

TOP REASONS WHY HIGHER EDUCATION IT TEAMS CHOOSE VXRAIL AND VXRACK

SETTING THE STANDARD IN HYPERCONVERGED INFRASTRUCTURES

In response to the challenges of rapidly-changing technologies, many IT departments are replacing outdated data centers with fully-integrated, hyperconverged infrastructures.

Hyperconvergence gives IT the ability to collapse core storage and compute silos into a cluster of industry-standard servers that are highly-virtualized and managed through a single pane of glass.

Among the fundamental advantages of hyperconverged infrastructures is simplification—centralized storage systems and SAN switches are no longer necessary. The result is a flexible infrastructure that allows IT to consolidate purchasing, powering, cooling, management and storage maintenance.

Within the higher education sector, Dell EMC VxRail and VxRack are setting the standard for hyperconverged infrastructure by delivering seven key benefits:

1 FASTEST AND EASIEST WAY TO EXTEND VMWARE ENVIRONMENTS

Dell EMC VxRail and VxRack are the only fully-integrated, preconfigured, and tested hyperconverged infrastructure appliances powered by VMware vSAN™, making them the easiest and fastest way to extend VMware environments. The appliances provide a simple, cost-effective solution that solves a wide range of your challenges while also supporting most applications and workloads. Both VxRail and VxRack feature purpose-built platforms that deliver enterprise data services, resiliency, and Quality of Service—enabling faster, better, and simpler delivery of virtual desktops, business-critical applications, and remote office infrastructures. Armed with these capabilities, IT teams can set up virtualized labs, provision and manage remote student access for anytime anywhere learning, spin up virtual servers as needed to support faculty and researchers expeditiously, and manage disaster recovery from home when it's impossible to get to campus.

2 FLEXIBILITY AND CHOICE

VxRail and VxRack feature a wide range of platforms and configure-to-order hardware to address any use-case. The addition of Dell PowerEdge servers expands the portfolios to deliver graphics processing, dense storage, and high-performance computing options, thus offering you the flexibility to choose the appliance that is best for your needs. Single-node scaling and storage capacity expansion provide a predictable, pay-as-you-grow approach for future scaling up and out as your institution and user requirements evolve.

3 SCALABILITY AND PERFORMANCE

Based on VMware vSphere and vSAN software, and built with the latest Intel Broadwell processors, VxRail and VxRack appliances allow you to start small and grow—scaling capacity and performance easily and without disruption to administrative, academic and research-related processes and functions.

4 FULLY-LOADED WITH ENTERPRISE DATA SERVICES

Both VxRail and VxRack include efficient, in-line deduplication, compression and erasure coding. With these enterprise-class data services, the appliances deliver all-flash storage with increased usable capacity that lowers TCO while increasing performance. Enterprise-class resiliency and availability are assured, so colleges and universities can be certain of application up-time, and backups can run locally at remote campus sites or over the WAN to core data centers for central management. VxRail and VxRack are also the only hyperconverged appliances on the market offering Quality of Service functionality that eliminates “noisy neighbors.” Multiple applications can be hosted on the same appliance or in the same cluster without worrying about the performance impact to each other.

5 BROAD RANGE OF BACKUP AND RECOVERY CAPABILITIES

VMware Data Protection (VDP) protects every application and virtual machine connected to VxRail and VxRack appliances. Deployed as a virtual appliance with up to 8TB capacity, VDP features familiar vCenter web client management while RecoverPoint for virtual machines provides simple, efficient, and proven disaster recovery—protecting virtual machines at a granular level and ensuring campus or organization continuity. When implemented within an existing VMware environment, the learning curve for IT to become proficient working with VDP is quick and easy, eliminating the need for costly training and long lead times to begin using in a production environment. EMC CloudArray, another integrated component, seamlessly extends VxRail and VxRack to public and private clouds to securely expand storage capacity while the VMware Data Protection Suite extends data protection with the industry's broadest capabilities: backup and recovery, continuous data protection, monitoring and analysis, and search. For applications that require continuous availability and zero downtime, the appliances offer stretched clusters with active/active operation. The security and audit compliance certifications offered by VMware solutions are carried through to CloudArray, which is a critical point of consideration for data management and protection. VMware solutions have also achieved certifications in FedRAMP, HIPAA/HITECH, ISO, NIST 800-53, PCI DSS and other major regulations to streamline processes for protecting sensitive and confidential information in general administrative and business intelligence applications as well as for research and IP protection.

6 FAMILIAR MANAGEMENT EXPERIENCE

Designed to integrate into the VMware ecosystem, VxRail and VxRack utilize management and orchestration tools to provide VMware customers with a familiar experience. Virtual machine management (through vCenter Server) and IT/cloud automation (with vRealize Operations and vRealize Automation) let you seamlessly integrate VxRail and VxRack into your existing data center infrastructure without extensive training for support teams and without an extensive network architecture restructuring—all within an expeditious timeframe.

7 SINGLE SUPPORT MODEL

With a 24x7 single point of global support for both hardware and software—backed by ESRS for dial-home secure remote connection for monitoring, diagnosis, and repair—VxRail and VxRack provide the ultimate appliance support on the market.

VXRAIL PORTFOLIO OPTIONS

The simplest, most powerful, most integrated hyperconverged appliance for higher education institutions that have standardized on VMware vSphere:

- **G Series** – General-purpose 2U/4-node appliance, best suited for a broad range of hyperconverged use cases and available in all-flash and hybrid configurations.
- **V Series** – Virtual desktop infrastructure optimized 2U/1-node appliance for graphics-intensive desktop deployments.
- **S Series** – Storage-dense 2U/1-node appliance for demanding applications such as virtualized collaboration, big data, and analytics.
- **P Series** – Performance-intensive 2U/1-node appliance optimized for heavy workloads such as databases.
- **E Series** – Entry level, cost-effective 1U/1-node appliance for small and remote deployments.



[Learn more](#) about
[Dell EMC VxRail™](#)
and [VxRack™](#)



Contact a
[Dell EMC Expert](#)



[View more](#) resources

