



Healthcare Provider Delivers a Superior Patient Experience

Nutanix Accelerates Healthcare Application Performance and Management

CHALLENGE

Founded in 1902, Anne Arundel Medical Center (AAMC) is a leading not-for-profit health center serving the Maryland region. Nationally recognized for its joint replacement center, emergency heart attack response and cancer care, AAMC is also a leader in women's health services.

Technology is the engine that powers the Center's services, and its IT team is relentlessly focused on making patient care as efficient as possible.

"Our most critical system is our electronic medical records (EMR)," says David Lehr, Chief Information Officer, Anne Arundel Medical Center. "We use Epic for our EMR, which supports not only our clinical records, but also our hospital billing, scheduling and registration for the hospital, and other processes."

Like most organizations, AAMC is constantly seeking ways to simplify operations and enhance patient outcomes. To that end, they felt their siloed infrastructure, which was past due for an upgrade, was an opportunity to optimize things and free up their technicians for higher-level improvements.

"We were maintaining separate storage, compute, and hypervisor environments," says Lehr. "If an issue arose, we would have to call the storage vendor, the compute vendor, and the hypervisor vendor. We would need three to five different vendors on the phone. Each of them would say that the problem was another vendor's responsibility, and nobody could agree on where we should start troubleshooting. That's really frustrating, especially if it impacted operations or the patient experience."

Lehr and his team were looking for a consolidated solution that could help them avoid finger-pointing and create a foundation for more efficient, economical operations.

"We made a strategic decision to focus on doing more with a smaller footprint," says Lehr. "A hyperconverged infrastructure is a lot better suited for simplicity and is an easier environment for our staff to maintain. It also helps reduce power consumption."

SOLUTION

AAMC refreshed its data center by bringing its separate infrastructure components together on Nutanix Enterprise Cloud. This hyperconverged solution lets the Center manage its key IT services on a single cost-effective solution.

"We have a regular extract, transform, load (ETL) window for our analytics application — the Nutanix system has performed five times faster."

— David Lehr, Chief Information Officer, Anne Arundel Medical Center



“We have migrated most of our virtual machines (VMs) over to Nutanix, including all of the EMR components that are capable of being migrated,” says Lehr. “We are now in the process of virtualizing most of our physical servers, so that we can migrate them to Nutanix and reconfigure all of our healthcare applications.”

Analytics applications are a critical part of the AAMC’s EMR system, and Lehr and his team have successfully transferred these workloads to the new platform to simplify management and enhance performance.

“Every one of our analytics servers is now running on Nutanix,” says Lehr. “We have a service catalog with 650 different mission-critical services, and we see this as the simplified go-forward architecture for our environment. We are actively migrating everything we can onto it.”

AAMC utilizes Nutanix Acropolis Hypervisor (AHV), as well as Nutanix Prism, for centralized management of its virtualized analytics servers. This platform houses the Epic Cogito reporting suite, including both Clarity and Caboodle, as well as SAP BusinessObjects.

“Under our hyperconverged approach, we now have the same vendor for the whole technology stack, including the hypervisor, storage, and compute,” says Lehr. “Everything is all in one package, and we have one person we can call in the rare event that we have an issue.”

BENEFITS

Consolidating disparate components together onto a single Nutanix platform has enabled AAMC to significantly reduce its infrastructure footprint and operational costs. The solution has also improved the performance and availability of the Center’s core healthcare systems, while enabling staff to work more efficiently.

A More Efficient, Available Network

Nutanix helps accelerate the upgrade process, one that AAMC regularly does, so key systems suffer less downtime.

“The faster we can do an upgrade, the faster we can get the system back up, and the less interruption there is to our operations,” says Lehr. “Our upgrade downtime for the most recent upgrade was about two hours shorter than expected. That frees up two additional hours for our staff to focus on other priorities, instead of documenting network issues.”

Daily IT processes have been accelerated as well, because Nutanix lets the organization automate repetitive manual processes.

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Streamlined Management Improves Resource Utilization

The days of calling multiple vendors to solve an infrastructure issue are gone, because the Nutanix solution provides centralized management and control, and a single point of contact if issues arise.

“Our staff are much happier with maintaining the system in Nutanix than they were before, when they had to work with multiple vendors and track interactions between systems,” says Lehr. “While it’s hard to quantify, it is real, and I see it every day.”

The consolidated, hyperconverged platform also helps AAMC utilize its limited resources more effectively.

“The more that we can avoid having one person who is the expert on the SAN, or our servers, hypervisor, and so on, the better we can work together,” says Lehr. “When you can bring staff who were highly specialized together, that helps us solve problems more quickly.”

Backed by Responsive Support

If an issue does arise at the Center, Nutanix Support provides responsive, highly personalized troubleshooting and remediation.

“The support we have received from Nutanix has been phenomenal,” says Lehr. “It is exactly what we expect from a partnership with our vendors, and that is rare. When a network issue arose, we called them up, they were on their way, and were soon working with us onsite shoulder to shoulder to resolve it.”

NEXT STEPS

With Nutanix in place as a foundation for its key healthcare delivery systems, Lehr and his IT team are now planning ahead and exploring ways to enhance disaster recovery over the long term.

“In the future, using AHV and the entire Nutanix stack, we will be able to rent compute space in a pinch,” says Lehr. “If we were to have an issue with a data center, it will be great to be able to just purchase additional capacity from the cloud and spin it up, to quickly regain 100 percent capacity. Today, people are purchasing extra hardware that is mostly unnecessary until you have a disaster that takes one of your data centers offline. But that could be lessened if we had instantly available cloud capacity to add instead of purchasing the extra hardware that we’ll hopefully never need. We’ve heard that this is the direction Nutanix is heading and we’re excited about that possibility.”

“Something like 60 percent of the cost of healthcare is staff, so anything that is good for staff is good for health care,” says Lehr. “If we can do the same amount of work with the same people, that’s great. If we can do more, that’s better. And if staff are satisfied and happy with the work they are doing, that is the best thing you can get.”

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Executive Overview:

- › **Company:** A regional health system based in Annapolis, MD serves an area of more than one million people.
- › **Industry:** Healthcare
- › **Business Need:** Improve patient outcomes, while doing more with existing IT resources.

Solution:

Nutanix Enterprise Cloud with AHV

Benefits:

- › Shortens upgrade maintenance processes for essential healthcare applications, ensuring performance and availability of patient services.
- › Single hyperconverged solution minimizes multi-vendor contact, enabling staff work more efficiently and collaborate better.
- › Scalable solution can adapt to support changing needs such as cloud-based disaster recovery.
- › Improved staff productivity and company morale.

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