Aledo Independent School District Extends Desktop Virtualization to Streamline State Assessment Tests Online

For years, the IT team at Aledo Independent School District (ISD) managed thousands of standalone desktops across multiple campuses, laboriously updating software on a machine-by-machine basis. By virtualizing approximately 75 percent of its machines on the VMware® Horizon View™ virtual desktop infrastructure (VDI), the district has vastly simplified IT management and streamlined online test administration while enhancing the end user’s experience.

Located 30 miles west of Fort Worth, Texas, Aledo ISD offers K-12 education to more than 4,600 students across nine campuses. The district is perhaps best known for its top-ranked high school football team, winning three consecutive state titles from 2009 to 2011.

The Challenge

Like many school districts, Aledo has a large technology footprint. Technicians must manage thousands of computers across multiple campuses to serve a broad range of educational needs. “For many years, we oversaw a huge array of standalone desktops,” says Brooks Moore, Manager of Technology Services, TexServe at Aledo ISD. “We had very little flexibility. Each machine had a limited set of tasks it could execute to serve the needs of particular students.”

For technicians like Gayla Gideon, that meant a laborious process of constantly configuring machines to suit changing requirements. “I would go into a computer lab, install software on 30 machines, connect to the server 30 times, and so on,” she says. “Then every summer, we’d send out a whole crew of IT folks to go computer by computer, cleaning up machines and doing general maintenance. It was incredibly time-consuming.”

Those inefficiencies became especially burdensome as the Aledo school district began administering state assessment tests online. “Testing is a big part of the curriculum here in Texas,” explains Moore. “Over the past few years, we’ve been making the transition from pencil-and-paper tests to online assessments. But in our old IT environment, we would need to lock down individual machines before every single online test, and that took a huge amount of extra time and effort. We needed a more flexible infrastructure, plain and simple.”

The Solution

When Aledo began to consider its options, school leaders chose VMware for a number of reasons, including simplified management and the prospect of significant cost savings. “The Microsoft and Citrix products haven’t quite matured to the level of the VMware Horizon View solution,” says Moore. “We decided VMware was the platform for us.”

Now, instead of managing thousands of individual machines, the Aledo IT team can focus on maintaining a handful of servers in the school district’s data center. “We’ve repurposed all of those old machines,
Aledo Independent School District has virtualized approximately 75 percent of its machines using VMware Horizon View.

APPLICATIONS VIRTUALIZED
- Pearson TestNav Test Delivery System
- Microsoft Office

PLATFORM
- VMware Horizon View
- VMware vSphere®

whether they’re laptops or desktops or thin clients,” says Moore. “Students and teachers simply use them to access our virtual machines. That represents a massive shift forward for us. The VMware solution has completely changed the game, because all we have to worry about is maintenance back at the data center. Everything from updates to patches—even upgrading operating systems—can be done from a central location.”

For technician Gideon, updating a computer lab is no longer an arduous process. “I can sit at my desk, go to the base image, install the new software, and send it to the lab,” she says. “Different labs use different images based on what we teach in the classroom, but I can switch the images as necessary and change the access settings in no time.”

In fact, the Aledo IT team has yet to discover a scenario where the VMware solution hasn’t made an improvement, recently expanding its implementation to address some of the challenges around online testing. “For every scenario you can imagine in a K-12 environment, we’re using a virtual machine,” says Moore. “This solution has opened up some powerful possibilities for us. We virtualized our Pearson testing application just as easily as we virtualize Microsoft Office or any Adobe product. VMware has made our lives much easier from a technology perspective, and we’re not compromising the end user’s experience one bit.”

Business Benefits
The Aledo IT team had predicted that the VMware solution would save a great deal of money. They just didn’t anticipate how much. “Our estimated cost savings were focused on cutting power consumption,” says Moore. “We’ve certainly saved a lot of money there, but that’s only the beginning. We’re no longer buying as much gas to drive from one campus to the next. And we’re no longer investing as many person-hours to sit in those cars, or to install software on 30 individual machines. All of those cost savings are like a ripple effect.”

The VMware solution also helps ensure that more students have access to a broader range of IT services on demand. “Not so long ago, we couldn’t necessarily set up a lab to accommodate two different classes in a row,” says Gideon. “Now we can turn just about any classroom on a dime. Students have more opportunities for online learning, and they’re far less likely to damage the software or alter the desktop for the next student. They’re not saving their work on a C drive, so we no longer worry about machines getting clogged up with students’ personal files. And we don’t have as many big, bulky computers taking up space in our computer labs.”

With VMware Horizon View, the Aledo IT team has streamlined the online testing process to accommodate the district’s need for more assessments in less time. “It’s so much easier for our technology staff to manage all of these state-mandated tests,” says Moore. “We have a testing image that we can deploy in a matter of minutes—it’s just a few clicks. We can even deploy a test to an iPad. And as soon as the test is over, we can flip the image back to a normal classroom environment almost instantly. Online testing is something that keeps a lot of IT managers up at night, but for us it’s just another Monday morning.”

Looking Ahead
Aledo Independent School District has virtualized approximately 75 percent of its machines, with plans to virtualize more. “There are still some cases where a standalone physical laptop comes in handy,” says Moore. “But for us, that’s very much the exception. We’re constantly looking for new ways to deploy our VMware solution because we’re just thrilled with the results we’ve seen so far.”