



Say Goodbye To Data Silos & The Headaches That Go With Them

WHITEPAPER

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Heterogeneous computing and storage environments are now the norm, and present significant new challenges not found in typical homogeneous systems that existed before 2005. These data systems should be related, but incompatibilities between different storage platforms create significant problems because they cannot interact without complex manual processes. These manual operations have become Band-Aids for today's multi-vendor storage systems.

Data silos have spread throughout the enterprise in recent years for a variety of reasons. Companies merge, which inevitably create silos. Data silos arise naturally in large organizations when each organizational unit has different goals, priorities and responsibilities. Data silos can occur when departments compete with each other instead of working together towards common business and IT goals. If you think data silos are bad for your organization, you are right! Removing a silo is not a simple task either, as maintaining control of your data is a critical aspect of business success. There must be a better answer.

StrongLink software has been designed & developed to make it easy to globally manage all files across incompatible storage silos.

Why Do Enterprises Cause Data Silos

Different use cases with-in the organization	Multiple performance requirements
Budget pressure to offload primary storage	Legacy storage filling up
Scale-up vs scale-out architectures	Extending on-premises stores to Cloud
The desire to break vendor lock-in	To take advantage of new tech
When Companies merge	Different departmental budgets and priorities

The Magnitude of the Silo Challenge!

Have you ever wondered what's inside all these silos? A new study from Igneous Systems, Inc., The State of Unstructured Data Management Report shows that North America's data-centric enterprises are working with massive, difficult-to-manage volumes of unstructured data spread widely across heterogeneous, incompatible silos. Unstructured data refers to information and files that are not housed into a traditional or relational database. Unstructured data presently accounts for over 80% of enterprise data, including video, audio, images, documents, web pages, emails, and much more. Igneous Systems sponsored the study, which polled 200 IT leaders in North America in data-intensive organizations from a range of industries to explore this topic. Most (59%) of the respondents' report managing over 10 billion files, with an average annual growth rate of 23%, while 82% of respondents manage 1 billion or more files and objects! Data files also have metadata which enhance these quantities even further, and add complexity to data management. The magnitude of the challenge is staggering - who knew?

The Global Namespace Unites Data Silos

Difficult management problems arise when silos spread unchecked. The traditional approach to this problem has been manual, costly, and time consuming. Silos restrict a unified vision across the organization, often breeding mini data empires where people are less likely to collaborate, unable to share information or work together as a cohesive team. Moreover, aggregated storage trends are impossible to view, when one silo only has a portion of the information.

The time has clearly arrived for data centers, system resellers, and integrators alike to embrace the concept of the Global Namespace (GNS), as the benefits are compelling. A GNS is a heterogeneous, enterprise-wide abstraction of all file information, open to dynamic customization based on user-defined parameters. This becomes particularly important as multiple network-based file systems proliferate within an organization creating data silos, and the primary complexity challenge becomes one of effective data management.

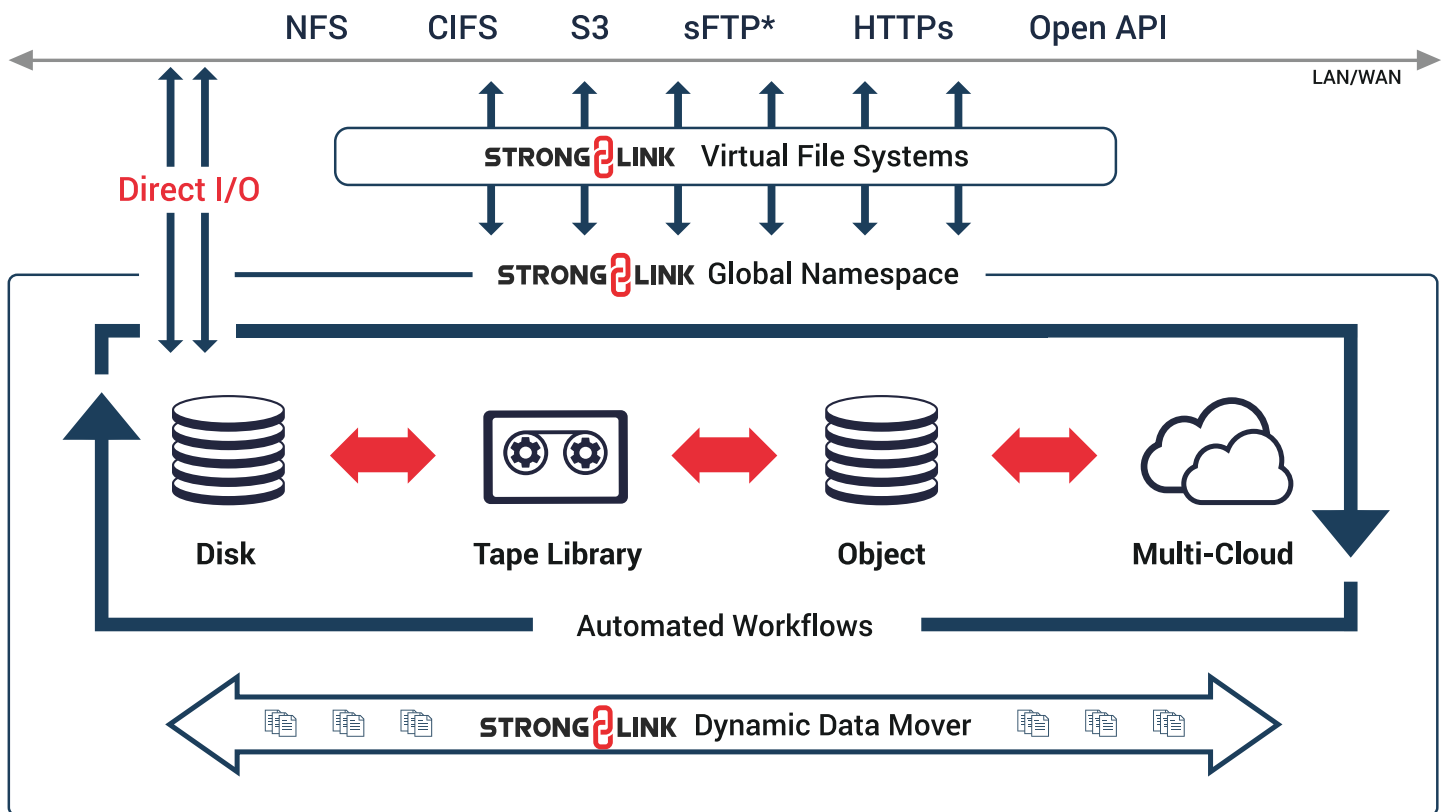
A GNS delivers the unique capability to aggregate disparate and otherwise incompatible network-based file systems, providing a consolidated view that can greatly reduce complexities of localized file management and administration. With a GNS, an organization can access a virtualized file system namespace where the files exist in multiple physical server or share locations but appear to be part of a single namespace. Some of the main advantages of a GNS are to aggregate multiple storage types into larger working pools of disk, to migrate data transparently to the optimal storage hierarchy level, and to reduce the number of mount points and shares in an environment. Without a GNS, your chances of winning the Powerball are probably

greater than effectively managing countless data silos and their content.

Fortunately, a complete solution to this growing headache has finally arrived. StrongLink from StrongBox Data Solutions delivers a complete data architecture that is designed to make it easy to globally manage all files across otherwise incompatible storage silos.

StrongLink Architecture Connects Incompatible and Multi-vendor Data Silos

StrongLink is a software solution for heterogeneous storage management with many advanced technologies that enable intelligent data management across local, network, tape, and cloud storage alleviating these problems. The chart below highlights the StrongLink architecture:



Key Benefits of StrongLink

- StrongLink's GNS creates a unified view across all storage types (local, network, HDD, tape & cloud) to simplify data management and collaboration across incompatible environments and interfaces to eliminate data silos.

- StrongLink's metadata-driven Autonomous Engines give organizations global visibility, search, and control of their files across all storage resources. StrongLink automatically classifies all data by aggregating multiple metadata types into a common management platform.
- StrongLink Data Insights and Analytics automate data movement and optimizes storage resources across platforms, vendors, and the cloud. This capability enables tiering that properly aligns data value, performance, & storage costs.
- StrongLink's data migration & tiering capabilities provide a quantum leap beyond simple HSMs and data movers of the past. StrongLink dynamically manages and intelligently moves files across otherwise incompatible storage hardware, including file, object, tape, and cloud. Files are always accessed directly from their current location, eliminating the need to restore and rehydrate them to primary storage, or interruption to user access to files.
- StrongLink can be deployed both in and out of the data path for maximum flexibility and control, unlike most solutions that are limited to being deployed only out of the data path.
- Many vendors license storage software based on capacity, a very expensive approach. StrongLink's simplified licensing is not capacity based, significantly reducing software licensing fees, and providing long-term cost stability. With StrongLink increasing data volumes do not increase data and storage management costs. StrongLink prices its software based on a simple predictable subscription (OPEX) price for a period of one, three, or five years.
- StrongLink provides Isilon, Qumulo, and other popular NAS systems with the flexibility to seamlessly and easily connect to different vendor platforms and file protocols, and manage data placement policies between them – a huge benefit for resellers and integrators!
- StrongLink provides a solution for primary storage environments that uses dynamic migration capabilities to automatically move lower activity data to less expensive storage of any type, freeing up costly capacity on the Isilon. Also, with inactive data removed from HDDs, the backup set is reduced in size and the backup window takes less time.
- As the existing storage infrastructure is replaced over time, and new technologies emerge, StrongLink enables customers to focus on their business, knowing that their data strategy is sound regardless of the physical storage type they have now or may acquire in the future.

Resellers Get A Huge Boost From StrongLink

Most storage environments consist of multiple platforms, vendors, and clouds creating a unique set of problems. StrongLink can be the glue that provides significant value and facilitates the reseller when they are selling backup, data migration services, integrating silos, or solutions for on-premises workflows to tie into the Cloud. StrongLink understands objects and file storage, facilitating these projects while connecting otherwise incompatible and multi-vendor storage silos. StrongLink is data-centric, capturing, aggregating, grooming and classifying metadata which is used to intelligently migrate data to higher or lower performing storage, on and off-premises in order to meet user-defined policy requirements. With StrongLink, the reseller has, at last, a compelling tool that solves the data management problems associated with heterogeneous compute environments.

The StrongLink Value Prop

Automated Data Migration	Combines Storage Resource Management and Data Lifecycle Management Policies with integrated audit services to eliminate migration complexity and free up costly disk space.
Active Archive Support (Cloud and Tape)	StrongLink delivers a seamless active archive that works with any disk, tape and cloud service. Enables intelligent caching for hot data, with data placement optimization across any storage resource, location, vendor platform, or file system.
Storage Optimization	Most storage environments consist of multiple platforms and vendors creating a lack of data visibility to enable tiering that aligns data value & storage costs, data locked in silos each with their own management tools. The StrongBox GNS spanning platforms, vendors and clouds eliminates silos.
Business Continuity/Disaster Recovery	StrongBox delivers a single BC/DR solution with auditing, file versioning, verification, and user access controls that span local, network, tape, and cloud storage.
Non-disruptive Technology Refresh	All vendors' storage technologies require refresh every three to five years. the effort is manually labor-intensive, error-prone, consuming excessive IT resources, & commonly disruptive. StrongLink automates data movement and optimizes storage resources across platforms, vendors, and cloud.

<p>HPC and Research</p>	<p>Today's research and high-performance computing (HPC) environments have unique problems: manual processes, lack of data classification, and the complexity of managing research data across huge, diverse storage environments (HPC clusters & instruments, files, object, tape, and cloud storage). Global namespace connects across files systems, platforms for easy access, collaboration and tiering/archiving.</p>
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Summary

StrongLink software has been designed and developed to make it easy to globally manage all files across otherwise incompatible storage silos. StrongLink offers the best of storage resource management and data management analytics using rich metadata to take compelling actions. For resellers, StrongLink can be the glue that provides significant value when they are selling backup, data migration services, optimizing tiered storage, silo consolidation, or managing hybrid work flows to off premises cloud providers. Waiting longer to address heterogeneous data management and incompatible data silos is a strategy, just not a very good one. It's time to get control of these issues, with StrongLink.