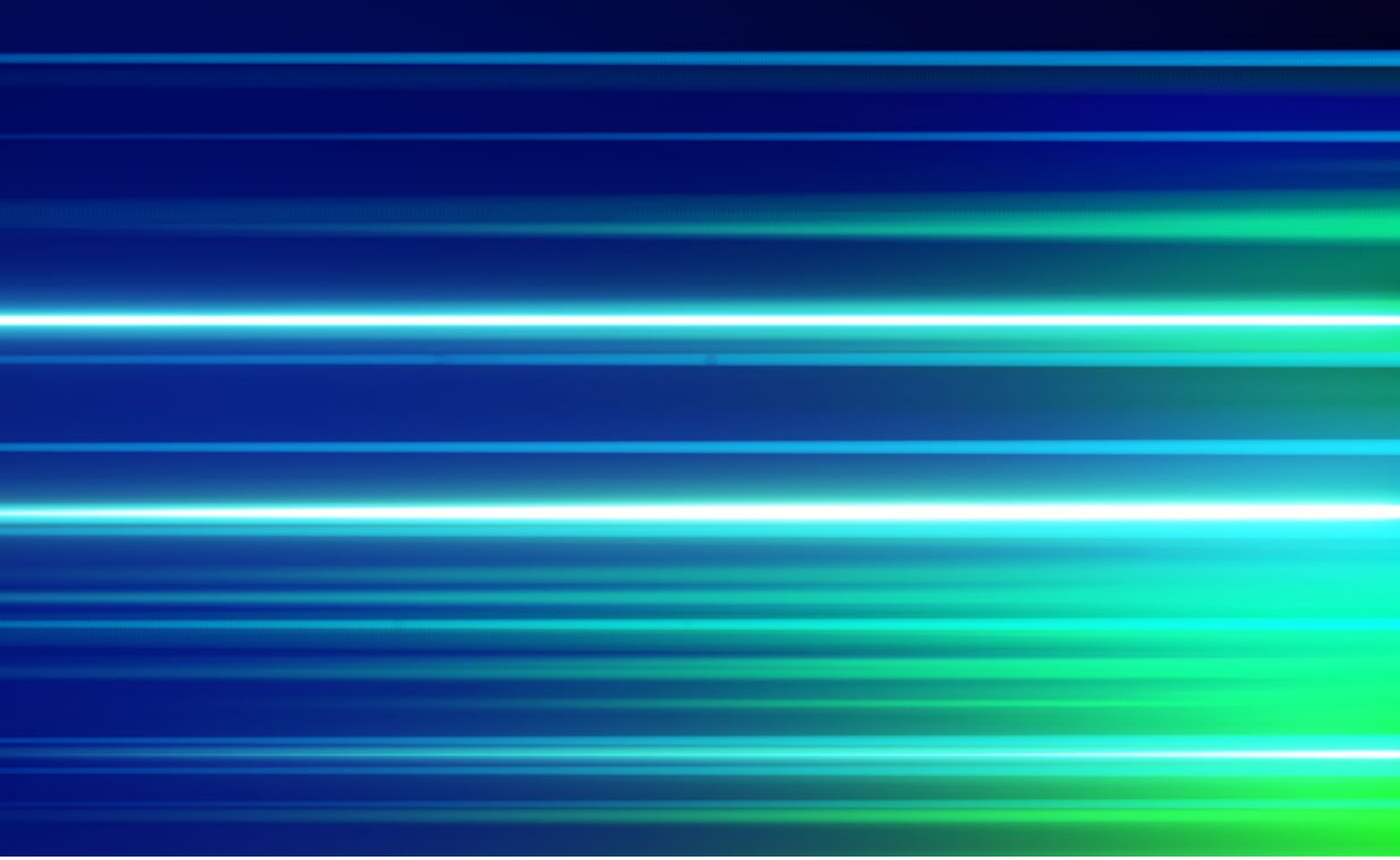

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About VMware

VMware software powers the world's complex digital infrastructure. The company's compute, cloud, mobility, networking and security offerings provide a dynamic and efficient digital foundation to over 500,000 customers globally, aided by an ecosystem of 75,000 partners. Headquartered in Palo Alto, CA, this year VMware celebrates 20 years of breakthrough innovation benefiting business and society. For more information, please visit www.vmware.com/company.html.

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Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.

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