Orangewood Foundation

Embraces Citrix Hosted Desktops and Nimble Storage to Deliver 3D Modeling Software to Chromebooks

Solution & Benefits

Citrix XenDesktop VDI solution, supported by Nimble Storage CS215 storage, HP Smart Buy DL380 GEN9 servers and NVIDIA GRID K2 graphics cards.

- Enable students to gain experience with industry-standard engineering software.

- Allow students to work on SolidWorks projects outside of a classroom environment.

- Simplify and centralize application management to avoid adding headcount.

An innovative charter school founded by Orangewood Foundation, Samueli Academy offers a unique and exciting instructional approach that combines project-based learning with a heavy emphasis on technology. The school has a 1-1 environment, providing every student with their own Chromebook to take home. Through the Chromebooks, students can access the digital textbooks and other instructional materials that are used in class on a daily basis. They can also use Google Apps for Education to support project-based learning and collaboration.

To improve college and career readiness, the school partners with the University of California at Irvine (UCI) to offer innovative engineering and design pathways that align with UCI's curriculum. In 2016, the school launched a new course centered around SolidWorks 3D CAD design software, an industry-standard software that is taught at UCI.

SolidWorks is a robust modeling software with demanding performance requirements for video graphics and horsepower, which Samueli Academy's Chromebook 1-1 environment could not support.

"Because Chromebooks run the Chrome operating system, there's no way to install the application locally on each student's laptop," explains Philip Thai, Director of IT, Orangewood Foundation. "We considered building a desktop lab environment or buying a cart of laptops that could move from room to room, but both solutions felt like taking a step backward."

Thai considered deploying a virtual desktop environment that would enable students to remotely access a powerful, 3D-accelerated workstation running SoftWorks from an Internet browser. But he wasn't sure whether the school could pull off an enterprise-grade VDI environment given their aggressive timeline and limited budget. That's when Thai sought the advice of long-time Orangewood supporter Zumasys.

About Orangewood Foundation

Orangewood Foundation is one of the leading providers of services to current and former foster youth in Orange County. Each year, it helps almost 2,000 foster and community youth prepare for independent adulthood. Its programs focus on four critical areas: basic needs, housing, life skills and employment, and education.

To improve high school graduation rates among foster youth, Orangewood envisioned a school in which students could thrive in a learning environment that maximizes individual student attention, supported by a staff that cares about the "whole" student. After years of research and a $25M capital campaign, Orangewood opened Samueli Academy in August 2013 on a seven-acre parcel of land in Santa Ana.

Samueli Academy is a free, public charter high school located in Santa Ana, California, that offers educationally underserved communities a new choice for high school education.

Solution

Orangewood was first introduced to Zumasys in 2012, when they were selected to receive a donation from Zumasys' *Happyness is a Choice* giving program. Inspired by Orangewood's mission, Zumasys continued to deepen its involvement with the foundation, with employees volunteering their time and expertise to help foster and community youth reach their greatest potential.

"Over the last four years, Zumasys has supported Orangewood Foundation in a number of ways through their *Happyness is a Choice* program," explains Carlos Leija, Chief Development Officer at Orangewood Foundation. "They've donated money, cooked for the youth in our programs, provided resume help and participated in our mentor program. Now, with this technology solution, they're going to have a huge impact on our kids for years to come."

Samueli Academy chose a Citrix XenDesktop VDI solution, supported by Nimble Storage CS215 storage, HP Smart Buy DL380 GEN9 servers and NVIDIA GRID K2 graphics cards. Although Zumasys presented several storage options, Nimble Storage quickly stood out from the crowd for its ability to provide an unmatched price-to-performance ratio for small- to medium-sized deployments.

"The Nimble Storage engineer and our engineering teachers instantly clicked. Nimble Storage was able to understand our requirements and build a solution to best meet our needs," explains Thai. "For an environment as big as ours, there's nothing like the performance Nimble Storage provides in the same price range."

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As part of the project, Zumasys also helped Samueli Academy upgrade their network infrastructure to support the bandwidth requirements of the new environment and avoid impacting the school's existing network.

"Zumasys and Nimble Storage were great to work with," says Leija. "We appreciate their commitment to making this project a success, their flexibility to work within our budget, and their ability to deliver on such a short timeline."

Featured Technologies

CITRIX

nimblestorage

Benefits

The school now boasts an innovative Citrix-based VDI platform that supports its project-based learning and college readiness objectives. Students simply double-click an icon on their Chromebooks to log into the VDI environment and launch their SolidWorks projects. Students are not bound to a physical classroom or a lab, so learning can take place anywhere with an Internet connection—on campus or off.

"At Samueli Academy, we are trying to teach students in a different way," says Carlos Leija, Chief Development Officer at Orangewood Foundation. "This solution is perfectly aligned to our mission and goals as an organization."

From an IT perspective, Thai couldn't be happier. "We have been very impressed with the performance," he enthuses. "We have 30 students logging into our Citrix VDI environment at one time, and we've had no issues with latency."

Thai also appreciates the solution's easy manageability. The school has one IT administrator supporting more than 500 students and faculty with no room in the budget for additional headcount.

"If we had gone with a lab environment or a laptop cart, we would have had 30 devices that would need to be secured, patched and maintained," he explains. "That would have taken resources that we just can't afford."

The school's VDI solution makes it easy to centralize deployment and management for the SolidWorks application. Rather than installing a local copy of software on every student device, the software is deployed, managed and updated through the school's private cloud.

Perhaps most importantly, with SolidWorks, students have access to industry-standard CAD software and are gaining a valuable head start to pursue an education in engineering. The school now plans to extend the VDI platform to as many as 100 students in its engineering, design and Photoshop classes.

"We are just scratching the surface with this solution," adds Leija. "We're doing a lot of things that are innovative and creative. We need partners to understand that we are a nonprofit and go the extra mile. The ability to have partnerships with companies like Zumasys and Nimble Storage is vital to our success."