

The district chose a customized solution from Lexmark that combines the use of Lexmark multifunction printers (MFPs) for scanning completed tests and Lexmark's Document Distributor (LDD) for routing test results into the district's SOLO system.

Spotsylvania County Public Schools makes the grade with testing solution from Lexmark

The Organization

Headquartered in Fredericksburg, Virginia, just 50 miles from Washington, D.C., the 31 K-12 schools of the Spotsylvania County Public School system serve nearly 25,000 students in an area covering more than 400 square miles. With 3,300 employees and an annual operating budget of \$213 million, the school system is a leader in implementing technology. To provide reliable and speedy communications for its 8,500 desktop and notebook computers, Spotsylvania County Public Schools is installing more than 50 miles of fiber-optic cable, as it transitions away from older and slower copper-bound technologies.

The Challenge

To the Commonwealth of Virginia, assuring that its school-age children receive a top-quality education is essential. The Standards of Learning (SOL) for Virginia Public Schools, a statewide consensus of what parents, teachers, administrators and community leaders believe schools should teach and students should learn, is the foundation of the K-12 experience. To measure how well students meet these standards, periodic benchmark tests are mandated.

Though its academic standards and test metrics had advanced, the administration and scoring of thousands of exams had not. The process had a bottleneck as tests were scored individually by hand, a time-consuming and error-prone process that was anything but rewarding for teachers. Once hand-graded, teachers bundled and forwarded test sheets to the district's administrative offices, where they eventually found their way to a storage facility. The process put undue burdens on teachers and staff and worse, didn't provide teachers with any meaningful information that could improve learning.

"We could not have accomplished our goals without this solution from Lexmark. We are saving significant costs, making testing a lot easier for our teachers and providing them with the information that they need to improve student learning."

—Bill Flaherty
Assistant Superintendent of Technology Services
Spotsylvania County Public Schools
Fredericksburg, Va.
www.spotsylvania.k12.va.us



For its last several rounds of benchmark assessment testing, the Spotsylvania district implemented a new software product developed by Suffolk City Schools, a sister school district. Though it improved test generation and allowed for online testing, the application lacked the capability to scan completed test sheets for automated scoring, said



Bill Flaherty, Spotsylvania's Assistant Superintendent of Technology Services. The software, known as Standards Of Learning Online (SOLO), gave teachers the capability to print exams to the printers installed in every classroom, but did not address scoring and storing test results in the district's databases. "We had no way to analyze results and identify student strengths and deficiencies," Flaherty said.

"After a thorough analysis, we also found that the Lexmark solution was significantly less expensive than several competitors when the total cost of ownership was calculated at 100,000 and 200,000 pages. The cost difference was, frankly, staggering."



—Don Bright
Vice President of Sales
Attronica
Gaithersburg, Md.
www.attronica.com

As it worked on a separate project to refresh its aging fleet of classroom inkjet printers with nearly 1,500 Lexmark laser printers, district representatives met with Lexmark education industry specialists to explore methods for scanning test sheets and passing the results back to SOLO.

"We were ready to speed the process, eliminate the laborious hand-scoring process and provide ourselves with better insight into students' academic progress," said Flaherty. "We knew there had to be a better way and it quickly became clear that Lexmark could help us achieve our goals."

The Solution

The Spotsylvania schools needed a solution that would speed-up the testing process, reduce costs, reduce the administrative burden on teachers and provide valuable information to support student achievement. In its search for a new solution, Spotsylvania's Flaherty turned to its trusted systems integrator, Attronica, for some advice.

Don Bright, Attronica's Vice President of Sales, could have recommended other manufacturers, but firmly recommended Lexmark. "Lexmark is excellent at listening to customers and tailoring solutions to fit their needs, instead of trying to change the way they operate.

Lexmark employees are available and respond to calls faster," he said. "After a thorough analysis, we also found that the Lexmark solution was significantly less expensive than several competitors when the total cost of ownership was calculated at 100,000 and 200,000 pages. The cost difference was, frankly, staggering."

With a recommendation from Attronica and a strong financial business case to back it up, the district chose a customized solution from Lexmark that combined the use of Lexmark multifunction printers (MFPs) for scanning completed tests and Lexmark's Document Distributor (LDD) for routing test results into the district's SOLO system.

To automate test scoring, the Spotsylvania County Public School system installed several dozen Lexmark multifunction printers (MFPs) throughout the district. With a high-quality monochrome laser printer at its core, Lexmark's MFPs integrate a business-class, auto-feed document scanner, copier and fax into a single, space-saving unit.

Using the pre-populating capability of SOLO, teachers are now able to print personalized test sheets for individual students. "Bubble sheets" are now printed on plain paper by each teacher in his or her own classroom and are automatically printed with each student's name, student ID number and test number. This local printing capability eliminates the need to distribute pre-printed bubble test sheets and allows teachers to generate interim quizzes at their discretion.

In addition to the MFP devices, the district installed LDD, a customizable document distribution system. LDD automates manual processes to optimize paper and digital document workflow. Using LDD, Lexmark field engineers and representatives from the school district customized the district's testing workflow to mesh with SOLO. It's the power of LDD, which is completely invisible to teachers, that lets them log into SOLO, choose from a list of available tests, and have pre-populated bubble sheets print on Lexmark laser printers located right in their classroom.

After testing, the bubble sheets are loaded into the auto-sheet feeder in the Lexmark MFP. Pushing a single icon on the MFP touch panel begins the process. Sheets are scanned, results are routed by LDD and the information is merged with other student data into SOLO, all from a single finger tap.

“The assessments, right down to specific SOLO objectives, are immediately available to the teachers so that they can adjust their lessons according to how students are learning,” said Flaherty. “A key to the success of this entire system is the way Lexmark integrated test printing and scanning into our existing SOLO system. It is very easy for teachers to use and they appreciate the simplicity and speed of the solution.”

For Flaherty and his IT department, the flexibility of the Lexmark solution meant that no changes were required to its existing systems, a benefit that other providers could not guarantee.

“Teachers...for the first time, have total access to student information almost immediately. The elegance of this entire system is its simplicity. From the teachers’ perspective, it is essentially a one-button process. It works seamlessly.”

–Bill Flaherty

The Results

The district now is generating and grading nearly 55,000 student test sheets every nine weeks using its in-classroom Lexmark laser printers to produce the pre-populated bubble sheets and the Lexmark MFPs to scan the completed tests. Lexmark’s Document Distributor software captures the test results and automatically stores them in the district’s SOLO system.

“By printing from SOLO to any Lexmark laser and then using a Lexmark MFP to get the results directly back into SOLO, teachers, for the first time, have total access to student information almost immediately,” said Flaherty. “The elegance of this entire system is its simplicity. From the teachers’ perspective, it is essentially a one-button process. It works seamlessly.”

In its quest to provide students with the best educational experience possible, Spotsylvania County Public Schools has long turned to technology as an enabler. In moving to a Lexmark solution tailored to its specific needs, the district has near-immediate testing analytics to measure students’ progress, while simultaneously freeing teachers from tedious handwork so they can devote more time to academics.

“We could not have accomplished our goals without this solution from Lexmark,” said Flaherty. “We are saving significant costs, making testing a lot easier for our teachers and providing them with the information that they need to improve student learning.”

With similar Lexmark solutions in dozens of school systems throughout the country, municipalities are cutting costs, improving teacher productivity and helping to guarantee the academic strength of our children.