BUILDING CAREERS WITH BETTER IT

Thomas College provides cutting-edge technology to students with Dell hardware and Microsoft Windows Vista, while reducing server footprint by 50%
To help ensure that students are as qualified as possible for that first job, Thomas provides a cutting-edge IT infrastructure built with Microsoft software and hardware from Dell. Using Dell PowerEdge servers, the College runs a range of Microsoft software, including Microsoft Windows Server 2008 and 2003, Microsoft Exchange Server 2007 for communication and collaboration, and Microsoft Office Communications Server 2007 for instant messaging and Web-based conferencing.

Thomas faculty, staff and students use Dell OptiPlex desktops and Dell Latitude portable computers in computer labs and the library. In addition, about 40 percent of students buy into the school's recommendation of a Dell laptop, which they purchase at a discount through a Dell Web site customized for Thomas College. Until recently, these laptops have run the Microsoft Windows XP operating system.

“We focus on getting the best technology whenever we can,” says Christopher Rhoda, vice president for information services. “But because there are just three of us to manage the College’s IT needs, we have to be sure that the technology we acquire allows us to streamline management tasks as much as possible.”

MIGRATING TO MICROSOFT WINDOWS VISTA
The IT department evaluated the Microsoft Windows Vista operating system and decided to become an early adopter. All Thomas’ desktops and laptops were upgraded to Windows Vista Enterprise. Students had the option to buy Dell Latitude D630 laptops with Windows Vista Ultimate pre-installed by Dell Customized Factory Integration (CFI). The pre-installation service helped save time for both the IT team and students. Students buying the laptops with Windows Vista Ultimate can obtain access to Windows Movie Maker video creation and editing software.

“Windows Vista is well received here,” says Rhoda. “It helps improve user productivity, provides great features like the video editing software and assists the IT department by enhancing the security of our computing environment.”

HOW IT WORKS
HARDWARE
• Dell™ PowerEdge™ M600 blade servers with Intel® Xeon® processors
• Dell PowerEdge M1000e modular blade enclosure
• Dell PowerEdge 2950 servers with Intel Xeon processors
• Dell PowerVault™ MD3000i iSCSI SAN array
• Dell Latitude™ D630 and E6500 laptops based on Intel® Core™ 2 processors with vPro™ technology
• Dell OptiPlex™ 755 desktops based on Intel Core 2 Duo E8400 processors with vPro™ technology

SOFTWARE
• Dell OpenManage™ Server Administrator
• Microsoft® Windows Vista® Ultimate and Enterprise editions
• Microsoft Windows Server® 2003 and 2008
• Microsoft Exchange Server 2007
• Microsoft Office 2007
• Microsoft Office Communications Server 2007
• Microsoft Forefront™ Client Security
• Microsoft Expression® Studio 2

SERVICES
• Dell Customized Factory Integration

Thomas College is a private liberal arts college in Waterville, Maine. Thomas offers a rich liberal arts and professional studies curriculum for undergraduate and graduate students in a wide variety of programs including arts and sciences, business, criminal justice, education and technology. Thomas is the only college in the nation that offers its graduates Guaranteed Job Placement within six months of graduation. On average, 94 percent of Thomas College graduates are hired in their field of study within 90 days of graduation.
Thomas now has the foundation for future enhancements, such as moving to 64-bit hardware and applications for greater performance by taking advantage of the support built into Windows Vista.

**GREATER PRODUCTIVITY AND SECURITY**

Students and faculty are more productive now with features that save time and provide access to more information. For instance, by simply hitting the Start button and typing the name of a program into the Instant Search field, the user gets fast access to the program. Instant Search can also be used to find a particular file or email, which saves time and enables users to leverage the information they have. Each fall when students arrive at school and get connected to the network, computer set-up time is shorter than it was previously.

The operating system upgrade also helps increase the security of the IT environment, according to Rhoda. “Knowing that Windows Vista is designed to be more secure is very important to us because of the amount of Internet traffic that we have on campus,” he explains. The school is taking advantage of a number of security features provided in Windows Vista, including Windows Defender and Group Policy. “We are using Windows Vista in combination with other Microsoft software, including Forefront Client Security, to increase our level of protection against malware and spam,” he says. “We also have configured Windows Vista to get automatic updates. In addition, we have implemented Network Access Protection, which allows network administrators to define granular levels of network access based on who a client is, the groups to which the client belongs and the degree to which that client is compliant with corporate governance policy.”

**BUILDING CORE COMPETENCIES**

Most recently, Thomas upgraded to the Dell Latitude E6500 laptop based on Intel Core 2 processors with vPro technology and integrated Webcam and digital microphone. Windows Vista Ultimate is now the recommended choice for students’ laptops.

“For years, we’ve purchased monitors for our desktops and laptops that have built-in speakers,” says Rhoda. “But we had to purchase Webcams separately and clip them onto the monitor. We’re very happy to see the Webcams now built in as well.”

Students can also use the new Microsoft Expression Studio 2, which includes coders and video editing tools supplementing the video editing capabilities provided by Windows Vista Ultimate.

“These are great productivity tools for students in higher education,” says Rhoda. “Students make PowerPoint presentations with video clips attached. They use video in Web design and e-portfolios. Video is a core competency for them.”

The students’ Dell Latitude laptops come with a four-year, next-day service agreement from Dell. Should a laptop need servicing, a repair technician comes to the campus or to the student’s home or dorm room—wherever the student is located. The laptops also have accident insurance from Dell, for those occasional machines that are dropped or spilled upon.

**60 MORE HOURS OF SUMMER**

Most of Thomas’s desktop and portable computers are Dell OptiPlex 755 Ultra Small Form Factor PCs based on Intel Core 2 processors with vPro technology. Dell CFI pre-installs the Windows Vista Ultimate operating system and other software components. Every year approximately 40 OptiPlex machines are refreshed during a busy summer period when the IT team, which consists of three full-time employees and 16 student part-time employees, upgrades servers and procures new laptops in time for the fall semester. The factory installation of the software saves the team 60 hours during the seven-week period and simplifies the training of new student help.

“Every way we can save time during the summer gives us that much more time to get everything in shape before fall,” says Rhoda.

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**“BY THE TIME WE’RE THROUGH MOVING TO THE DELL BLADES, WE WILL HAVE CUT OUR SERVER FOOTPRINT BY 50 PERCENT, CONSOLIDATED OUR UPS SYSTEMS AND REDUCED HEAT GENERATION.”**

Christopher Rhoda, vice president for information services, Thomas College
**50% REDUCTION IN SERVER FOOTPRINT**

In the school’s data center, the IT team is migrating its rack-mount Dell PowerEdge 2950 servers with Intel Xeon processors to Dell PowerEdge M600 blade servers with Intel Xeon processors. “We’re changing over to Dell blade servers to consolidate our footprint and save in power and cooling costs,” says Rhoda. “We have about 15 PowerEdge 2950 servers at Thomas. We’re able to consolidate a lot onto 15 physical boxes. By the time we’re through moving to the Dell blades, we will have cut our server footprint by 50 percent, consolidated our UPS systems and reduced heat generation.”

The Dell PowerEdge M1000e modular blade enclosure helps reduce the cost and complexity of managing computing resources so Rhoda can focus on managing the Thomas IT organization. To further simplify management tasks, Thomas uses Dell OpenManage Server Administrator for email alerts to hardware problems. “We’re not in the data center every day, so having the email alerts makes us more comfortable about being away,” says Rhoda. “And we use OpenManage if we’re having a problem that we’re trying to diagnose.”

**EASY-TO-SCALE SAN STORAGE**

For storage in the data center, Thomas uses a Dell PowerVault MD3000i iSCSI SAN array, which provides all the benefits of high-performance, centralized storage without the cost and complexity of a Fibre Channel network. Having migrated from direct-attached storage, Rhoda appreciates the management benefits the SAN provides. “The biggest advantage of the Dell MD3000i for me is the ability to add a few more drives to the SAN as needed,” he says. “Let’s say I have an E: drive on a server that needs to go from 500 gigabytes to 800 gigabytes. I can just throw a few more physical drives in the SAN, repartition the 800 gig and copy the data over. I just attach the SAN to that server and I’m done. Adding capacity took a lot longer with direct-attached storage. In addition, the consolidated SAN storage saves 24 to 36 hours per year in administration time.”

**SIMPLIFIED IT**

According to Rhoda, Thomas has been a Dell shop for as long as he can remember. “The reason we went with Dell initially was the fact that Dell offered so many ordering options on an easy-to-navigate Web site,” he says. “It’s really simplified the procurement process. Being able to go to Dell’s site, look at the different comparisons and models and decide what I can get at my price point—that is worth its weight in gold. Our representative is great, and Dell’s direct business model has changed the computer industry for the better.”

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