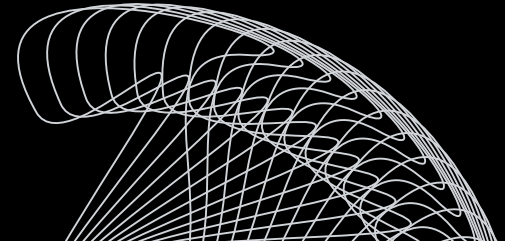


Disaster Recovery & Disk-to-Disk Backup Solutions



Challenge

Continuous access to data is vital to help keep a business running as usual. A disaster that disables an entire data center can have a significant impact on business operations, leading to poor customer service, loss of credibility, damage to brand and loss of revenue.

The solution is deceptively simple: backup important data to a secondary physical location so if the primary data center fails, data is immediately available at the secondary location. In theory this should be easy—in practice it has recently become more difficult and costly because of the explosive growth of file-based data. Video, CAD files, seismic data, medical research and other unstructured files have become the norm rather than the exception—straining traditional tape systems, shrinking backup and restore windows, and increasing overall backup costs.

As a result, the new challenge for companies planning their disaster recovery initiatives revolves around how to efficiently and automatically create remote replications of today's file-based data files across both the WAN and LAN while reducing the reliance on slow, difficult to manage tape backup.

Solution

Isilon's Disaster Recovery and Disk-to-Disk backup and restore solution enables companies to reduce operational costs, fully utilize their clustered storage resources and reduce their reliance

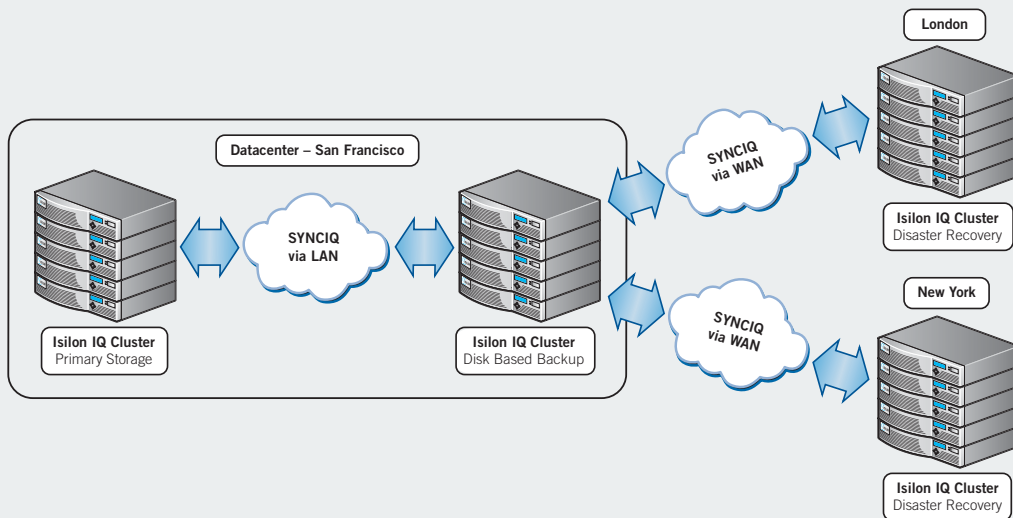
on the tape infrastructure. The solution consists of Isilon IQ® clustered storage and the award-winning OneFS® operating system, SyncIQ™ replication software and SnapshotIQ software.

For local backup and restore, Isilon SnapshotIQ software provides continuous snapshot protection for clustered storage, giving storage administrators more flexibility in meeting their recovery objectives.

Using SyncIQ software for WAN-based replication, end-users can be redirected to remote copies of critical files at a secondary location if a disaster at the primary site occurs. Administrators avoid costly downtime or lengthy restoration processes that are commonly required for offsite data protection via tape.

Additionally, for customers that require a local copy of data for a disk-based backup and want to eliminate the dependency on slow, legacy-based tape infrastructures, Isilon customers can utilize SyncIQ to achieve extremely fast LAN-based backup to a separate cluster.

Based upon the Isilon IQ clustered storage system, Isilon's Disaster Recovery and Disk-to-Disk backup and restore solution enables customers to meet recovery point objectives (RPO) and recovery time objectives (RTOs) for businesses of any size.



Disaster Recovery & Disk-to-Disk Backup Solutions

Key Benefits

Fast Replication

SyncIQ software delivers extremely fast replication of data across multiple Isilon IQ clusters over the WAN and LAN. SyncIQ software is the only replication tool that leverages Isilon's unique OneFS operating system and clustered storage architecture, enabling replication jobs to be parallelized and evenly distributed across all send and receive nodes in the clusters. Bottlenecks are eliminated because only the files that change are replicated to the secondary recovery site. This optimizes daily transfer times and minimizes bandwidth usage while keeping the failure site up-to-date.

Improved Data Reliability

Isilon SnapshotIQ™ software delivers unprecedented flexibility in meeting local RPO and RTO objectives compared to traditional solutions. For local backup and restoration, SnapshotIQ supports an unlimited number of snapshots within a highly-scalable, single pool of clustered storage and up to 1,024 snapshots within any single directory. This allows administrators to schedule frequent snapshots and therefore gain greater flexibilities and data security in meeting their recovery objectives.

Smart Policies

SyncIQ replication software provides a rich set of policies for creating and scheduling storage replication and migration activities to meet a broad range of backup requirements. Policies can be based on file type, file size, bandwidth requirements and storage resource availability. These policies can be set at the cluster, directory or even the file level with a few simple clicks of the mouse. Backup performance can be configured and optimized for both network bandwidth and cluster resource utilization, and multiple policies can be set for different days and times of the week depending on an organization's needs.

NDMP Support

Isilon supports the well-adopted Network Data Management Protocol (NDMP) standard for backing up network-attached storage using familiar backup and restore applications such as CommVault, Bakbone, or VERITAS Netbackup. Whether through standard ISV applications or through direct NFS or CIFS mounted backups, Isilon's unique architecture allows backups to be spread across multiple streams, which can significantly improve overall backup and restore performance.

Easy To Use

SyncIQ provides an intuitive, fully integrated wizard-driven Web-based management console that allows for graphical monitoring and reporting across all Isilon IQ nodes. As a licensable software module for Isilon IQ, SyncIQ can be installed, configured and can begin replicating data in less than 10 minutes. No professional services, specialized training or complex system design is required.

Isilon Clustered Storage

- Reduces storage costs
- Increases IT operating leverage
- Speeds workflows
- Unlocks new revenues
- Complementary

Related Products

Isilon IQ Platform Nodes

The Isilon IQ 1920, 3000, 6000, 9000 and 12000 platform node systems use standard Gigabit Ethernet for front-end connections and offer the option of Gigabit Ethernet or high-performance, low-latency InfiniBand® for intracluster communication at no additional charge.

Operating System—OneFS®

OneFS® is Isilon's operating system software that provides the intelligence behind all Isilon® clustered storage systems. Now in its fifth generation, it combines the three layers of traditional storage architectures—file system, volume manager and RAID—into one unified software layer, creating a single intelligent file system that spans all nodes within a cluster.

SnapshotIQ™

SnapshotIQ represents a significant advancement over traditional snapshot technology. Isilon snapshots are highly scalable and typically take less than one second to create, incurring little to no performance overhead, regardless of the size of the file system or directory being snapshot or the level of production activity on the cluster. Moreover, only changes to blocks that make up a file are reflected in updates to the current version of snapshots, thereby ensuring highly efficient snapshot storage utilization.

SyncIQ™

Enterprises increasingly need to distribute large, mission-critical datasets to multiple shared storage systems and teams in multiple locations. SyncIQ replication software is the industry's only policy-based file replication system designed exclusively for clustered storage, combining a rich set of policies for creating and scheduling storage replication jobs with innovative bandwidth throttling and cluster utilization capabilities.

Customer Success



The San Bernardino County Recorder is leading the way for a digital government by making records available at the click of a mouse almost immediately after their filing with the Recorder's Office.

"Isilon IQ serves as the primary storage repository for all land title, birth, marriage and death records for the entire county. The system effortlessly integrated with our FileNet document management system, and its clustered architecture and SyncIQ replication software provide a high degree of reliability and scalability."

—Patrick Honny, Departmental Information Systems Manager for the County of San Bernardino Auditor-Controller/Recorder's Office



PENN VIRGINIA CORPORATION

Penn Virginia Corporation (NYSE: PVA) is an energy company engaged in the exploration, acquisition, development and production of crude oil and natural gas. Isilon clustered storage enables Penn Virginia to reliably store massive amounts of vital data and enhance its seismic interpretation workflow, while dramatically reducing the risk of data loss.

"In the oil and gas industry, 3D seismic data is the driving force of our business for exploring and developing oil & gas reserves in the Gulf Coast. Our ability to interpret this data is the lifeblood of our business and therefore its availability and security are crucial to drilling successful wells. Being located in Houston, with hurricane threats and the amount of time spent by IT to ensure all critical data is safe, we knew we needed new and better methods for protecting and accessing this critical information. We evaluated a number of products and Isilon clustered storage was the clear choice. Isilon IQ is a turn-key solution that has enabled us to reliably secure massive amounts of valuable data, allowing us to cost-effectively streamline our business processes while sleeping better at night."

—Gary Bailey, Director of IT for Penn Virginia



CLEARCHANNEL

Clear Channel Communications, Inc. (NYSE:CCU) has deployed Isilon

IQ at multiple locations in North America and Europe as the primary storage platform for its radio station Websites, creative services groups and corporate e-mail archiving. Clear Channel, a global leader in media and entertainment, is using Isilon IQ and Isilon's SyncIQ replication software to streamline its file-based storage, power the 24x7 operation of more than 1,100 radio station Websites, replicate files between multiple data centers in North America and Europe for disaster recovery purposes and archive its corporate e-mail.

"Given the global nature of our business, we are constantly looking for cost-effective methods to streamline our workflow and enhance the services we deliver. We are amazed by the simplicity and performance of Isilon IQ as well as the ease with which we are able to replicate files between data centers using SyncIQ. Isilon's products offer significant cost savings, allow us to add capacity without downtime and ultimately enable us to better concentrate on what matters most—delivering compelling programming to our hundreds of millions of listeners and viewers."

—Greg Robinson, Solution Architect for Clear Channel Communications

Isilon IQ Clustered Storage

The Isilon IQ family of clustered storage systems was designed from the ground up to meet the needs of data-intensive enterprises and high-performance computing environments. By combining Isilon's OneFS® operating system software with the latest advances in industry-standard hardware, Isilon delivers modular, pay-as-you-grow, enterprise-class clustered storage systems.

- Powered by OneFS operating system software, distributed file system creates a single, shared global namespace
- First and only truly symmetrical clustered storage architecture
- System can scale from 4TB–2.3PB in a single file system
- Unmatched aggregate throughput from a single file system with up to 20 GB/second
- Single stream performance of more than 400 MB/second, concurrent performance of 700 MB/second and over 26,000 transaction I/Ops
- Industry leading, high availability for clustered storage systems
- Powerful, easy-to-use Web-based management
- 60-second scaling of both capacity and performance
- Built-in, automatic application/client connection load balancing
- Industry-standard protocol support (NFS, CIFS, HTTP, FTP, NDMP, SNMP, LDAP, ADS, NIS)



About Isilon Systems

Isilon Systems is the worldwide leader in clustered storage systems and software for file-based data, enabling enterprises to transform data into information—and information into breakthroughs. Isilon's award-winning family of IQ clustered storage systems combines Isilon's OneFS operating system software with the latest advances in industry-standard hardware to deliver modular, pay-as-you-grow, enterprise-class storage systems. Isilon's clustered storage solutions speed access to critical business information while dramatically reducing the cost and complexity of storing it.

The evolution of storage is clustered storage built on a powerful, open operating system with unique software that lets you pay-as-you-grow. Visit www.isilon.com/contact to get started—and see why clustered storage is paying off for some of the biggest and most respected names in the world.

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