

Horry-Georgetown Technical College Graduates to Nutanix and Lenovo

Hyperconverged Solution Increases Application Performance, Simplifies Deployment and Management, and Cuts >\$1M from the Upgrade Budget

INDUSTRY

Higher Education

CHALLENGES

- Aging HPE servers, Dell and Nimble storage systems were due for a refresh
- Users experienced latency in accessing business critical apps, and outages at peak times like registration.

SOLUTION

- Nutanix Enterprise Cloud
 - Acropolis, including AHV virtualization
 - Prism management plane
- Lenovo ThinkAgile HX Series platform

BUSINESS BENEFITS

By moving to Nutanix and Lenovo, HGTC was able to eliminate latency and downtime in its Banner ERP platform, student registration system, and instructional applications. The hyperconverged solution is also much easier to manage and maintain, with the comprehensive visibility provided by Prism Central. The budget avoidance obtained from choosing Nutanix and Lenovo instead of refreshing the legacy systems was over \$1M, enabling the development of new applications and solutions previously unavailable for the college.

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- Dr. Marilyn Fore, President, Horry-Georgetown Technical College

CHALLENGES

Horry-Georgetown Technical College (HGTC) is a two-year community/technical college located in Conway, South Carolina. The college offers more than 65 associate degree, diploma, and certificate programs to students who are either seeking quick entry into the workforce, or desiring to eventually transfer to a senior institution to pursue a bachelor's degree.

HGTC's aging legacy environment consisted of over a dozen HPE c7000 blade servers located at the college's main datacenter, with two additional blades at each of college's two satellite offices. "We had constant hardware failures and latency issues with all of the aging servers and storage systems," said Terry Quaresimo, Director of Enterprise Systems at HGTC. "We were getting calls from our end users nearly every day, complaining about the lag in our student applications and core Banner ERP system and its underlying Oracle database. Unfortunately, our legacy infrastructure was no longer able to meet the demands of our students, faculty, and administrators."

Preparing for the Refresh

"We inherited a poorly designed infrastructure across the board," explained John Dove, VP of Information Technology at HGTC. "In addition to refreshing the legacy systems, we were also embarking on a huge Banner 9 ERP software upgrade project. When we looked at what it would've taken to scale that environment, it was an extremely expensive proposal. It would have also been a very complex project, since the replacement systems weren't 'plug-and-play' by any means."

HGTC enlisted the help of eGroup for the upgrade, a Master Level Nutanix Partner, to plan the technology refresh. "We conducted a very strategic roadmap meeting with the team at HGTC on how they can simplify and modernize their data center. Our approach at eGroup is quite simple; we always want to ensure our clients receive the necessary guidance and education so they can confidently make an informed decision back to their organization," said Daniel Navarro, Account Sales Executive at eGroup. "We decided to narrow our search to the infrastructure options on the South Carolina state contract, to avoid the long delays encountered when issuing a new RFP. Luckily our top choice, Nutanix software running on Lenovo hardware, was already one of the options on the contract."

"We didn't just take eGroup's advice to go with Nutanix and Lenovo and immediately change everything in our data center; we brought in other vendors and did additional assessments," clarified Quaresimo. "To be quite honest, the other vendors really undersized their proposals. If we had gone with any of the other solutions, we would've had to buy additional appliances within just 2-3 years."

"Through the various assessments we conducted, it was very clear that Nutanix and Lenovo were the partners we should move forward with," stated Dove. "We also spoke with other state agencies in South Carolina that had implemented Nutanix on Lenovo, and they were all very pleased - some were even shocked - at how simple, powerful, and cost-effective the combined solution was."

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SOLUTION

Saving >\$1M on the Upgrade

“If we had just replaced our legacy systems with similar but newer servers, networking components, and storage systems, it would have cost us millions of dollars – without adding any improvements,” Dove shared. “The other hyperconverged infrastructure options were a bit less expensive, coming in at about 75% of the legacy replacement bid. The Nutanix and Lenovo solution was by far the best option. We could get twice the performance and capacity offered by the other HCI vendors, at less than half of their projected costs. That made our decision to go with Nutanix and Lenovo very easy.”

An Easy Implementation

“I expected this project to be very painful, not only for our IT staff, but for our end users as well,” noted Dove. “Coming from an environment that was so outdated – that did not follow industry standards or best practices – I expected a lot of issues. But eGroup, Nutanix, Lenovo, and my staff here at HGTC proved me completely wrong. Replacing an entire data center is always a monumental undertaking. Considering the breadth of what we accomplished, the project went extremely well, and we experienced essentially no downtime during the deployment.”

“With some simple white-boarding sessions prior to the implementation, we were actually very well prepared the day eGroup showed up,” added Quaresimo. “They helped us unbox, rack, and cable the Lenovo systems, and then configured AHV and our VMware clusters. It was so simple that we were able to migrate over 100 servers to AHV in a single weekend. The VMware migration took longer, because we had to shut down the servers and reboot them in a specific order. The ease in which they were able to move everything to AHV was amazing. We never expected it would be that simple.”

“I’ve been in IT for over twenty years, and this has truly been the easiest upgrade project I’ve gone through,” said Dove. “I attribute that success to eGroup’s depth of knowledge, and the quality of the Nutanix software and Lenovo hardware. I believe that if we’d gone with other vendors, we would have encountered a lot more hurdles and experienced outages, and I’m sure we would’ve had to go back to our president and ask for more funding to finish the project. For everything to go as smoothly from point A to point Z – and also come in well under our allocated budget – is an outcome that’s hard to even imagine.”

CUSTOMER OUTCOME

Lower Latency Eliminates Help Desk Tickets

Latency on the college’s mission-critical Banner ERP system used to average around 4 ms. It’s now only 1-1.5 ms per cluster on Nutanix and Lenovo. “The performance increase was amazing,” reported Quaresimo. “We used to receive help desk tickets every day from end users working in the ERP system. Since moving to Nutanix and Lenovo, we haven’t received a single trouble ticket. Our end users and students are much happier, and for those of us in IT, it was a lifesaver.”

No More Anxiety in IT

Since moving to Nutanix and Lenovo, HGTC was able to eliminate system downtime during registration periods. “With the legacy hardware, we were always nervous going into each new semester,” admitted Quaresimo. “Now that we’ve moved to Nutanix and Lenovo, all of that anxiety is gone. We actually have to look at the calendar to find out if it’s the beginning of the semester! For the first time in five years, I came in after a two-week break and there were no urgent alerts or calls from the help desk.”

Reducing Hypervisor Licensing Fees

All of HGTC's workloads are now running on AHV, with the exception of the college's Banner ERP system and Cisco networking servers. "By moving the majority of our workloads over to AHV, we were able to cut our VMware licensing costs by more than half, saving us tens of thousands of dollars each year," noted Dove. "And to be quite honest, our AHV clusters are outperforming our smaller VMware cluster quite significantly. The money we saved on hypervisor licensing was put back into our training budget, benefitting our entire IT organization."

Simplifying Ongoing Management

According to Quaresimo, the biggest benefit of moving to Nutanix and Lenovo was the simplified management. "We didn't have any native monitoring tools in the legacy environment," he explained. "We were constantly battling hardware and software issues, but we were in the dark about the most efficient way to solve them. With Nutanix and Prism Central, we now have comprehensive visibility across our entire environment, and it only takes seconds to deploy new servers. Prism is very well organized from a design perspective, and it's easy to navigate around the interface. Having all of that information integrated into one pane of glass is simply wonderful. It's night and day compared to our legacy environment."

Gaining Hands-On Experience at the Nutanix Bootcamp

Rather than attending a traditional boot camp at a Nutanix facility, the Nutanix team came out to HGTC's data center and conducted a training session on-site. "The hands-on boot camp enabled us to learn how to navigate the Nutanix and Lenovo solution, and then confidently recommend it to management," said Quaresimo.

"I depend on my staff - they're the gurus and experts that keep all of our systems running," explained Dove. "In order to recommend the right purchase decision, they needed to be able to touch, feel, and experience the systems in real-time to confirm everything we've been told about the solution. The other vendors never offered us any hands-on training, or provided any of the support needed to get to where we are today. The Nutanix boot camp was just the icing on the cake for me, and it made the decision to move to Nutanix even easier."

Decommissioning Two Satellite Centers

With the small form factor of the Nutanix and Lenovo solution, HGTC has also been able to consolidate all infrastructure from its three separate sites into the main datacenter in Conway, and decommission the two satellite offices. "In addition to saving on facility costs, the consolidation also makes life easier for our IT team," said Dove. "It used to take an hour for our admins to go to the other sites to troubleshoot issues. And with just one datacenter, we have reduced bandwidth usage between sites since we no longer have to copy all of our data back and forth to each separate location."

NEXT STEPS

Implementing New Projects

The management simplicity of the Nutanix and Lenovo solution has freed up HGTC's IT staff to work on more strategic projects. "We are now able to go down the path of improving our applications and enhancing the front-end, whereas previously we were just working to maintain things and keep the lights on," noted Dove. "With the extra funds we saved with the Nutanix and Lenovo upgrade, we're now evaluating projects touching every piece of our environment - from networking, to voice, ERP, BYOD, Wi-Fi, and to the cloud."

Final Thoughts

"With Nutanix and Lenovo, we now have a very solid technical platform that's easy to deploy and simple to maintain. We were also able to slash our proposed upgrade budget, while increasing application reliability and performance. I believe that the success of this project was due to the strong partnership between Nutanix, Lenovo, and eGroup, and the technical superiority of the hyperconverged solution," concluded Dove.



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