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Sigma integrates a data center and rolls out a virtual desktop infrastructure in just two weeks — building a long-term relationship in the process.

Desktop virtualization is transforming how organizations manage, support and protect desktop computing environments. The architecture frees users and IT from more than two decades of complex, device-centric computing and delivers a more user-friendly experience. For DeKalb, Ill., Community Unit School District (CUSD) 428, desktop virtualization also provides greater flexibility and eases the desktop management burden on the district's IT staff.

“We have a very small staff — four full-time and one part-time to be exact,” said Ben Bayle, District Tech Manager for DeKalb CUSD 428. “We have 4,000 computers in our district, 1,000 staff and 6,000 students. Some of those computers do not need to be workhorses. They need to be fast and versatile and not eat up man hours for maintenance. And when we looked at the various options, we determined that desktop virtualization was the best route.”

Bayle and his team sought help from Sigma Solutions when it came time to integrate a new data center and deploy the Citrix XenDesktop desktop virtualization technology in a new high school. Sigma assembled a team with leading expertise in desktop virtualization as well as the core data center infrastructure needed to support it.

“We discussed with Sigma what we wanted to do with the new high school, and they came to us with solutions and ideas about how to integrate it,” Bayle said. “We wanted Sigma to be our integrator because we had faith in their

team's ability to handle the project. We knew they wouldn't just do a standard install and walk away. They were going to work with us."

## Overcoming Obstacles

DeKalb CUSD 428 operates seven elementary schools (Grades K-5), Clinton Rosette and Huntley Middle Schools (Grades 6-8), and DeKalb High School (Grades 9-12). The high school moved to a new 400,000-square-foot facility in fall 2011. The opening of the new high school provided Bayle and his team with an opportunity to build out an IT infrastructure that would serve the school's needs well into the future.

"We're a K-12 school district, so we have no budget. But they passed a referendum that allowed us to build the new high school. We wanted to make sure the technologies we integrated were going to be functional for the next 10 years. That's what led us down the path of virtual desktop integration," said Bayle.

Unfortunately, they hit a stumbling block before Sigma was able to begin the project. The new data center was equipped with only 110-volt outlets rather than 220s, and resolving that problem caused significant delays.

"By the time they got around to getting the electrical circuits changed it was just two weeks before the school year was going to start," Bayle said. "But the Sigma crew from Chicago stepped up and completed an entire data center integration and virtual desktop infrastructure, the whole nine yards, in two weeks. There were some glitches, but they were to be expected — after all, it was almost an impossible task.

"Sigma hung with us for the remainder of the year to see that things were working correctly and that we understood how the technologies functioned. There's no way that we would have gotten that with anybody else, which is why we went with Sigma to begin with."

## Strong Working Relationship

The Citrix XenDesktop solution is built upon the Cisco Unified Computing System (UCS) platform and NetApp storage. DeKalb CUSD 428 is the Northern Illinois satellite for the IlliniCloud, an organization that provides state-of-the-art computing resources for K-12 education. Bayle and his team wanted to match the infrastructure used within the cloud environment. Plus the Cisco UCS platform enhances the flexibility of the Citrix virtual desktop infrastructure.

"We wanted whatever we purchased to be versatile enough to move from Windows 7 to Windows 8 as needed, for example. It's very easy to do that. By adding memory to a blade server we can spin up 100 more virtual desktops or we can add more horsepower to our current virtual desktops and move to the next operating system," Bayle said.

Of course, Sigma was a key component of the project. The Sigma team not only completed the project in record time but shared their expertise so Bayle and his team could manage the environment long term.

"Since completing this project, we've been asked by other school districts to help sort out some of their virtual desktop issues," said Bayle. "Some of them went with big-box vendors that left them high and dry. We've been able to point them in the right direction because of the training we got from Sigma. Sigma's approach was hugely important and one of the main reasons I tout Sigma as a good vendor to work with.

"Everything works fantastic — we couldn't be happier with the solution. Sigma has a top-of-the-line team and we were pleasantly surprised to find that kind of talent along with a willingness to work with us. It was a good working relationship and there was no reason to look at anyone else."