

# Dell EMC VxRail

VXRAIL TRANSFORMS HCI NETWORKING AND ENHANCES SIMPLICITY FOR THE VMWARE CLOUD

- Proven to dramatically reduce OPEX, delivering up to 52% lower cost of operations over build your own HCI while integrated end-to-end support reduces unplanned downtime by 90%
- Based on 14<sup>th</sup> generation PowerEdge, a server platform that is uniquely designed and optimized for HCI, VxRail delivers the utmost flexibility and millions of configuration options enabling 2x more IOPS and half the response time – sustained at sub-1ms
- Supports any HCI use case, including SAP HANA, file, graphics-intensive VDI, big data and analytics, remote office, and high performance computing
- Industry-leading enterprise data services, including HCI-native data-at-rest encryption replication, backup, and file services make VxRail ready for almost any application or workload. All-flash models can leverage compression, deduplication, and erasure coding for further efficiency
- For edge implementations two-node direct connect makes VxRail more accessible. Multi-node scaling, storage capacity expansion, mixed generation PowerEdge clusters, and flexible vSAN licensing enable adaptable growth that meets business demands
- Automated deployment and lifecycle management of HCI infrastructure including networking through VxRail Manager
- Single point of global 24x7 support for both the hardware and software

Agility is a key element to accelerating IT transformation. Hyper-converged is a key contributor to enabling agility. A recent survey by industry analyst firm ESG illustrates that the vast majority of organizations that have adopted, 87%, say that HCI has made their organization more agile. The result is they are deploying HCI for a wider variety of workloads, with most running 20% or more of their apps on HCI.

Dell EMC VxRail™ accelerates and simplifies IT through standardization and automation. With VxRail, you don't just deploy a server, you transform your infrastructure.



## The VxRail Appliance Advantage

Dell EMC VxRail invests in the complete lifecycle, including advanced automation, making it easier for you from day one forward, allowing you to further simplify IT infrastructure and operations. VxRail Appliances on next gen PowerEdge servers are refined, optimized, and robust platforms that help you simplify your entire IT lifecycle – from deployment, to management, to scaling, to maintaining.

VxRail is the *only* fully integrated, preconfigured, and tested HCI appliance powered by VMware vSAN™ and is the standard for transforming VMware infrastructures. VxRail provides a simple, cost effective hyper-converged solution that solves a wide range of your challenges and supports almost any use case, including tier-one applications and mixed workloads. Dell EMC enables faster, better, and simpler delivery of virtual desktops, business-critical applications, and remote office infrastructure.

## VxRail on 14<sup>th</sup> Generation PowerEdge Servers

VxRail on 14<sup>th</sup> generation PowerEdge offers next-generation technologies that accelerate IT transformation and future proof your infrastructure.

NVMe cache drives support enhanced performance from fast-caching technology while SATA SSD capacity drives provide a more affordable all-flash entry-point. With the latest Intel® Xeon® Scalable processors including high memory options, VxRail is the most configurable HCI appliance, delivering 2x more memory. When it comes to connectivity, VxRail has options ranging from 1 GbE up to 25 GbE network offering the most aggregate bandwidth in the HCI appliance market and allowing it to integrate into data centers and remote sites easily. For scaling high performance virtual graphics and compute, the NVIDIA Tesla P40 GPU supports 2x graphics acceleration performance and 50% more users per board.

### Scalability and Management

For edge implementations, two-node direct connect, now available with VxRail, makes VxRail and HCI more accessible to more organizations, while delivering the same enterprise features and VMware management alignment. Mixed generations of hardware in the same cluster, non-disruptive scaling and storage expansion provide a simple, predictable, “pay-as-you-grow” approach for future scale up and out as your requirements evolve. Additionally, enterprise capabilities such as batch node expansion, REST APIs, and flexible object renaming, accelerate growth, save time and ensure VxRail complies with data center policies.

SmartFabric, now available on Dell EMC OS10 Enterprise Edition switches, offers autonomous fabric deployment, expansion, and lifecycle management to reduce time-to-market by simplifying and automating network configuration in VxRail deployments. VxRail and SmartFabric, is the first solution to deliver fully automated network awareness and configuration during set up, cluster expansion, and during day-to-day management.

VxRail offers 100% operational transparency between VxRail Manager and vCenter, meaning day-to-day, all virtualization management is done within the familiar vCenter Server interface. Additional IT and Cloud automation can be provided with optional software like VMware’s vRealize Operations and vRealize Automation allowing you to seamlessly integrate VxRail as the foundation of your data center infrastructure, as well as advanced cloud-enabling technologies such as VMware Cloud Assembly.

### VMware Validated Design (VVD) for Software-Defined Data Center (SDDC) on VxRail

With the VVD for SDDC on VxRail, you can more easily architect, implement, and operate a complete SDDC faster and with less risk while also obtaining all of the benefits of best of breed HCI infrastructure. The best way to deploy the VMware SDDC is by using the VVD on VxRail which provide comprehensive and extensively tested blueprints based on a suite of VMware products.

### Data Services, Security and Resiliency

Enhanced security includes new automated hardening scripts and VxRail Security Technical Implementation Guide (STIG) to harden the storage, virtualization, and networking infrastructure components that VxRail manages for customers who want to comply with DISA STIG requirements, as well as a new VxRail Security Configuration Guide.

Based on synchronous software delivery with VMware, VxRail is powered by current versions of vSphere 6.7 U1 and vSAN software, while delivering vSAN encryption at the cluster level. VxRail supports 2-factor authentication (SecurID and CAC), allowing you to avoid limited options and high cost of self-encrypting drives. vSAN encryption is built for compliance requirements and simple key management with support for all KMIP compliant key managers.

Optional Data Protection Suite for VMware extends included data protection features with the industry’s broadest capabilities, including backup and recovery, continuous data protection, monitoring and analysis, and search. With a single point of global 24x7 support for both the hardware and software, and backed by ESRS for dial-home secure remote connection for monitoring, diagnosis, and repair, VxRail provides the ultimate appliance support.



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