

Coastal Medical Moves Mission-Critical eClinicalWorks EHR to Nutanix

Upgrade to Nutanix enables leading medical care organization to improve access to patient records and support rapid company growth

INDUSTRY

Healthcare

CHALLENGES

- Existing 3-tier infrastructure was due for a refresh
- Traditional server, storage, and networking environment did not easily scale
- Infrastructure management required an army of specialized IT consultants
- VMware renewal licensing fees continued to escalate

SOLUTION

Nutanix Enterprise Cloud Platform

- Acropolis OS Software, including built-in hypervisor, AHV
- Prism management plane

Applications

- eClinicalWorks electronic health records (EHR) software

BUSINESS BENEFITS

After determining that the 3-tier infrastructure environment was unsustainable, Coastal Medical moved its production and disaster recovery (DR) workloads to Nutanix. The Nutanix infrastructure requires only a third of the management time of the 3-tier systems and has simplified scalability to support company growth. Reporting time for the eClinicalWorks app was cut in half and downtime during upgrades was minimized, improving the quality and efficiency of healthcare delivery.

“Nutanix has designed a very powerful and easily managed hyperconverged solution, with an innovative and clear corporate vision. It is clear to see why Nutanix is the leader in hyperconvergence and will lead software-defined datacenter infrastructures in the future. We’ve achieved a lot of success with Nutanix in terms of performance. Our eClinicalWorks reports that used to take four hours now finish in less than two.”

– Mice Chen, Chief Information Officer, Coastal Medical

CHALLENGE

Coastal Medical is a physician-owned and governed accountable care organization (ACO) that provides quality patient centered care to over 120,000 patients in Rhode Island. In order to deliver the highest level of service to its healthcare customers and maintain profitability, Coastal must continually ensure

its practices are running as efficiently as possible. Mice Chen, Coastal Medical's CIO, is always looking for new ways to leverage the latest IT technologies to improve efficiency, meet the organization's goals, and align with its mission of better health and better care at a lower cost for patients.

Coastal relied on traditional IT infrastructure consisting of HPE blade servers, NetApp storage systems, and Brocade switches. "Managing the 3-tier environment was extremely labor-intensive," acknowledged Chen. "Whenever we had an issue, our vendors would ask us to reboot the entire environment as part of the effort for troubleshooting. Unfortunately, downtime is never acceptable when you're a healthcare provider. Our eClinicalWorks (ECW) electronic records application is accessed by hundreds of physicians and healthcare professionals each day. If that app goes down and our practitioners can't access patient files—it can quickly become a system-wide business and clinical issue."

Time for a Refresh

Chen and his team started preparing for an infrastructure refresh in 2015. "We knew our 3-tier approach was not sustainable in the long-term," he said. "When traditional infrastructure reaches end of life, you have to replace everything at once. That's a big lift and a huge expense for an IT department in an organization."

Chen was looking for a solution similar to AWS or Azure, where compute and storage could easily scale as needed. "We needed an environment that was truly redundant and resilient," he explained. "The solution had to run on commodity servers, operating independently from each other to form the cluster. When Nutanix started using Dell servers, we knew it was time to make the move to the Enterprise Cloud platform."

SOLUTION

Coastal bought its first Nutanix cluster in 2017 for disaster recovery. After experiencing the ease of use and performance of the new system, they purchased an additional cluster for all primary workloads. Chen and his team quickly moved all production applications over to Nutanix, including the company's mission-critical eClinicalWorks EHR system. They also replaced vSphere with AHV, Nutanix's built-in hypervisor. "In addition to being a great hypervisor, AHV is a very economical solution," Chen said. "VMware's licensing costs continue to increase and moving from vSphere to AHV eliminated that huge, ongoing expense."

CUSTOMER OUTCOMES

"The Nutanix solution is simply amazing," admitted Chen. "Everything works exactly the way I anticipated it would. The Nutanix vision really resonates with me and my team in terms of the configuration, resiliency, performance, and the way that we're able to quickly scale by adding additional resources. We've achieved a lot of success with Nutanix in terms of performance. Our eClinicalWorks reports that used to take four hours now finish in less than two."

Reduced Management Time

"Infrastructure management is much easier with Nutanix," said Chen. "Prism provides all of the information I need in one console. I can snapshot a server, see system performance, and modify any settings in our entire environment from one pane of glass. It is so much better than having to manage a set of completely different consoles from multiple vendors."

By moving to Nutanix, Coastal Medical has cut the time required to manage its infrastructure from one full-time employee to less than a third. “We used to have to hire an army of consultants who were familiar with each vendors’ solution for setup and configuration,” said Chen. “Nutanix is much easier to manage—it doesn’t require a lot of specialized expertise like the 3-tier systems did. With Nutanix, I was able to learn how to do everything in less than a day. By reducing the administrative load, Nutanix is enabling our IT team to focus on the more strategic business and technology opportunities.”

Greater Resiliency and Added Features

Nutanix offers much greater resiliency and uptime for Coastal Medical’s healthcare applications. “We don’t have to worry about taking our systems offline during maintenance anymore, because Nutanix upgrades everything one node at a time,” Chen explained. “In a healthcare setting, any downtime at all is unacceptable.”

One-Minute Snapshots

“We can do so much more with Nutanix compared to our previous architecture,” noted Chen. “We weren’t able to take snapshots, re-create servers, or delete old snapshots in a timely manner with the 3-tier systems. In the Nutanix world, it’s a piece of cake. Now when we need to take a backup of our environment before an upgrade, we can take a snapshot in just one minute. We’ve eliminated the fear of any ‘gotchas’, because we know we can restore our environment back to the way it was very quickly if needed.”

Supporting Company Growth

“Scaling is very simple with Nutanix,” Chen said. “With legacy infrastructure, you have to buy a lot of additional capacity in advance and let it sit idle until you need it. Nutanix lets us add just one node at a time. I can now confidently tell my CEO that our IT infrastructure will be able to support any kind of future growth for company projects.”

NEXT STEPS

“A lot of healthcare organizations are very conservative about their technology investments and don’t want to risk trying out new solutions. But I tell them that Nutanix is far superior to everything that they’re using now, so it’s a greater risk NOT to move away from 3-tier. Nutanix has designed a very powerful and easily managed hyperconverged solution, with an innovative and clear corporate vision. It is clear to see why Nutanix is the leader in hyperconvergence and will lead software-defined datacenter infrastructures in the future,” concluded Chen.



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