Brighter Future

A large school district leverages software to improve IT productivity, teaching and learning.

Knox County Schools, based in Knoxville, Tenn., is a district on a mission. In 2009, the Knox County Board of Education adopted a five-year strategic plan that set ambitious goals — and the district is already seeing results. Graduation rates have climbed and test scores have improved in reading, math, science and social studies.

Knox County Schools is building a brighter future for its students and for the region. To help support teaching and learning, the district is using eight products from Quest Software, including ActiveRoles Server (ARS) and Quest One Quick Connect, which both improve the value of the district's Active Directory (AD) from Microsoft.

The tools from Quest helped the district create a central directory of its computer users — students, teachers and support staff. "We needed something that would provision user accounts, and Quick Connect allowed us to provision about 60,000 user accounts in very little time. And it performs maintenance or updates to those user accounts on a daily basis," said Bill Parker, director of technology for Knox County Schools.

The district, which covers grades pre-K through 12, has about 56,000 students and 8,000 employees. Facilities include 50 elementary schools, 14 middle schools and 14 high schools. The district began the central directory project in 2009, starting with the high schools, followed by the middle schools. The district is currently working on connecting the elementary schools, district offices and special locations.

Eventually 65,000 users will be connected to the directory, so the district needed tools that could ease the workload for its small IT staff. "We were very limited on what we could do on manpower. So we had to have something that was quick and reliable to give us the functions that we

Knox County no longer has to install software at every machine. This reduction in workload for technicians is a tremendous benefit for the district's IT staff.

needed," Parker said. "The Quest software has made the job easier."

Raising Efficiency

The district also uses Quest Defender (two-factor remote authentication), Quest Authentication Services (QAS) (for enterprise-wide access), Password Manager (self-service password resets), Spotlight on Active Directory Pack (graphical representation of IT environment) and Recovery Manager for Active Directory (granular restore of AD objects).

QAS Group Policy for Mac helps the district manage its many Mac OS X computers along with its Windows-based PCs. Of its 20,000 computers, the district has a 50/50 split between Macs and Windows clients.

Parker said the Quest products have helped the district in many ways, including software deployment. "Our ability to push software to a specific classroom or school, or district-wide, has really lightened the technicians' workload," he said. "They don't have to go to every machine to do the install. The remote access also makes the troubleshooting process much quicker."

Freddie Cox, a systems administrator for the district, has seen the benefits as well. "This is the first time we've had every user or stakeholder in Knox County in a single group for authentication, email and managing the computers," Cox said. "We have two managers as far as Group Policy, being able to push software and managing the devices. As much as technology is changing and growing,

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there's no way we would be able to keep up with all this if it weren't for some of these Quest products."

Quest helps the district's technicians manage the end-user experience — support, repair and any other tasks that need to be done at the desktop level. In fact, Cox said Quest allows the district's technicians to handle 2,000 machines each, a ratio that's much higher than in most for-profit entities.

Macs Also

Quest also helps the management of both the Mac and Windows environments. "With QAS, being able to manage both platforms from a single console is a benefit, since there are only two of us for a domain of 20,000 machines and 65,000 users. It not only saves time, but also our sanity," said Cox.

Quest enabled technicians to manage the Macs without having to learn a new system. The district originally thought it would have to run two separate domains because of the Macs, but QAS made it possible to include both Macs and PCs in just one domain.

Systems Administrator Billy Ellis cites Quest Defender as being especially helpful. Defender gives secure access to the district's remote users with dual authentication, using a token and a virtual private network. "Users being able to log in from anywhere has helped us tremendously," said Ellis. "Students aren't logging in with generic student accounts anymore; they're actually logging in

with their own student IDs. Without Quest, that couldn't happen."

Because students can log in from anywhere, they can start a project in class and finish it from a computer at the library or at home. Once they log in with their student

60,000 users at the same time it created their accounts. Spotlight on AD monitors domain controllers and every aspect of the domain, giving the district greater visibility into its AD environment. Recovery Manager for AD gives the IT staff the

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Bill Parker, director of technology, Knox County Schools, Tenn.

ID, they have access to their data, storage space, Internet, Word, Excel, PowerPoint and more. And teachers can reset student passwords when needed, so technicians can focus on larger issues.

Quest has reduced maintenance time in other ways too. "We've seen less downtime on machines, because now we can manage the security of those machines, the antivirus — we can do all that centrally," said Cox. "In the past we would have teams running around with antivirus CDs, trying to keep the threats at bay. We've had a decrease in outbreaks since we deployed all of this. The machines are just healthier, and that's because we can manage them now."

Good Relationship

The Quest tools have helped on many fronts. Quick Connect helped the district create shared storage space for the

confidence to quickly restore AD objects to prevent system downtime. And with Password Manager, every staff member in the district can reset any student's password, a feature that's taken a tremendous workload off of technicians.

In addition to the software, the district is also happy with the working relationship it's had with the company. "The engagement we had with Quest, from the very first onsite visit, could not have been any better," said Parker.

"We've gotten great support from Quest," added Cox.

Parker said the district could have connected only a portion of its users without the tools from Quest. "We did not have money to spend on additional personnel," he said. "We couldn't have accomplished what we did without Quest. I can't imagine how we would have allocated the work."

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