CUSTOMER STORY

Baystate Health

VMware vSAN Enables Always-On Access to Image Data

Baystate Health runs Fuji PACS on vSAN for improved resilience, operational simplicity, and performance

INDUSTRY
HEALTHCARE

LOCATION
WESTERN MASSACHUSETTS

KEY CHALLENGES
- Growing size of image data volumes
- Siloed IT teams and processes
- Operational complexity
- High capital and operational costs

SOLUTION
In the process of virtualizing its data centers, Baystate moved its Fuji PACS system from legacy infrastructure onto VMware vSAN.

BUSINESS RESULTS
Baystate achieves cost savings through operational efficiencies. Always-on access to the Fuji PACS system means the health system can effectively act on its mission of quality compassionate care.

As Baystate's IT teams work behind the scenes to keep systems up and running, VMware® vSAN™ is counted on to make that job much easier and far less time-consuming. At the same time, imaging systems are available anytime, anywhere, so clinicians and patients get the service and the care they have come to expect.

Baystate Health, which services over 800,000 patients throughout western New England, has made quality, compassionate care the cornerstone of its mission since its founding in 1873. With 4 hospitals, over 80 medical practices, 25 reference laboratories, and 12,000 employees, including 1,600 physicians, patients throughout the region rely on the multi-institutional, integrated healthcare organization to perform as expected, providing an exceptional level of care.

While the health system has seen medicine—and technology—evolve dramatically over the last 140 years, its commitment to top-level care remains steadfast. Medical imaging is one aspect of diagnosis and treatment that is critical to the process of serving patients. Imaging permeates the health system, from outpatient imaging and urgent care, to endurance surgery, trauma care, and many other departments. "All of these areas are using the PACS system to access image data in real time to treat patients," says Paul Gravanda, Imaging Architect at Baystate Health.

As a result, IT teams at Baystate are tasked with effectively storing an ever-growing repository of image data while also making sure images are accessible anytime, anywhere. If the medical imaging system goes down, clinicians can't access patient image data when they need it. "It's highly disruptive to the workflows that they rely on," adds Gravanda, "and the quality of care we can provide to patients."

vmware®

"No news in this business is always good news. When we don't have a service outage, that's good for clinicians."

PAUL GRAVANDA
IMAGING ARCHITECT
BAYSTATE HEALTH

VMWARE FOOTPRINT

- vSAN 6.7u1

APPLICATIONS VIRTUALIZED

- Fuji SYNAPSE PACS 5.5.002
- Oracle 11.2.0.4

LEARN MORE

Learn how VMware vSAN can improve operational efficiency and performance for your organization. Visit us at *vmware.com/vsan*.

Baystate Chooses VMware vSAN to Run Fuji PACS

To help manage its PACS system and tackle the complexity around storage, Baystate Health transitioned to VMware vSAN and software-defined data center (SDDC) technology. The health system had been using legacy architecture, but when the IT team decided to perform a major Fuji PACS upgrade roughly three years ago, it transitioned the application to vSAN. The shift sparked immediate operational improvements and a range of other downstream benefits, including cost and time savings. Most importantly, Baystate Health can more easily and effectively keep the lights on, which is good news for clinicians and patients alike.

Key Benefits

The Antidote to Operational Complexity

Before moving to vSAN, PACS management was siloed and complex. The older infrastructure was aging, expensive and difficult to maintain—"basically a mishmash of one-off storage solutions for different environments," says Justin Bias, Cloud Technology Architect at Baystate Health. "What made things worse," he adds, "was that the team managing storage for the PACS system wasn't the team managing the servers that PACS relied on." This led to operational complexity in terms of maintenance and lifecycle management—and, according to Bias, created challenges from a skillset perspective.

With VMware vSAN, however, Baystate Health has been able to condense IT teams, performing the same operations with fewer people in less time by cross-training existing staff rather than hire from the outside. And because storage and servers are intertwined with vSAN, when Baystate performs server upgrades, storage is also upgraded. "We now have a unified view into the entire environment," says Bias, "which makes day 2 operations far easier."

Prior to vSAN, upgrades were also logistically complex and occurred infrequently. They required multiple engineers and scheduled downtime, usually in the middle of the night. All that has changed, providing more of a work-life balance. "The ease of lifecycle management with vSAN," says Gravanda, "has enabled us to do upgrades more frequently and during the day—with no impact on our end users."

Cost Savings

In addition to operational simplicity and efficiency, Baystate has been able to reduce costs across the board. With vSAN, the health system can forgo expensive proprietary hardware. "With commoditized hardware, we're spending less not only upfront from a capital perspective," says Bias, "but we're also dealing with fewer vendors and spending less on software and support renewals."

Baystate had been spending a lot of money on one-off solutions for single applications, like PACS. "Now we can take advantage of better economies of scale with hyperconverged infrastructure and vSAN," adds Bias, "not only providing services for PACS but our other Tier 1 applications as well."

More Time to Innovate

With the simplification that comes with vSAN, IT is also free to focus on more strategic tasks. "The less time that we spend just trying to keep the lights on," says Bias, "the more time we have for improvements that drive greater efficiencies and optimization" that ultimately benefit the organization.

Built-In Resilience

One surprise benefit of running Fuji PACS on vSAN is the built-in resilience. Resilience is critical in many environments—especially healthcare. If Baystate experiences an outage or if the storage media becomes corrupted, they must have more than one copy of their primary data. Prior to vSAN, the process of replicating server data was tedious and time-consuming. Now, with resilience built into the vSAN product, "It's far easier to monitor—and less hands-on," says Bias.

A recent case in point: the facilities team needed to drop an elevator shaft into one of Baystate's data centers. That meant the team had to migrate all data out of that data center. "In the old days, with legacy infrastructure, we would have to buy more proprietary metal as well as some type of replication and orchestration technology and endure all the challenges, both financial and operational, that would come along with them," said Bias. "But with vSAN's built-in resilience, we were able to migrate our workloads online from the data center and eventually back again, and nobody knew that we had touched anything."

Always-On Performance

While Baystate's move to VMware vSAN has relieved the burden on IT, clinicians and other end users benefit, too—even if they don't always recognize it. "No news, in this business, is always good news," says Gravanda. "When we don't have a service outage, that's good for clinicians."

As IT has come to operate more like a utility, users increasingly expect technology, especially in mission-critical environments, to simply function. Anything less is unacceptable. "Our clinicians want to spend their time treating their patients—not calling IT support," says Bias. "The less we hear from them, the better."

Looking Ahead

When Baystate Health introduced VMware technology in 2015, PACS was one of the first major applications to be put on vSAN. It was a decision that came naturally. "VMware is the world-class leader in virtualization," says Gravanda, "We wanted to virtualize as much of the infrastructure as possible." Bias adds, "Our leadership could see the type of scalability it had, the efficiencies in operations we could realize, and the cost savings."

Bias and Gravanda have experienced these benefits firsthand and welcome the virtualization of more workloads. "Currently the majority of our Tier 1 workloads run on top of vSAN," says Bias. "The plan is to have over 90% of our applications running on vSAN."

This trend is a win-win for all involved. "When we can keep the lights on," Gravanda adds, "our clinicians are more efficient, and our patients are much better served."