

# Quantum StorNext and Dell EqualLogic Storage Solution for Next Generation Life Sciences

## Delivering high performance storage and large-scale data archival for life science instruments

### EXPONENTIAL GROWTH OF DATA

With the introduction of next generation life science instruments, such as DNA sequencers and high content screening (HCS) platforms, the amount of data generated with each instrument "run" often exceeds TBs of data. Many research institutes estimate the total amount of data they need to manage will grow to PBs in less than a year.

### ANALYZE FASTER AND ARCHIVE AUTOMATICALLY

Quantum StorNext data management software enables more research and clinical experiments to be run and results instantly shared across your entire research community. Delivering high-speed shared pools of storage, StorNext enables researchers to analyze and manipulate raw sequencing, flow cytometry or High Content Screening (HCS) data. StorNext File System enables next generation life sciences instruments running on Dell™ Power Edge™ servers to share data over the storage area network (SAN) or local area network (LAN) at speeds much greater than network file system (NFS) or common internet file system (CIFS) protocols. StorNext Storage Manager enables users to set policies to automatically archive older, less used, genome base pair or fluorescence data to a more cost-effective tier of storage, such as a low cost Dell disk storage or tape library, while still keeping data online to be repurposed in the future.

### WORKFLOW AND ARCHIVE

Quantum's StorNext software is built for workflows like genomic sequencing, flow cytometry, high content screening and digital pathology. StorNext enables the ingest of large files from next generation scientific instruments, then the analysis of this image data at high speed over a single namespace on the SAN or LAN. After ingestion and analysis, StorNext shares the completed research results with all clients as well as automatically retains this data on cost-effective second tier disk or a tape library. StorNext File System enables Linux and Windows clients running on platforms like Dell Power Edge servers to simultaneously connect at high throughput to a single pool of Dell EqualLogic storage array. One genome research company, utilizing StorNext File System claimed to have reduced their project timelines from 5 days down to just 2 days, delivering roughly a 250% improvement in workflow efficiency.

StorNext Storage Manager provides policy-based data archival and retrieval for large data environments. Based on user-defined policies, files can be automatically archived to multiple types of storage targets—bulk disk, deduplicated disk, NAS appliances or tape libraries, like the Dell ML6000. For environments such as genome research, where many customers are projecting data growth to exceed a PB a year, enables them to deploy a more economical storage environment that utilizes lower cost storage for their archived raw research data or archived analysis.

Many pharmaceutical companies, universities and research facilities are faced with the dilemma of setting policies to retain much of their scanned data, whether it is to satisfy grant requirements for making this data public or for government regulations, resulting in rising storage and operational costs of unbridled data growth. StorNext enables customers to properly manage their data growth by intelligently migrating data to the most appropriate storage tier, reducing the investment in tier one high-performance disk, instead, purchasing lower cost disk or even tape for their long term archive requirements. Also, since StorNext



### SOLUTION BENEFITS

- Enables high-speed life science workflows
- Handles archives from tens of TBs to the multi-PB range
- Flexible – customer choice of server OS's (Linux, Windows, and UNIX) and disk and tape vendors
- Automated – policies store and retrieve data as it ages without operator intervention
- Cost-effective – align cost/performance characteristics of data with that of the storage media for optimized cost per TB

### FOR MORE INFORMATION, CONTACT:

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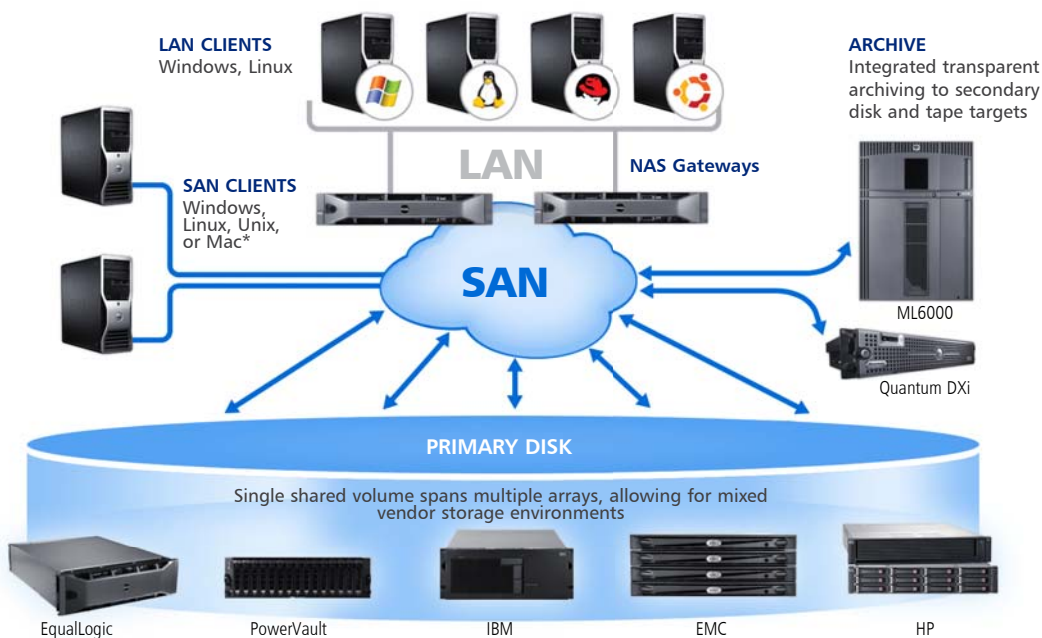
works with most major vendors' disk and tape products, you can continue to use their current SAN investments and minimize the cost of new purchases.

StorNext virtualizes the SAN storage, making the file namespace across the various disk and tape tiers transparent to researchers, and automates archival of data, such as genome and microscopy images, to cheaper storage as it ages. It also automates the retrieval of data when accessed by these researchers, letting them focus on research and not on IT.

By minimizing hardware purchases and reducing the need for direct IT involvement in constant provisioning of disk and tape backups, StorNext and Dell can save life sciences companies both CAPEX and OPEX costs.

## QUANTUM AND DELL TOGETHER

Quantum and Dell make a powerful team to solve the data challenges of today's life sciences environments. The combination of Dell storage and servers, with Quantum data management and archiving solutions produce scalable, flexible, cost effective architectures that hold up to the most demanding environments. Together, both companies are able to bring the highest level of expertise in architecting the ultimate data management solution to support your most critical research.



## SOLUTION COMPONENTS

### StorNext

StorNext data management software lets customers share data faster and store more at a lower cost. StorNext File System offers high speed access to shared pools of storage from both LAN and SAN servers. StorNext Storage Manager enables customers with large data problems to create tiers of storage, reducing costs by automatically moving data to these lower cost tiers as data ages.

### Dell EqualLogic PS Series Storage

Dell's EqualLogic storage solutions deliver the benefits of consolidated networked storage in a self-managing, iSCSI storage area network that is affordable and easy to use, regardless of scale. By eliminating complex tasks and enabling fast and flexible storage provisioning, these solutions dramatically reduce the costs of storage acquisition and ongoing operations.

The newest iSCSI arrays in the PS Series, the EqualLogic PS6010 and PS6510, add the power of 10GbE technology to the exceptional EqualLogic storage performance of previous generations. They deliver increased bandwidth performance for streaming workloads, business critical applications, virtualization, storage consolidation and high-volume data backup and data protection. The PS6000 and PS4000 series meet the needs of Remote Hospitals, clinics, or research facilities as well as largest datacenters in the research and lab community.

To contact your local sales office,  
please visit [www.quantum.com/stornext](http://www.quantum.com/stornext)

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## About Quantum

Quantum Corp. (NYSE:QTM) is the leading global storage company specializing in backup, recovery and archive. Combining focused expertise, customer-driven innovation, and platform independence, Quantum provides a comprehensive range of disk, tape, media and software solutions supported by a world-class sales and service organization. This includes the DXi®-Series, the first disk backup solutions to extend the power of data deduplication and replication across the distributed enterprise. As a long-standing and trusted partner, the company works closely with a broad network of resellers, OEMs and other suppliers to meet customers' evolving data protection needs.