Datrium Improves Epic Performance and Disaster Recovery Times for Northwest Community Healthcare

NORTHWEST COMMUNITY HEALTHCARE CASE STUDY

Healthcare
www.nch.org

Challenge
The hospital's Epic system required an infrastructure refresh to support a new version of the Electronic Health Records (EHR) software.

Results
- 97% faster RTO; 8 hours to 15 minutes
- 44% reduction in infrastructure cost
- 78% faster performance
- 77% improvement in Epic exception flags
- Better regulatory compliance with Blanket Encryption
- Reduced business risk with active disaster recovery (DR) data center

"Datrium took the time to understand our unique environment and create an optimized solution that came in $1.5M+ below other leading vendor offerings while saving our IT staff valuable management time and reducing overall business risk."

Glen Malan
CIO, Northwest Community Healthcare

Customer Challenge
Refresh Critical Application Infrastructure with Minimal Cost and Disruption
The Northwest Community Healthcare (NCH) IT team focuses on availability, performance, and security of their mission-critical infrastructure that includes ~1,100 virtual machines (VMs). NCH has 3,800 healthcare employees that count on their Epic EHR system to deliver information at the point of care. The Epic environment represents roughly 20% of NCH's overall virtualized environment and is critical in the 24x7x365 delivery of care to the community they serve. When the Epic infrastructure needed a refresh, the IT team jumped into action.

The existing environment consisted of a variety of gear from Cisco, HP, Nutanix, Hitachi, Dell, EMC, and VCE. The needed upgrade presented an excellent opportunity to make improvements to the existing infrastructure, including faster recovery times, better disaster DR capabilities, increased application performance, security, and more. Like most IT organizations, NCH wanted to achieve these enhancements without disruption and within budget constraints.

Results
More Performance with Less Infrastructure
Two of the primary objectives of the infrastructure refresh were to deliver better Epic application performance to doctors and patients while also improving business continuity and DR capabilities. The IT team fully explored the capabilities of the Datrium Automatrix platform, with Datrium DVX and ControlShift, and discovered that these objectives were achievable.

From an Epic perspective, perhaps the most impressive results were tied to exception flags. Before migrating to Automatrix, NCH had an exception flag percentage of 1 in 98 users with more than a 5-second wait. Afterward, NCH saw it improve to 1 in 434 users, a 77% improvement.

After they migrated 96% of Tier 0-2 VMs to Automatrix, the end users' average response times were reduced by 39%, enabling users to respond faster to patients. 90% of Epic VMs saw a read performance drop from 3-4 milliseconds to less than 1 millisecond. IOPS improved 4.5x even though the infrastructure footprint was much smaller in the data center.

> "With the cost savings of deploying Datrium Automatrix, we significantly improved our IT services and delivered an order of magnitude lower risk to the NCH community."

Glen Malan
CIO, Northwest Community Healthcare

With a fraction of the equipment to manage, the IT team saved hours of management time each week, enabling them to focus on more strategic activities. Of course, less equipment also meant less cost – 44% less to be exact.

The IT team used the savings to fund strategic IT projects, including a high-profile NSX micro-segmentation project, to help NCH meet and exceed security and regulatory requirements. Also, they deployed ControlShift to deliver enhanced data center resiliency and DR to a secondary active data center, ensuring continuity of healthcare services in the case of a natural disaster or ransomware attack.

Recovery in Minutes Instead of Hours
Automatrix built-in, verified backup, secondary site replication, and failproof DR have helped to advance the company's data protection and business continuity strategies. Plus, NCH has dramatically improved RPO (Recovery Point Objective) times by more than 90%, using Automatrix elastic replication and runbook-driven site failover capabilities. Datrium enables quick recovery and automated failover to a secondary site, which is a significant advancement for the organization.

Doing More with a Limited IT Staff
NCH, like many organizations, has a limited IT budget and staff, so the organization is always looking for innovative solutions to get the highest value from every IT dollar. The simplified, VM-centric management of Automatrix, along with granular scaling of performance and capacity, have driven substantial improvements in IT productivity. Now the IT staff can be more efficient and have time for more strategic projects that improve the quality of care at NCH.

Lower Risk and Better Compliance
Moving from one primary data center to two active-active data centers has reduced the risk profile at NCH by orders of magnitude. Automatrix Blanket Encryption has improved the end-to-end data security at NCH, allowing the organization to meet and exceed regulatory compliance goals and reduce the risk of data breaches. Because Automatrix recovery points extend back months to years, data recovery from ransomware attacks can be executed quickly and easily. IT and business leaders at NCH now sleep better knowing they are providing world-class healthcare to their community even when disaster strikes.

About Northwest Community Healthcare

Northwest Community Healthcare (NCH) is committed to providing the communities it serves with expert care. Located in the northwest suburbs of Chicago, NCH is listed as one of Health Grades Top 250 Hospitals for its fourth consecutive year and has received multiple awards from US News & World Report. NCH accomplishes this through nationally recognized physicians, advanced technology, and inpatient and outpatient services for a full range of medical specialties. NCH provides Expert Care, Right HereTM by continuously looking for ways to bring the best available services, providers and technology to the communities it serves. For more information on NCH, visit www.nch.org.

Learn more about Datrium at www.datrium.com.