File-interface Deduplication System (FDS)

Data deduplication made easy

FalconStor® File-interface Deduplication System (FDS) provides high-performance, enterprise-level, disk-based data protection and integrated global data deduplication to optimize storage and bandwidth utilization.

Highlights

Scalable architecture
- > Storage appliances ranging from 3TB to 30TB
- > Scalable gateway model managing up to 64TB of deduplication repository
- > Up to 1.2 petabytes of deduplicated data

High performance
- > High-performance data ingest rates, up to 450 MB/s for CIFS/NFS connectivity

Seamless implementation
- > Certified with leading backup and archiving applications (see certification matrix on www.falconstor.com)

Cost-effective DR
- > Multi-site data replication
- > WAN bandwidth optimization
- > Global deduplication for WAN cost reduction

Flexible deployment options
- > Virtual appliances for remote offices
- > Storage appliances for easy deployment
- > Gateway appliances for scalable architectures

Organizations are looking for solutions to simply and effectively protect their growing data repositories and server infrastructures. However, common data protection and retention methods such as disk-to-disk (D2D) backup and archiving applications are accelerating the proliferation of data by generating data copies and redundancy.

FalconStor Software offers FalconStor FDS, a capacity-optimized storage (COS) repository with a simple and easy-to-use file interface. FalconStor FDS helps minimize storage capacity reductions for backup and archiving applications. Backup application capacity requirements can be reduced by as much as 20 times or more. In addition, FalconStor FDS replication technology offers cost-effective disaster recovery (DR) by sending only unique, deduplicated data across the WAN, significantly reducing bandwidth requirements and associated expenses.

Easy to deploy

FalconStor FDS is qualified to work with all major D2D backup and archiving applications by presenting a file share (CIFS or NFS network interface). This ease of integration allows for a seamless deployment into the existing storage infrastructure with little or no change to existing D2D backup applications or to file and data archiving processes.

High-performance backup

FalconStor FDS was built with performance in mind. Its post- and concurrent-process block-level deduplication technology is optimized to ingest backup data without affecting backup speed.

Flexible deduplication processes

FalconStor FDS provides flexible, policy-driven data deduplication, of which processes can be defined based on application and business needs. For example, deduplication processes can be set to start immediately after files are received, or data can be staged without deduplication for a set period of time. This flexibility accommodates operations that may be more efficient when performed on non-deduplicated data, such as data copying, restore, data mining, and database testing.

High-performance restore

FalconStor FDS is optimized to enable high-performance data access for both deduplicated and non-deduplicated data. This accelerates data restore processes whenever necessary. Data blocks are striped across the deduplication repository to optimize the performance of read operations. In addition, the data deduplication repository uses direct block-level access during read operations with no file system overhead, preventing performance degradation.

Flexible, scalable architecture

FalconStor FDS scales from small-footprint deployments up to multiple petabytes of logical storage capacity. Physical managed capacity ranges from 1TB to 64TB in a single node. Flexible deployment options include:

> **Virtual appliances:** Small-footprint, ideal for smaller environments and remote offices

> **Physical appliances:** Provide an easy-to-deploy, easy-to-manage self-contained deduplication repository

> **Gateway appliances:** Integrate with the existing storage infrastructure to provide storage capacity optimization for any vendor disk resources

Multi-site DR

FalconStor FDS offers global deduplication for quick, cost-effective, and secure DR. Connecting remote offices via FalconStor FDS appliances allows organizations to eliminate tape shipments between sites and ensure data is readily available online when needed. FalconStor FDS is enabled with intelligent global data replication technology; unique data is only sent once from one of the replication sites to the main data center.

Data compression can be enabled to further minimize the bandwidth requirements for replication. This WAN-optimization method maximizes bandwidth savings for the most cost-effective possible data replication. In addition, data can be encrypted during the replication process to minimize risks and enhance security.

Specifications

	FS-FDSSA 303R-A	FS-FDSSA 505R-A	FS-FDSSA 510R-A	FS-FDSSA 520R-A	FS-FDSSA 530R-A	FS-GDSGA 700F-A
Base form factor	2U	1x2U, 1x3U	1x2U, 1x3U	1x2U, 2x3U	1x2U, 3x3U	2U
Hard drive bays	6	9	15	30	45	—
Appliance type	Storage	Storage	Storage	Storage	Storage	Gateway
Repository capacity	3TB	5TB	10TB	20TB	30TB	up to 64TB
Equiv. storage capacity (based on 20:1 dedupe ratio)	60TB	100TB	200TB	400TB	600TB	up to 1.2PB
RAID protection	RAID 6	RAID 6	RAID 6	RAID 6	RAID 6	External
Power supply	Redundant 750W hot-plug auto-switching 110/220V	Redundant 700W hot-plug auto-switching 110/220V; Dual 478W 100/240V	Redundant 700W hot-plug auto-switching 110/220V; Dual 478W 100/240V per module	Redundant 700W hot-plug auto-switching 110/220V; Dual 478W 100/240V per module	Redundant 700W hot-plug auto-switching 110/220V; Dual 478W 100/240V per module	Redundant 700W hot-plug auto-switching 110/220V
CIFS, NFS support	Included	Included	Included	Included	Included	Included
1Gb Ethernet ports	4	4	4	4	4	4
Replication with encryption	Optional	Optional	Optional	Optional	Optional	Optional
Data ingest speed	110 MB/sec.	150 MB/sec.	270 MB/sec.	370 MB/sec.	450 MB/sec.	Storage-dependent*

**Data ingest speed is dependent on the storage infrastructure deployed behind the FalconStor FDS gateway appliance.*

About FalconStor

FalconStor Software, Inc. (NASDAQ: FALC), the provider of TOTALLY Open™ Data Protection solutions, delivers the most comprehensive suite of products for data protection and storage virtualization. Based on the award-winning IPStor® platform, products include the industry-leading Virtual Tape Library (VTL) with deduplication, Continuous Data Protector (CDP), File-interface Deduplication System (FDS), and Network Storage Server (NSS), each enabled with WAN-optimized replication for disaster recovery and remote office protection. Our solutions are available from major OEMs and solution providers and are deployed by thousands of customers worldwide, from small businesses to Fortune 1000 enterprises.

For more information, visit www.falconstor.com or contact your local FalconStor representative.

Corporate Headquarters
USA
+1 631 777 5188
salesinfo@falconstor.com

European Headquarters
France
+33 1 39 23 95 50
salesemea@falconstor.com

Asia-Pacific Headquarters
Taiwan
+866 4 2259 1868
salesasia@falconstor.com

FalconStor® Software