



Westerly Public Schools



Case Study

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Key Benefits:

- Optimized existing server and virtual machine infrastructure
- Cut time required to resolve desktop problems from an hour to five minutes
- Overcame space and electrical limitations of older school buildings
- Improved control over data security and peripheral usage
- Increased lifecycle of desktop hardware and reduced replacement costs
- Reduced energy costs to help meet green IT guidelines

The Westerly Public School District in Rhode Island is a progressive K-12 school system with a total of seven schools – five elementary, one middle school and one high school – serving more than 3,300 students and employing over 700 staff members, five of whom work in IT.



Westerly Public Schools host a primary data center at the high school and a co-located data center at the nearby administration building which is used for disaster recovery, testing and development purposes. The main data center

houses three Dell R900 servers, which are used in production and two Dell 2950s, which are used for desktop virtualization. To maximize efficiency, Westerly has deployed 35 virtual machines on these two servers.

The school district IT staff supports from one to five desktop PCs in every classroom, as well as computer labs throughout the district. Faced with supporting large numbers of aging desktop

computers and having to transform traditional classrooms not equipped for heavy electronic use into computer labs, Westerly began looking for a solution.

“In K-12, IT staffing can be a huge issue for us because each tech is responsible for supporting around 650 PCs. This isn’t a formula for success,” said Mark Lamson, director of technology for the Westerly Public School District. “What’s more, electrical distribution can be a real challenge in the classrooms, especially the rooms we repurpose for computer labs. And we are beginning to also have space issues as class sizes increase and we need to fit more desktop PCs into a classroom.”

Venturing Into Virtualization

Westerly had been familiar with virtualization since 2005 when they started using VMware Workstation in the IT department. They had a positive experience, and quickly realized the larger benefits of virtualization so, in August 2008, they deployed VMware servers into production and quickly achieved a consolidation ratio of over 10 to 1.

During this timeframe, Lamson attended VMworld 2007, where he heard about desktop virtualization and realized that would be the next step for their IT shop.

“I knew we had to get out of the PC business,” said Lamson. “I wanted to leverage the success of our underlying VMware infrastructure

investment in order to do more with less and best serve our student and staff needs.”

David Siles, VMware Certified Professional and VMware vExpert, first introduced Lamson to Pano Logic and the more Lamson investigated the solution, the more he liked what he saw.

He had also looked at Wyse thin clients, but did not feel they could ever fully leverage Westerly’s existing VMware infrastructure. Westerly selected Pano Logic, and deployed of the Pano System in September 2008.

“Pano Logic addressed many of our needs simultaneously,” said Lamson. “From the greening of the desktop

to securing desktop data to having no moving parts, it’s met our needs and offers a huge ROI from a management and efficiency standpoint. I also like the fact that Pano Logic is truly a zero-client software device.”

A Small Footprint: Savings On Energy and Physical Space

Westerly initially deployed a five-seat trial of the Pano System before ordering 30 more Pano devices. IT had their trial deployment up and running within a few hours.

“We don’t have high-level engineering on staff,” Lamson noted. “So I appreciated Pano’s willingness to work with relative newbies in the desktop virtualization world. Their support is top notch and helped make our deployment a success.”

“Just as some companies have adopted a ‘virtualization first’ policy regarding server acquisition, I plan on adopting a virtual desktop first policy. We are just starting to see the promise that Pano Logic has to deliver.”

— Mark Lamson,
director of technology for the
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Westerly's first savings will be from acquiring and deploying Pano Logic for significantly less than the overall price of acquiring and deploying traditional desktop PCs – an important fact that Westerly considered in their initial deployment of their first all-Pano computer lab at the high school. Over the course of the next few years, Lamson expects the school district will realize significant savings on energy costs – especially given that Pano Logic has a longer lifecycle than the average PC.

“When you figure in the cost of energy, the ROI means Pano Logic pays for itself in approximately three years,” said Lamson.

“With a traditional PC, three years is just about the time the warranty runs out and they start to break in the field. Additionally, the Pano System works great in our computer lab because the building is older, and the room has power and space limitations that we were not able to work around with traditional PCs. With Pano Logic's smaller physical footprint and low power consumption, this isn't a problem.”

Delivering A Better End-User Experience Through Time Savings

With the Pano System, Westerly expects the amount of time spent supporting desktops will decrease dramatically. Lamson and his team will only have to maintain one golden image through Pano Manager and VMware vCenter, reducing the total number of golden images

maintained by 29. This centralization will also enable Westerly to quickly deliver the latest software and updates to their students and staff. Access to the latest software is important since students maintain electronic portfolios

that they continually update to demonstrate their work.

Even more time savings will be realized because the Pano end-client has no moving parts to fail and no software needing to be updated or debugged – resulting in a low maintenance device and eliminating the need for IT staff to travel to the classroom or lab where a malfunctioning PC is located. Instead, staff can now remotely fix the

problem for the user, often taking no more than five minutes instead of an hour or more.

Another benefit Westerly has realized is the security of the Pano System. Since the Pano client has no hard drive, there is no security risk of information on it being stolen.

In addition, Lamson and his staff can control which peripherals student and staff can connect to the USB ports on each device.

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Next Steps

As Westerly Public Schools receive funding through a bond measure and grants, the IT department intends to continue deploying the Pano System throughout the school district. Additionally, although the Westerly deployment is currently only LAN, they will be looking into deploying and managing a distributed set of Pano virtual desktops over high-performance wide-area network links during the next school year.

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virtual desktop first policy. We are just starting to see the promise that Pano Logic has to deliver,” concluded Lamson.

