



## Windows Vista Customer Solution Case Study

*Perry Community School District*

### Small School District Sees Big Gains in PC Security, Performance, and Availability

#### Overview

**Country or Region:** United States

**Industry:** Education

#### Customer Profile

The Perry School District serves students in elementary, middle, and high schools that educate more than 1,850 students and employ some 300 faculty and staff members.

#### Business Situation

The Perry Schools needed to address malware problems in the computers used in middle-school and high-school labs and media centers. The problems included reduced performance and availability and the increased need for IT support.

#### Solution

With the help of Microsoft® Gold Certified Partner Heartland Technology Solutions, the schools upgraded or replaced more than 100 computers that ran Windows® 2000 and Windows XP with the Windows Vista™ operating system.

#### Benefits

- More available technology resources
- More efficient use of IT time
- Up to U.S.\$10,000 saved yearly in application upgrades
- More stable instructional environment
- Powerful foundation for the future

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*Nancy Iben, Assistant Director of Technology, Perry School District*

The Perry School District, which serves a community of nearly 10,000 people in central Iowa, faced a common problem in its middle-school and high-school computer labs: the downloading of malicious software (“malware”), which wreaked havoc on performance and availability. With the help of Microsoft® Gold Certified Partner Heartland Technology Solutions, the Perry Schools replaced more than 100 installations of Windows® 2000 and Windows XP with Windows Vista™ for use by students and faculty. Thanks to such features as Windows User Account Control and easier viewing of folder contents, the schools have virtually eliminated the performance problems and crashes caused by malware downloads. Consequently, they are saving hundreds of hours yearly in support time, enhancing the value of computer-aided instruction, and laying the groundwork for future use of collaboration and wireless technologies.



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Perry School District

## Situation

The Perry School District, in Perry, Iowa, educates more than 1,850 students attending kindergarten through twelfth grade in this agricultural and manufacturing community located about 40 miles northwest of Des Moines. Despite the district’s modest size, its elementary, middle, and high schools offer a generous array of academic, athletic, and extracurricular programs. Among them are summer school, special education, gifted-and-talented courses, multimedia instruction, and intensive language training, including English as a second language for a sizable number of students who speak a language other than English at home.

At the middle and high schools, many of the specialized academic activities take place in labs that are comprehensively outfitted with computer and Web technology. Like their counterparts in small-town schools across the United States, administrators and faculty at the Perry Schools have used such technology to great advantage since the mid-1990s. At the same time, the dramatically growing presence of malicious software (“malware”), combined with the curiosity and ingenuity of young people, makes it difficult for schools to protect these labs against downloads that can cause serious problems.

As Rich Nichols, Director of Technology for the Perry School District, points out, “High schools are highly susceptible to malware problems because if there is a weakness in the security, students will find it. This is especially true when students work independently with Web access, as they do in our labs and media center, because they frequently download the kind of programs that can denigrate performance and worse.”

What makes malware a particularly pesky problem at the Perry Schools is that administrators, students, and faculty need their computers to be operational 100 percent of

the time. “If even just one computer in the lab is down, some student has to share with another or with the teacher,” Nichols says. “This makes it harder for those students to learn the day’s lesson and harder for the teacher, who might have to delay work on grading or preparing assignments.”

It’s not just academics that suffer when PCs are running slowly or not at all; it’s also the productivity of IT professionals charged with repairing malware-caused damage. “In the labs and the media center, we had to reformat and rebuild a total of 30 PCs in the middle school and 34 in the high school three or four times yearly, with each rebuild taking at least an hour and a half,” Nichols says. “This was an unnecessary drain on IT resources.”

## Solution

In late 2006, Nichols and his colleagues at the Perry Schools responded to the challenge by consulting their long-time associates at Microsoft® Gold Certified Partner Heartland Technology Solutions about the Windows Vista™ operating system. Specifically, they wanted to know what to expect in terms of support for a number of older applications then in widespread use at the schools. “Controlling IT spending is vital in the educational sector, and one way we do that at the Perry Schools is to make the most of our legacy applications,” Nichols explains.

What Nichols and his colleagues learned from Heartland Technology Solutions and their own research persuaded them to put their compatibility concerns to the test by enrolling in the Microsoft Technology Adoption Program for Windows Vista. With the help of resources from the program, a team made up of individuals from the Perry Schools and Heartland Technology Solutions migrated dozens of PCs that were running prior versions of the Windows® operating system. The team reimaged machines that

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ran Windows 2000 Professional and upgraded those that ran Windows XP.

As of mid-2007, the team had completed the deployment of about 100 desktop computers and planned to deploy another 100 desktop computers and 50 portable computers by 2008. They also decided that any new hardware purchases would be limited to Windows Vista-based machines.

### Benefits

For IT professionals, administrators, students, and faculty at the Perry Schools, Windows Vista has delivered a stronger defense against malware and its ill effects, with resulting savings in IT time and higher computer availability. The deployment has also delivered benefits in terms of user acceptance, support for and savings related to the use of legacy applications, and dramatic efficiencies in hard-disk imaging and deployment tasks.

#### **Saving Hundreds of Hours Yearly**

According to Nancy Iben, Assistant Director of Technology for the Perry School District, the Windows User Account Control in Windows Vista is providing the Perry Schools “a built-in layer of protection for individual PCs without our having to integrate, support, and deal with the performance issues of a third-party solution.”

What that means on a day-to-day basis is that malware-triggered performance and availability problems are “a thing of the past,” Iben says. “Students are getting more out of the language, multimedia, and other applications on which we base our lab lessons, and support staff members are spending a lot less time having to restart, reformat, or rebuild PCs.”

For example, whereas rebuilding desktop PCs was a common occurrence before the Perry Schools adopted Windows Vista, no PCs have

required rebuilding in the first eight months after the migration. Support calls that used to come at least twice a month from students or faculty experiencing malware problems have also dwindled to zero. “IT staff are saving what will amount to hundreds of hours each year,” Iben says. “That time can be devoted to maintaining or enhancing the larger IT environment to make it an even more powerful asset in strengthening the instructional experience.”

#### **Making the Most of a New User Experience**

Computer security at the Perry Schools is enhanced not only by Windows User Account Control but also by the Windows Vista user interface, which gives faculty members a sharper view into what may be happening in an individual student’s file folders. “As a network administrator, I like being able to see the contents of a folder in a single glance,” Iben notes. “This makes it faster and easier to find out if there are files that shouldn’t be there.”

Students, too, like using Windows Vista, particularly the faster startup and shutdown, the rapid-search capabilities, and the Windows Aero™ user experience. “When we were halfway through the deployment, and some computers ran Windows XP and others ran Windows Vista, the students would pile on the Windows Vista-based computers,” Iben says. “Because they pride themselves on knowing new technology, they loved being able to use the system before it was available to the general public.”

#### **Approaching 100 Percent Operational**

Addressing his team’s early concerns about compatibility, Nichols says that Windows Vista seems to support older application technologies with no problems whatsoever. “With Windows Vista, we are running some applications that are 10 or 12 years old with no transition issues, even on machines with

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minimum specifications and maximum usage,” Nichols points out. “By being able to continue using these applications without modification, we save the school \$5,000 to \$10,000 each year.”

Support for legacy applications is just one of the ways in which Windows Vista is simplifying IT support at the Perry Schools. “We not only have fewer performance and availability problems, but also a powerful and dependable foundation for old and new applications alike, which has transformed our IT environment from one that was 95 percent operational to one that is nearly 100 percent operational,” Nichols says. “This means we are getting the most out of our valuable instructional time while easing the support burden on IT.”

#### **Reimaging in One-Quarter the Time**

That said, Nichols and Iben know that because hundreds of middle-school and high-school students access the Web on a regular basis, one day some sort of malicious software will escape detection and affect a computer at the Perry Schools. Even then, Nichols adds, the recovery work will be vastly simplified, thanks to the Microsoft Solution Accelerator for Business Desktop Deployment 2007 and Windows Imaging Format, two best-practices companion tools for Windows Vista.

“In the past, it took well over an hour of hands-on time to rebuild a computer, and sometimes a full day to ensure that the computer was fully functional,” Nichols says. “But with Business Desktop Deployment 2007 and Windows Imaging Format, we’ll be able to deploy an image ‘hands-free’ in just 30 or 40 minutes.”

Nichols is comfortable making that prediction based on his team’s experience using Business Desktop Deployment 2007 and Windows Imaging Format for the initial

deployment of Windows Vista. “We no longer had to do ‘ghosting’ and reimaging manually, which in some cases would have required connecting external CD-ROM drives to computers whose own drives were nonfunctional,” he points out. “As a result, we managed to reimage more than two dozen computers, including the installation of several large applications, in just four hours—one-quarter the time that this kind of project would have required before, for a far more efficient use of support resources.”

#### **Preparing Students for the Future**

As with any other pedagogical tool, Nichols, Iben, and their colleagues are continually exploring ways in which they can use Windows Vista to expand and enhance education at the Perry Schools.

“We are always asking ourselves how we can use technology to fill a current or anticipated need, and the good thing about Windows Vista is that it provides a foundation for doing that,” Nichols says. “For example, a more secure and available infrastructure will make it easier to take advantage of collaboration technologies in Microsoft Office SharePoint® Server 2007 or Office Groove® 2007, or to support 24-hour access to applications and curriculum. These are the kinds of advances that can truly transform the educational experience.”

## For More Information

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For more information about the Perry School District, visit the Web site at: [www.perry.k12.ia.us](http://www.perry.k12.ia.us)

For more information about Heartland Technology Solutions, visit the Web site at: [www.heartlandtechnologies.com](http://www.heartlandtechnologies.com)

## Windows Vista

Windows Vista can help your organization use information technology to gain a competitive advantage in today's new world of work. Your people will be able to find and use information more effectively. You will be able to support your mobile work force with better access to shared data and collaboration tools. And your IT staff will have better tools and technologies to enhance corporate IT security, data protection, and more efficient deployment and management.

For more information about Windows Vista, go to: [www.microsoft.com/windowsvista](http://www.microsoft.com/windowsvista)

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