

Marshall University



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— Edward Aractingi
Assistant Director of IT Infrastructure Systems, Marshall University

KEY HIGHLIGHTS

Challenge

Extend the life of an overcrowded datacenter while reducing capital and operating expenditures, speed server provisioning time and improve application availability and information security

Solution

VMware® virtual technology enables the ability to consolidate servers, maximize resource utilization, simplify IT management and enhance data protection.

VMWARE AT WORK

VMware vSphere™ 4, featuring

- VMware ESX®
 - VMware vCenter™ Server
 - VMware vMotion™
 - VMware Storage vMotion
 - VMware vStorage Thin Provisioning
 - VMware vCenter Site Recovery Manager
 - VMware Data Recovery
- Deployment Environment
- Dell PowerEdge R710s ,EMC CX380 SAN , EqualLogic iSCSI arrays
 - Guest operating systems: Windows Server 2008 and Red Hat Enterprise Linux
 - Virtualized production applications: Microsoft SharePoint, SQL Server, Active Directory, Project Server, Oracle Application Server 10g

Marshall University (MU) is the oldest public institution of higher learning in West Virginia. Perhaps best known as the subject of the 2006 movie *We Are Marshall*, MU offers 68 baccalaureate and 52 graduate programs to approximately 14,000 students, including 4,000 graduate and medical students. The university also employs 2,000 faculty and staff members.

Students, faculty and staff depend on MU's information technology (IT) department to provide flexible, reliable and innovative IT systems. To answer this challenge, the IT team experimented with virtualization in 2004, implementing VMware® Workstation and VMware GSX Server®. The IT department was subsequently faced with a growing demand for servers, coupled with the need to replace outdated physical hardware. Edward Aractingi, assistant director of IT infrastructure systems at MU, recalls, "We were nearing capacity at our datacenter, so we either needed to expand the datacenter or consolidate servers. We trusted VMware after our previous experience, so we deployed six ESX® server hosts and were able to decommission dozens of physical servers and cut our datacenter footprint and power consumption in half."

Following the success of the deployment, MU continued to expand its virtual infrastructure. The IT department has since deployed additional VMware ESX servers and recently upgraded to VMware vSphere™ 4. Aractingi comments, "The vSphere upgrade was so smooth that the users had no idea it was being done. There were no outages, no problems at all. We've received a lot of positive feedback from users since upgrading to vSphere. The most significant benefits include faster server provisioning and simplified IT management, such as patching servers and managing resources and storage from vCenter™."

Today, MU has 12 VMware ESX servers and more than 130 virtual machines, representing approximately 82 percent of its IT environment. "Our goal is to be close to 100 percent virtualization," says Aractingi. In addition, the IT department plans to implement a disaster recovery plan using VMware vCenter Site Recovery Manager.

Results

- **Lower capital and operating expenditures**—"Since implementing VMware virtual infrastructure in our datacenter, we have significantly reduced hardware, power and cooling costs despite having increased the number of CPUs, applications and storage. Power utilization has dropped about 50 percent already. The reduced power consumption and more efficient operation allow us to dedicate more resources to our students," comments Aractingi.
- **Reduce datacenter footprint**—"A few years ago, we were on the verge of outgrowing our datacenter. Virtualization has enabled us to consolidate servers and to reclaim valuable datacenter real estate and add more services and resource to our users," says Aractingi.
- **Simplify IT management**—"Administrative tasks, such as patching servers and installing firmware, are much simpler using Storage vMotion™. And vCenter makes managing resources and storage very convenient and increases staff productivity. We are deploying more servers every year to provide more services and storage, but our team is still about the same size," states Aractingi.
- **Facilitate server provisioning**—"Server provisioning is faster and easier using virtual technology," says Aractingi. "What used to take three to four weeks now takes just five to 10 minutes. The time and effort saved can be redirected to developing IT systems that meet our students' educational needs."



CUSTOMER SNAPSHOT

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