

Cleveland State Community College Saves 40% on VDI Investment with Nutanix – And User Experience is Faster than PCs

Company Background

Cleveland State Community College is an accredited public community college serving about 3,500 regular and 1,500 non-credit students. The college's 105-acre campus is located in Southeastern Tennessee, 30 miles northeast of Chattanooga. The IT department supports about 1,300 desktop computers and mobile devices on campus.

VDI Pilot Project Shows Need for Different Solution

When Chris Mowery joined Cleveland State Community College as Director of Information Technology, he and his team inherited a VDI pilot project that was not working out. It was a 25-client system running on a rack server and iSCSI SAN. The performance was poor, even slower than physical desktops. "Basically, it would become unusable after about 15 people were on the system," said Mowery. The platform was also difficult to manage, even for a small configuration, and scaling it out was not going to be financially possible. However, the benefits of VDI, especially simplified desktop administration, still appealed to them. They decided to look at other options and discovered the Nutanix Virtual Computing Platform hosting VMware ESXi and Horizon View was exactly what they needed.

The college's mathematics lab exemplified the desktop challenges they faced. The lab is high-use and stays full most of the day. The hardware was a mix of 90 old and new computers. Management was time-consuming, and the lab itself was too hot due to high thermal output. "Anytime we had to perform PC maintenance, it would take a tremendous number of hours to accomplish it," said Mowery. "We required students to work on sections of the lab at a time, reducing the number of available seats. We knew we had to do something differently."

The IT staff engaged UDT and other resellers to find a better solution. They wanted dedicated servers and storage for VDI, so other applications would not have to compete for resources. Integrated servers and SAN storage from Cisco and Dell were considered, but the solutions were very expensive and filled a full rack of space. Space, power and cooling were already limited in the datacenter, jeopardizing future scalability with this architecture. They also estimated that the ongoing management needed would just shift the burden from managing desktops to managing servers and SAN. "With three PC technicians, we are pretty limited as far as manpower," he said.



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- Chris Mowery
Director of Information Technology,
Cleveland State Community College

Cleveland State COMMUNITY COLLEGE

Industry

Higher Education

Business Needs

VDI server and storage platform that is very easy to manage, is dense and easily scalable. Including both hardware and software, should cost similar to PCs per desktop.

Solution

The Nutanix Virtual Computing Platform (NX-3350) hosting VMware ESXi and Horizon View

Benefits

- Cost 40% less than competitive server and SAN solutions
- VDI on Nutanix cost less than PCs it replaced
- Dramatically simpler management allows more time to focus on better user experience
- Small footprint – 3x higher density per desktop
- User experience faster and better than PCs
- Timely, clear responses from Nutanix support



NUTANIX

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Nutanix is the Only Solution for VDI

"Nutanix was the solution that enabled us to implement VDI," said Mowery. "It provided what we needed for effectively no more money than we were spending on individual PCs." The Nutanix-based VDI solution cost \$170,000 or 40% less than the competitive alternatives. In fact, the total capital cost of VDI hardware and software was slightly less per client than physical desktops. In three years they will also be able to skip a desktop refresh cycle which would result in tremendous savings overall.

From the perspective of the IT team, the biggest draw was Nutanix's management simplicity. It saved several consultant hours for initial configuration and streamlined ongoing management. "It was very, very simple compared to all of the other devices that we've had training on. The amount of time we spend managing Nutanix is miniscule compared to the time we spend working on the VDI software layered on top," said Mowery.

Performance Better than PCs

Cleveland State purchased a 3-node Nutanix NX-3350 for phase one of their VDI implementation. Setup was straightforward and took only a few hours. The Nutanix appliance fits in 2U of rack space, yet supports 200 virtual desktops. The competitive solutions would have required 6U to support that number of desktops.

The virtual desktops run on PCs as well as thin clients. The applications used include math modeling, office productivity software and video streaming for coursework.

The performance and user experience of virtual desktops is actually far better than the physical desktops they replaced. "We immediately got glowing reviews saying, 'The system is faster than it ever was on the PCs! Everything is running smooth.' The instructors couldn't say enough about how well everything was performing for them," said Mowery.

VDI on Nutanix has enabled the IT staff to make short work of desktop maintenance and focus more on creating a great experience for end users. "We're able to focus more on refining the desktop images for our students instead of doing installs and updates," he said. Desktop availability for users has dramatically improved as well.

Nutanix More than Expected

The college plans to add three or possibly five more nodes in the next fiscal year to expand VDI to the remaining computer labs. "My PC techs are so in love with the whole solution that they're pushing me to get as much as I can. With the Nutanix solution, because of the simplicity and scalability, we are able to bring up in two years what we thought would take three or four," said Mowery.

They are also looking at installing a smaller Nutanix system at a remote site for disaster recovery purposes.

"As a company, we have really enjoyed working with Nutanix. Everybody was very involved in our implementation, so we didn't feel like we were sold something and then left alone. We are used to working with large vendors where you buy something and you never hear back until you ask for support... But Nutanix is different. Everybody's been great to work with and the company's been more than what we expected," concluded Mowery.

About Cleveland State Community College

Committed to quality education, Cleveland State operates within the governance of the Tennessee Board of Regents. In addition to the offerings on the main campus, Cleveland State has offices and classrooms in Athens and Madisonville and offers classes throughout its service area of Bradley, Meigs, McMinn, Monroe and Polk counties. Visit www.clevelandstatecc.edu for more information

About Nutanix

Nutanix delivers web-scale IT infrastructure to medium and large enterprises with its software-driven Virtual Computing Platform, which natively converges compute and storage into a single solution to drive unprecedented simplicity of the datacenter. Customers can start with a few servers and scale to thousands, with fully predictable performance and economics. With a patented elastic data fabric and consumer-grade management, Nutanix is the blueprint for application-optimized infrastructure. Learn more at www.nutanix.com or follow us on Twitter @nutanix.

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Cleveland State Community College Math lab running virtual desktops on Nutanix.

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