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Executive Summary

High Availability Requirements for the Digitally Transformed

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IDC Opinion

Over 90% of enterprises are in the midst of digital transformation — that is, the evolution toward much more data-driven business models that depend more heavily than ever on IT infrastructure being high performance and highly available. As enterprises move through digital transformation, IT infrastructure is becoming more and more critical to day-to-day business operations. **High availability is a top consideration as IT organizations refresh existing storage infrastructure to better accommodate the requirements of cloud-native and other new workloads.** Storage solutions must be able to be configured to provide the level of availability needed for individual workloads, all the way up to and including continuous availability for those most mission-critical workloads.

The requirements of digital transformation manifest themselves in different ways for IT infrastructure managers and applications specialists, but ultimately **both of these constituencies depend on a wide range of data protection, system resiliency, security/ransomware protection, and data recovery options that can be flexibly applied** to dial in the level of availability needed by individual applications even though those applications may be running on the same underlying storage. IT infrastructure managers need to be able to meet line-of-business service-level agreements (SLAs) for performance and availability within the confines of compliance and governance guidelines, while application specialists need the assurance of consistently predictable performance and self-service options that let them easily meet their requirements without having to involve IT.

All of these needs must be met in an environment that supports both legacy and cloud-native applications, running across IT infrastructure that is spread between on- and off-premises (i.e., public cloud) deployment locations. Today's IT infrastructure is hybrid multicloud, comprising applications residing in traditional on-premises, private cloud, and public cloud locations, and that is not expected to change. Regardless of location, **IT managers and application specialists need infrastructure that can be configured to meet individual workload availability requirements and make workflows associated with protecting, securing, and recovering data simple, intuitive, and cost effective.**

In addition to the underlying features required to achieve this, these constituencies also need a unified management platform that provides visibility across deployment models and provides a consistent set of storage-related management functionality that meets enterprise application requirements. Digital transformation is also impacting storage performance requirements. As enterprises come to depend more on big data analytics, there is an increasingly real-time component to many new workloads being deployed.

Situation Overview

With enterprises capturing, storing, protecting, and analyzing more data than ever before, meeting availability requirements presents many challenges. As data becomes the critical input to more and more business processes, IT organizations must ensure that it is always available. **Storage infrastructure today must guarantee data integrity, provide robust but easy-to-use data protection options, support transparent failover, and enable rapid recovery at the component, system, and site levels — all while enabling a storage solution to nondisruptively evolve over time to deliver higher performance and capacity and accommodate new technologies.** To meet enterprise requirements, systems must be able to be configured to provide "six-nines plus" data availability for those applications that need it while also supporting lower levels of availability (at lower cost) for those workloads that don't require it.

Considering NetApp

NetApp, a long-time leader in the enterprise storage industry, offers enterprise storage solutions that meet a high bar for performance, availability, scalability, reliability, and functionality such as data protection and security. Its solutions are used in datacenter infrastructure and hybrid multicloud deployments by organizations of all sizes and industries to support nearly every type and class of enterprise workload, such as Oracle, SAP, Microsoft SQL Server, and VMware. With different infrastructure solutions optimized for both primary and secondary workloads, the vendor's storage portfolio including storage technologies like NVMe, software-defined, and scale-out architectures is available in all-flash, hybrid flash, and hard disk drive-only configurations and can meet the needs of all data types (block, file, and object-based). NetApp customers running the vendor's proven ONTAP storage operating system have benefited from a unified data management environment across their hybrid cloud that delivers scalable, high-performance, and flexible high-availability options covering component, system, and site-level issues and intelligent operations that make it easy to meet even the most stringent SLAs. In addition, customers have benefited from NetApp's enhancements made to the ONTAP ecosystem to simplify the day-to-day management of their storage environment (Simplicity365).

NetApp's broad portfolio, six-nines plus high-availability features, and hybrid multi-public cloud capabilities make it a compelling choice relative to other enterprise storage vendors whose offerings are less flexible, less configurable, and less cloud ready.

Conclusion

Agility is a key enabler for today's digitally transforming enterprises. In addition to features within storage platforms themselves that enable agility, customers want to be able to choose from among a number of consumption model options. This is the enabler for the hybrid multi-public cloud infrastructure that is already part of many enterprises, and it must be supported by a consistent set of storage management capabilities across deployment models, centralized management with the visibility needed to optimize workload placement and management, and the ability to easily move both workloads and data to new locations as required. This flexibility allows enterprises to select optimal workload placement strategies and evolve them over time as needed. **Given that most enterprises going forward will be digitally transformed, IT infrastructure managers and application specialists alike need vendors to step up and provide these capabilities, along with a nondisruptive growth path to get from where they are today to the future of digital infrastructure.** For enterprises, digital transformation provides an opportunity to improve their products and services, improve operational efficiencies, and create meaningful differentiation for their customers. For storage vendors that can cater to these needs, there is significant opportunity to grow revenue as they enable their customers to modernize IT infrastructure to meet the evolving needs of workloads, IT infrastructure managers, and application specialists.

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