Why Multi-Cloud Data Services are Critical to the Modern Digital Organization

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Introduction

Organizations across the globe are committed to a multi-cloud strategy, including the management of multiple cloud platforms. They are administering an intricate mix of public, private, and edge cloud architecture to achieve new benefits such as improved business outcomes and operational efficiency. In addition, some applications are not well-suited for using a specific cloud solution, while a multi-cloud architecture approach enables IT teams to select the cloud platform that best fulfills their requirements.

However, the adoption and administration of multiple clouds presents its own challenges. Inconsistencies across the operations and infrastructure of multi-cloud implementations result in fragmentation of the cloud experience, and disconnected tools and processes. IT teams are then confronted with incompatible silos of infrastructure and increased operational expenses, which hinder their overall cloud journey. IT teams need to allocate more resources and time to administer and orchestrate the complex blend of cloud platforms while business stakeholders also struggle with added complexity and the inconsistent integration of systems.

From our perspective, understanding the expanding influence of multi-cloud, including how organizations are struggling to get multi-cloud right, provides the foundation to examine the key challenges defining and shaping the evolution of today's multi-cloud environments. That's what led us to evaluate Dell Technologies' solutions and explore how they fulfill the needs of enterprises.

The Implications of the Multi-Cloud Challenge: Simplifying and Optimizing Deployments

In this white paper, we examine the implications of multi-cloud and how enterprises can overcome challenges and fulfill their business objectives by simplifying their multi-cloud implementations and optimizing their data processing workloads throughout multi-cloud environments.

We identify the top challenges organizations face today as consisting of:

- The ability of IT teams to add cloud-based computing and software services to their portfolio of existing on-premises resources without disruption and delays.

- Administering key capabilities such as containers and native services across different cloud platforms while also maintaining cloud agnosticism and avoiding potential lock-in with a single provider.

- Attaining full visibility of data and applications across the entirety of their multi-cloud deployments, including data centers, co-location facilities, public clouds, and the edge.

- Managing and overseeing expansion of attack surface potentially vulnerable to hackers.

- Avoiding gaps in attaining full understanding and view of cloud investments.

What is the Market Looking For?

So, what is the market looking for? From our perspective, organizations have room for improvement in getting more out of their multi-cloud experiences. They are prioritizing using services that offer a new level of depth and breadth in their multi-regional and global coverage, technology offerings, and expertise. This demand includes fulfilling their edge to core and edge to technology needs that align with their distinct industry requirements. We find that key demand drivers include:

Simplified Service Frameworks. As organizations increasingly emphasize maximizing their multi-cloud experiences, they are investing in deployment models that are both flexible and adaptable. Fundamentally, customers want and demand freedom of choice, including adjusting their multi-cloud environment to fulfill their evolving strategic business outcome objectives.

Augmented Consumption Models. It's a given that cloud service providers and their partners must offer consumption-based, on-demand pricing to compete effectively in today's on-premises and public cloud environments. As a result, customers are increasing their demand to experience more streamlined, agile purchasing, and procurement processes of the cloud realm across all their IT environments which are both intuitive and deliver ease of use.

Universal Data Collection. Organizations are assigning top priority to achieving ubiquitous data collection and storage across their multi-cloud environments. This includes classification and data protection capabilities that support data policy and governance throughout their cloud implementations.

Removing Data Silos. Organizations are turning to the cloud to decrease and remove data silos embedded throughout their legacy on-premises networks. This strategic transition puts a premium on avoiding creating potential new data silos across their multi-cloud implementations that can diminish benefits such as operational and business process efficiency gains from cloud deployments.

Maximizing Multi-Cloud Benefits: Dell Project Alpine Value Proposition

As we evaluated Dell's multi-cloud portfolio, we identified key strengths. We believe Dell Technologies' deep heritage and company-wide DNA in powering storage innovation and delivering software to all the major public clouds and according to customer need plays a significant role here. Without a doubt, Dell Technologies is well-suited to meet the challenges of the multi-cloud era. Specifically, we identify Dell's Project Alpine as integral to Dell's overall multi-cloud portfolio in advancing storage software innovation across the multi-cloud universe.

Through Project Alpine, Dell Technologies is delivering the company's storage portfolio capabilities and expertise via software-defined storage for block, file, and object to the public cloud. The offering joins Dell storage intellectual property with native cloud public services giving customers the deployment flexibility they prize.

Let's examine the key attributes of Project Alpine and why it is essential to deliver the full range of multi-cloud benefits to customers.

Bringing Data to Cloud Applications. Project Alpine's ability to support data mobility without obliging enterprises to retrain people or refactor applications fulfills the market's sharp demand to simplify cloud service frameworks. Project Alpine's Dell Storage software enables IT teams to leverage public cloud services against historical data collections and data lakes and is planned to be available for public cloud in the marketplace or as a native, giving customers consumption-based billing flexibility.

Meeting Customer Use Case Priorities. Dell Technologies is developing Project Alpine to support the topmost use cases that customers are prioritizing. These include cloud bursting capabilities that allow customers to spin up storage in the public cloud when on-premises resources are diminishing, deliver a cloud-agnostic developer experience by running test and development environments in the cloud to be able to run anywhere, and assuring the movement of data from on-premises to the cloud using the advanced tools within Dell storage platforms such as backup, data recovery, or migration. In addition, IT teams can use an expanding ecosystem of advanced cloud analytics services against file/object data in the cloud, enabling them to use their data with any cloud service.

Take Advantage of Dell and Public Cloud Advancements. Project Alpine allows customers to leverage the latest technologies to accelerate their innovation. For example with Dell Technologies' Block storage software on AWS, customers can spin up and deploy containers on-premises or in the public cloud. This includes using cloud native mobility to move data from on-premises to the cloud, enabling users to develop cloud native applications that align immediately with cloud requirements. For instance, through Dell Technologies PowerFlex's unique software-defined storage architecture, we expect customers can run mission-critical applications across clouds with greater ease and flexibility. From our view, Project Alpine provides the storage software capabilities and innovation to make Dell Technologies the trusted advisor — the Switzerland of Storage, on-premises and across clouds, if you will — which enterprises fully value to fulfill their strategic multi-cloud business objectives. Project Alpine is vital to bringing operational consistency across cloud environments yielding management of data between on-premises and public clouds with consistent tools that leverage existing workforce skills, as well as providing payment flexibility to customers by using cloud credits. Even better, the capabilities here aid customers in their mission to better understand the totality of their cloud investments. Now let's examine how Project Alpine is a key element of Dell Technologies' entire multi-cloud portfolio proposition.

Dell Technologies' Portfolio: Delivering Numerous Multi-Cloud Benefits

Dell Technologies' portfolio development and marketing strategy are clearly focused on delivering a consistent experience across multi-cloud environments wherever organizations have their data and applications activity. We identify key Dell portfolio assets in product areas such as software-driven storage (i.e., PowerStore, PowerScale, PowerFlex, ObjectScale) and cloud services (i.e., APEX, APEX Cyber Recovery Services), as integral to Dell's multi-cloud proposition. To fulfill the mission of delivering cloud services anywhere and everywhere customers require those services, Dell Technologies' multi-cloud portfolio provides the following key solutions and proficiencies:

Multi-cloud Ecosystem Flexibility. Dell Technologies advocates an open ecosystem approach that allows customers to apply proven Dell solutions across key product areas such as PCs, servers, and storage to attain a single, automated platform approach. Dell has partnered with the major hyperscalers, such as AWS, Azure, and Google, and cloud stack suppliers, such as VMware and Red Hat, to cultivate a vast and eclectic alliance community which collaborates foremost on fulfilling customer-specific requirements.

Improving Cyber Resiliency and Data Insights. Dell expanded its offerings to bolster portfolio-wide cyber resiliency through the Cyber Recovery in Azure and Cybersense in AWS offerings, as well as working with Snowflake to enhance data insights. Specifically, Cybersense in AWS provides key data protection features such as comprehensive indexing coupled with security analytics, and Cyber Recovery in Azure brings benefits such as providing intelligent and proven protection to isolate data and accelerate data recovery that swiftly catalyzes resumption of normal business operations.

Streamlining Cloud Journeys. Streamlining cloud journeys is incredibly key for today's enterprises. Dell Technologies' multi-cloud portfolio enables organizations to take data to public cloud applications without refactoring applications or reskilling personnel. In addition, organizations gain the business value benefit of using public cloud services in alignment with historical data collections and data lakes, as well as improving investment returns that warrant their overall cloud investments.

Delivering a Storage Flexibility Advantage. Dell Technologies' innovative storage technology is well-known and well-proven in the marketplace, and enables customers to copy, move, tier, and archive throughout public cloud fabrics. Dell Technologies' storage heritage and expertise provides a deployment advantage to customers that require advanced scalability, availability, dedupe, and replication to the cloud capabilities.

Consistent Cloud Administration Experience. Consistent cloud administration experiences are high on the list of customer desires, and Dell Technologies' multi-cloud portfolio does not disappoint. The consistent management experience prized by organizations is delivered by supporting the same management GUI, CLI or API wherever the data activity is located, including any public cloud environment. Consistency and ease of use are key components of this portfolio.

Proven Safe and Swift Data Recovery Assets. Protecting data and ensuring rapid recoverability are critically important to enterprises today. Through APEX Recovery Services, customers gain the means to recover rapidly from a disruptive cyberattack and gain peace of mind by offloading day-to-day administration and oversight of data protection to a trusted partner. In addition, customers bolster their data resiliency by tapping into recovery operations from an isolated and immutable data vault, which applies standardized configurations and recovery service options while giving customers more control with templated recovery runbooks and procedures.

Extensive Track Record. Finally, a key part of the value proposition and important to consider when evaluating solutions is that Dell Technologies has an extensive current customer footprint. Dell Technologies currently has over 1,500 customers using solutions to protect their data in the public cloud, consisting of over 10 EB of customer data.

Conclusions and Takeaways

The rapid adoption of multi-cloud is driving organizations to optimize the ease and agility of the overall cloud experience, regardless of how their applications and data are distributed. After evaluating Dell Technologies' portfolio and offerings, we believe the company is well-positioned to deliver cloud services anywhere and everywhere by developing and delivering its software innovation and reliability across all the major public clouds. As a result, customers can extend their existing IT investments and skillsets leveraging Dell Technologies' portfolio acumen in storage, security, and services, according to their multi-cloud priorities.

Project Alpine enables customers to use the APIs and management tools they already use, avoiding the expense and complexity of refactoring applications or reskilling workforces. As such, customers can now combine their preferred public cloud services with Dell Technologies' enterprise data services to attain uncompromised connectivity and consistent experience deploying Dell assets such as PowerStore, PowerScale, PowerFlex and ObjectScale on-prem.

Project Alpine plays an essential role in providing the file, block, and object storage software that is key to establishing operational consistency across multi-cloud environments, including especially the major cloud services providers AWS, Azure, and Google. As such, we believe organizations should consider and assess Project Alpine and the entire Dell Technologies' multi-cloud portfolio proposition to achieve key multi-cloud benefits by uniting Dell's storage software with advanced public cloud services which optimize the overall multi-cloud experience.

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