

Children's Hospital Boston

With Isilon IQ, critical research continues 24/7,
365 days a year – anywhere, anytime



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Challenge

Children's Hospital Boston, hit storage limitations with its traditional storage area network (SAN) system when new technologies caused the information its researchers depend on to grow rapidly and unpredictably. With their efforts focused on creating new treatments for seriously ill children, the researchers need data to be immediately available, anytime, anywhere. However, traditional storage is both cost-prohibitive at scale and incapable of keeping pace with rapid data growth, resulting in the need for a new solution.

Solution

Children's Hospital Boston deployed Isilon IQ to create a single, shared pool of storage to provide its research staff with immediate, around-the-clock access to massive file-based data archives while requiring significantly less full-time equivalent (FTE) support. Children's Hospital Boston now replicates its researchers' file-based information between two Isilon IQ clusters using Isilon's SyncIQ® asynchronous data replication software, improving overall data reliability and eliminating impact of research data on the hospital's overall IT backup operations.

Children's Hospital Boston, the world's largest pediatric research center and a world leader in advancing the state of pediatric care, hit storage limitations for its more than 2,000 researchers, whose work in developing treatments for seriously ill children depends on a large and diverse amount of file-based information. At Children's Hospital Boston, research takes place around the clock, requiring data to be immediately available at all times. However, traditional storage is both cost-prohibitive at scale and incapable of keeping pace with rapid data growth, which forced Children's Hospital Boston to seek out a new solution.

Files En Masse

Children's Hospital Boston supports the largest pediatric research staff in the world, whose efforts generate new information – in the form of high resolution images and video, research data sets, Word documents, PowerPoint presentations, PDFs and other forms of file-based data – at break-neck speed. The result is an onslaught of file-based data that must be immediately accessible and reliably stored around-the-clock to ensure research progresses unabated.

Hitting the Data Storage Wall

As its research staff continued to generate unprecedented amounts of data, Children's Hospital Boston found that its traditional storage area network (SAN) systems were incapable of keeping pace. This placed significant strain on the hospital's data backup operations, which were bottlenecked by the constant and rapid influx of new research information, and limited the hospital's ability to rapidly grow storage quotas without sacrificing retention service level agreements. Children's Hospital Boston's research data must be immediately available for the entirety of any patient's life or project's duration, and the hospital faced significant storage management challenges as it attempted to scale its previous SAN system to accommodate its vast data archives.

"We chose Isilon because it's simple, cost-effective and scalable, allowing us to create an easy-to-use 'bucket' of information our researchers can draw on whenever, wherever they need."

— Ryan Callahan, manager of research computing, Children's Hospital Boston

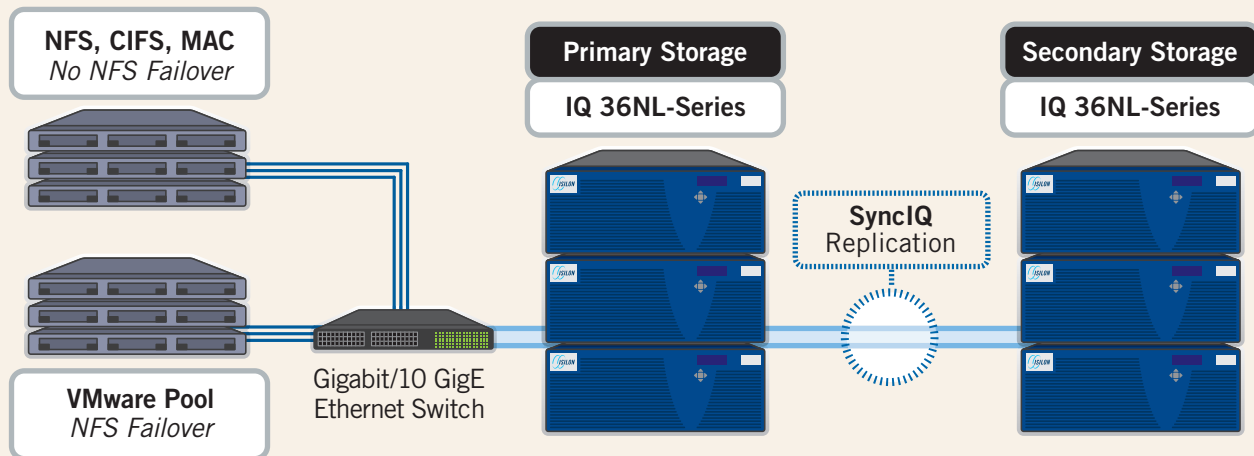
The Isilon Solution

Children's Hospital Boston found an ideal solution by deploying Isilon scale-out NAS to centralize the general-purpose file storage for its more than 2,000 researchers. Using Isilon IQ, Children's Hospital Boston was able to create a single, shared pool of storage to provide research staff with immediate, around-the-clock access to large file-based data archives while requiring less than one-third of one FTE to manage the system. Isilon IQ integrates seamlessly with both Macintosh and Windows file formats, enabling Children's Hospital Boston to effectively support its heterogeneous research environment.

To address the impact of rapid data growth on its overall IT backup operations, Children's Hospital Boston deployed Isilon's asynchronous data replication software SyncIQ to replicate its research information between two Isilon IQ 36NL clusters. This improved overall data reliability and completely eliminated the impact of research data on overall IT backup operations.

With two Isilon IQ 36NL clusters running SyncIQ across more than 250 terabytes (TB) of capacity, the hospital eliminated the impact of research data growth on the hospital's overall backup operations, creating significant time and cost savings across the organization, while at the same time improving data reliability. With Isilon IQ, Children's Hospital Boston's research staff always has the storage they need, when they need it, enabling work to cure childhood disease to progress uninterrupted.

"With Isilon, we can give our researchers more storage – at less cost – and with greater reliability than with our previous SAN. It's enabled us to offer storage in quantities that we previously thought were impossible," said Ryan Callahan, manager of research computing at Children's Hospital Boston.



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