

VDI Solution for St. Petersburg College – Phase I

A Common Problem

St. Petersburg College spans ten locations of campuses, student centers, and administrative offices throughout the Pinellas County, Florida area. With over 32,000 students and 1,600 faculty members, managing traditional desktops has become extremely time consuming with constant updates and on-the-ground technical support. With a high number of desktop computers across campus, standardization of hardware along with software consistency became quite problematic.

A major additional constraint of continuing with physical desktops included the time consuming supplemental third-party software packages intended to help with governance and consistency. Additional issues like the management of physical desktop locking software and Windows update services continued to be very problematic and time consuming.

Finally, concerns arose over the increasing cost of physical desktop computers along with other factors such as energy and environmental costs. How did St. Petersburg College address these valid IT concerns?

Background

The college had been exploring and desiring VDI for a number of years. While looking at many different solutions, it seemed to be difficult to justify the initial capital investment to make the purchase cost-effective on a per seat basis. The staff at SPC was also concerned about scalability for future expansion. How can they replicate the VDI desktop from a few hundred to thousands in a predictable, scalable model?

HVE was introduced to St. Petersburg College by an HVE reseller as a cost-effective, next generation solution-provider for virtualization. After a number of design calls, HVE provided St. Petersburg College a solution for phase one to address 1000 VDI sessions. The solution provided VDI for a mixture of standard desktops and high graphic workstations. HVE built the solution with the company philosophy in mind of MSRP (Manageable, Scalable, Reproducible, and Predictable.) HVE provided a replicable model to expand their VDI to the expected 5,000 seat VDI desktop within two years. The solution also provided a cost per VDI desktop that was comparable to their current cost of desktop computers.



Profile

Location: St Petersburg, FL Students: 32,000 Staff: 1,600

Overview

Number of Virtual Desktops: 1,000 (estimating 5,000 by end of project)

Hardware:

(2) 3DGFX appliances with dual AMD FirePro graphic cards

(1) STACK 2U chassis with (4) 201bn server blades designed for VDI workloads

Zero-clients: 180 Zero Clients

Length of deployment: 2 weeks

The HVE Solution

In order to address the individual needs of St. Petersburg, HVE worked closely with their team to create a solution that met all their goals. The solution provided made the initial capital investment fall within the bounds of their annual desktop computer refresh program. The solution also provided a scalable, predictable growth pattern. Supplemental software packages were eliminated reducing costs and allowing the IT Department to work under a single pane of glass for unified workflow.

For high-graphic desktops, the HVE solution consisted of (2) HVE-3DGFX VDI appliances using dual AMD FirePro graphic cards. Each 3DGFX will provide 64 high-graphic desktops (128 total between the boxes) and approximately 150 standard VDI desktops running in mixed mode. For additional standard VDI desktops the solution also included (1) STACK 2U Chassis with (4) 201bn VDI modules running in a hyper-converged mode using NVMe storage. This appliance fully populated will provide over 800 standard VDI desktops with a 2U space.

Outcomes

Within two weeks of the VDI installed St. Petersburg is at 80% capacity. Phase 2 is already in design to add another 1,600 VDI desktops. The faculty and students are clearly seeing the benefits offered by VDI and are making full use of it.

St. Petersburg has been able to meet all of their objectives for VDI. The solution met their budgetary needs. Time is more effectively utilized through VDI and less time is spent on hands-on support. The solution provided was predictable, scalable, and reproducible so that St. Petersburg has a clear path forward for the next 5 years. Additionally, since HVE bases design on open standards, St. Petersburg has the ability to grow in the direction that is best for staff and students. "We wanted to remain as hardware agnostic as possible, as getting stuck into a specific vendor can cause many issues and place you at their mercy for the foreseeable future," states James Panagiotacos, Coordinator – Virtual Desktop Services.

Since HVE has bedrock roots in education, St. Petersburg benefited from having HVE sales personnel and engineers that understand their type of environment and politics. Panagiotacos also states, "We were happy to see that HVE had focus and experience in higher education. We are treated as a valued customer rather than small blink on a giant corporation's spreadsheet and have received high level and quality support from every member of the HVE team during all the implementation projects and bevond."

About HVE ConneXions

HVE's engineering philosophy is to create Manageable, Scalable, and Reproducible and Predictable (MSRP) solutions. We base our solutions on proven virtualization technologies running on high-performance, next generation hardware. The result is an overall cost-effective and high-performance environment that scales to customers' needs. "A big factor to us was that HVE offered a predictable scale model for VDI – something every other vendor we evaluated were hard pressed to do."

-James Panagiotacos,

Virtual Desktop Services Coordinator, St. Petersburg College



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