

File-interface Deduplication System (FDS) 300 Series Storage Appliances

Cost-effective, scalable deduplication for small-to-medium businesses (SMB)

FalconStor® File-interface Deduplication System (FDS) 300 Series Storage Appliances enhance the benefits and alleviate the challenges of traditional disk-to-disk (D2D) backup and data protection, offering high performance, Symantec NetBackup OpenStorage (OST) integration, enterprise-level functionality, and integrated replication.

Highlights

SMB data protection

- > Fully configured turnkey appliances from 4TB to 18TB capacity, field expandable to 32TB
- > High-speed data deduplication with integrated replication and Symantec OST support
- > 95% data reduction provides up to 640TB of logical storage capacity
- > Extends local disk retention for fast data recovery
- > Tape elimination with remote replication to a central DR site

High performance

- > Flexible post-process or concurrent deduplication
- > High-performance data ingest rates, up to 500 MB/s (1.8 TB/hr) for CIFS/NFS connectivity

Seamless implementation

- > Non-disruptive simple NAS share, NFS/CIFS, supports backup, archive, database, virtual machine data or simple copy
- > Certified with all leading backup and archiving applications (see *certification matrix on www.falconstor.com*)

Cost-effective DR

- > 150:1 multi-site data replication with real-time monitoring, folder-level policy management, and statistical analysis
- > WAN-optimized replication reduces network bandwidth requirements by as much as 99%

Organizations are looking for ways to efficiently protect growing data repositories and server infrastructures. Common data protection and retention methods such as D2D backup and archiving accelerate the proliferation of data by generating multiple copies of redundant data.

The FalconStor FDS 300 Series is a family of preconfigured turnkey storage appliances that meet the data protection needs of SMBs reducing capacity requirements by as much as 20 times (95%) or more. Easy to install, these appliances offer flexible disk-based data protection, optimized global deduplication and long-term data retention, and integrated replication.

Easy to deploy, with policy-based management

FalconStor FDS offers non-disruptive integration to any major backup or archive application using a LAN-based file interface or Symantec OST protocol. An easy-to-use file interface ensures seamless integration with all major backup software, database utilities, archiving applications, virtual machine data, and even manual file copies, with little or no change to current D2D backup applications or file and data archiving processes.

A centralized GUI enables user-defined policies, such as concurrent or scheduled deduplication and exclusion of whole directories, specific file types, or individual files based on when they were last modified or accessed. Flexible schedules can be applied to deduplication, replication, and data integrity monitoring based on application and business needs.

High performance

Offering both post-processing and concurrent block-level deduplication, FalconStor FDS ensures that you can meet tight backup windows. To accelerate data restore, FalconStor FDS uses direct block-level access during read operations with no file system overhead, and enables high-performance data access for both deduplicated and non-deduplicated data.

FalconStor FDS 300 Series appliances offer backup speeds of up to 500 MB/s (1.8 TB/hr). All data is written to a common data repository, so redundant data segments are eliminated across all data sets, optimizing storage resources.

WAN-optimized replication for multi-site DR

Built-in WAN-optimized replication ensures that only globally unique blocks of data are transmitted, reducing bandwidth requirements by as much as 99%. A wizard-based management console enables real-time visibility and performance monitoring of up to 150 remote sites. Policies and schedules can be applied to replication with folder-level granularity, for maximum flexibility. In addition, data can be encrypted during replication to optimize data security.

Flexible, scalable architecture

FalconStor provides enterprise-level functionality on a flexible set of deployment models: Preconfigured turnkey appliances, gateway appliances, and virtual appliances. FalconStor FDS 300 Series appliances offer from 4TB to 18TB of physical, RAID protected, usable capacity corresponding



to between 80TB and 640TB of logical repository, based on an average 20:1 deduplication ratio. Each member of the FalconStor FDS 300 Series can scale from the initially installed storage up to 32TB using easy-to-install, field expansion storage arrays.

Specifications

FDS SA304

FDS SA307

FDS SA311

FDS SA318

Physical Characteristics				
Form factor	2U	5U	5U	5U
Appliance type	Storage	Storage	Storage	Storage
Hot-plug hard drives	6	21	21	21
RAID level	6	6	6	6
Disk type	SATA	SATA	SATA	SATA
Repository capacity: usable	4TB	7.5 TB	11TB	18TB
Logical storage capacity (based on a 20:1 deduplication ratio)	80TB	150TB	220TB	360TB
Ingest speed	220 MB/s	250 MB/s	250 MB/s	500 MB/s
Maximum ingest speed (based on 10GbE and Symantec OST)	500 MB/s (1.8TB/hr)	500 MB/s (1.8TB/hr)	500 MB/s (1.8TB/hr)	750 MB/s (2.7 TB/hr)
Repository scalability	Up to 32TB (add up to 28TB with expansion arrays)	Up to 32TB; software key upgrade to 11TB, no added hardware (add up to 25TB with expansion arrays)	Up to 32TB (add up to 21TB with expansion arrays)	Up to 32TB (add up to 14TB with expansion arrays)
Power supply	Redundant hot-plug auto-switching (870W)	Redundant hot-plug auto-switching (870W)	Redundant hot-plug auto-switching (870W)	Redundant hot-plug auto-switching (870W)
Dimensions: head (HxWxL)	3.4 x 17.44 x 26.8"	3.4 x 17.44 x 26.8"	3.4 x 17.44 x 26.8"	3.4 x 17.44 x 26.8"
Dimensions: storage array (HxWxL)	N/A	5.16 x 17.57 x 18.9"	5.16 x 17.57 x 18.9"	5.16 x 17.57 x 18.9"
Weight (lb)	57.54	135.54	135.54	135.54
Host Connections				
NFS/CIFS — 1 Gb/s	4 ports	4 ports	4 ports	4 ports
NFS/CIFS — 10 Gb/s	Optional	Optional	Optional	Optional
8Gb FC ports	N/A	N/A	N/A	N/A
Symantec NetBackup OST (IP)	Included	Included	Included	Included
Host expansion port interface cards: 4x1GbE ports; 1x10 GbE port	2 expansion slots	2 expansion slots	2 expansion slots	2 expansion slots
Capabilities				
Deduplication	Included	Included	Included	Included
Hosted backup	Included	Included	Included	Included
Replication with encryption	Included	Included	Included	Included
High availability	N/A	N/A	N/A	N/A
Environmental Requirements				
BTU	2969 (high output), 1945 (energy-smart)	2969 (high output), 1945 (energy-smart)	2969 (high output), 1945 (energy-smart)	2969 (high output), 1945 (energy-smart)
Temperature	Operating 10 to 35°C (50 to 95°F) Storage -40 to 65°C (-40 to 149°F)			
Relative humidity	Operating 20% to 80% (noncondensing) with maximum gradation of 10% per hour			
Altitude	-16 to 3048 m (-50 to 10,000 ft)			

Note: "MB" is defined as 1024 x 1024 bytes, "GB" is defined as 1000MB, and "TB" is defined as 1000GB.

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

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FalconStor
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