# TOP REASONS WHY DELL AND VMWARE HELP YOU THRIVE AT THE EDGE

With the broadest portfolio at the edge[1] and an array of services and ecosystem partners, Dell Technologies is ideally positioned to help our customers thrive at the edge. Generate immediate, essential value at the edge where data is acted on near its point of creation with efficient, holistic architectures that meet continuing business demands.

## 1 | Extend the value of VMware to the edge

Avoid or remove the "accidental architectures" that are created by deploying single-use-case edge solutions that result in data, management, and operational silos. Dell Technologies helps you build a secure and holistic VMware based edge architecture. Our many industry-specific solutions, leveraging our jointly engineered HCI solution for VMware, Dell VxRail, can help you generate more value from your edge.

## 2 | A single operating model that combines IT, OT, and multicloud

The convergence of IT and OT drives lower cost, improved performance, and productivity gains, yet also comes with inherent management challenges as teams and processes combine. By extending datacenter administration, automating lifecycle management, and driving efficient performance, VxRail helps users consolidate operations into a single operating model across cloud and edge, enabling the same teams that manage the datacenter to manage environments everywhere.

## 3 | A single infrastructure for virtualization and consolidation…everywhere

Maximize opportunity at the edge with smallest, most flexible, and self-contained VxRail form factor ever[1]. Ruggedized, modular nodes can be racked, stacked, or mounted for use anywhere and in almost any environment. Specifically designed with ½ width blades and an onboard witness, users can scale from 2 to 64 nodes and operate in high latency, low bandwidth locations. Address infrastructure sprawl before it begins and seize competitive advantage anywhere.

## 4 | Optimize storage at the edge with a built-in hardware witness

Eliminate vSAN latency and optimize storage performance at the edge while taking advantage of a common operational model. VxRail modular nodes will be the industry's first and only self-contained vSAN 2-node HCI system utilizing an integrated and purpose-built hardware witness[2]. With low power requirements, automated lifecycle management and centralized administration using VxRail Manager, the hardware witness removes the need for remote data center infrastructure, power, and administration typically supporting a shared vSAN witness. This enables improved storage operations in high latency, low bandwidth environments by removing the need for a shared cloud witness.

## 5 | Standardize and virtualize networking and security at the edge

The explosion of nodes at the edge often creates bottlenecks and weak points as network and security teams work to implement virtualized networks and firewalls. Move network services to a Data Processing Unit (DPU), achieving consistent security across your edge without adding processing overhead to the host CPU. Dell Technologies and VMware, working together on Project Monterey, offer the first opportunity to take advantage of this advanced functionality with the jointly engineered VxRail HCI solution.

# 6 | Hardened default security posture from the factory

As edge opportunities grow so do attack surfaces. VxRail addresses this by extending layers of trusted, robust security from the datacenter to the edge and multicloud. First, vSphere has a "secure by default" approach to configuration. Second, Security Technical Implementation Guides (STIGs) provide a blueprint for security hardening while a variety of automation tools allow the monitoring and configuration of security parameters to be checked and configured as necessary. Finally, the ability to automate system updates keeps configurations in known secure states.

# 7 | Deliver high performance at the edge

Quickly drive insights where needed, utilizing the performance of NVME drives at the edge to deliver more capacity, performance and features in the same footprint with vSAN Express Storage Architecture (ESA) on VxRail. Quickly drive insights where needed, utilizing the performance of All-TLC NVMe at the edge to deliver more capacity, performance and features in the same footprint with vSAN Express Storage Architecture (ESA) on VxRail. By automating the installation of and lifecycle management of clusters, engineering and pre-validating the integration of new technology like vSAN ESA, VxRail helps you quickly set up infrastructure to run a variety of traditional and modern applications on a common operational model.

# 8 | Scale as you need with APEX

APEX Private Cloud is ideal for environments with limited space, budget and/or IT personnel constraints with a smaller footprint. With APEX Private Cloud, customers can now start small with as few as 32 instances and scale as needed. This starting configuration, ideal for Edge or ROBO environments, is highly available, yet a very cost-effective solution. This deployment optimizes the infrastructure cost by sharing the vSphere licenses and the management hosts, providing a consistent operational experience across the edge and the core. Customers can expand and scale easily to meet evolving workload requirements as their business grows.

# 9 | Freedom to run AI anywhere

From predictive maintenance in manufacturing to AI-powered instruments in healthcare, Dell Validated Designs for AI can quickly make an impact at the edge. These integrated solutions include Dell VxRail or PowerEdge servers for computation and inferencing close to where the data is generated. With VMWare Tanzu, AI developers can write code in any containerized environment while enjoying self-service access to resources using Kubernetes APIs. IT teams can securely move AI into production, supporting virtual machines and containers side by side with simplified, centralized management.

# 10| Backed by VMware expertise

There's good reason why Dell serves 96% of the Fortune 500 companies,9 is #1 in Hyperconverged Systems, and the leader in External Enterprise Storage Systems. Together Dell and VMware are helping customers accelerate breakthroughs with tightly integrated solutions that span core, edge, and cloud. And every solution is backed with the expertise of 3,670+ VMware-certified Dell support professionals to help you deploy and manage your multicloud VMware environment.

[1] CLM-003458, available Q1 2023

[2] CLM-005470, available Q1 2023

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