



KEY HIGHLIGHTS

INDUSTRY: EDUCATION

**CHALLENGE**

Meet increased server demand in an overcrowded data center

SOLUTION

Use VMware software to add virtual instead of physical machines, processing the workload of 25 physical servers with less than half that number

VMWARE AT WORK

VMware Infrastructure 3 Enterprise, featuring:

- ESX 3
- VirtualCenter 2
- VMotion
- Lab Manager

DEPLOYMENT ENVIRONMENT

- ESX 3 running on Dell PowerEdge 2850s
- Mission-critical applications running in production in virtual machines: Microsoft Exchange Server 2003, Blackberry Enterprise Server, Outlook Web Access, print servers, academic and administrative programs
- Guest operating systems: Windows Server 2003 Enterprise Edition, Red Hat Enterprise Linux Advanced Server

“The initial driver for virtualization was cost avoidance: We were able to do the work of 25 servers with just 12. Besides maximized hardware utilization, minimized disruptions, and the ability to consolidate and share resources, probably the biggest benefit I see from virtualization is saving a considerable amount of time, thanks to simplified management.”

Arlene McDonald

Manager, IT Operations, Georgian College

Georgian College

Like many schools, Barrie, Ontario-based Georgian College must serve a demanding community of IT-savvy students and teachers while keeping costs down. Two years ago, the community college planned to switch from a Novell- to a Microsoft-based environment, a move that looked as if it would double the number of servers at the school's already crowded main data center. The college installed VMware software instead, allowing it to cut its number of physical servers by more than half—from 25 to 12—while processing the same workload.

According to Network Technologist Shamus Berube, when Georgian began its virtualization program in early 2007, they looked at both the VMware and Microsoft virtualization products and found that VMware was a much better fit for their current environment. “VMware let us maximize the number of servers on a virtual platform,” he says. “And ESX is basically its own silhouette, so we felt that the building of virtual machines was more efficient than running Microsoft Server with virtual servers on top of it.”

Besides increased efficiency, simplified management, and power savings, Georgian sees major operational advantages from its virtualized data center. VMware technology lets the college set up virtual partitions on a single server, allowing students and faculty to install programs and operating systems without impacting others using the same hardware. “People have what they need without affecting others on the network,” Berube says. “That’s a major benefit for us.”

Toronto-based ProServeIT helped Georgian make the most of its VMware implementation, using tools like VMware Lab Manager to achieve maximum efficiencies in terms of both hardware utilization and systems administration. “As a college, we’re always looking at leading-edge technology to provide opportunities for academic growth,” says manager of IT operations Arlene McDonald. “VMware is a big part of that, and will continue to be in the future. For instance, we are now looking at building an entire test development environment with Lab Manager and deploying VMware Virtual Desktop Infrastructure to assist us in areas such as accessibility.”

Results

- Doing the work of 25 servers on just 12
- Hardware cost avoidance of over 50 percent
- Greatly simplified network management
- Reduced power and cooling costs for a greener data center
- Virtual partitioning lets students and faculty set up the computing environments they need without impacting others.