Zionsville Community Schools Save $20 million and Boost Student Enablement with VMware Horizon

Zionsville Community Schools struggled to bring students digital learning applications on its aging and sluggish computer systems. Facing a $2.5 million replacement cost for all machines, the district looked for a better solution to support its rich learning applications and to empower students to use their own devices for schoolwork. Leveraging VMware Horizon® for school and student-owned devices, the school saved more than $20 million and enabled students to continue their learning beyond the classroom.

Zionsville Community Schools, based in Zionsville, Indiana, provide K-12 schooling to more than 6,400 students. The district offers five elementary schools, two middle schools and one high school. The school system is driven to provide customized 21st century experiences that ensure maximum student growth leading to productive citizenship in the world community.

The Challenge

Like many school districts, Zionsville Community Schools want to provide the best educational experience for its students. To bring this mission to life, the district incorporates professional-level applications, such as Adobe Photoshop and Autodesk AutoCAD, into its curriculum to offer students hands-on experience with tools they will likely use in their future workplaces. Zionsville has recently embraced Robot C, an important engineering application designed to help students configure robots, as part of the school’s STEM program. Despite their learning value, these applications simply outpaced the computer hardware that the schools had in place. Zionsville began considering a $2.5 million upgrade of school computers, an expense that compelled the district to explore virtualization as an alternative.

Zionsville saw the opportunity in a virtualization solution to provide students access to learning applications on their own devices. About 75 percent of devices in the district are owned by students who bring them from home. These devices range from newly purchased computers to hand-me-downs. Because of the wide range in processing power, many students couldn’t use their computers for schoolwork, leaving only the school-provided machines available. With hundreds of students and a limited number of computers in each school, this became a significant challenge. By delivering applications and a consistent user experience to student devices, the district could also enable students to work from home. “Students are doing everything on their computers and guiding their own learning,” said Patti Bostwick, chief technology officer at Zionsville Community Schools. “We needed a solution that could deliver the curriculum materials to students no matter where they were and what device they were using.”
“Thanks to VMware, students who felt their devices weren’t going to work at school suddenly are on a level playing field with students using newer devices. This lifts student engagement and leads to a higher focus on what students are learning. This is an extremely powerful thing in education.”

- Jenny Froehle, Chief Academic Officer, Zionsville Community Schools

**The Solution:**

Zionsville Community Schools deployed a VMware-based VDI solution to deliver virtualized applications to students across more than 12,000 school and student-owned devices. These devices include Windows PCs, Mac computers and mobile devices such as Windows Surface and Apple iPad tablets. The solution is accessible for all authenticated devices from school or home, ensuring students can access important digital applications and online resources through a consistent user interface across devices.

The schools deliver VMware Horizon to devices as a thin client, helping IT keep applications up-to-date without requiring a complete refresh of each computer. “VMware is going to save IT huge amounts of time when deploying devices,” said Pat Taylor, senior network administrator, Zionsville Community Schools. “Now, all we have to maintain is a very thin layer to launch the Horizon client. This eliminates having to re-image each device every summer, not to mention saving us from re-imaging several times a year for new applications that can’t be pushed out.”

VMware Horizon also works seamlessly with the district’s existing network security filters. To protect students online, the district filters Internet content as students connect to each school’s network. Internet traffic is monitored, as well, so student browsing activity is kept age-appropriate. “With VMware, children are still passing through schools’ Internet filters,” said Bostwick. “The safeguards we use for students while they’re in school continue to protect students when they connect to our systems elsewhere. This is a huge plus for parents, and definitely great for security.”

**Business Results & Benefits:**

Leveraging virtualization for students, Zionsville Community Schools continue to provide learning opportunities for all of its students without interruption. The district now connects students to much-needed resources while at home, and teachers are able to assist students from anywhere. Zionsville has achieved other major benefits, as well.

**Significant Savings by Using Existing Computers**

With VMware in place, Zionsville is able to continue using its existing computers without requiring any hardware upgrades. The district simply deploys VMware Horizon onto its machines, and students can access all the digital tools they need for class. Although many of the computer systems are older, VMware’s light system footprint ensures quick performance for applications no matter the hardware power. By keeping its existing computer systems, Zionsville has seen large savings in its IT budget. “If you turn our success with VMware into dollars and cents, it’s well over $20 million that we would be saving just in classroom space by reclaiming our computer labs,” said Bostwick.

Students have seen performance improvements with virtualized applications on school computers. Prior to VMware, students would turn on computers and wait nearly 20 minutes for the machines to boot up and be usable for classwork. Since VMware was installed, students wait less than three minutes to get into applications and start working. This improvement brings greater learning opportunities to students and more time to ask questions during school hours. “It was really frustrating for the teachers and students to use the computers because they would turn them on, and would have to sit and wait for a long time,” exclaimed Bostwick. “By putting on a thin client using VMware, we were able to decrease that waiting time significantly. Teachers were excited to be able to use their classroom resources again because the devices were available more quickly.”

**Anytime Student Access to Resources on any Device**

Virtualization enables students and teachers at Zionsville to leverage their own devices to access professional-level applications from anywhere. Before VMware, students could only use school computers for these applications, preventing them from doing some studies at home. This was also a problem during school closings for inclement weather, as students...
could not access these resources while out of school. Now with VMware, students can extend their learning beyond the school building to their homes without losing access to critical applications. “With VMware, we’re able to deliver applications to students at home,” said Bostwick. “They don’t have to schedule time in a lab before or after school—they can study when they have time. This has opened up learning opportunities for the students like never before.”

By having virtualized applications available across its district, Zionsville brings each student the same digital learning experience regardless of the devices they use for school. Without virtualization, students with older machines might have reduced or no access to learning applications because their devices simply could not support them. Today, virtualization enables all students, regardless of device, with an equal opportunity to succeed. “Thanks to VMware, students who felt their devices weren’t going to work at school suddenly are on a level playing field with students using newer devices,” remarked Jenny Froehle, chief academic officer at Zionsville Community Schools. “This lifts student engagement and leads to a higher focus on what students are learning. This is an extremely powerful thing in education.”

Greater Safety with First Responder Access to School Cameras
In addition to learning advantages, Zionsville also leverages VMware to provide first responders controlled access to school cameras. Configured with appropriate permissions, police, fire and EMS services can check on each school for suspicious activity without having to leave their headquarters. If an incident occurs, first responders can dispatch units in real-time to investigate quickly without waiting for school officials to submit a copy of the security tape. “We created a Thin App of our security system software through VMware for first responders,” said Taylor. “We’ve tested the system in some different training and emergency scenarios, and the response has been huge. We’re finding new ways to use VMware that we never thought were possible with a solution like this.”

Looking Ahead
Zionsville is excited to explore the future possibilities of mobility and technology on student engagement in each of its schools. “Technology is changing everything about the way we do our work in this profession,” added Froehle. “It’s opening the world for different audiences and collaborators to deliver content and give students access to resources they never had in the classroom. We want students who can communicate, collaborate and create comfortably and safely online. Digital citizenship is an important piece of what we’re doing with our students, and technology is allowing us to promote this in ways we never could before.”