Large Non-profit Healthcare System in Portland Improves Patient Care and Lightens IT Load with Nutanix

About Non-profit Healthcare System

Industry: Healthcare
Location: Portland, OR

Applications

- Synapse imaging applications
- EHR applications

Products:
- AOS Storage
- Nutanix Cloud Manager (NCM)
- Prism

Solutions:
- End User Computing (EUC)

Ready to get Hands-On?

Take a Test Drive

Nutanix helps provider boost performance and save precious minutes

Overview

The large non-profit health system strives to create a legacy of positive health in the Portland/Vancouver metropolitan area. The healthcare provider has more than 1,100 total beds, providing services like acute and critical care, behavioral health, and outpatient and health education programs. When its traditional architecture could no longer meet its exacting standards, the healthcare provider moved its key applications to a hyperconverged infrastructure based on Nutanix Cloud Manager. The new solution delivers faster performance to support physicians better, while saving administrators valuable time.

Key Benefits

- Faster performance of imaging and other applications improves patient outcomes
- Automation saves administrators time
- Technical support keeps key healthcare applications available nonstop for faster time to market

> **The hyperconverged model is wonderful. All of the storage is local, and there's a lot less complexity. We're not needing to really understand the details of the storage protocols and how everything works.**
>
> **Niel Morgan,**
> Principal Engineer, Large Non-Profit Healthcare Provider

Challenge

With half a dozen hospitals serving communities throughout the Pacific Northwest, the large healthcare provider is proud of its commitment to its patients. Like most healthcare providers, it has digitally transformed its processes to deliver superior healthcare and make operations more efficient.

But the organization was saddled with a traditional three-tier infrastructure to support imaging systems at its hospital data centers. The IT team realized that it would need to modernize to continue to meet its high care standards.

“We were experiencing up to triple digit latencies for individual file accesses, with images sometimes taking five to ten minutes to load,” Niel Morgan, Principal Engineer, Large Non-Profit Healthcare Provider, “That’s unacceptable if a patient comes in with a stroke and needs an immediate diagnosis. It’s a life-or-death situation, and every second counts.”

Solution

After evaluating several solutions, Morgan and his team decided to move its hardware-based platforms to a hyperconverged infrastructure solution.

“We checked out competitive solutions, and they offered limited flexibility,” said Morgan. “What I saw with Nutanix was a lot of great automation capabilities, as well as a more universal hypervisor that we could run.”

After some short training with Nutanix, Morgan and his team moved the organization’s most critical healthcare applications to the new platform.

“Nutanix supports the front end for our main imaging platforms, such as X-ray and ultrasound,” said Morgan. “It supports our main Synapse environment used by our cardiology department, which has been growing over time.”

With simplified management and powerful automation, the Nutanix solution empowers the large non-profit healthcare provider’s IT team to deliver all the resources their application needs—at the moment they are needed.

“What's great is that for the most part, it builds itself,” said Morgan. “You tell it to connect to the server, and the distribution model you want, and the storage just starts sharing. It’s a lot like RAID setup, except instead of disks, you're doing it with servers instead. It just makes everything nice, simple, and clean.”

Customer Outcome

Consolidating its multiple hardware-based systems onto a single platform has not only helped the large non-profit healthcare provider’s IT team streamline management but accelerate performance on key patient applications.

“For accessing files on our Synapse healthcare applications, an image took about 45 seconds to load before Nutanix,” said Morgan. “What we're seeing now is probably around more like 15 seconds, so load speeds have dropped significantly.”

Moving its applications from older platforms to the new system was especially fast. Morgan devised a method to use Nutanix to perform a mass conversion from a legacy system the organization was running for its cardiology department. The application had previously been running on physical servers, but the vendor wasn’t providing appropriate support, so Morgan virtualized it using Nutanix.

“I nested a Hyper-V host to do that direct conversion to help make that process easy,” said Morgan. “And then with that conversion to that nested HyperV host, I was able to use the Nutanix Move product to convert the virtual machines over from physical, to Hyper-V virtual, to Nutanix virtual native. It all worked very, very well.”

The move to Nutanix also dramatically accelerated performance on studies for the cardiology application.

“We were seeing cardiology studies sometimes taking 10 to 15 minutes to come in, which was unacceptable,” said Morgan. “By adjusting some settings and software, we were able to get that down to just 30 seconds to a minute load time for those cardiology studies.”

Like most organizations, the large non-profit healthcare provider is constantly changing and evolving. Nutanix gives Morgan and his team the agility they need to respond to any change requests fast.

“When I deploy a virtual machine on our traditional hypervisor, I have an automation process that builds the entire virtual machine,” explained Morgan. “We just feed it a set of parameters, the virtual machine gets built, and it comes up. When we provision a server with Nutanix, the server is up within seconds. You can literally see the VM and start interacting with it.”

The solution has been very dependable, and if an issue should arise, Nutanix technical support is always available to provide a rapid response. On one occasion, a legacy three-tier infrastructure at a hospital failed, putting its patients and key processes at risk. Working with Nutanix support, Moran and his team were able to stand up a cluster, and get the hospital's environment and applications back up and running in less than 24 hours.

"I love the fact that if I'm having an issue, I can just call in and there's usually somebody that can help me right then and there if it's a production issue," said Morgan. "That's been helpful a number of times."

Next Steps

The versatility of the Nutanix solution was one of the qualities that led the large non-profit healthcare provider to choose the platform. Now that the platform is installed and running smoothly, the IT team is exploring new applications to unlock even more efficiencies.

"We're considering trying Nutanix Files as a file storage solution for our unstructured data," said Morgan.

With its scalable solution in place, the large non-profit healthcare provider is confident that it can continue to keep pace with growth and changing patient needs for many years to come.

Learn more at www.nutanix.com.

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