## AUTONOMOUS DATA MANAGEMENT



Enterprises struggle to manage more data, from more sources, across more storage silos than ever before.

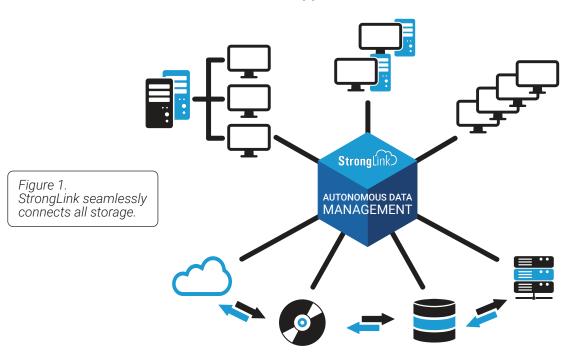
StrongLink software is the ultimate solution for heterogeneous storage management driving intelligent data management across local, network and cloud storage. StrongLink removes complexity

#### **KEY BENEFITS**

- Remove complexity
- Reduce storage costs with immediate ROI
- Enforce data protection & security

from IT operations, reduces storage costs, enforces data lifecycle management policies to meet global business continuity and disaster recovery. StrongLink immediately reduces OPEX by automating workflows and CAPEX by tiering and migrating to the lowest-cost storage.

## **Applications & Users**



Any Local, Network & Cloud Storage

**Eliminate storage silos:** StrongLink is designed to make it easy to globally manage all files across otherwise incompatible storage silos. The StrongLink global namespace creates a unified view across the entire storage environment simultaneously connecting all files regardless of vendor, platform and protocol.

**File migrations** are automated across all storage with no disruption to users or applications. Intelligent data movement accelerates applications by ensuring files are always where they need to be, when they

need to be there. User-defined policies ensure the hot and warm files are always on the right storage tier and cold data is on the lowest cost storage, on-premises or in the cloud.

**StrongLink is not traditional HSM.** StrongLink does much more. StrongLink does not use agents, stubs or symlinks. The StrongLink Autonomous Engine dynamically manages and moves files across any storage platform. Files are always accessed directly from their current location, eliminating the need to restore and rehydrate them to primary storage. StrongLink autonomously and intelligently migrates files, unlike HSM.

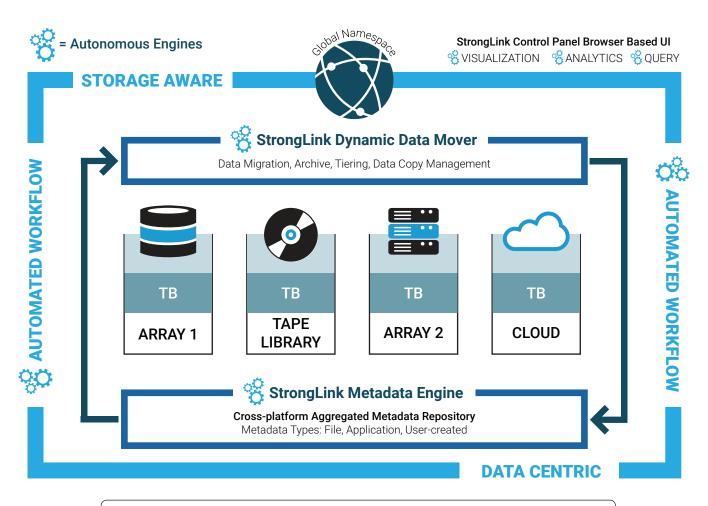


Figure 2. StrongLink Autonomous Engines continuously manages storage & metadata

## StrongLink's Architecture Is the Foundation of Autonomous Data Management

StrongLink provides global control and visibility to all fi les across all storage. StrongLink is designed to open standards so fi les can be accessed without a dependancy on StrongLink. Keep fi les on existing storage, consolidate storage, migrate data, tier and archive. StrongLink's automated data lifecycle policies enforce:

Retention periodsActive archiving

Data copy managementWORM

QuotasFile deduplication



#### Unleash the Power of Metadata

Auto discover, extract, and classify metadata from all digital assets. StrongLink identifi es and aggregates metadata including file system, application-specific, external database, and user-generated metadata, enhancing it with automated and manual tagging. Use any metadata type to power scheduled and triggered workflows reducing complexity and driving greater productivity.

**StrongLink powers AIOps using metadata to monitor data & storage for greater visibility into storage operations.** Enable automation of routine IT practices, to quickly recognize and take action on serious issues, and streamline collaboration between groups and teams. Leverage automated workflows for applications such as data migration, data protection, business continuity, and data copy management to reduce IT staff workload and related costs.

#### Manage all of your data and storage resources from a single-pane-of-glass

The intuitive, browser-based StrongLink Control Panel with Data Insights enables visualization, statistical analysis and management of all files, regardless of their source. Users can create permision-based custom views for sharing and collaboration.

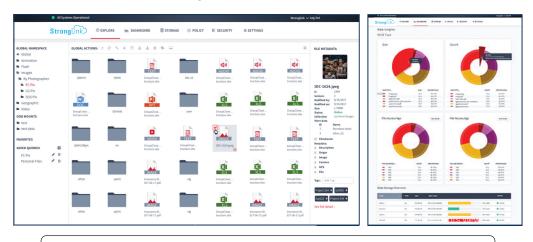


Figure 3. StrongLink browser-based Control Panel - different views.

#### Enable smarter data management with predictive analytics

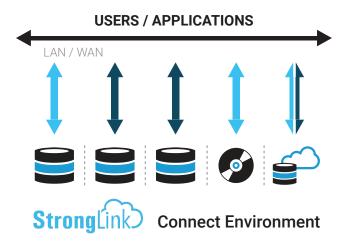
Data Insights delivers actionable intelligence for predictive, real-time analytics, and verification & reporting that facilitate storage planning and optimize application performance.

#### The power of being in and out of the data path

Data can be directly accessed from any storage with no dependency on StrongLink. File naming and hierarchy are maintained regardless of storage, including all metadata—even in the cloud.

StrongLink can be deployed both in & out of the data path, unlike solutions that are limited to being deployed only out of the data path. StrongLink can also be deployed in a hybrid of both Managed Storage (out of the data path) and Advanced Managed Storage (AMS) which is in the data path.





#### Managed Storage Benefits

- Direct I/O to files & objects
- · Dynamic Data Movement
- Data lifecycle management
- File & metadata search
- · Copy Data Management
- Metadata aggregation
- Data protection & verification

#### **AMS Benefits**

All the benefits of Managed Storage &:

- · More control & security
- · Control direct storage access
- · Audit trails
- Versioning
- StrongLink provides agile data management, enabling deployment
- In the data path
- · Out of the data path
- Hybrid in/out
- · Enforced data stewardship
- Protection, preservation, privacy
- Small fi le optimization
- Storage resource management

Figure 4. StrongLink may be deployed in the data path, out of the data path, or as a hybrid of both

# StrongLink Autonomous Engines

- Query engine Global queries across all storage
- Analytics engine Lifecycle management, QoS, & capacity optimization
- Visualization engine Data Insights & reporting
- Dynamic Data Mover engine Migrate, I/O balancing, tiering
- Metadata engine Extract, auto-classifi cation, tag, organize & manage
- Workflow engine Automated policies based on schedule and triggers

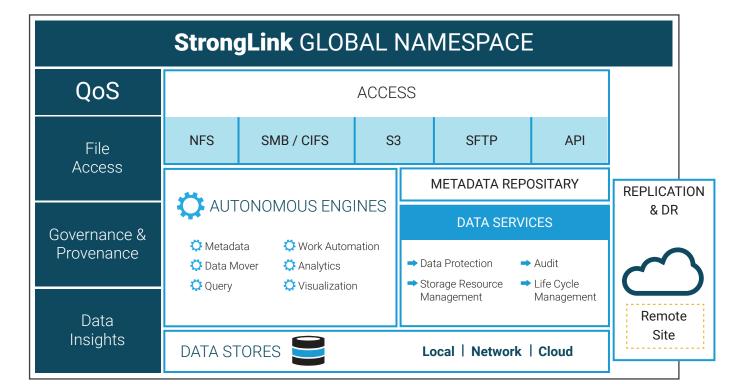


Figure 5. StrongLink Architecture



### Ensure end-to-end data protection

StrongLink provides continuous oversight with comprehensive data integrity checks. It enforces data protection policies with immutable audit trails, fi le versioning, fi le verifi cation, multi-copy writes, encryption, and user access controls. StrongLink easily restores any fi le with a single click.

### StrongLink Features Include:

- **⋖** Aggregated metadata management
- **Overling** Dynamic reporting
- Policy-based workflows
- ✓ Dynamic Data Movement, archiving, tiering
- Global search
- Copy data management: File-based deduplication, single-instancing & multi-copy write
- **✓** Versioning with point-in-time recovery
- Encryption in-flight & at-rest with integrated key management
- Immutable audit trails
- ✓ Roles-based access controls (RBAC)

- Self-describing containers for small file optimization
- StrongLink Smart Pools load balance writes across heterogeneous storage
- ✓ Cross-platform global namespace
- Multi-protocol access (NFS, SMB, sFTP, S3, HTTPs)
- Multi-storage platforms (NAS, Object/-
- Cloud, FC/SAS, LTFS, Black Pearl, Lustre, GPFS, BeeGFS, CEPH)
- ✓ Open RESTful API
- Auto file verification

