FLORIDA CANCER SPECIALISTS
Leading health network harnesses Big Data growth with EMC Isilon

ESSENTIALS

Industry
Healthcare

Company Size
1,881 employees plus 200 physicians

Business Challenge
- Business adding 20–40 physicians every year
- Big Data growing by 22 terabytes annually

Results
- Tripled capacity for critical PACS images
- Accelerated PACS image retrieval to aid patient treatment
- Consolidated 15 file servers onto one
- Freed IT to spend more time on strategic projects

Solutions
- EMC Isilon
- EMC Isilon SmartConnect
- EMC Isilon SnapshotIQ
- VMware vSphere
- Thinking Systems, Altos OncoEMR, Centricity, Syncplicity, Microsoft SQL Server, Microsoft Exchange

OVERVIEW

Every year, Florida Cancer Specialists & Research Institute (FCS) adds 20–40 physicians to its statewide network of community-based practices. FCS also is increasingly relying on high-resolution picture archiving and communication system (PACS) images to treat patients. These factors were driving the healthcare provider's Big Data assets to grow by 22 terabytes annually.

FCS initially relied on EMC® VNX® unified storage to store images generated by its Windows server-based PACS system. Since other applications, including electronic medical records (EMR) and email also reside on VNX, FCS eventually realized it simply didn't have enough storage capacity to keep up with its PACS growth.

To handle Big Data growth, FCS moved its PACS and other unstructured data from Windows servers and VNX to EMC Isilon® scale-out storage.

With Isilon, FCS tripled its Big Data storage capacity while accelerating retrieval of critical PACS images that physicians reference throughout patient treatment. Isilon also provides more stability for file servers and virtual machines, eliminating disruptions so clinicians and IT can focus more on patient care.

SOLUTIONS

FCS deployed three EMC Isilon X-Series nodes with 90 terabytes of capacity. Isilon supports the company's Thinking Systems PACS solution, Syncplicity file sharing, Windows file servers, and non-I/O-intensive VMware virtual machines (VMs).

In addition, FCS uses EMC Isilon infrastructure software, including SnapshotIQ™ point-in-time data protection and SmartConnect™ resource optimization, for streamlined storage administration. FCS also plans to install three EMC Isilon NL-Series nodes at a remote site for disaster recovery.

EMC Isilon Professional Services installed the Isilon solution.

Corey Reynolds, IT infrastructure manager, comments, "The installation went flawlessly. I prefer to use EMC Professional Services for all our EMC installations because they have the experience and best practices to do it right the first time."

FCS continues to use EMC VNX to run its Altos OncoEMR, Centricity practice management, tier-one VMs, Microsoft SQL Server databases, and Microsoft Exchange email.

In addition, FCS plans to move the Altos OncoEMR to EMC XtremIO™ all-flash scale-out storage for improved performance and efficiency of this critical application.

ACCELERATED RETRIEVAL OF PACS IMAGES

With Isilon, FCS now has three times more capacity for PACS, file shares, and other unstructured data. Performance also has increased substantially.

REDEFINE

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"Response time pulling images off the Isilon is much better, and we're talking about some really big files," says Reynolds. "It's critical because our physicians use PACS scans to track patients' cancer as they treat them.

"And Isilon makes it easy to add capacity as our Big Data assets continue to grow."

CONSOLIDATING 15 SYSTEMS ONTO ONE

By consolidating approximately 15 large file servers onto Isilon, FCS eliminated server sprawl—and much more.

Reynolds elaborates, "What's great about Isilon is that it's actually solved multiple issues. We used to deal with Windows server crashes and VMs going down. Now all that stuff has gone away. Those file servers are on Isilon, and it just works."

"Because things are more stable, physicians don't have to waste time calling IT when servers fail. They can stay focused on treating their patients."

HIPAA-COMPLIANT FILE SHARING WITH HYBRID CLOUD

Isilon helps FCS maintain compliance with HIPAA and Affordable Care Act (ACA) regulations. With Syncplicity on Isilon, FCS has a compliant, on-premises solution that enables clinicians and business staff to share files with Dropbox-like simplicity while keeping protected health information (PHI) and payment card industry (PCI) data encrypted and secure.

> "Syncplicity provides a hybrid approach so we can maintain our PHI and PCI data in house on Isilon where it's compliant, and still use the cloud for less sensitive marketing documents."

Corey Reynolds, Manager of IT Infrastructure, Florida Cancer Specialists & Research Institute

"Our marketing department was using Dropbox and our physicians wanted the same solution. We have to protect people's private information, and we can't do that with a cloud-only solution like Dropbox.

"Syncplicity provides a hybrid approach so we can maintain our PHI and PCI data in house on Isilon where it's compliant, and still use the cloud for less sensitive marketing documents."

MORE TIME FOR PROJECTS THAT HELP PATIENT CARE

Because Isilon is so reliable and easy to manage, IT can spend more time on strategic projects that enhance patient care and help FCS meet meaningful use and other ACA requirements.

When a new oncologist practice joins the FCS network, it's automatically provisioned on Isilon. So many day-to-day administrative tasks have been eliminated.

"Isilon is, without a doubt, the smoothest product install I've ever seen for any type of product in my entire career," Reynolds states. "It is the closest thing to turnkey that I've ever seen. We just plugged it in, spent 15 minutes on setup, and it's been working flawlessly since. I barely have to look at it."

SIMPLIFYING PROTECTION OF VITAL PATIENT DATA

Isilon SnapshotIQ software also makes life easier for IT. By allowing users to independently view snapshot data and restore files on their own, SnapshotIQ spares the service desk from responding to such basic requests.

"Isilon is taking FCS to another level of efficiency and reliability," concludes Reynolds. "It solved the problem of where to put all this Big Data that's so critical to patient care. And when we start replicating Isilon to our remote site, we'll get the same business continuity for unstructured data that we have for structured data like our EMR.

"Isilon is helping us fulfill a core business objective, which is making sure physicians can always access all the medical information to treat our patients in the most effective and responsive way possible."

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