Hybrid Multicloud is Here to Stay—And That's a Good Thing

No longer simply buzzwords, agility and flexibility are critical "must haves" for any business that plans to survive in today's fast-paced and fiercely competitive marketplace. A cloud operating model is key to delivering that agility and flexibility—and modern organizations have begun to adopt a hybrid multicloud strategy to achieve optimal efficiency, as well as the ability to quickly pivot to respond to changing customer demands or market trends.

A lot has been written about hybrid multicloud over the past several years. More than just another technological trend, however, hybrid multicloud has become the de facto IT strategy for many organizations today.

So what, exactly, is hybrid multicloud and why is it the strategy of choice for so many businesses across the world? By its simplest definition, hybrid multicloud is an IT approach that combines on-premises and private cloud resources with multiple public cloud deployments and services. By using a variety of environments, businesses can place workloads in the most appropriate places and scale up or down quickly as needed without excess costs or development time.

Traditional Computing Models No Longer Meet Business Needs

Two decades ago, most organizations used standalone servers and storage area networks (SANs) in on-premises datacenters to handle their computing needs. To increase capacity for an upcoming project, IT would have to purchase and provision new hardware, which increased costs and took time. When the cloud emerged, it offered pooled and on-demand resources, which finally provided the scalability and flexibility that businesses had begun to need. The cloud enabled businesses to work more efficiently without the need for capital expenditures or excessive IT management.

The shift to the cloud had its challenges, of course. The one-size-fits-all nature of early and specialized cloud solutions didn't work for every business need. Different cloud providers offered different services and had a wide range of

policies, pricing structures, and capabilities. Organizations began to see the value in having more than one cloud platform—which paved the way for hybrid environments, and ultimately, hybrid multicloud.

Hybrid Multicloud Offers the Best of All Worlds

With a mix of on-premises, private cloud, and multiple public clouds, organizations have ultimate flexibility and choice in how to manage and consume those resources. A hybrid multicloud approach delivers the agility and scalability of the public cloud with the enhanced sovereignty and control over workloads and data you get with private clouds and on-premises infrastructure. It allows you to leverage the strengths of each environment to ensure efficient, secure, and tailored IT operations that meet your diverse business needs.

The term "hybrid" denotes the integration of private, on-premises, and one public cloud environment—in a unified system that allows data and applications to move seamlessly between them. "Multicloud" emphasizes the use of more than one cloud service provider and also carries the connotation that your multiple public cloud deployments are integrated. If a business has one workload in Azure and another in AWS, but they're unconnected and siloed, that's just multiple clouds, not true multicloud.

Making a Business Case for Hybrid Multicloud

Adopting a hybrid multicloud approach offers real benefits. These include:

- **Cost efficiency** – With a range of cloud platforms and services, you can optimize expenses and pay only for what you use.

- **Workload placement optimization** – Because all environments are connected, it's easy to move workloads around as needed, no refactoring required.

- **Scalability** – Dynamically and quickly adjust resources based on demand. This is especially important in industries that experience seasonal peaks, such as retail. It can be fast and simple to spin up new resources to

maintain a seamless customer experience and then scale back once surges have ended.

· **Risk management and resiliency** – By distributing data and applications across multiple clouds and on-premises environments, you can mitigate risks associated with data loss or unexpected downtime.

· **Regulatory compliance** – As governments and industry associations tighten regulations on data around privacy, security, and sovereignty, having a hybrid multicloud approach can help ease compliance with both on-premises and public cloud resources.

To demonstrate the value of hybrid multicloud, consider a global manufacturing company that recently implemented a hybrid multicloud solution. Instead of trying to manage a handful of siloed on-premises and cloud-based resources, the company now enjoys full data accessibility across all IT environments. Data science teams can perform real-time data analysis on information collected and aggregated from all systems and applications—whether they're in a physical server in the datacenter or on a public cloud platform. And IT can move easily workloads from on-premises servers to a specific cloud, then move them to another cloud if needed to take advantage of that provider's tools and capabilities, and then back to the datacenter if desired.

With the integration and connection of on-premises environments and multiple public cloud platforms, the company was able to streamline its operations by enabling the flow of data and applications across different environments. This synergy showcases how AI can take advantage of hybrid multicloud by utilizing Large Language Models (LLMs) that can be developed in the public cloud, seamlessly process the data on-prem, and then run those same models at the edge for inference tasks. This approach also enabled better decision making thanks to real-time data analysis of information generated in the disparate environments.

Overcoming Common Concerns

When considering a hybrid multicloud approach, organizations will typically

have some concerns or questions. Adopting new technology isn't always easy, and hybrid multicloud might seem to come with issues related to the complexity of managing and integrating multiple public clouds with on-premises and private cloud environments. The purpose of hybrid multicloud is to ultimately simplify operations and management, and with the right expertise, guidance, and tools, that complexity can be managed very effectively.

Security is another common concern. Maintaining security across all environments might seem daunting initially. The key here is to implement unified security protocols and policies across cloud and on-premises resources. Again, the right tools and solutions can simplify that as well.

Some hybrid multicloud solutions make it easy to monitor and manage all computing resources from a single dashboard, whether they're in the cloud or in your datacenter. This can go a long way toward removing complexity and easing management and operational worries.

Getting Started with Hybrid Multicloud

Embarking on a hybrid multicloud journey requires a strategic approach. Start by assessing your business needs and understanding how different cloud models can address them. Engaging with IT experts to form a transition team is crucial. This team should focus on aligning the hybrid multicloud strategy with business goals and ensure the seamless integration of different cloud deployments. Success can be measured through business-centric metrics such as operational efficiency, cost savings, increased agility, and improved risk management.

Identify your specific needs when building your hybrid multicloud. Some key areas to consider include eliminating storage silos, using automation where appropriate to simplify daily tasks, ensuring granular visibility into the true costs of each environment, and implementing data protection and disaster recovery practices that allow you to keep data and applications available.

Looking Ahead: The Future of Hybrid Multicloud

Business technology is always evolving, and so are the tools and solutions that enable hybrid multicloud. As technologies such as edge computing, AI, and machine learning mature and organizations find new and exciting ways to use them, they will become integrated with hybrid multicloud solutions to make the strategy even more viable and vital to business agility and success.

According to many experts, hybrid multicloud is here to stay—at least for the foreseeable future. One 2023 study found that two out of three IT professionals saw hybrid cloud solutions as a "permanent destination for infrastructure," not merely a stepping stone to something else. Offering increased scalability, cost efficiency, agility, flexibility, and enhanced risk management, a hybrid multicloud approach will undoubtedly open new horizons for business growth and innovation. It should be an essential consideration for today's most forward-thinking business leaders.

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