

Nutanix Enterprise Cloud
Platform and Brocade VCS
Fabric Technology Improve
Application Performance and
Simplify Management

Shaker Regional School District Upgrades to Nutanix and Brocade



CHALLENGE

The Shaker Regional School District's seven-year-old SAN and server environment was due for an upgrade. "We were relying on a lot of older equipment that was never designed to do what we were asking it to do," explained Jason Hills, director of technology for the Shaker Regional School District.

The district's IT team was struggling to support the outdated infrastructure and keep it running. "Whenever the servers were slow, we'd check to see if memory was maxed out," Hills reported. "We were spending a lot of time moving virtual servers around from host to host, and keeping our fingers crossed that the aging SAN solution would keep running. Due the excessive amount of time spent troubleshooting outages and other issues, we weren't able to deliver new solutions for our teachers and students in a timely manner."

SOLUTION

The Shaker Regional School District's IT team started the search for a new technology solution earlier this year. They originally considered purchasing another 3-tier SAN solution with Dell and HP servers, but when they started investigating some of the newer solutions on the market, they decided to re-evaluate their decision. "We really liked the concept of a hyperconverged platform, where we wouldn't have to manage the SAN, storage, and servers separately," Hills explained. "Since we have a relatively small IT team, management simplicity is always at the top of our IT wish list. I wanted to make sure that even if everybody in our department left, someone could quickly get on board and understand what was going on."

After reviewing the various hyperconverged vendor offerings on the market, the district made the decision to purchase three Nutanix NX-3360 systems. "Nutanix was the clear winner in the hyperconverged space," noted Hills. "We knew that it would be a great fit for our district."

Choosing Brocade

Hills regularly attends meetings held by the CTO Council for the State of New Hampshire, an organization designed to bring together the directors of technology from the state's 28 member schools of NH COSN CTO Council. "Brocade gave a presentation on their solutions and technology at the CTO Council," Hills said. "We were just getting ready to purchase several HP switches, but after talking with Brocade and comparing price points of the other options, Brocade came out on top. Once we found out that Brocade already had a great partnership with Nutanix, the decision to adopt both solutions was a no-brainer."

"By eliminating the need to 'babysit' our infrastructure, our IT staff can spend their time on deploying new applications and services for our students and teachers."

- Jason Hills, Director of Technology,
Shaker Regional School District

The Shaker Regional School District purchased two Brocade VDX 6740 switches for the upgrade project. Brocade's VCS Fabric technology delivers high-performance plug-and-play network connectivity. Brocade fabrics are easy to deploy and scale out, creating a resilient, cost-effective, and agile foundation for the Nutanix Enterprise Cloud Platform.

RESULTS

A Fast and Easy Deployment

"Our partners from both Brocade and Nutanix came on site to assist us with the deployment," Hills reported. "It was amazing how fast the installation and migration went. We were able to convert everything over to the new infrastructure in just one day. We now have 40 different virtual servers running on Nutanix and Brocade, including our hosting files, financial software, and all of our student files."

Simplifying Management

"There is very little ongoing management required with the Nutanix Enterprise Cloud Platform, definitely less than one hour per week," Hills reported. "Once we got everything set up, there is no ongoing management required. I have probably touched the box twice since we put it in the server closet. It's the same with the Brocade, once you install and configure the switches, they continue to work great without any intervention."

Better Performance

The Shaker Regional School District's business office noticed significant performance improvements after moving to the new infrastructure. Financial reports that used to take 20 minutes to complete, now run in just five minutes on the Nutanix and Brocade solution.

The School District also hosts its large Learning Management System (LMS) on the Nutanix and Brocade infrastructure, and uses VMware Horizon View to deploy VDI clients to all of the students' Chromebooks. "Our LMS application used to be hosted off-site, since our previous infrastructure wasn't powerful enough for that demanding application," Hills explained. "Our students and teachers now have much faster access to the LMS because it's hosted internally on our upgraded infrastructure, versus having to connect to the Internet. Our Chromebook users can pull up their Windows environments very quickly now on Nutanix and Brocade, and everything is working flawlessly."

Surviving a 'Loop Back' Error

The Nutanix and Brocade solution continually provides great performance, even when user errors occur. "We recently had an incident where one of our teachers accidentally created a 'loop back' in our network, which caused the application to continue processing indefinitely," Hills explained. "In our previous environment, a loop back would have caused the entire network to freeze up. After moving to Nutanix and Brocade, we didn't even realize that the loopback was taking place until we did a little investigation. We did notice a few 'hiccups' in performance, but it didn't break the system. That was really impressive!"

Improving VOIP Quality

The Shaker Regional School District also noticed a huge performance and quality boost in its campus-wide ADTRAN VOIP phone application. "We were suffering a lot of quality issues with our legacy environment and VOIP service, and we couldn't figure out why," Hills said. "Once we put in the new Brocade switches, those issues disappeared completely."

Using Nutanix Prism

Hills also praised the Nutanix Prism management interface. "I really appreciate all of the different graphs and features we can access in Prism," he reported. "I rarely look at the console anymore since the systems are so reliable, but I occasionally login just to see what's happening in our environment and to keep track of capacity trends. It gives me great peace of mind to know the solution will be running when I come in each morning. By eliminating the need to 'babysit' our infrastructure, our IT staff can now spend their time on deploying new applications and services for our students and teachers."

NEXT STEPS

Shaker Regional School District is now making plans to expand its use of the Nutanix and Brocade platform. "One of the really big workloads we'll be moving over to Nutanix and Brocade very soon is our VDI environment for the high school computer labs," Hills shared. "We will be turning two of our teaching labs into a thin client environment so we can provide our students with easier access to the AutoCAD software. We are also considering the move from VMware ESXi to Nutanix AHV. By eliminating the expensive VMware licensing fees, our cost savings would be phenomenal."

ABOUT BROCADE

Brocade networking solutions help organizations transition smoothly to a world where applications and information reside anywhere. Innovative Ethernet and storage networking solutions for data center, campus, and service provider networks help reduce complexity and cost while enabling virtualization and cloud computing to increase business agility. Learn more at www.Brocade.com.



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Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications.
Learn more at www.nutanix.com or follow us on [Twitter@nutanix](https://twitter.com/nutanix).

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COMPANY

The Shaker Regional School District serves 1,350 students, faculty, and administrative staff at five K-12 schools in the towns of Belmont and Canterbury, New Hampshire.

INDUSTRY

K-12 Education

BUSINESS NEEDS

Aging SAN and server infrastructure was due for a refresh. The district needed to find a solution that was simpler to manage and could provide higher performance for all educational and administrative applications.

SOLUTION

- › Nutanix Enterprise Cloud Platform
 - Acropolis NX-3360 systems
 - Prism management solution
- › Brocade VCS Fabric technology switches

BENEFITS

- › Eliminated several hours per week of storage and server management
- › Reduced the time to run financial reports from 20 minutes to five minutes
- › Improved quality and performance of the district's VOIP application
- › Shortened login times for student and staff
- › Improved visibility and troubleshooting using Nutanix Prism