



KEY HIGHLIGHTS

INDUSTRY: EDUCATION

**CHALLENGE**

Create a centralized IT infrastructure for the University server environment.

SOLUTION

VMware Infrastructure 3 creates a virtual infrastructure that allows multiple servers to be easily hosted and administered.

VMWARE AT WORK

VMware Infrastructure 3 Enterprise, featuring:

- ESX Server 3.5 with VMFS
- VirtualCenter 2.5
- VMotion
- Distributed Resource Scheduler (DRS)
- High Availability (HA)

DEPLOYMENT ENVIRONMENT

- Dell PowerEdge 6850s and 2950s with EMC Clarion CX-380 SAN
- Guest operating systems: Windows 2003, SUSE Linux, Red Hat Linux, Solaris
- Virtualized production applications: Novell GroupWise, Symantec Antivirus, BlackBerry Enterprise Server, Print Servers, SQL, RMS Housing, Citrix, EMC Documentum, Active Directory, Enterprise LDAP services, Academic Computing, Listserv...

"Our system administrators appreciate VMware Infrastructure 3 for a variety of reasons: the speed of deployment, flexibility, time savings... the list goes on."

Brian Mislavsky

Information Systems Engineer, George Washington University

The George Washington University

Located four blocks from the White House, The George Washington University (GW) was created by an Act of Congress in 1821. Today, GW is the largest institution of higher education in the nation's capital. The university offers comprehensive programs of undergraduate and graduate liberal arts study as well as degree programs in medicine, public health, law, engineering, education, business, and international affairs. Each year, GW enrolls a diverse population of undergraduate, graduate, and professional students from all 50 states, the District of Columbia, and more than 130 countries.

Historically, IT at GW had been decentralized, with different departments running applications on servers in various locations throughout campus. The University decided that the IT department should provide hosting and managed services for all IT assets. "The idea was to have one central repository for data and applications," says Brian Mislavsky, a GW information systems engineer. "We had been looking into virtualization, and we realized that it fit perfectly with the direction our IT infrastructure was headed."

Using VMware Infrastructure 3, GW was able to virtualize and consolidate its physical servers, creating a single pool of resources, such as CPU and memory that could be shared across multiple environments. "The principal benefit of VMware Infrastructure 3 has been the intangibles—the dynamic way you can allocate resources or add servers when needed," says Mislavsky. "It's just a completely different way of doing business than what we were accustomed to—and it turned out to be a better way of doing business."

Results

- **Achieve 25:1 server consolidation ratio.** "We have six ESX Sever hosts right now running nearly 150 virtual machines," says Mislavsky.
- **A significant cost saving.** "After running a total cost of ownership study, we found that going with VMware would save us a significant amount in hardware, man hours, infrastructure, power..." says Mislavsky.
- **Save hours in IT administration time.** "From an admin's point of view, the snapshots and business continuity capabilities that VMware technology provides is far beyond what standard physical systems can offer," says Mislavsky. "I think this is increasingly becoming evident to people in every sector."