File-interface Deduplication System (FDS) Gateways

SCALABLE HIGH AVAILABILITY (HA) CLUSTERED GATEWAYS

The FalconStor® File-interface Deduplication System (FDS) Gateway is an enterprise-class solution that provides superior levels of flexibility, scalability, and high availability (HA) in addition to integrated global deduplication. Unlike single-function grid architecture solutions, this gateway can scale HA backup nodes and HA cluster deduplication nodes independently, enabling users to expand as much as necessary to handle large data sets and meet tight backup windows. Leveraging the FalconStor® Single Instance Repository (SIR) and scaling to over 2PB of shared usable storage, FalconStor FDS Gateways eliminate the proliferation of individual deduplication silos. This helps IT departments meet stringent data requirements and ensure business continuity, while containing the cost of explosive data growth.

Highlights

Global deduplication
- Integrated deduplication and compression maximizes ROI
- 95% data reduction
- Minimizes costs: power, cooling, floor space, IT resources
- Extends disk retention for fast data recovery
- Flexible post-process and concurrent deduplication

WAN-optimized replication
- Reduces network requirements by 90% or more
- Policy-based replication incorporates folder- and file-level granularity
- Eliminates tape transport
- Encryption secures data in flight
- Scheduled bandwidth throttling protects shared WAN networks
- Real-time performance monitoring

Seamless integration
- Non-disruptive simple NAS share, NFS/CIFS
- Integrates with all major backup software, database utilities, archiving applications, data migration, and virtual environments (see certification matrix on www.falconstor.com)

Up to 2PB usable capacity
- Protects up to 40PB of original data*
- Standalone, scalable to 124TB
- Supports certified SAN storage from Dell, EMC, HP, HDS, IBM, & others

HA cluster architecture
- Independently scales up to 8 FalconStor FDS nodes (4 HA pairs) & up to 4 HA FalconStor SIR global deduplication nodes
- Deduplication across multiple nodes without predefined node/controller designation
- Increases performance, efficiency

Mixed environments
- Enhances deduplication efficiency
- Supports any combination of backup, archive, database dumps, and virtual environments in a single deduplication repository
- Supports multiple open systems applications in a single repository

Symantec OpenStorage (OST) support
- For NetBackup and Backup Exec
- Replicates data transparently
- Ensures catalog consistency

Specifications: FalconStor FDS Gateways

	FDSGA700	FDSGA840	FDSCA800	SIRCA830	SIRCA840	SIRCA850	SIRCA860
Physical Characteristics							
Appliance type	FDS Gateway		FDS Cluster Gateway	SIR Cluster Gateway			
Form factor	2U	4U	2U	2U	4U		
Internal hard drives	2 x 1TB NL SAS, 7.2KRPM, 3.5 in (R1)	2 x 1TB NL SAS, 7.2KRPM, 2.5 in (R1)	2 x 1TB NL SAS, 7.2KRPM, 3.5 in (R1)	2 x 1TB NL SAS, 7.2KRPM, 3.5 in (R1)	2 x 1TB NL SAS, 7.2KRPM, 2.5 in (R1)		4 x 1TB NL SAS, 7.2KRPM, 2.5 in (R6)
Licensed usable capacity per node *(Requires user-provided physical storage and at least one storage capacity license per node.)*	Up to 68TB; upgradable to 192TB w/RAM	Up to 124TB; upgradable to 240TB w/RAM	—	Up to 68TB; upgradable to 192TB w/RAM	Up to 120TB per node	Up to 256TB per node	Up to 512TB per node
Logical storage capacity per node (based on a 20:1 dedupe ratio)	Up to 1.3PB; upgradable to 3.84PB	Up to 2.56PB; upgradable to 5PB	—	Up to 1.3PB; upgradable to 3.84PB	Up to 2.56PB	Up to 5.2PB	Up to 10.4PB
Power supply	2 x hot-plug auto-switching 750W	4 x hot-plug auto-switching 1100W	2 x hot-plug auto-switching 750W	2 x hot-plug auto-switching 750W	4 x hot-plug auto-switching 1100W		
Dimensions: (HxWxL)	3.4 x 17.44 x 26.8 in (8.64 x 44.31 x 68.07 cm)	6.8 x 19 x 29.5 in (17.26 x 48.24 x 75 cm)	3.4 x 17.44 x 26.8 in (8.64 x 44.31 x 68.07 cm)	3.4 x 17.44 x 26.8 in (8.64 x 44.31 x 68.07 cm)	6.8 x 19 x 29.5 in (17.26 x 48.24 x 75 cm)		
Weight	71.5 lb (32.5 kg)	105 lbs (47.6 kg)	71.5 lb (32.5 kg)	71.5 lb (32.5 kg)	105 lb (47.6 kg)		
Host Connections							
1Gb/s	4 ports			—			
10Gb/s	Optional	2 ports	2 ports	—			
Fibre Channel (FC) support	Included			Included			
8Gb FC ports	4 ports			4 ports			
Symantec OST (Ethernet)	Included			—			
Available host expansion port interface cards: 3 x 8 Gb/s FC ports; 1 x 10 GbE port	2 full-height & 3 half-height expansion slots	1 full-height & 3 half-height expansion slots	1 full-height & 3 half-height expansion slots	2 full-height & 3 half-height expansion slots	5 expansion slots		
Capabilities							
Clustered HA	—	—	Included	Included			
Global deduplication	Included			Included			
WAN-optimized replication w/ compression & encryption	Included			Included			
Maximum cluster configuration	HA pair	HA pair	Up to 8 nodes (4 HA pairs)	4+1 HA cluster			
Additional features	Email alerts, hosted backup, import/export, Secure Tape			—			
Environmental Requirements							
Voltage	90–264 V, 47-63 Hz, auto-ranging						
BTU	2,891	8,407	2,891	2,891	8,407		
Temperature	Operating: 50° to 95°F (10° to 35°C) Storage: -40° to 149°F (-40° to 65°C)						
Relative humidity	Operating: 20% to 80% (noncondensing) with maximum gradation of 10% per hour						
Altitude	-50 to 10,000 feet (-16 to 3,048 meters)						

*All capacity and performance numbers are based on a 20:1 deduplication ratio.

FalconStor®
Defining Data Protection, Again.™

www.falconstor.com/fds