WHITEPAPER

Storage Optimization Strategy with Unified Unstructured Data Management Platform

› Once upon a time in the West!

DATA DYNAMICS

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Introduction

Managing unstructured data seems to be an easy task, but it's not and people who run such environments at any scale recognize that pain and try to adopt best practices and comprehensive solutions. Analysts confirm that data grows by 30 to 60% per year depending on the industry, with 80% being unstructured data contributing to complexity for storage management.

In fact storage managers are always looking to optimize unstructured data environments especially due to budget pressure, compliance needs and rapid data volume growth. This is an ongoing quest until they find Data Dynamics StorageX (part of the Unified Unstructured Data Management Platform), adopted by many Fortune 1000 enterprises, helping them to reach a new level of excellence in unstructured data management.

Enterprise Needs

File data proliferate within the enterprise, in the corporate data center, in the public cloud and in remotes offices. To cope with this increasing challenge with so many consequences on IT quality of service and costs, storage managers and leaders identify several needs:

- Optimize, unify and consolidate file services
- Improve data protection ensuring business continuity and disaster recovery
- Boost data serving with homogeneous, secure and resilient access
- Align data value with the storage cost with tiering and archiving
- And finally comply with regulations such CCPA, GDPR, HIPAA and others.

while adopting new technologies and drastically cutting costs.

StorageX, an Enterprise Data Management Platform

Often limited to tools or point products for operating simple tasks, storage managers are under pressure to deliver their day to day operations on time and under budget. They require and deserve a real comprehensive data management solution.

For almost two decades, Data Dynamics has developed StorageX as the enterprise data management platform dedicated to unstructured data stored on-premise and in the cloud.

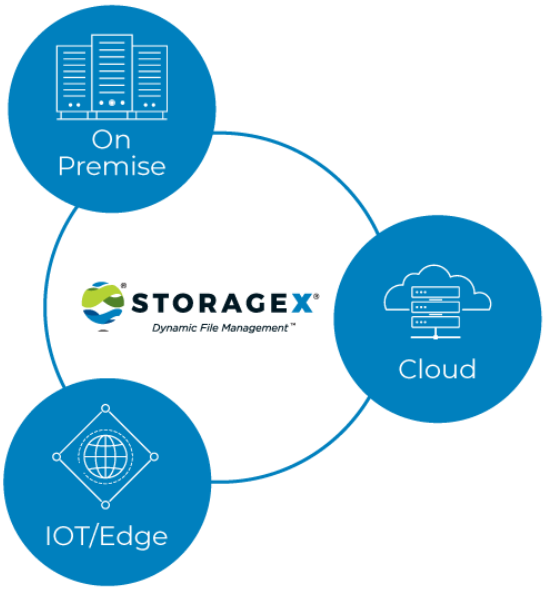
This platform represents the right companion for storage administrators and managers to control hybrid cloud data environments.

Highly available and scalable by design, StorageX operates as the enterprise data backbone across sites and storage entities. This is what the industry refers to as a platform, playing a central role consolidating management and control operations with an advanced Universal Data Engines and intuitive administrative portal.

The Data Dynamics' suggested workflow always begins with analysis of your unstructured data so that you make sure that you are intelligently managing your data. Within StorageX, there is a metadata analytics module that allows for a super efficient analysis capability that gives insight into key file attributes such as:

- Identifying inactive data and how old it is
- Identifying open file shares and orphaned files
- Identifying ROT (redundant, obsolete and trivial data)
- Identifying which users are using capacity for bill-back/charge-back purposes
- Identify which applications are driving capacity

StorageX Unstructured Data Coverage



As data last longer than devices where they're stored, adopting a platform like StorageX constitutes a paramount choice to efficiently manage unstructured data environments aligned to business goals and enterprise's IT mission.

> StorageX has demonstrated real operations gain and quality of service outcome at a number of sites. It represents a very mature and comprehensive data management platform that scales with the environments and needs.
>
> **Philippe Nicolas, Analyst, Coldago Research**

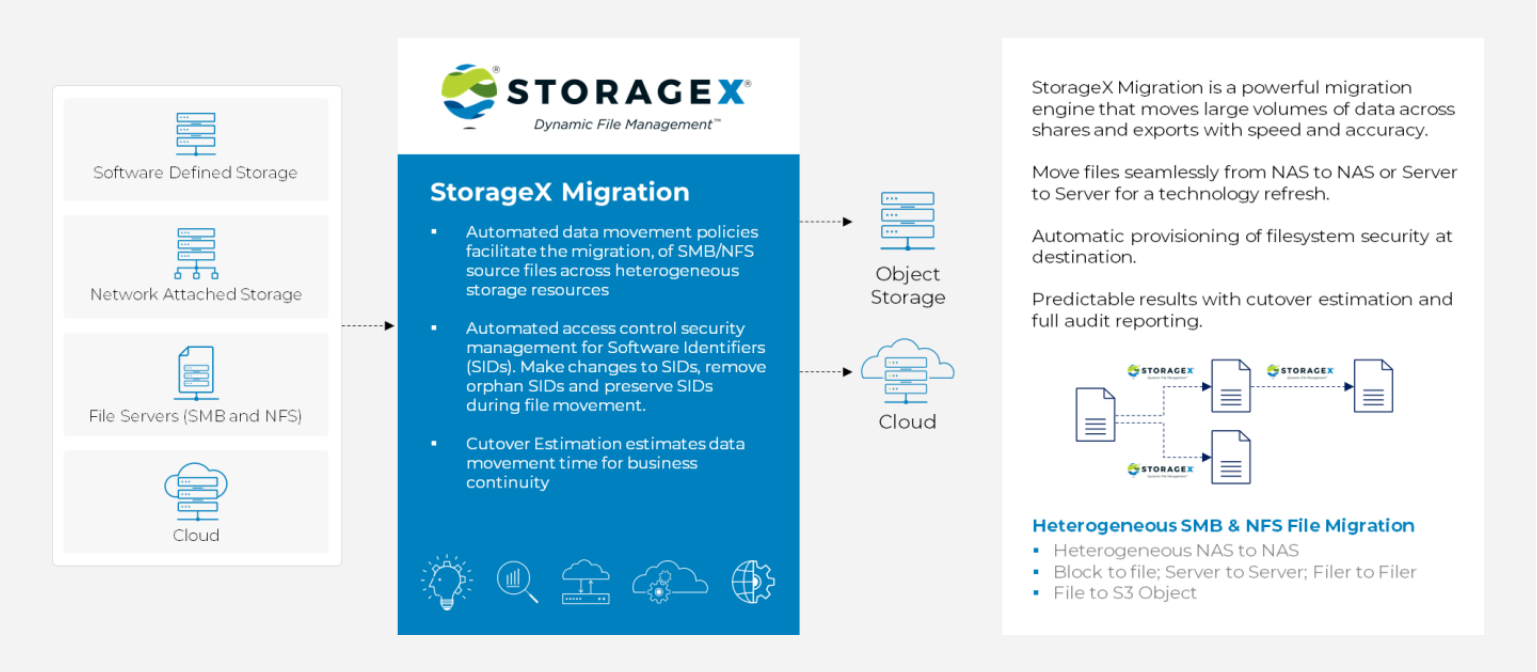
Consolidating file servers represents one of the top priorities of storage managers as they need to combat the file server sprawl, an obvious consequence of the explosion of the volume of data. This effervescence of servers increases the complexity of management therefore its TCO and more globally the storage one.

Considered as a must have, this optimization is addressed by the capability to consolidate file servers whatever brands, models or generations are as long as they support NFS and SMB protocols.

In other words, StorageX helps conolidating several diverse NAS or file servers, Windows or Linux based, even proprietary ones, into a few or just one new NAS product. The solution makes this transition completely seamless by copying data, ensuring integrity, updating shares and paths and maintaining all users access rules and rights.

As more and more file servers expose NFS and SMB, the convergence of independent silos, fueled by Windows, Linux or even NAS, becomes a reality towards a unified file storage model.

This migration capability also helps storage architects to think about adopting new all flash NAS and potentially replace their previous tier 1 file servers. The migration engine, powered by an intelligent parallel copy engine, delivers a high transfer rate while users continue to access their files. Operated through the portal, the migration estimated time is displayed inviting the admin to schedule the right time for cut-over.

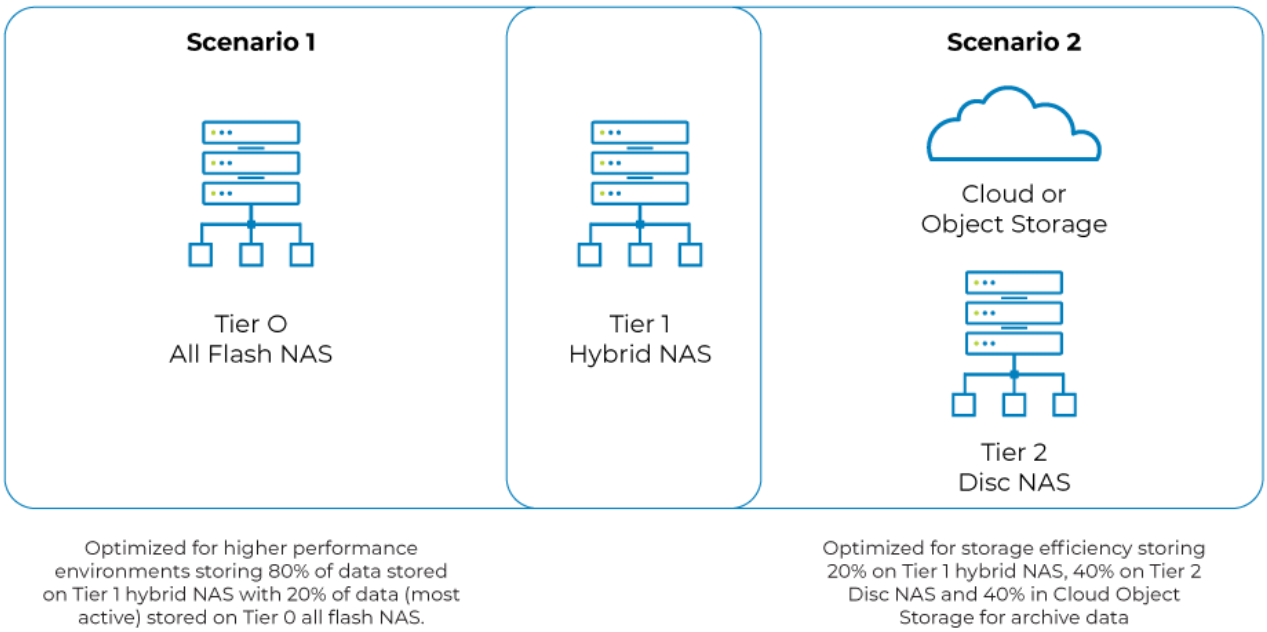


Beyond consolidating file servers, another key area is to optimize the current data perimeter across current file server entities.

Common example covers the addition of a new secondary storage and the necessity to evacuate data from tier 1 legacy entities. Existing primary file servers then become more efficient with only hot data.

This migration capability also helps storage architects to think about adopting new all flash NAS and potentially replace their previous tier 1 file servers. Data Dynamics sees new opportunities adding such new generation of file servers, using analytics to identify file activity and then promoting 20% of hot data form previous tier 1 and leaving 80% at current level.

StorageX leverages its Universal Data Engine efficiently move data (independent scalability) without any gateway, stubs or specific in-data path appliance.



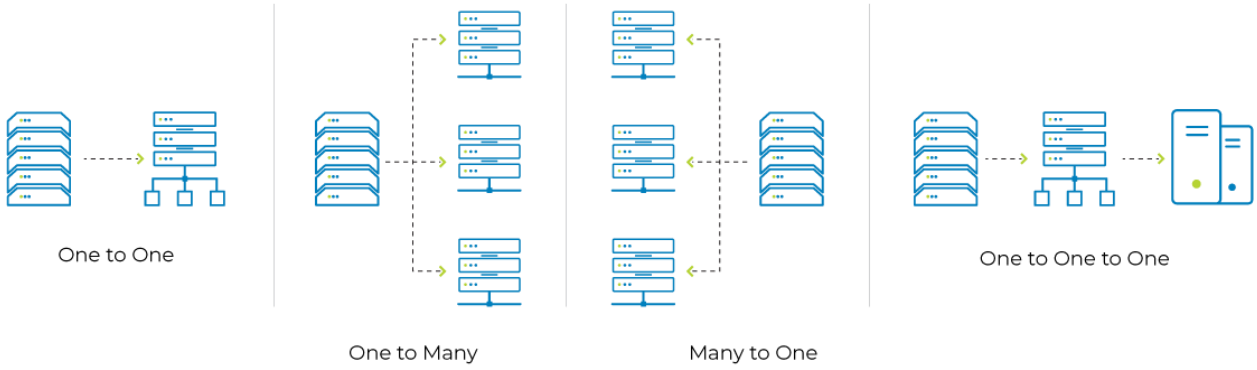
The other key mission of the storage manager is to maintain file services up and running with enough data redundancy and permanent access to sustain the business.

StorageX as the central data management platform offers multiple mechanisms to replicating and syncing file data from one system to many and therefore assuring data durability. The data copy engine is able to propagate changes and enable cascading copies across different levels of storage units. Thus data is present at multiple places, local or remote, and can be used in case of failure or just when peak load occurs on primary servers.

Storage admins can enable easy data copy models with 1:1, N:1, 1:N and even cascading 1:N:M as mentioned above.

Data Dynamics ensures that the last data version is always delivered to the right secondary systems with a transform and sync feature activated between on-premises file servers and cloud object storage. Thus it provides a continuous data protection method to create data persistence. This File to File replication capability is extended by a new feature named File to Object copy introduced with the 8.0 release, to support object storage exposed with S3. Thus the platform manages all data stored on any file and object storage entities giving StorageX a flavor of universality.

As mentioned in the previous point, the data migration feature enables old systems replacement and refresh with greater density, faster network interfaces, globally better performance and all flash NAS. It strengthens the choice towards new generation of file services even with cloud-based ones leveraging cloud storage from majors cloud providers.



Flexible replication configurations allows you to create policy driven DR strategies, automating the replication of data to meet your specific needs

As said, new data are created at a rapid pace and used to be mixed with other data stored on the same file servers and NAS delivering unbalanced and potentially degraded performance results. Additionally, these deployments impact significantly the TCO as keeping cold or non recently accessed data on primary file storage reduces space for business critical data. Bottom line is storage managers would have to acquire new primary file servers to store this mixed file data. We also see a secondary effect with a significant impact on file services SLAs users expect.

Considering dedicated secondary storage or cloud object storage contributes to the reduction of the cost of the infrastructure. StorageX analyzes and classifies data based on specific criteria and policies - old data, large files, files associated with special projects... - and automates the data movement to the right new data location.

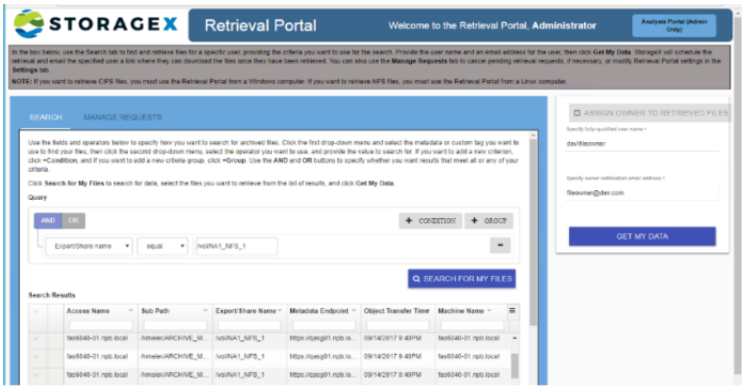
Leveraging its advanced copy engine, StorageX does archiving and tiering coupling any secondary NAS and on -premises or cloud object storage as soon as the S3 protocol is exposed.

For archiving specific requirements and especially for CCPA, GDPR, HIPAA or other regulations, archiving can migrate data to compliance ready devices and WORM storage.

By reducing the presence of cold data on primary file storage, more space is available for newly created data aligned to the performance level needed to support the business. But also backup jobs stop to copy inactive files, being faster, and potentially more frequent.

All these data movements are orchestrated by automatic policies super easy to activate within StorageX console and obviously these migrations preserve native file formats.

StorageX also provides indexing and search features to locate data stored within an object store (on premise or cloud) rapidly and seamlessly. Users access data via native access methods, File Retrieval Portal or a RESTful API if applications integration is required.



And finally StorageX continues to deliver state of the art for Microsoft DFS supporting large environments with wide namespaces coming from domain-based and standalone implementations.

Conclusion

Managing unstructured data with cost control to support business goals is a real mission for storage leaders. StorageX, the enterprise data management platform from Data Dynamics, is the market platform of choice to manage enterprise wide unstructured data repositories across any class for file and object storage.

StorageX optimizes, unifies and consolidates file servers and NAS, makes file services highly available and data highly durable, migrates and archives inactive data and finally brings data compliance alignment with PII regulations such CCPA, GDPR and HIPAA.

Data Dynamics is the pioneer of unified unstructured data management platform. With 26 of the Fortune 100 global customers worldwide, Data Dynamics enables organizations to analyze, move, manage, and modernize their data anywhere. Data Dynamics accelerates the adoption of hybrid, public and multi-cloud strategies, builds higher quality SLAs, and improves business process modernizations. For more information, visit www.datadynamicsinc.com.

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