

Case Study:

A Wish Come True for Ballston Spa: School Software Applications Talk to Each Other

With the help of a solution based on the Schools Interoperability Framework (SIF) specification, Ballston Spa Central School District is learning firsthand about the time, work and money that can be saved when different school software systems – such as student information, transportation, food service – can share information. Using Microsoft Windows NT and SQL Server, this school district created a more efficient management system to help them reduce redundancy.

Ballston Spa Central School District is a typical small, suburban public school district. Located in Saratoga County, N.Y., the district has about 4,500 students at five schools – one primary school, two intermediate schools, a middle school and a high school. In this small school district, staff and administrators found that they were unable to access critical information when they needed it.

“Even though the district is connected by a Wide Area Network (WAN), we still weren’t sharing data,” said John Duffy, director of business and support services for Ballston Spa. The district office didn’t have access to student information at the building level, and within schools the student records, containing vital information, such as students’ current addresses, were often less accurate than the information contained in the schools’ transportation databases. “The information was isolated building by building, and even within buildings,” said Duffy.

A solution with the Schools Interoperability Framework

Ballston Spa needed its diverse software programs to work seamlessly together so that the district could readily manage and distribute data and information, as well as reduce redundancy and inaccurate data. The Schools Interoperability Framework (SIF) provided just the solution the district needed. The goal of this groundbreaking initiative, launched by Microsoft and now led by the Software & Information Industry Association (SIIA) and other leaders in the education software industry, is to develop a standard for ensuring that K-12 instructional and administrative software applications, which manage everything from library check-out records to report cards, can interact and share information seamlessly – now and in the future.

SIF is not a product, but rather an industry-supported technical blueprint for K-12 software, and any K-12 education software vendor, school or district that is committed to improving interoperability among diverse software applications is invited to participate in the initiative.

Why Ballston Spa?

Joan Streefkerk, vice president of product management, for Chancery Software, an SIF participant, is heading up the Ballston Spa pilot project. “We wanted to find a district where we could show that SIF is affordable and that SIF is for districts of all sizes,” said Streefkerk. “We also wanted to find a site that was using both a transportation system and a student information

system, because it's very typical that these two systems don't talk to each other. Both systems track critical data on student addresses separately, and often you don't know which system has more current information. It's a huge hole."

The staff at Ballston Spa agreed. "The idea that our student information database will be able to communicate with our transportation database is a wish come true," said Jayson Crair, database manager and guidance counselor at Ballston Spa. "Schools are notorious for duplication and redundancy. I think we, as a public institution, have a responsibility to do things as cost effectively as we can. SIF is making our district a much more efficient and effective operation."

Merging the transportation and student information systems

For the past several years, Ballston Spa has been using WinSchool (Chancery Software), a student information management system and VersaTrans (Creighton Manning), a transportation system package. To implement SIF throughout the district, Ballston Spa installed Open District (also by Chancery), a district-wide student information management system. The district also runs Microsoft® SQL server and Microsoft Windows NT® districtwide for LANs and WANs.

For the pilot program, Ballston Spa's student data was copied to a SIF-enabled system that is running parallel to the old system still in place. The parallel system consists of a single database that accepts student information entered through Open District or VersaTrans. For example, when the transportation manager enters updated information about a student's residence, any administrator with access to the student information database has this information as well. VersaTrans and Open District both run on a Windows NT server and a preliminary SIF interoperability specification that enable these different applications to work together.

SIF vendors, in this case Chancery Software, Creighton Manning and Microsoft, provide an "SIF interface agent" so that the various applications can communicate with one another as well as communicate with the SIF framework. By basing these messages in the industry-standard Extensible Markup Language (XML) format, the agents send messages to the Zone Integration Server (ZIS) running on Windows NT, which coordinates communications between the applications.

"In this kind of a system, the integrity of our data is maintained more easily," said Crair. "It's entered once, either in the individual school, the district office or the transportation office, so there's no redundancy and less chance for error. It also gives us a very powerful tool for reporting because the information pulled from the database is up-to-the-minute accurate."

Currently, the high school, middle school, district and transportation data are running on the parallel system, and eventually other schools in the system will be folded in. Data is accessed via a Web-based interface and secure Internet connection. "We're still in the implementation phase," said Streefkerk. "But people are already getting a chance to use it in everyday work situations."

A powerful reporting tool

Debbie Pannetto, a secretary in the high school's guidance department, has tested the new system and is looking forward to how it will make her job easier. "We can create much more concise reports in less time," she said. "Previously, to create a report on enrollment figures, for example, we'd have to print out pages of extraneous data that we didn't need for the report, plus there would be holes in the information that we'd have to fill in from other schools or departments. Now, we can print out the exact data we need without any missing information."

Dr. Helen Stuetzel, director of instruction for Ballston Spa, agrees. “A major part of my job is to gather information for state and local reporting, data that helps us get funding and helps us assess the needs of the district. As short a period as five years ago, we were collecting much of this data by pencil and paper. Using SIF will improve the efficiency and the accuracy of my reporting enormously. For example, now when a student is entered into the system from any application – student information or transportation – that information is accessible to everyone. In my reporting, I won’t have to worry about missing a student who recently registered or listing a student who left months ago.”

Looking into the future: integrating food service and curriculum software, getting the community involved

The district has never managed its food service electronically, but is looking forward to adding cafeteria management to the system as well. The district will use Lunch Express, cafeteria management software by dataTeam, another SIF member.

“Integrating Lunch Express into the framework will really increase efficiency,” said Duffy. “It will help us with free- and reduced-lunch reporting and help us increase the number of students participating in our pre-pay system. Students will have cards with all their information, and when they swipe them through the system the price of their lunch will be deducted from their accounts. Students will spend less time standing in line.”

Karen McMahon, coordinator of technology and information services, is particularly excited about adding the curriculum piece to the framework. The school has chosen Perfect Copy, instructional software by Advantage Learning, also a member of SIF. “I’m looking forward to getting SIF-compatible software into the classroom for teaching and learning,” she said.

SIF will also create an opportunity for the community to get more involved with the district. “With all of our systems working together, anyone from the community will be able to access information that they need,” said Stuetzel. “Parents and people in the community will have access to services like guidance, college information and scholarship information – they could even register students from home.”

“Being on the cutting edge can be scary at times, but we are definitely heading in the right direction,” said Crair. “I’ve seen a lot of models that claim to streamline school systems – regional information systems, other products – but SIF has really helped Ballston Spa by giving us the opportunity to tie together all the different pieces of software that our school is already using, without being tied to a single vendor. As a pilot site we are getting a lot of help from the SIF vendors, Chancery Software, Creighton Manning, dataTeam, Advantage Learning and Microsoft. The companies involved are putting in a lot of effort, and it shows.”