

CHIPPEWA VALLEY SCHOOLS

Dell EMC Isilon and VCE Vblock Systems earn high marks for enabling trustworthy video surveillance



ESSENTIALS

Industry

Education

Organization Size

1,800 employees

Business Challenge

- Unreliable performance of critical video surveillance system
- Significant time and cost to maintain surveillance video infrastructure

Results

- Improved school security with reliable video capture from 1,400 cameras
- Reduced system administration time to nearly zero
- Shrunk infrastructure from 2.5 racks to one half-rack, saving on power and cooling
- Lowered capital and operating expenses by consolidating onto one environment

Solutions

- Dell EMC Isilon
- VCE Vblock Systems
- VMware Horizon View
- VMware vSphere
- Milestone XProtect

RELIABLE VIDEO SURVEILLANCE MEANS STRONGER SCHOOL SECURITY

Education and technology go hand in hand these days. And one of technology's most important roles is helping schools ensure student safety. That's why Chippewa Valley Schools installed security cameras at each of its 23 schools.

Originally, the Michigan school district deployed cameras in two phases with surveillance video stored on separate recording server environments utilizing Dell EqualLogic and Intransa storage appliances. This made load balancing nearly impossible, resulting in performance problems. As a short-term solution, IT staff was constantly reassigning cameras from one recording server to another, but a handful of cameras were frequently offline because the infrastructure couldn't handle the load.

With only 10 IT staff members supporting the school system's 10,000 computers, Chippewa Valley Schools didn't have the time or resources to manage its security camera infrastructure. After evaluating several options, the school district replaced its legacy surveillance infrastructure with VCE Vblock Systems and VCE Technology Extension for Dell EMC® Isilon® scale-out storage.

Craig McBain, director of technology, Chippewa Valley Schools, comments, "Dell EMC and VCE won our hearts with Isilon and Vblock Systems. We liked that we could virtualize our recording servers on Vblock Systems and store the surveillance video on Isilon, where it would automatically load balance. The Isilon and Vblock Systems were the ideal choice to solve our performance problems and make a huge management burden go away."

Since deploying Isilon, Chippewa Valley dramatically improved the reliability of its video surveillance system, helping to improve security across its 23 schools. Consolidating from 2.5 racks with its previous solutions to a single Isilon infrastructure running on one half-rack also saved data center space, reduced power and cooling demand, and lowered operating costs.

ENVIRONMENT

Chippewa Valley Schools deployed six Isilon X-Series nodes to store surveillance video generated by Milestone XProtect video management software and approximately 1,400 Axis IP cameras. The Isilon hardware was installed in just one day and fully implemented within three days.

The school district relies on VCE Vblock Systems comprised of Dell EMC, Cisco, and VMware technologies to run the Milestone XProtect software, as well as VMware Horizon virtual desktop infrastructure supporting nearly 4,000 end-user desktops.

Chippewa Valley also virtualized approximately 100 servers with VMware vSphere.

ASSURED ACCESS TO SECURITY VIDEO

With Isilon, Chippewa Valley can now assure school administrators of a more reliable surveillance solution, a vital tool in deterring problems and quickly resolving incidents. Isilon now retains 30-plus days of video from all 1,400 cameras.

“Our campuses are more secure with Isilon as the backbone of our video surveillance system,” says McBain. “If administrators need to investigate an incident, they can log into Milestone with confidence that the video will be there.”

LITTLE-TO-NO ADMINISTRATION REQUIRED

Isilon also improved quality of work for Chippewa Valley’s small IT staff. Instead of wrestling with performance problems and reliability issues, IT simply runs Isilon with little-to-no staff attention required.

John Morgia, the district’s server support coordinator, explains, “Isilon just works; it’s that simple. We don’t need to reallocate extra disk space from one place or another for the different groups of recording servers. It stripes everything across one big file system, and we’re good to go. I spend almost no time managing Isilon. I don’t even look at it every day because I know it’s working.”

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SAVES SPACE AND MONEY

By implementing Isilon, Chippewa Valley unified management of all of its recording servers on a single environment, saving space and money. In fact, Isilon will replace 2.5 racks in the data center allocated to the former recording server environment with just one half-rack, reducing power and cooling demand substantially.

“Isilon was simple yet robust enough to do the work of both our previous recording server systems,” McBain remarks. “Instead of having to separately replace these server environments as they go out of warranty, we instead rely on one system that will support our needs for many years. Consolidating on Isilon eliminates a lot of potential headaches that will save us both capital and operational expenses.”

MOVING FORWARD WITH BIG DATA AND VIRTUALIZATION

As with Isilon, the Vblock System also provides an economical solution to meet the educational demands of the district. Before, IT managed thousands of student workstations across 23 different buildings. Upgrading each physical system was a huge recurring expense and required an enormous time commitment from IT. The district reallocated funds it would have spent replacing student workstations to invest in a Vblock System running virtual desktops.

Organization Overview

Chippewa Valley Schools is one of Michigan's fastest-growing and most progressive school districts, serving more than 16,000 students in grades K-12. The eighth largest school district of 788 public and charter schools in the state, the Chippewa Valley School district spans 28 square miles with 12 elementary, four middle, and three high schools. The district also runs two ninth grade centers, an international academy, and a preschool center.

"Our budget is very lean," notes McBain. "The Vblock System running our virtual desktops gives us a more cost-effective way to provide our students with the latest learning tools they need to be successful."

He concludes, "We used Dell EMC storage for many years prior to acquiring the Vblock Systems and Isilon storage, and it's always performed well. We're confident that Dell EMC will continue to help us manage our growing Big Data requirements and advance our virtualization strategy."

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