

CHALLENGE	SOLUTION	BENEFIT
Strengthen server infrastructure to minimize the possibility of site outages and provide room to grow with the school system	Standardized hardware and software across the school system using Intel® Pentium® III processor-based Dell™ OptiPlex™ computers, Microsoft® Windows® 2000 Professional, Microsoft Office 2000, and Novell Client™	Lowered support costs more than 54 percent; decreased number of tech support requests by 29 percent; provided students and teachers with greater quantity and quality of computers

Making the upgrade

The Douglas County School System upgraded and increased its inventory of computer systems while reducing the systems' total cost of ownership

When Derek Welch began his first day as the chief technology officer of the Douglas County School System outside of Atlanta, he faced a logistical nightmare: 27 locations with 3,300 disparate computers ranging from vintage Apple® II computers and 8086-based PCs to Intel® Pentium® III processor-based PCs. This motley crew included nearly every brand of computer, with operating systems ranging from DOS 3.3 to Microsoft® Windows® 98.

Supporting this heterogeneous hardware and software environment was a daunting assignment for the tech support team. The need to remember the idiosyncrasies of each operating system and each computer model placed a great burden on the team's time and resources. In addition, the district's more senior computers running outdated operating systems faced many maintenance problems, and software incompatibility troubles plagued the school system.

Those who suffered most from the computers' shortcomings, however, were the 17,000 students in the Douglas County School System. Many students were forced to use technology that was outdated, unreliable, and failure-prone. Others had only limited access to any computers at all. The uneven distribution of computer resources caused discord among schools, teachers, and students.

Like most school districts, the Douglas County School System had to abide by a strict budget. The total cost of ownership (TCO) for the old computers—the cost of purchasing hardware and

software, the cost of electricity to run the machines, and the cost of supporting the systems—was difficult to judge because the previous administration had not kept records of this information. However, Welch knew the support costs of the old systems, so he did the math to estimate the TCO. Support for those aging systems was too costly, but the school district did not have the financing to simply buy thousands of brand-new systems. Welch determined that the only effective way to resolve the problem was through standardization of hardware and software. Now, the district needed a creative way to afford an increase in the number of quality computers without an increase in the TCO.

Creative funding 101: Voters green-light the standardization project

Together, Welch and the school board developed a plan to fund the technology improvement and other school projects through a 1-cent county sales tax increase. Accepted by voters in 2000, this plan paved the way for the standardization program.

Welch and the school board set several goals for the standardization project:

- » Ensure that each student has equal access to quality computers that run the latest software
- » Provide 1:4 computer-to-student ratio
- » Complete entire project during summer 2001

- » Standardize all computers with Microsoft Windows 2000 Professional
- » Train teachers to use new computers
- » Equip computers with Internet access

Standardized testing: The team sets system requirements

Welch and his tech support team established the minimum requirements for standardizing the computer systems. They traveled from school to school, gathering details about the existing equipment at each location, the number of network drops and power outlets in each room, and the number of switched ports in each wiring closet. This information helped Welch determine which systems to expel and which to upgrade.

“Dell provided the flexibility and assurance that we needed.”

— **Derek Welch**
Chief Technology Officer
Douglas County School System

The team, headed by information systems manager Steve Barden, decided to keep existing computer systems with an Intel Celeron® processor at 433 MHz, 128 MB RAM, and the capability of running Windows 2000 and Microsoft Office 2000. Prerequisites for the new computers included an Intel Pentium III processor at 933 MHz, 128 MB RAM, and Windows 2000 Professional and Microsoft Office 2000. The new computers would arrive at each school preloaded with Windows 2000, Office 2000, and Novell Client™. These software applications became the new base image of all computers district-wide.

A textbook installation: Tech support team completes the upgrade

To accomplish the vast computer overhaul without interrupting teachers and students, the district required substantial downtime. Fortunately, schools have their own version of allowed downtime: summer break. To ensure the project was completed within this time frame, the school system needed help. “We had much to do in a very short time period, so the school district wanted a single source to assist with this project,” Welch says. “We knew that Dell could partner with us to help make this project successful and would be responsible for the vendors it brought in.”

The installation process occurred in phases. First, computers that did not meet the minimum hardware requirements were disconnected, removed, and discarded. Shortly thereafter, the new Dell™ OptiPlex™ PCs arrived. The team installed these systems while it upgraded existing systems to meet the standardization requirements.

Since even the best-laid plans can sometimes go awry, Welch wanted a single vendor to lead the project. “In our case, Dell provided the flexibility and assurance that we needed. The installation ran smoothly and the computer upgrades and replacements were successful.”

With the help of Dell, Welch’s team met all of its objectives. When teachers arrived for preplanning before the fall term, they were greeted with new, first-class computers, installed and ready to use.

An “A” in computer science: The standardization project succeeds

The first success of the standardization project was the easy installation. Soon after, the new computers proved to be a sound investment, free of interoperability problems and requiring less maintenance. In the year after the project’s completion, the number of tech support requests dropped 29 percent. And when technical problems arose, the standardized hardware and software allowed the team to resolve the problems faster, slashing the average response time by 35 percent.

Randy Dye, the principal of Douglas County High School, commented on the results at his school. “Our new computers are not down like the old computers were in the past. But if routine system issues occur, the standardization enables our support team to take care of them immediately.”

Although the district purchased 2,500 additional computers, the decrease in work requests and repair time have lowered support expenses significantly. Overall support costs decreased 54 percent after the addition of Dell OptiPlex computers—a savings that enabled the Douglas County School System to lower the TCO for its computer systems.

Graduation day: Students benefit from better technology

The true indicator of success or failure is the satisfaction of the end users: teachers, administrators, and students. Because the computer inventory increased, the ratio of computers to students now meets the goal of 1:4, and the new systems proved to be reliable tools for students and teachers. Also, by spending less time on repair, Welch’s team can provide proactive support such as teacher training on new software.

Most important, the new computers are resources to help teachers enhance the educational environment and to help students make the grade in the classroom and beyond. The new systems have even improved the students’ attitudes about their schools. In fact, Dye says, the standardization has eliminated student competition for the best computers—giving school the collegial atmosphere it should have. 

