#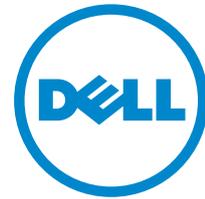 Bridgeport schools improve state ratings and increase high school graduation rate to 100% with help from Dell and Intel technology

DELL

"Technology has been a driving factor in getting our dropout rate to zero. We have the best technology in the area, and it keeps students excited about learning."

Lisa Clark, Director of Technology, Bridgeport School District

The Bridgeport School District

Customer Profile

Company:	Bridgeport School District
Industry:	Education
Country:	United States
Students:	846
Faculty & staff:	114
Web:	www.bevs.k12.oh.us

Institutional Need
The Bridgeport School District needed to engage students in learning and do a better job of preparing them for careers and college classes in science and technology. In addition, the district's IT staff needed to simplify an overly complex data protection process.

Solution
The district implemented software that provides real-time information about student achievement, enabling K-8 teachers to individualize instruction. The applications run on Dell™ OptiPlex™ computers with Intel® Core™ processors, supported by a Dell PowerEdge™ server with Intel Xeon® processors. Bridgeport High School rolled out a CAD lab that uses Dell Precision™ workstations. Then the district's IT staff implemented Symantec Backup Exec™ on a PowerEdge server to streamline its backup process. These technology improvements have clearly contributed to learning in Bridgeport schools. Science, technology and math curricula are greatly enhanced; student engagement is up; and the district's graduation rate has reached 100 percent.

Benefits
- **100% high school graduation rate (vs. 82.8% previously)**
- **16% increase in proportion of graduates attending college (64% today vs. 55% previously)**
- **"Excellent" rating on state report card for elementary and high schools**
- **6-fold faster identification of areas in which students need improvement (less than 10 days now vs. 3 months previously)**
- **Student engagement increased dramatically**
- **Increased parental involvement in student achievement**
- **8-fold faster recovery of files (1 hour vs. 1 business day)**
- **75% less IT time spent on data protection (1.25 hours/week vs. 5 hours/week)**
- **$3,400/year savings on backup tapes and related expenses**

The town of Bridgeport, Ohio, is working hard to find its footing in the 21st century. On the border with West Virginia, Bridgeport is reeling from the manufacturing decline of the past few decades—a familiar story in America's heartland. Now the town's per capita income is $14,723, and nearly 20 percent of its children live in poverty. These aren't the conditions in which schools would seem likely to innovate with technology. But that's exactly what the Bridgeport School District is doing.

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>
> *Frank Ferrel, System Administrator, Bridgeport School District*

"Our schools are responsible for teaching 21st century skills to the children of Bridgeport," says Lisa Clark, the district's director of technology. "Without computer skills, our graduates would not be as successful in college or in the workplace. From our pre-K program onward, students use computers every day, learning our core curriculum while also learning decision-making and career skills."

Customizing instruction to make schools excellent

In pre-k through second grade, students use Waterford Early Learning software; then, from grades three through eight, they use Pearson SuccessMaker. Both applications automatically adjust the curriculum based on a student's progress. "This software is great because it adapts to students' needs," Clark says. "The students look at one another and say, 'Why are you on that screen, when I'm on this one?' The answer is that each of them is at a unique ability level, and every student receives individualized instruction."

The Waterford and SuccessMaker programs give teachers progress reports showing where students need extra practice. "These applications help our teachers find students' areas of weakness six-fold faster—in 10 days or less when otherwise it might take three months," Clark says. "We have these applications running on four computers in each elementary classroom, and the teachers like this software so much that students are constantly on the computers."

Because of these applications' complexity, Bridgeport schools must run them on robust, reliable hardware. That's why the district recently upgraded its elementary school systems to Dell OptiPlex 760 and 780 desktop computers running Windows 7. A Dell PowerEdge R610 server supports SuccessMaker on the back end. "These are very robust pieces of software, but they're running nicely on the new OptiPlex desktops," says Clark.

Adds Frank Ferrel, system administrator for the district: "The Dell OptiPlex systems are extremely reliable. They're built to withstand the strain of day-in, day-out use by multiple users and multiple applications. We have not had any problems with them."

Technology at Work

Software

Adobe® Creative Suite

Pearson SuccessMaker®

Software Answers ProgressBook™

Symantec Backup Exec™ 2010

Waterford Early Learning™

Windows® 7 Scholastic Reading Counts!

Hardware

Dell™ OptiPlex™ 760 and 780 desktop computers with Intel® Core™ processors

Dell PowerEdge™ R610 server with Intel® Xeon® processors

Dell PowerEdge 2900 server with Intel Xeon processors

Dell Precision™ T1500 workstations with Intel Core processors

Drobo eSATA DRDR3-A with five Western Digital® drives

Bridgeport schools' state ratings have improved markedly. "A decade ago, when I arrived in the district, technology was very scarce," Clark says. "We had a few computers here and there, but we provided no training, and they weren't integrated into instruction at any grade level." All three of the district's schools rated 'continuous improvement' on Ohio's school report card. "Now, the integration of technology into our curriculum is one of the highlights of our schools," Clark adds. "Teachers are really leveraging it to improve instruction, students are excited about learning, and we're seeing tangible results. Three years after we implemented SuccessMaker, our middle school rating on the state report card has improved to 'effective' and our elementary and high schools received an 'excellent' rating."

Dropout rate drops to zero

As part of its Interactive Media program, Bridgeport High runs a computer lab offering multimedia software. "Students are learning Web development, movie making, Flash® animation and other skills," Clark says. "It's critical that we keep the lab's software up to date so that when they go into the business world or transition to college, they are familiar with the latest versions of these applications. A year ago, the lab's computers were so slow running Adobe Creative Suite that students were losing interest."

Bridgeport High recently replaced the lab's 32-bit hardware with 64-bit Dell Precision T1500 workstations running Windows 7. "The new Precision workstations are much faster," says Ferrel. "Now the Interactive Media students are excited to come to the lab and use computers that are better than what they have at home. There is no comparison to the performance we get from the Precision T1500 workstations. Applications run noticeably faster, and many applications can be loaded at the same time without affecting functionality. Now the computers in our CAD lab are propelling students' learning forward, not hampering it."

Student engagement is hard to quantify, but Clark considers the district's emphasis on technology to be a driver of one of its key achievements of the past decade: increasing the graduation rate at Bridgeport High School from 82.8 percent to 100 percent. In addition,

the proportion of those graduates who go on to college has risen 16 percent—from 55 percent of high school graduates four years ago to 64 percent today.

"There are other factors that have helped reduce our dropout rate, like the fact that teachers here really care about our students, but technology has been a driving factor in getting our dropout rate to zero," Clark says. "We have the best technology in the area, and it keeps students excited about learning."

Dell meets a range of needs

The Bridgeport School District is also using technology to reach out to the parents of its students. "Our community suffers from a very high unemployment rate. Most of our students benefit from our free and reduced lunch program," Clark says. "We find that getting parents involved can be difficult. We implemented ProgressBook from Software Answers on Dell OptiPlex 760 desktop computers. The solution enables parents to see students' assignments, grades and attendance records online. Now they're using this technology to become more involved in their children's education."

Most of the district's recent technology purchases have gone through Dell. "Consistency is very important to us," says Clark. "When we work with other technology vendors, we talk to a different person every time we call. They don't know where we've been or where we're going. But with Dell, we have a single point of contact for all our needs. Over the course of 10 years, we've only had three Dell reps."

Bridgeport schools procure even non-Dell products through Dell. "I'm impressed with Dell's ability and willingness to provide us products from other companies," Ferrel says. "Our projectors are from Sharp, but we order replacement bulbs from Dell. On the same order, I can get Kingston memory and products from many other vendors."

Reliable backups in 75% less time

Naturally, when Ferrel decided to improve data protection, he turned to Dell. "We were using Windows Backup," he says, "and the process was overly complicated. We were backing up different types of systems to three different storage servers. Then those

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servers backed up to tape via another server, and we took the tapes off-site. If I had been out of the office when data needed to be restored, it would have been impossible for somebody else to figure out where that data was."

Ferrel wasn't confident even in his own ability to restore data. "Every time we had to recover something, we crossed our fingers that it would work," he says. "We never lost any data, but I just didn't trust it. Information was going all over the place, and there wasn't enough redundancy."

Dell recommended Symantec Backup Exec 2010, deployed on a Dell PowerEdge 2900 server supported by a Drobo storage device, and suggested replacing the tape library with backup to a remote location via the WAN. This solution was over budget, but the district's Dell rep came up with an alternative. "He showed us that we could save some money by using Western Digital hard drives in the Drobo unit," Ferrel says. "That brought it within our budget, so we bought all the components through Dell." Now the district is saving $3,400 per year on tapes and related expenses.

More important, Ferrel is now confident that the district's data is safe. "We have redundancy, and the Drobo device has plenty of capacity," he says. "Our backup process is centralized and much simpler. I'm confident that anytime we need to recover data, we'll be able to do so. And we can restore a file in less than an hour now, whereas before it would take a day or more."

In this environment, data protection takes 75 percent less staff time. "Before, I spent close to an hour every morning making sure backups had run properly," Ferrel says. "I had to hit a bunch of different locations. Now I can confirm in 15 minutes that backups were successful. And I'm saving the hour or two I used to spend dealing with tapes every week. The five additional hours a week that I used to spend babysitting backups is time I can now spend on special projects for our board, superintendent and principals. For example, I recently created a function on our Web site that parents can use to view students' lunch account balances. The district was going to spend thousands of dollars on packaged software, but I had time to code it myself."

Dell understands education

Next, the Bridgeport School District is looking to reduce its server footprint and power costs through virtualization. "We'll definitely be looking to our Dell rep for advice," Ferrel says. "He is knowledgeable, and Dell has connections with a lot of different vendors. Instead of reinventing the wheel, we might as well take advantage of Dell's expertise."

Clark concurs. "In the past, we had trouble finding a vendor that really understands education, but our Dell rep understands us. When we have limited funds, he's great about helping us find a product that fits both our budget and our needs."

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