DATACORE | Swarm

Software-Defined Object Storage for On-Premises and Private Cloud Environments

For Scalable Data Access, Delivery and Archive

Are you struggling with protecting and providing access to rapidly scaling data sets or enabling distributed content-based use cases? At the heart of these workloads is the ability to access content and data over HTTP. Using tape is cost-effective but data is not instantly accessible; and tape is difficult to manage. The public cloud often presents the challenge of compounding, unpredictable recurring costs, and the inability to meet local performance and privacy requirements.

DataCore Swarm provides an on-premises object storage solution that radically simplifies the ability to manage, store, and protect data while allowing S3/HTTP access to any application, device, or end-user. Swarm transforms your data archive into a flexible and immediately accessible content library that enables remote workflows, on-demand access, and massive scalability.

LOWERS TCO
Shrinks CAPEX and OPEX
Reduces strain on primary storage

ELIMINATES RISK
Provides 100% business continuity
Enables regulatory compliance

IMPROVES PRODUCTIVITY
Manages & organizes data at scale
Unifies data silos

Swarm provides a platform for data protection, management, organization and search at massive scale. You no longer need to migrate data into disparate solutions for long-term preservation, delivery and analysis. Consolidate all files on Swarm, find the data you are looking for quickly, and reduce total cost of ownership by continuously evolving hardware and optimizing use of your resources.

Swarm radically simplifies your ability to multiply the value of your data in an actionable way and installs on any mix of standard hardware, seamlessly scaling from terabytes to hundreds of petabytes with rapid bare metal deployment. Data management is automated from creation to expiration—resulting in storage that adapts to your business.

With Swarm, you can meet even the most stringent business and compliance requirements. Swarm supports encryption at rest and is the only object storage solution to offer compliance features like WORM, Legal Hold, Integrity Seals, and S3 object locking, as well as the ability to seamlessly shift between protection methods, automatically enforced by policies.

This limitless solution combines scaling of capacity and throughput with universal access and the industry's most flexible deployment options. Swarm is offered as software that runs on x86 servers secure in your data center or as a complete hardware appliance.

## BUILT-IN STORAGE, TENANT & CONTENT MANAGEMENT

UNIVERSAL ACCESS

With a native HTTP 1.1 based interface, Swarm supports the Amazon S3 API and serves as a foundation for new data services. From an intuitive content portal, access, share, stream and edit files from anywhere over S3/HTTP. Swarm additionally supports data access through NFS via SwarmFS and SMB via FileFly.

UNIFIED MANAGEMENT & REPORTING

Swarm has a unified web console for storage admins and end users for storage, tenant and content management.

AD HOC SEARCH & QUERY

With expanded metadata searching and organization power and the elimination of storage silos, Swarm enables you to add custom metadata and metadata annotations, automatically capture file system attributes on ingest, and query across all stored files at once through a web-based UI or rest API.
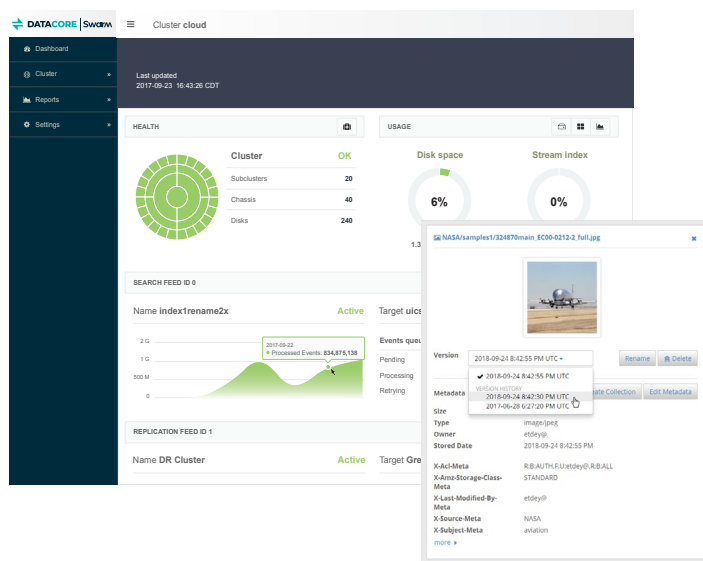
SIMPLE, FLEXIBLE SCALE ON YOUR TERMS

COMPLETE SOFTWARE APPLIANCE

Booting from bare metal, Swarm includes all operating system and services needed. It runs everything from RAM, leaving 95% of hard drive capacity for files and includes our patented Darkive™ adaptive power conservation technology which lowers power consumption by up to 70%.

FLEXIBLE DEPLOYMENT

With flexible deployment, you can add tenants and sites at any time. Swarm runs on any standard hardware or disk size and is highly available by design—supporting hot plug drives, adding/retiring disks/nodes and rolling upgrades of the full software stack—all with no service downtime.

CONTINUOUS PROTECTION

Optimize the use of your resources based on the value of your information with continuous protection, using replication or erasure coding at a single site or at multiple sites. We focus on fast, proactive recovery so your files will be there when you need them and provide AES-256 encryption at rest. Compliance features like WORM, integrity seals and legal hold come built in.

ENTERPRISE SUPPORT

We will be there when you need us and offer 24x7 worldwide support with professional services to guide you every step of the way. We also have proactive support available to monitor the health of your cluster and contact you if we see any issues.

Scalability is one of the slickest things about Swarm, one sweet thing they did with the platform is, when you drop a new node in, it builds itself from the ground up. The new node announces itself to the main controller. If you want to add a 72 terabyte or petabyte node you just drop it in.

John Gillam,
CTO for Cloud Services, BT

WHY DATACORE SWARM IS THE PLATFORM OF CHOICE FOR OBJECT STORAGE

Provides a **scalable platform** that can continually evolve by **pooling any mix of x86 servers, HDDs and SSDs** with 95% data storage capacity

Includes a **web-based UI and API** simplifying the management of hundreds of nodes, billions of files, thousands of tenants, and PBs of data

Automates storage and infrastructure management so a single system/IT administrator can manage dozens to hundreds of PBs

A **scale-out parallel architecture** enables all nodes to perform all functions resulting in the ability to scale performance linearly

RAPID RECOVERY
25X LESS DOWN-TIME THAN TRADITIONAL RAID STORAGE

SUPERIOR OPTIMIZATION
95% STORAGE UTILIZATION FOR MEDIA AND CONTENT

PERFORMANCE READY
5X FASTER THROUGHPUT FOR S3 READ AND WRITE OPERATIONS

SWARM FEATURES

CONSUMERS		
END USERS	APPLICATIONS & WEB SERVICES	DEVICES

ACCESS METHODS		
S3/HTTP	NFS*	SMB**

OPERATION & INSIGHTS	DATA & INFRASTRUCTURE MANAGEMENT SERVICES		COMMAND & CONTROL
USAGE AUDITING, METERING & QUOTAS	UNIVERSAL NAMESPACE	RAPID EXPANSION	CONSOLE
IDENTITY MANAGEMENT	SINGLE OR MULTI-SITE	OPTIMIZE FOR CAPACITY OR PERFORMANCE	REST API
DELEGATION & SELF-SERVICE	SECURITY & AUTHENTICATION	FILE SEARCH AND QUERY	
HISTORICAL & REAL-TIME CHARTS	ELASTIC CONTENT PROTECTION (REPLICATION + ERASURE CODING)	SHARING, STREAMING AND VIDEO CLIPPING	CUSTOMIZABLE METADATA
HEALTH & PERFORMANCE GRAPHS	AUTOMATIC FAILURE RECOVERY	WORM & S3 OBJECT LOCKING	GRANULAR ADMINISTRATION
ORCHESTRATION	ENCRYPTION IN FLIGHT & AT REST	CLOUD DISASTER RECOVERY	

ANY MIX OF STORAGE MEDIA, ANY MIX OF X86 SERVERS	
HDD	SSD

*NFS ACCESS IS SUPPORTED THROUGH SWARMFS. **SMB ACCESS IS SUPPORTED THROUGH DATACORE FILEFLY.

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DATACORE

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**

GET STARTED