

MODERNIZE HIGHER EDUCATION DATA CENTERS

Improve Performance and Efficiency While Reducing Complexity and Cost

Meet the Demands of Digitally Empowered Faculty, Students, and Staff

High-quality, technology-enabled resources and education delivery can become a major driver of decreased costs and increased access to higher education for students who stand to gain the greatest benefit.¹ With institutions facing pressures to increase operational efficiency, improve student satisfaction, and increase focus on student success, IT plays a pivotal role in delivering key services to provide competitive advantage to each institution.²

Today's students, faculty, and staff demand always-on access. They want to do work where it makes the most sense for them—securely accessing applications and data from anywhere and on any device they own. The challenge for budget-constrained campus IT teams in keeping their institutions competitive is ensuring reliable and simple, yet highly secure and seamless access to required resources across ever-evolving student, faculty, and business services computing environments. A software-defined data center (SDDC) approach provides the foundation for an evolutionary modernization of core education platforms that deliver more responsive and student-centered operating models through automation and IT as-a-service capabilities.

VMware Solutions for Higher Education Data Center Modernization

VMware solutions for higher education drive digital transformation by enabling IT organizations to modernize core IT platforms and create ecosystems where institutions can take advantage of the agility benefits of hybrid cloud to launch new services that improve learning, drive revenues, and bring about innovation. By adopting a software-defined approach, campus IT can maintain an integrated, mobile-ready, agile, and secure IT infrastructure that well positions them for success.

Provide Infrastructure as a Service

For nearly two decades, server consolidation with VMware vSphere® has helped universities reduce costs and energy consumption while raising performance levels. Now VMware provides unprecedented freedom and flexibility in how campuses build and evolve their IT environments. The VMware Cross-Cloud Architecture™ enables academic institutions to seamlessly extend their data centers by running, managing, connecting, and securing any app on any cloud—private or public. Educational institutions can evolve existing vSphere foundations into hyper-converged infrastructure, leveraging the hypervisor to deliver not only virtual compute, but also storage and management in a tightly integrated software stack.

¹ U.S. Department of Education, Office of Educational Technology. "Reimagining the Role of Technology in Higher Education," January 2017.

² Ovum. "2017 ICT Enterprise Insights in the Higher Education Industry," November 2016.

On industry-standard x86 servers gives campuses a building block approach with scale-out capabilities. VMware HCI is delivered on the broadest set of consumption options to more than 150 certified platforms. With HCI, IT teams gain high performance and storage elasticity while automating the deployment, configuration, patching, and upgrading of the entire solution.

Campus IT teams can take HCI to the next level to include networking with VMware Cloud Foundation™, the unified SDDC platform that brings together vSphere, VMware vSAN™ (virtual storage) and VMware NSX® into a natively integrated stack to deliver enterprise-ready cloud infrastructure for the private and hybrid cloud. NSX drastically simplifies network management and enables higher levels of security through micro-segmentation. With VMware's solution, it's now possible to reduce CapEx, standardize infrastructure, and improve security, business continuity, and scalability—all by reducing complexity through virtualization.

"We delayed spending \$136,000 on blades, \$500,000 to \$1 million on new network equipment, and \$500,000 to \$1 million on additional power and cooling systems. That's the power of VMware NSX", says Matt Connors, VMware Systems Engineer at the University of New Hampshire. Using VMware solutions enables the institution to more easily evolve toward modern, mobile teaching and learning workflows while more efficiently supporting both legacy apps and modern apps upon which users will continue to depend.

Automate IT and Modernize Workflows

VMware solutions also help higher education IT staff automate previously time-consuming manual tasks with a comprehensive cloud management platform that leverages a common operational model. Institutions can improve IT agility, scalability, and security with the VMware vRealize® Suite which includes capabilities that enable campus IT teams to automate the delivery of personalized infrastructure, applications and custom IT services; conduct intelligent health, performance, capacity, and configuration management; maintain real-time log management and log analysis; and automate costing, usage metering, and service pricing in heterogeneous and multi-cloud environments.

At George Washington University, staff members have become brokers of IT—delivering services in minutes and improving performance and access with VMware NSX, VMware Horizon® DaaS, and vRealize Automation™.

Transform Campus Lab Access

Academic institutions seeking to meet on-demand education requirements are also embracing bring-your-own device initiatives (BYOD), leveraging existing vSphere foundations to power VDI. Modern infrastructure coupled with users' personal devices ensures anytime, anywhere highly reliable and secure digital access to the resources and apps (including high-performance 2D and 3D apps) that faculty, students, and staff need—without requiring institutions to establish costly physical computing labs. While improving accessibility and up-time, the virtualized foundation keeps data in the data center and significantly reduces IT management.

The Netherlands Institute of Neuroscience, for example, deployed vSphere, Horizon, and VMware Site Recovery Manager™ to provide secure, highly-available virtual learning and research environments that help retain students and faculty.

“Our system administrators appreciate VMware for a variety of reasons: the speed of deployment, flexibility, time savings...the list goes on.”

BRIAN MISLAVSKY
INFORMATION SYSTEMS ENGINEER
WESTERN CAROLINA UNIVERSITY

OVERVIEW

Digital advances are transforming the delivery of higher education, requiring campuses to evolve aging IT learning infrastructure and manual processes to modern, automated platforms that enable anytime, anywhere, on any device learning. Campus IT teams can move beyond server consolidation to further reduce costs while increasing operational efficiencies using virtualized storage and networking in a software-defined data center with a common operational model across clouds. The VMware Cross-Cloud Architecture increases IT agility by improving infrastructure and application performance, reliability, availability, and scalability while protecting against threats.

BENEFITS

- Attract and retain student and faculty talent with robust digital learning environments
- Reduce IT complexity and costs
- Increase campus IT agility by broadening IT automation

Learn More about VMware IT Modernization Solutions for Higher Education

Education institutions of all types are working with VMware to meet the needs of learners, faculty, and staff who expect mobile access to everything they need to do their work. VMware modernized data center solutions include technologies that help campus IT teams reduce IT complexity and cost while making learning limitless.

Learn more at <http://www.vmware.com/go/edu>.

