

Essentials

- Adds additional functionality to Microsoft DFS and centralizes the management of unstructured data across the enterprise
- Enables Windows-based management for multiple heterogeneous file servers, allowing seamless data migration and consolidation
- Provides cost-effective, seamless failover across geographically distributed sites by centralizing management of the global failover process
- Leverages policies to automate data movement from primary storage to secondary devices based on specified criteria
- Enables backup, restore, and replication of DFS namespace and link data
- Provides functionality to upgrade or convert DFS roots (2000 to 2008 or stand-alone to domain-based)
- Supports heterogeneous NAS migration across any platform

Automated Namespace Management and Disaster Recovery for Microsoft DFS

StorageX 7.5 builds upon its 7.1 version by adding core new capabilities via two modules, Namespace and Disaster Recovery. These new modules provide a consolidated view and management of your unstructured data infrastructure.

The Namespace Module provides automated functionality for managing Microsoft Distributed File System (DFS). While the Disaster Recovery Module provides monitoring and failover of your CIFS-based NAS estate.

The integration of namespace management, automating failover for disaster recovery and policy based data mobility provide the essential pillars for managing file based storage infrastructure, both on premise and in the cloud.

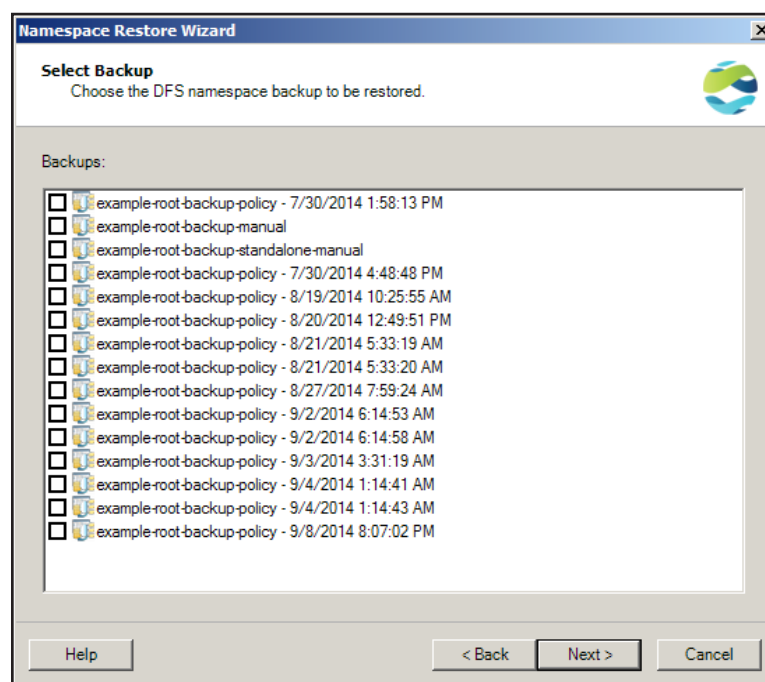
Key Capabilities

StorageX has four core capabilities: **Backup/Restore**, **Availability**, **Replication**, and **Monitoring/Failover**. StorageX leverages DFS to improve manageability and simplify file data management in distributed heterogeneous storage environments. StorageX supports the most current implementation of DFS (2008 namespaces) built on windows server 2008 and 2012.

Namespace Management

StorageX automates DFS management tasks, helping organizations create and manage both simple and complex enterprise-class namespaces. For example, it enables:

- **Namespace Backup and Restore:** Administrators can perform point-in-time backups or create schedules for recurring backups for both standalone and domain-based namespaces. In addition, they can restore or merge namespaces. Backups can be of namespaces, multiple namespaces of a 2000 namespace to be restored to 2008, or a backup of one namespace to be restored to another.



Replication Features

StorageX Replication policies enable file replications of any size and any distance in distributed, heterogeneous environments for CIFS- or NFS-compatible storage.

These policies enable monitoring of replication jobs across the enterprise, utilizing a graphical drag-and-drop configuration topology for auditing operations, as well as for updating DFS links during data migration.

Key replication capabilities include:

- One-to-many or many-to-one replication
 - File- or byte-level replication and a large replication set size
 - Flexible scheduling and source/destination settings
 - Ability to replicate cluster shares or invoke custom scripts
 - A wide range of configurable processing options
 - Bandwidth throttling
- **Simplified reporting:** Administrators can generate reports on elements such as namespace status, lists dependencies, root properties, and share properties.
 - **Easy identification of dependencies:** Administrators can see both physical and logical views of namespace resources and interdependencies.
 - **Availability:** StorageX enables users to synchronize the logical structures of DFS namespaces across multiple Windows servers, using Namespace Availability policies. You can designate a primary namespace to use as your master and then select one or more target namespaces you want to keep synchronized with the primary.
 - **Upgrades:** StorageX automates the steps required to upgrade from a 2000 root to a 2008 root.
 - **Stand-alone to Domain-based namespace conversion:** StorageX can convert a stand-alone namespace to a domain-based namespace to take advantage of storing namespace info in Active Directory (AD).
 - **Namespace search:** Allows searching of file storage resources, file system folders, DFS namespace folders, and CIFS shared folders or sub-folders to determine if a DFS namespace or DFS link targets the object.

Disaster Recovery

In addition to ensuring fast, uninterrupted user failover following an outage, today's organizations must find a way to centralize business continuity management in heterogeneous, distributed environments, while keeping IT costs at a minimum. StorageX Namespace and Disaster Recovery policies create a single pane for managing environments, while reducing aggregate risk and costs through automation. For example, administrators can monitor shares, folders, and volumes for availability, transparently failing over users to alternate storage devices based on pre-defined policies.



StorageX enables:

- **CIFS-based Disaster Recovery:** CIFS-based resource disaster recovery monitoring enables users to detect a failure and automatically fail over clients to a replicated file storage resource. A typical use case is when data is scattered across multiple servers.
- **NetApp-based:** NetApp monitoring allows you to set up a file storage resource as a disaster recovery backup for one or more primary file storage resources. SnapMirror® can be leveraged to replicate data to a standby volume or Q-tree®.
- **DFS namespace-based:** DFS namespace link monitoring enables you to make data on servers participating in your namespace highly available. Use this monitoring type when you want to ensure data on a primary server is highly available. When a failure of the primary server is detected, StorageX automatically fails over all links in the Disaster Recovery policy to a secondary server.

Data Migration and Consolidation

StorageX enables administrators to migrate and consolidate data from multiple heterogeneous NAS devices. Namespace and migration policies shield users from physical changes during migrations, maximizing data access.

In addition, StorageX:

- Leverages API integration to analyze the source and provision the target
- Copies security attributes
- Enables automatic share creation

StorageX Architecture

StorageX is comprised of four main components:

- StorageX Server
- StorageX Console
- SQL Database
- Replication Agents (data movers)

The StorageX server communicates with the replication agents to provide the policies that it would like to execute. The replication agents execute the policies and revert back with status to the StorageX server. The SQL database is leveraged to store historical policy information, as well as meta-data information for the DFS infrastructure. The StorageX server and Console run on Windows 2008 R2 and above (physical or virtual), and there are two flavors of the replication agents, Linux and Windows. These run on independent virtual machines and can be scaled as required.

User Interface

StorageX has an easy-to-use user interface, providing a simple UI for the end user. The UI provides self-descriptive icons as well as wizard-driven capabilities to make understanding the console and product extremely intuitive.

Vendor Support

Data Dynamics has strategic partnerships in place with EMC, NetApp, Microsoft, and HDS. StorageX currently supports various NAS devices as source and target, as well as stand-alone CIFS and NFS file servers. A complete interoperability matrix is available from the Data Dynamics sales team.

About Data Dynamics

Data Dynamics is a leader in unstructured data and file lifecycle management. Its award-winning StorageX product suite, which was originally developed by NuView, Inc. and later acquired by Brocade, has been adopted by hundreds of enterprise customers, Fortune 500 companies, and large municipal governments as a solution for the full lifecycle management of their file-based storage infrastructure.

Data Dynamics focuses on solving the needs of enterprise administrators and users by creating products and solutions that accelerate new hardware adoption, simplify storage management, increase data availability, optimize storage capacity, minimize user downtime, and significantly reduce the total cost of ownership of networked storage infrastructures.

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