

Virtual Tape Library (VTL) 100 Series Storage Appliances

Backup and restore with deduplication for remote and branch offices

FalconStor® Virtual Tape Library (VTL) 100 Series Storage Appliances bring market-leading virtual tape library (VTL) technology to remote and branch offices (ROBO). Easy to implement, these appliances alleviate the challenges of traditional tape backup, offering built-in data deduplication and replication for storage optimization, bandwidth efficiency, and cost-effective disaster recovery (DR).

Highlights

Remote office data protection

- > Fully configured turnkey appliances offer 1TB to 4TB usable capacity, protecting up to 80TB of original data
- > 95% data reduction for capacity optimization
- > Non-disruptive integration into existing tape backup environments and processes

High performance

- > 8Gb Fibre Channel (FC) and iSCSI (1GbE and 10GbE) connectivity
- > Flexible post-process or concurrent deduplication

Seamless implementation

- > Support for open systems (Microsoft Windows, Unix, Linux, NetWare, Mac), Symantec OST, IBM iSeries, HP NonStop (Tandem), and mainframes
- > Bridges disk and tape through best-of-breed tape management for physical tape creation

Cost-effective DR

- > WAN-optimized replication reduces network bandwidth requirements by as much as 99%
- > Integrated Symantec OST support for transparent data replication, copying-to-tape, and catalog consistency.

The rapid growth of business data continues to impact backup and recovery operations. Traditional tape backup has become increasingly difficult to accomplish within today's narrowing backup windows. A lack of technical resources at remote offices further complicates tape backup strategies. Ineffective tape backup procedures leave data vulnerable, and physical tape transport often makes data recovery lengthy and ineffective.

The FalconStor VTL 100 Series is a family of preconfigured turnkey storage appliances that help organizations overcome the challenges of tape backup at the remote office, reducing capacity requirements by as much as 20 times (95%) or more. FalconStor VTL offers fast backup, data deduplication, replication, integration with Symantec NetBackup OpenStorage (OST), and best-of-breed tape management in a single solution.

Improved performance without operational changes

By emulating over 50 tape libraries and 30 tape formats, FalconStor VTL fits easily into any backup environment. Backups immediately become faster and more reliable with little or no change needed to daily operations. FalconStor VTL enables the creation of multiple virtual tape drive targets, eliminating the need to queue backup jobs or manage the complexity of tape drive sharing.

Because many corporations require both disk and tape for tiered backup and archive/compliance needs, FalconStor VTL seamlessly bridges disk and tape through best-of-breed tape management capabilities such as tape caching and policy-based archiving.

Deduplication extends data retention, maximizes ROI

Integrated data deduplication and compression eliminates redundant backup data by as much as 95%. Deduplication can be performed concurrently with backup or after backup completes, to optimize storage efficiency without affecting the backup window. This allows far more data to be retained on disk, extending local recovery capabilities without the reliability concerns of tape-based restore. FalconStor VTL 100 Series appliances offer from 1TB to 4TB of physical, RAID protected usable capacity corresponding to between 20TB and 80TB of logical repository, based on an average 20:1 deduplication ratio.

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% and enabling tape consolidation at a central site. Multi-site replication eliminates tape management costs and the risks of lost or stolen tapes at the remote office, while encryption ensures security during transmission.

A cost-effective backup solution

By keeping more data on disk, FalconStor VTL significantly reduces tape media consumption. Deduplication optimizes storage resources, reducing power, cooling, and floor space requirements. Lastly, by eliminating complete reliance on tape, FalconStor VTL reduces the cost of downtime through fast local or remote restoration.



Specifications

VTL RA101

VTL SA101

VTL SA102

Physical Characteristics			
Form factor	Tower	2U	2U
Appliance type	Storage	Storage	Storage
Hot plug hard drives	4	4	6
RAID level	5	5	6
Disk type	SATA	SATA	SATA
Repository capacity - usable	1TB	1TB	2TB
Logical storage capacity (based on 20:1 dedupe ratio)	20TB	20TB	40TB
Repository scalability	N/A	N/A	Up to 4TB with software key upgrade, no add'l hardware required
Power supply	Single cabled power supply (375W)	Redundant hot-plug auto-switching (870W)	Redundant hot-plug auto-switching (870W)
Ingest speed	200 MB/s	200 MB/s	230 MB/s
Dimensions: head (HxWxL)	17.3 x 8.6 x 20.5" (43.9 x 21.8 x 52.1 cm)	3.4 x 17.44 x 26.8" (8.64 x 44.31 x 68.07 cm)	3.4 x 17.44 x 26.8" (8.64 x 44.31 x 68.07 cm)
Dimensions: storage array (HxWxL)	N/A	N/A	N/A
Weight	62.61 lb (28.4 kg)	57.54 lb (26.1 kg)	57.54 lb (26.1 kg)
Host Connections			
iSCSI support — 1 Gb/s	1 port	4 ports	4 ports
iSCSI support — 10 Gb/s	Optional	Optional	Optional
FC support	Included	Included	Included
8Gb FC ports	Optional	Optional	2 ports
Symantec NetBackup OST (FC/IP)	Included	Included	Included
Host expansion port interface cards: 4x1 GbE ports; 2x8 Gbps FC ports; 1x10 GbE port	2 expansion slots	4 expansion slots	4 expansion slots
Capabilities			
Virtual tape libraries/drives/cartridges	128/1024/65536	128/1024/65536	128/1024/65536
Deduplication	Included	Included	Included
NDMP	Included	Included	Included
Hosted backup	Included	Included	Included
Replication with encryption	Included	Included	Included
Tape caching	Included	Included	Included
Secure tape	Included	Included	Included
Tape duplication	Included	Included	Included
Tape consolidation	Included	Included	Included
ACSLs shared library	Optional	Optional	Optional
IBM iSeries support	Optional	Optional	Optional
IBM 3494 library support	Optional	Optional	Optional
HP NonStop (Tandem) support	Optional	Optional	Optional
Environmental Requirements			
Voltage	90 - 264 VAC, autoranging, 47 - 63 Hz		
BTU	1672 BTU/hr max	2969 BTU/hr max (high output), 1945 BTU/hr max (energy smart)	2969 BTU/hr max (high output), 1945 BTU/hr max (energy smart)
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)		

Note: "MB" is defined as 1024 x 1024 bytes, "GB" is defined as 1,000 MB, and "TB" is defined as 1,000 GB.

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