

Loyola High School is committed to using advanced technology to provide its students with the best possible education, but when lagging performance of its legacy spinning-disk storage system threatened to impede its VDI rollout, the school installed a FlashArray from Pure Storage. Now, performance problems are a thing of the past and the school's VDI implementation is moving ahead.

**BUSINESS TRANSFORMATION**

Implementation of VDI has accelerated thanks to reliable, high-performance flash storage. Problems with latency and lengthy database-access times have disappeared, and storage management time has been reduced to virtually zero.

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senior network administrator

PURE STORAGE GOES TO THE HEAD OF THE CLASS AT LOYOLA HIGH SCHOOL

Loyola High School of Los Angeles is rich in history – it celebrated its 150th anniversary in 2015 – and its goal is to prepare its students for the challenges of modern society. And its IT infrastructure is part the school's forward-looking approach. The school relies heavily on its Q student information system from Aequitas Solutions, and is one of the first educational users to experiment with Nvidia's GRID virtual GPU.

A key part of Loyola's IT strategy is a move to virtual server and virtual desktop infrastructures (VSI and VDI). This is due in large part to allow Microsoft applications to run more reliably on Apple computers, which are the standard for the school. It also is a way to give students with various interests and academic pursuits access to a full range of resources, such as graphics heavy applications, robotics software, and arts content.

Progress on the move to VDI was hampered, however, by lagging performance of the company's legacy spinning-disk storage system. "We were hitting the upper limits of performance on our aging storage system, especially with the demands of VDI," says Kevin Behnke, senior network administrator for Loyola High, an all-male, Jesuit college preparatory school, with a student body of some 1,200. "We had a lot of latency issues and problems with slow database access," he adds. "A Windows update would just freeze the system due to the high IOPS. Plus, the management interface was so poor I had no clue as to what was going on."

VENDOR'S COLLAPSE CREATES NEED FOR A QUICK REPLACEMENT

The final straw with the legacy storage system came when the vendor suddenly went out of business, without advance notice to customers. "We didn't want to have our production apps and backup running without support. So, it was high priority to get a new storage system in place right away," Behnke notes.

As he investigated storage options, Behnke knew one thing for sure. "It makes sense to have all-flash; returning to spinning disk was out of the question. When you buy spinning disks, you're just waiting for them to die."

After evaluating several vendors, the decision in favor of Pure was based on three main factors. First, the price was competitive with other options. Second, the expected return on investment was "huge." And finally, Pure's Evergreen Storage program – which provides updated controllers for as long as an array is on a support contract – promised long-term upgrades to the latest technology without disruption or added cost. "I don't know anyone else who offers anything like Evergreen Storage," Behnke says. "It's awesome."

COMPANY:

Loyola High School of Los Angeles
www.loyolahs.edu

USE CASE:

- VSI – VMware vSphere
- VDI – Dell Wyse vWorkspace
- Database - Microsoft SQL Server

CHALLENGES:

- Broader implementation of VDI required high-performance, flexible storage solutions
- Collapse of legacy storage vendor left the IT department without support

IT TRANSFORMATION:

- Provisioning times for virtual desktops slashed in half
- High latencies and database access times eliminated
- Simplified storage management frees IT staff to focus on high-priority initiatives

AFTER A SPEEDY INSTALLATION, NO MORE PERFORMANCE PROBLEMS

Not wanting to wait for a proof-of-concept trial, Loyola ordered a FlashArray from Pure for immediate installation. From start to finish, the installation process took “maybe 30 minutes,” Behnke recalls. “There just wasn’t much to it.”

Once the Pure array was in place, the performance of the VDI improved dramatically. “It was night and day,” Behnke notes. “Provisioning new clients takes half the time it used to. Read times and reboot time are faster; so are backups. And we have no latency issues anymore.”

The biggest surprise, Behnke says, was the data reduction provided by Pure. “We’re getting 9.8:1 on our VDI and 6.5:1 overall, which is just amazing. Any worries we might have about over-provisioning completely go away. And it allows us to do a lot more with a lot less.”

EASY MANAGEMENT BENEFITS THE IT TEAM

In addition to the huge performance benefits, Behnke says he also appreciates the flexibility, reliability and simplicity of management provided by Pure. “We can fire up any number of servers we want without worrying about performance. The Pure array will handle whatever we throw at it.”

Behnke enjoys another major benefit with Pure: the demands for storage administration have almost disappeared. “Before we got Pure, I had to figure out how I’d have to move a server around; where I should put what. Now, I don’t have to think about it. It saves me a lot of time and effort and has freed me up to focus on the higher-value aspects of my job.”

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