DATACORE | Swarm

SwarmFS

Sustained Data Streaming for NFS Clients

BENEFITS

- Provide a bridge between POSIX and RESTful workflows
- Reduce risk of data loss with no single point of failure & secure access
- Lower TCO of data distribution at scale with the benefits of Swarm object storage

SwarmFS is a lightweight file protocol converter to bring the benefits of scale-out object storage—including built-in data protection, high-availability, and powerful metadata—to NFS protocol. Unlike cumbersome file gateways, SwarmFS is a stateless Linux® process that integrates directly with DataCore Swarm and is deployable on any Linux server or virtual machine (VM) running CentOS™ 7.x. SwarmFS turns any Swarm object storage environment into a fully distributed NFS solution. With SwarmFS, a single mount point can be accessed across campus, across country or across the world. Our unique technology delivers a truly global namespace across NFS, S3, and HTTP. SwarmFS is available as an add-on capability with Swarm software-defined object storage platform at no extra cost.

FULLY DISTRIBUTED NFS ARCHITECTURE

EASILY CENTRALIZE, DISTRIBUTE, AND MANAGE DATA

SwarmFS leverages the fully distributed, massively parallel architecture of Swarm to create a distributed NFS solution. Files can be ingested at any site and readily available across the globe via a single mount point. Swarm provides multi-tenancy, versioning and enhanced security, including integration with AD, LDAP and PAM. Once on Swarm, data is automatically protected, eliminating the need for additional backup solutions. Swarm provides automated policy-based data retention and lifecycle management from creation to expiration.

GLOBAL ADDRESS SPACE

ELIMINATES STORAGE AND PROTOCOL SILOS WITH UNIVERSAL ACCESS

SwarmFS is part of the DataCore ecosystem which enables you to eliminate storage silos and access data from any application, device or location. Data is written to a global address space making it portable with multi-protocol read and write through any combination of NFS, S3 or HTTP. Data from traditional file and web-based applications can now be streamed directly in and out of a single pool of storage—DataCore Swarm—scaling with no degradation

Data access via NFS/S3/HTTP

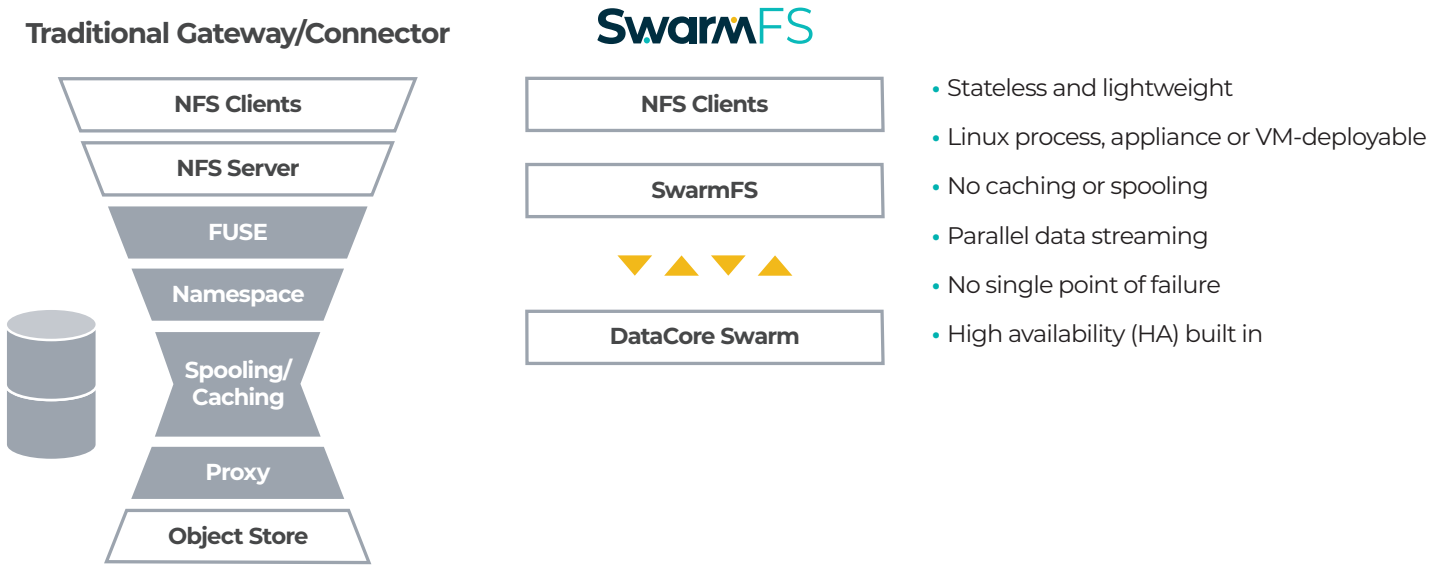
of performance. Once on Swarm, metadata search is available through a web-based UI or programmatically via an API. In addition to Domains and Buckets, saved searches (called Collections) can be preserved and mounted via NFS—ensuring that every time you view a mount point, the data you are looking for is instantly accessible, without the overhead of needing to rerun a search query.

STATELESS AND LIGHTWEIGHT

USES 80% LESS RESOURCES THAN TRADITIONAL FILESYSTEM GATEWAYS AND CONNECTORS

The power behind SwarmFS lies in the innovative protocol conversion approach that streams data from NFS (and optionally) clients directly to and from DataCore Swarm storage. This eliminates the need for spooling and caching, significantly reducing risk of data loss. Additionally, this approach reduces the amount of disk, CPU and RAM that is traditionally required for file-to-object gateways—resulting in limitless scale of throughput while eliminating bottlenecks.

With SwarmFS, you reap the benefits of out-of-the-box high availability (HA) that requires no local cache and no clustering with easy failover and quick restart. Authentication and authorization settings in Swarm propagate through all protocols, ensuring your data is secure—no matter how it is accessed.



BRINGS THE POWER OF METADATA TO FILES

ELIMINATES METADATA DATABASES

SwarmFS brings the power of metadata, inherent in Swarm object storage, to all files. With SwarmFS, metadata can be added to files directly from the client. Annotating files with metadata advances the way files can be searched, organized and analyzed at scale. Once on Swarm, data can be profiled with big data analysis tools such as Kibana. Collections of files can be mounted based on the result of a metadata search.

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DATACORE

GET STARTED

Discover the Ultimate Flexibility of DataCore Software

DataCore Software delivers the industry's most flexible, intelligent, and powerful software-defined storage solutions for block, file and object storage, helping more than 10,000 customers worldwide modernize how they store, protect, and access data. With a comprehensive product suite, intellectual property portfolio, and unrivaled experience in storage virtualization and advanced data services, DataCore is The Authority on Software-Defined Storage. **www.datacore.com**