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SHOWCASE

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Simplifying Hybrid Cloud Deployments With Dell XC Plus and Nutanix

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Abstract: In today's fast-paced IT landscape, growing complexity and increased demand for flexibility across an increasingly disparate and hybrid environment presents substantial challenges around performance, security, and resiliency. These are challenges the Dell XC Plus solution has been designed to address, providing a preconfigured and validated hyperconverged infrastructure (HCI) platform, powered by Intel Xeon processors, that integrates seamlessly with the versatile Nutanix Cloud Platform software to enable organizations to modernize their existing IT environment, as well as prepare for future innovation.

Achieving Infrastructure Simplicity and Resiliency in an Era of Complexity

As technology and digital-led transformation moves to the center of almost every organization's strategy, the pressures on the underlying IT environment continue to grow. For IT decision-makers and professionals charged with delivering a modern infrastructure, the objectives are numerous and can even seem to be in conflict: increasing operational scale and performance while lowering costs, expanding the surface area of IT, minimizing security risks, optimizing existing applications, and also providing a foundation for next-generation capabilities such as AI. Of course, all of these things need to be accomplished without sacrificing enterprise-grade performance and resiliency.

Standing in the way of these objectives are the realities of operating today's disparate IT environments. A key challenge is how to mitigate growing complexity; according to research from Informa TechTarget's Enterprise Strategy Group, six out of ten organizations said their IT environment had become more complex over the last two years, with 21% saying this complexity increase was significant.[1] This complexity, which is driven by multiple factors, including a rapidly evolving cybersecurity threat landscape, digital transformation initiatives to use technology to change the way organizations' operate, the requirement to embrace new and emerging technologies, and the need to manage IT across a hybrid landscape that spans on-premises resources and third-party public clouds, can drive up costs, delay new initiatives, and potentially introduce unforeseen risks into the environment.

Complexity is particularly apparent at the IT infrastructure layer: 68% of respondents agreed that their organization's IT infrastructure complexity slows down IT operations and digital initiatives.[2] Yet, research showed most organizations are ambitiously pursuing hybrid cloud strategies. For example, in a recent Enterprise Strategy Group study, 84% of respondents said their organization runs at least some applications in a hybrid cloud fashion, including nearly three-quarters (72%) of respondents who said that their organization runs business-critical applications in such a way (see Figure 1).[3]

[1] Source: Enterprise Strategy Group Research Report, *2025 Technology Spending Intentions Survey*, December 2024.

[2] Source: Enterprise Strategy Group Research Report, *Navigating the Cloud and AI Revolution: The State of Enterprise Storage and HCI*, March 2024.

[3] Source: Enterprise Strategy Group Complete Survey Results, *Understanding Workload, Application, and Data Deployment and Migration Decision-making*, July 2024.

Figure 1. Approach to Hybrid Cloud

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Modern Infrastructure Provides a Foundation for Existing and Future Workloads

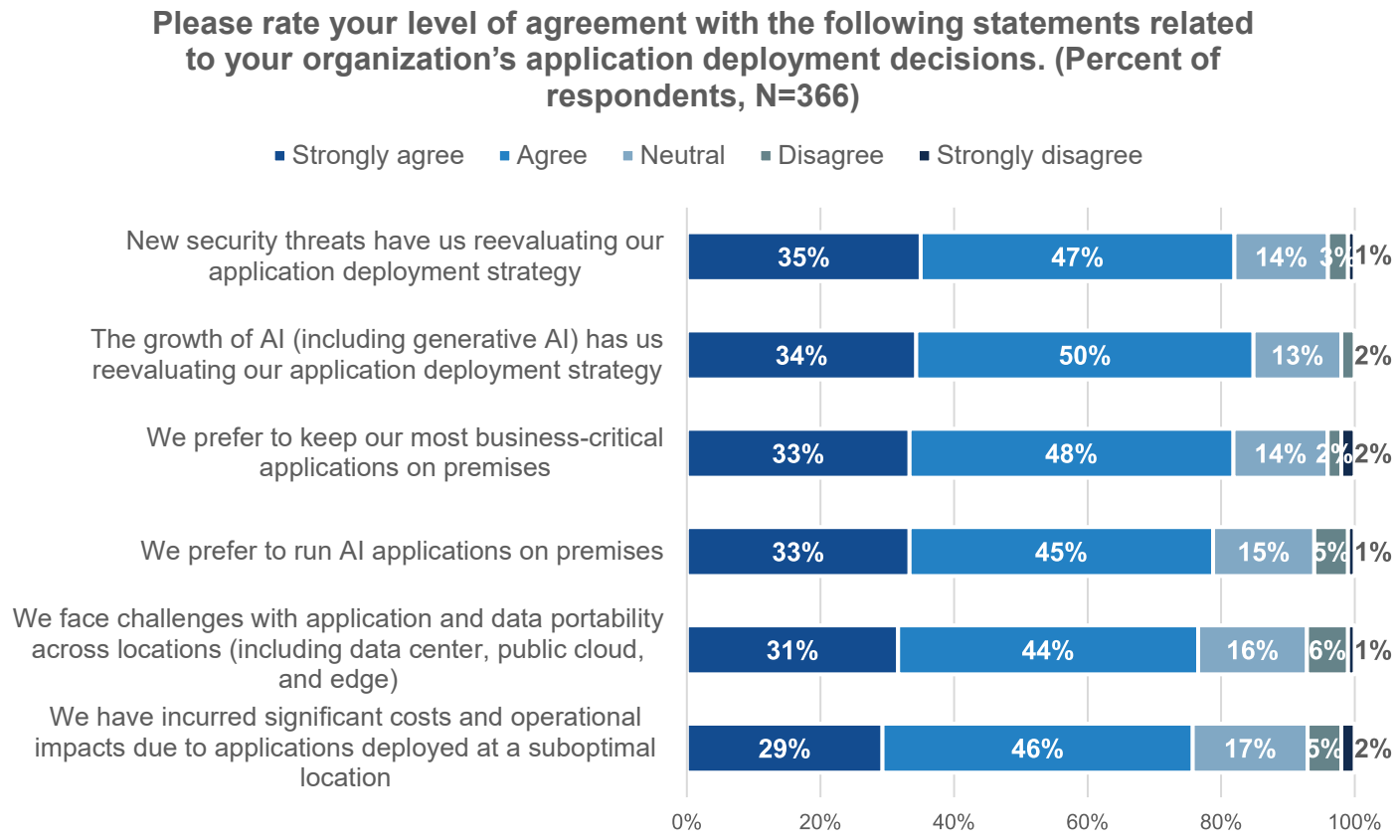
Merely running in a hybrid environment does not mean organizations are operating their applications and services effectively or in the most optimal manner. Indeed, it's clear that for many there is substantial room for improvement.

As illustrated in Figure 2, deploying applications in an increasingly distributed and hybrid manner is creating a range of issues. IT managers are struggling with application and data portability challenges as well as costs and operational impacts due to deploying applications in sub-optimal locations. In addition, many are reevaluating their application deployment strategies in light of a constantly evolving environment, including the evolving security threat landscape and the fast-emerging imperative to support new and emerging AI workloads such as generative AI.[4] This latter aspect is particularly notable not only because of the growth of AI, but also because organizations seem to increasingly have a preference to deploy AI applications on premises. This potentially has significant implications for the underlying infrastructure since the operating characteristics required by AI applications—compute, storage, memory, networking, etc.—might be substantial or different from more traditional applications.

Given this fast-changing environment, the question then becomes: How should an organization modernize its infrastructure to best support such a dynamic and diverse set of objectives, while also addressing a variety of legacy complexity challenges? The answer must be to simplify. A simple, modern, and integrated IT infrastructure that can deliver a consistent experience across any location is emerging as the basis for an effective hybrid infrastructure strategy going forward.

[4] Ibid.

Figure 2. Infrastructure Challenges With Application Deployment and Modernization



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

The starting point for delivering this experience should be a purpose-built hybrid cloud platform that can be deployed in any environment—in the core data center, at the edge, or in the public cloud—with a single operating framework and management plane. Such an approach offers the potential to dramatically reduce complexity, costs, and risk by enabling IT teams to manage their entire environment in a consistent manner, not only across locations but also across a blend of technologies, such as container-based cloud-native applications and virtualized applications. A simplified environment enables IT managers to focus on the KPIs that matter, such as ensuring key applications receive the guaranteed performance levels, as well as substantially streamlining IT operations via automation, boosting productivity and enabling IT professionals to focus on tasks that add value to the business instead of merely "keeping the lights on." It also goes without saying that any such platform should have resiliency at its core, with native data protection and security features to keep applications online and maintain data privacy and integrity.

Simplifying Hybrid Cloud Adoption With Dell XC Plus and Nutanix

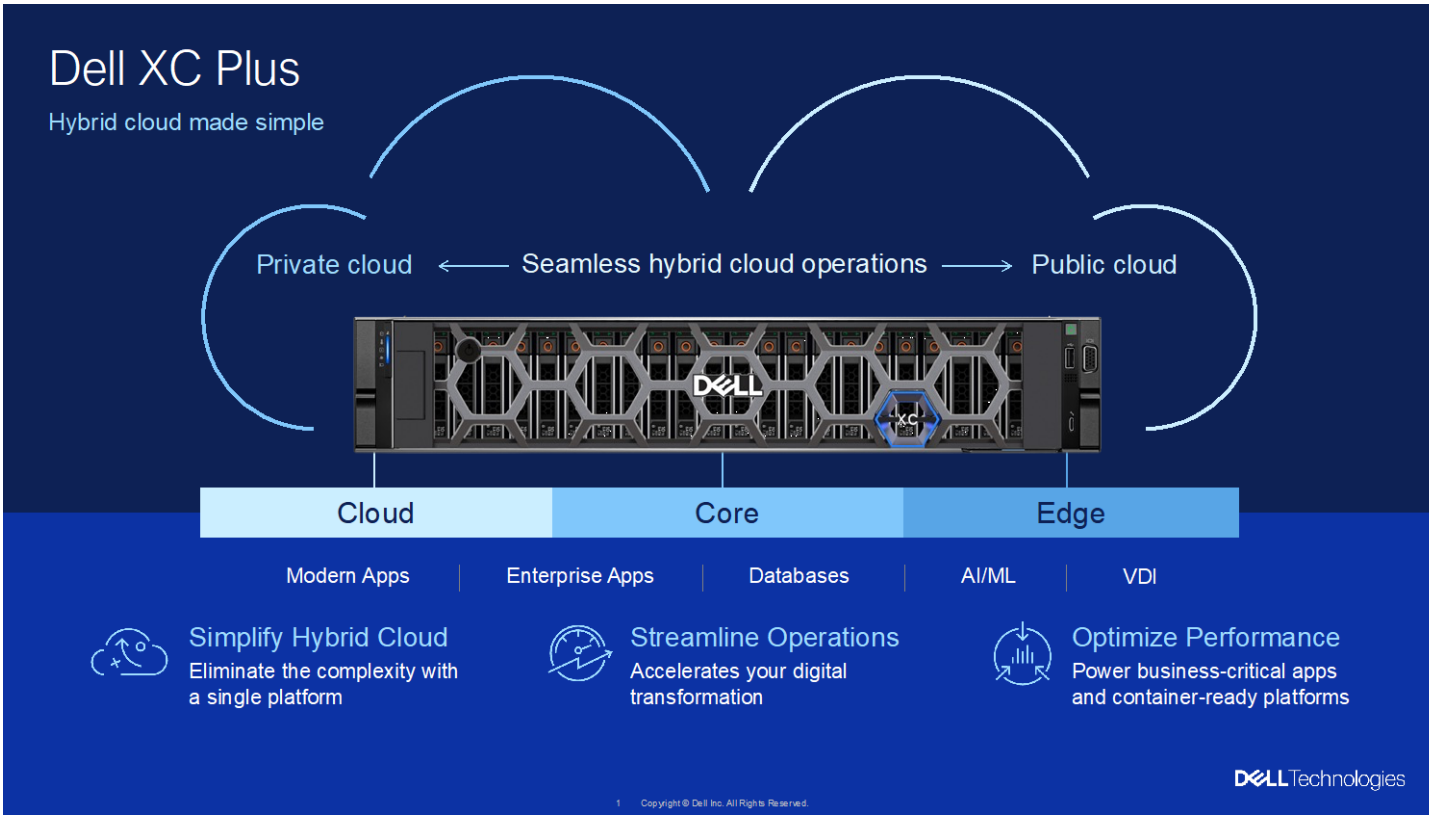
Thankfully, help is at hand in the form of the Dell XC Plus, a turnkey HCI solution that combines the reliability of Dell's XC hardware with the Nutanix Cloud Platform to run data and apps anywhere (see Figure 3). Leveraging Dell's 15-year history of partnering with Nutanix, and built on Dell PowerEdge severs powered by Intel Xeon processors, XC Plus is a pre-configured and validated HCI system that offers a single platform for processing, memory, networking and storage and integrates seamlessly with the Nutanix Cloud Platform. This integration drastically reduces IT infrastructure complexity, delivering performance, scalability, and security that enables IT

organizations to confidently run business-critical applications today, as well as provide a foundation for future emerging workloads, such as AI. With Dell XC Plus, organizations can scale capacity and performance linearly and predictably—one node at a time—delivering pay-as-you-grow flexibility. Crucially, it also enables IT teams to innovate and accelerate application deployment times across hybrid clouds with a single platform spanning on-premises, public cloud, and edge locations, providing IT with the consistent operations that help combat complexity.

Key features and capabilities of Dell XC Plus include:

- **Streamlined operations through a single management plane.** The Nutanix Prism management framework offers an intuitive GUI to define and manage XC Plus from any device. It offers admins a bird's eye view of resources across multiple hybrid clouds running different hypervisors, enabling management of individual clusters via GUI or Windows PowerShell CLI. Additionally, it provides enhanced Nutanix lifecycle management with XC iDRAC for faster, streamlined updates.
- **Optimized performance for traditional and modern workloads.** Dell's 15+ years' experience integrating hardware and Nutanix software means it can simplify common workflows through the lifecycle, including factory-installed hypervisors and pre-configured system settings for maximum performance. Built-in Nutanix intelligence utilizes AI and adaptive machine learning to ensure optimal application performance, data-driven resource planning, and automatic detection and resolution of slowdowns and security events. XC Plus's variety of options and flexible compute and storage ratios supports a wide range of applications, including VDI, databases, server virtualization, and modern container-ready and AI workloads.
- **Flexibility and a broad choice of configurations.** With a choice of six different Dell hardware configurations, as well as multiple Nutanix software subscription options, including Nutanix Cloud Platform, Nutanix Cloud Manager and Nutanix Cloud Infrastructure, customers can choose the right combination of hardware and software that best meets their individual requirements.
- **Built-in security.** XC Plus is built on a cyber-resilient architecture, with security integrated throughout the product lifecycle. Key features include a secure component supply chain, data protection from the factory to the data center, cryptographically signed firmware and secure boot for data integrity, and server lockdown to prevent unauthorized system changes.
- **Dell support and deployment services.** XC Plus nodes are expertly installed by certified engineers, ensuring smooth deployment, with Dell and Nutanix jointly handling support and both companies working together to offer rapid resolutions. Proactive tools (e.g., iDRAC and SupportAssist) predict and prevent hardware issues and minimize downtime and are backed by Dell's 24/7 global support across 167 countries. XC Plus is also available through Dell APEX subscriptions, offering flexible billing based on monthly memory and storage usage.

Figure 3. Overview of Dell XC Plus



Source: Dell Technologies

Conclusion

As organizations continue to embrace digital technologies to drive transformation and differentiation, the challenge of effectively operating the underlying infrastructure across a hybrid environment becomes increasingly complex. Accordingly, the need to modernize and simplify, without compromising key tenets such as a performance and resiliency, has never been stronger.

With XC Plus, Dell, Nutanix, and Intel are partnering to streamline hybrid cloud adoption, combining Dell's proven XC family with Nutanix's versatile software in one integrated platform. The solution simplifies IT operations and boosts productivity via self-service, automation, and governance, while also delivering peak application performance via embedded AI and ML, with innovative features such as the built-in Intel Advanced Matrix Extensions (AMX). AMX empowers customers to embark on their AI journey, making it perfectly suited for general AI tasks without the immediate need for GPU investments, thereby accelerating time to value and reducing complexity. In addition, XC Plus is ready to optimize modern container-based applications, without compromising on enterprise-grade data protection and security features.

Overall, organizations looking to simplify their hybrid cloud environment by standardizing on a single platform, streamline their operations to accelerate their transformation, and optimize performance across business-critical and modern, container-based applications should have Dell XC Plus on their shortlist.

For more information on Dell XC Plus, please visit www.Dell.com/xc.

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