LONE STAR COLLEGE SYSTEM

HP and Intel enable college to slash PC energy consumption

hp

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"HP bringing in Intel to help us improve operations and reduce environmental impact was a true strategic relationship."
—Link Alander, Associate Vice Chancellor, Technology Services, Lone Star College, Houston, Texas

HP customer case study: Lone Star College collaborates with HP, Intel to reduce environmental impact

Industry: Education

Windows®. Life without Walls™. HP recommends Windows.

Objective:
Reduce environmental impact and improve manageability of college computing resources

Approach:
Deploy energy-efficient HP Compaq Business Desktop PCs with Intel® vPro™ technology

IT improvements:
- Reliably shut down, wake up and update systems at night
- Diagnose and repair hardware and software problems
- Deploy patches and upgrades, improve security

Business benefits:
- Anticipated reduction of carbon footprint
- Reduce energy consumption
- Reliably maintain and upgrade computer resources
- Reduce desk-side visits, free technology staff time

HP PCs INTEL® vPro™ TECHNOLOGY

With more than 12,000 PCs, notebooks and workstations deployed throughout its five Texas campuses, Lone Star College (LSC) wanted to improve the management and environmental responsibility of its computer systems. After researching the market, it chose the energy-efficient, full-featured HP Compaq dc7800 Business PC and the HP Compaq dc7900 Business PC as desktop standards. The PCs deliver best-in-class lifecycle management and Intel® vPro™ technology. HP brought even more to the table—Intel itself. HP and Intel joined to assist Lone Star to get the most out of its new solution. As a result, the college expects to experience significant savings annually once the solution is fully deployed in 2011. As for environmental impact, Lone Star projects carbon footprint reductions as well.

"It took a joint effort to make this happen," says Link Alander, Lone Star's Associate Vice Chancellor of Technology Services. "HP and Intel worked with our technology staff to create a solution that not only meets our number one priority of reducing environmental impact, but also delivers increasing management, cost and security benefits going forward."

"We're constantly looking for ways to conserve resources. We feel the energy-efficient HP Compaq Business Desktop PCs with Intel® vPro™ technology will help us meet our goals."
Link Alander, Associate Vice Chancellor, Technology Services, Lone Star College

HP offers true business class PCs
Lone Star College is the third largest two-year institution in the state of Texas. Roughly a year ago, Lone Star reviewed its tier one hardware vendors—and switched to HP. Why? HP offered true business class desktop and notebook PCs, Alander says. "When I buy a machine with a certain specification, I know it's going to stay that way," he explains. "The other vendor often would change a few parts here and there, which makes it very difficult to manage the system."

Lone Star started with the HP Compaq dc7800 Small Form Factor Business PC and went on to add the HP Compaq dc7900 Small Form Factor and HP Compaq dc7900 Ultra Slim All-in-One Bundle. These are very stable and secure HP Business PCs, delivering advanced energy efficiency and remote manageability. The HP Compaq dc7900's minimum 15 months of platform stability enables long-range transition

planning and minimizes support costs. Lone Star's devices came configured with Intel® Core™ 2 Duo E8400 processors, Genuine Windows Vista® Business and HP ProtectTools™ security software. Energy efficiency is achieved through the latest low wattage processors and software power management tools, as well as efficiently designed cooling systems and power supplies. "The HP Compaq dc7800 and dc7900 Business PCs fit our needs perfectly in terms of the performance requirements of our users over a longer period of life and the college's commitment to reducing environmental impact," Alander says.

The machines are used in classrooms, computer labs and offices by students, faculty and administrators. The small form factor helped conserve space for the growing institution, notes James Crawford, Campus Director of the Office of Technology Services, for LSC's Montgomery College. Lone Star complements the PCs with HP 20-inch diagonal widescreen LCD monitors and is an HP Self-Maintainer with a 4-year Next Business Day[1] Onsite Warranty. The college also standardizes on HP Notebook PCs, HP Workstations, HP Blade Servers and HP Printers.

A wake-up call for system updates
Crawford ran a pilot program deploying the HP and Intel solution first at the Montgomery campus. A key project goal was to develop the ability to reliably shut down campus computers, wake them up at night for automated patch management and application delivery, and shut them back down. Lack of this capability forced the college to waste electricity running computers around the clock. Otherwise, if the computers were turned off at night, technicians often would arrive in the morning to discover that automated

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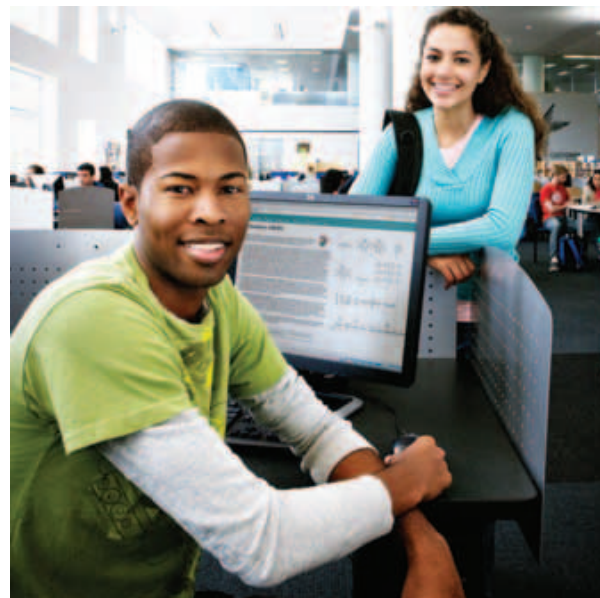
maintenance tasks had failed to occur because the computers had not turned on as scheduled. Then staff would rush to remediate before classes started. "The standard at most campuses is to leave all lab and office machines running 24/7," Alander says. "Even though they're in reduced-power mode, we're still consuming a lot of electricity just to make sure we're patching equipment."

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The college considered power management tools but the solutions did not match the advanced functionality Lone Star wanted to complement its expanding deployment of Altiris service-oriented management software. "We needed a chip-based solution, something built right into the system to make it work," Alander explains. "We use Altiris for desktop management and decided its functionality would work best for us paired with Intel vPro technology."

Intel vPro technology provides built-in security and manageability, allowing IT managers to remotely monitor, diagnose, isolate and repair notebook and desktop PCs even if the machines are turned off or the operating system is unresponsive. The remote management features of vPro[2] can greatly reduce the cost of maintaining Lone Star's PCs, while the remote diagnostics and repair capabilities will enable them to increase productivity by resolving system issues faster

so users are back on line quicker. The technology came embedded in Lone Star's HP Compaq Business Desktop PCs. To help the college use vPro most efficiently, HP brought Intel experts onsite to Lone Star. "Intel coming out made a huge difference," says Crawford. "With their assistance setting up the pilot and doing training, for the first time ever we can schedule critical updates for an automated process in the middle of the night—and it'll work."

Next steps: full deployment, snowballing payback
Lone Star's project is proceeding in phases. Reviewing estimates of savings inputting basic data in a Verdiem calculator tool,[3] it projects financial savings could reach $75,000 in year one and five to six times that by project end. Understanding there are many variables that impact actual savings, the college is looking forward to significant improvements over its previous infrastructure.

"Job one was to capture and take advantage of the power savings. As things get rolled out, their ability to use all the solution capabilities will magnify the savings."
Mike Edmoundson, Business Development Manager, Intel

Next, Alander's vision is to bring all the technology staff from campuses together to confer on deploying the HP solution to maximum advantage. "Once they start collaborating, they come up with all kinds of ideas on how they can push the technology farther and faster," he says. "We've just begun to leverage everything it's capable of."

Subsequent steps include out-of-band management, hardware and software inventory management, advanced security features and reducing desk-side visits. "Job one was to capture and take advantage of the power savings," says Mike Edmoundson, Intel Business Development Manager. "As things get rolled out, their ability to use all the solution capabilities will magnify the savings." Intel Enterprise Technology Specialist Mervin Nalletamby adds, "Lone Star has a group of technologists really excited about the technology. Once they get it deployed, it will be very easy to add the other features and functionality, because they'll have the basic infrastructure set up." Lone Star uses Altiris and HP Configuration Management for automated systems and security management.

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Lone Star's Alander identifies three factors that were critical to the success of this project: collaboration, communication and documentation. "We need strong documentation of what we're doing and how we're

doing it, because we're rolling out the solution to all of our campuses," he says. "We also need to communicate internally and listen to what our engineers have to say about leveraging the technology across the system. Finally, the most critical factor is collaboration. Without HP and Intel, this project wouldn't have received the acceleration it has."

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