

## Virtual Tape Library (VTL) Storage Appliances

High-performance backup and restore with deduplication

*FalconStor® Virtual Tape Library (VTL) Storage Appliances bring market-leading VTL technology with data deduplication to small-to-mid-size businesses (SMB) and remote/branch offices (ROBO). These appliances improve the speed, reliability, and manageability of backups while optimizing storage and bandwidth efficiency for disaster recovery (DR).*

### Highlights

- > Enterprise-class, market-leading VTL technology for SMB and ROBO environments
- > Easily integrates with existing backup software and processes
- > Supports backup of open systems (Microsoft Windows, UNIX, Linux, NetWare, Mac) and IBM iSeries, all from one platform
- > 4Gb Fibre Channel (FC) and iSCSI connectivity for the fastest, most efficient backup and restore
- > Integrated deduplication and compression technology maximizes return on storage investments
- > Supports one-to-one and many-to-one offsite replication for DR, lowering costs by slashing network traffic by over 95%
- > Automated, policy-based export to physical tape as needed
- > Built-in data encryption independent of tape format
- > Supports all major backup software and enterprise applications

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. Longer backup times can lead to longer recovery periods, leaving more room for media and mechanical failures.

FalconStor VTL Storage Appliances solve the backup challenges associated with tape. FalconStor VTL offers fast backup, data deduplication, enterprise-wide replication, and tape integration in one solution, without requiring changes to the existing environment. Built-in data deduplication automatically and transparently eliminates redundant data, extending data retention and allowing users to reduce or even eliminate investments in physical tape media.

### Improve performance without operational changes

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

FalconStor VTL Storage Appliances connect directly to physical tape libraries, exporting virtual tapes to physical tape media for long-term retention. The tape export process moves data rapidly from disk to tape (D2T), taking full advantage of tape drive speeds and reducing media creation time.

### Restore data with confidence

Backup to virtual tape is far less subject to failure than backup to physical tape. As a result, you can be confident that your data will be there when you need it most. High-speed restore, even from deduplicated data, brings systems back online faster, restoring business processes in a timely fashion.

### Deduplication extends data retention, maximizes ROI

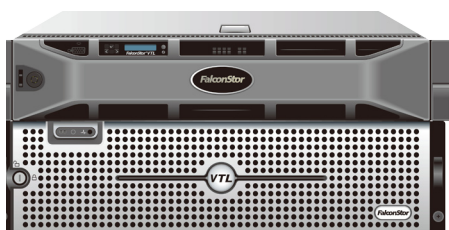
FalconStor VTL Storage Appliances provide integrated data deduplication and compression to eliminate the redundant data generated by backup processes. This allows you to maintain far more data on disk, extending local recovery capabilities from days to weeks or even months. Just a few terabytes of physical storage can hold dozens of terabytes of logical backup jobs.

### Global deduplication enhances DR efficiency and speed

FalconStor VTL Storage Appliances enable remote replication for DR through an existing WAN. By replacing traditional manual tape transportation with network transfer and data encryption, FalconStor VTL technology lowers tape management costs and the risks of lost or stolen tapes. Only unique data blocks are replicated, reducing network traffic by as much as 95% based on a typical 20:1 deduplication ratio.

### A cost-effective backup solution

Return on investment (ROI) and return on asset (ROA) levels are important for any IT purchase. FalconStor VTL Storage Appliances offer savings in multiple areas. By keeping more data on disk, tape media consumption can be significantly reduced. Daily backup to tape can be replaced by weekly or even monthly backup, as tape becomes an archival medium. Unregulated industries can even eliminate tape entirely, relying on data replication for offsite protection. Deduplication makes the most out of storage resources, while increased reliability and easy integration reduce impact to IT staff. Most importantly, the cost of downtime is reduced by fast system restoration.



## Specifications

**FS-VTLSA 303R-A**   **FS-VTLSA 505R-A**   **FS-VTLSA 510R-A**   **FS-VTLSA 520R-A**   **FS-VTLSA 530R-A**   **FS-VTLGA 700F-A**   **FS-VTLCA 700F-A**   **FS-SIRCA 700F-A**

Physical Characteristics								
Base form factor	2U	1x2U, 1x3U	1x2U, 1x3U	1x2U, 2x3U	1x2U, 3x3U	2U	2U	4U
Hard drive bays	6	15	15	30	45	—	—	—
Appliance type	Storage	Storage	Storage	Storage	Storage	Gateway	Cluster	Dedupe cluster
Repository capacity	3TB	5TB	10TB	20TB	30TB	up to 36TB	—	up to 72TB
Equiv. storage capacity (based on 20:1 dedupe ratio)	60TB	100TB	200TB	400TB	600TB	up to 720TB	—	up to 1440TB
Retention period (based on 2% daily change)	200 days	450 days	450 days	450 days	450 days	—	—	—
Backup speed (based on 4Gb FC)	200MB/sec.	400MB/sec.	400MB/sec.	400MB/sec.	400MB/sec.	800MB/sec.	800MB/sec.	—
RAID level	6	6	6	6	6	External	External	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	Redundant 700W hot-plug auto-switching 110/220V	Redundant 700W hot-plug auto-switching 110/220V
Host Connections								
iSCSI support	Included	Included	Included	Included	Included	Included	Included	Included
1Gb Ethernet ports	4	4	4	4	4	4	4	4
FC support	Included	Included	Included	Included	Included	Included	Included	Included
4Gb FC ports	2	2	2	2	2	2	8	8
Capabilities								
Virtual tape libraries/drives/cartridges	128/1024/65536	128/1024/65536	128/1024/65536	128/1024/65536	128/1024/65536	128/1024/65536	128/1024/65536	—
High availability (HA)	—	—	—	—	—	—	Included	Included
Deduplication	Included	Included	Included	Included	Included	Included	—	Included
NDMP	Included	Included	Included	Included	Included	Included	Included	—
Hosted backup	Optional	Optional	Optional	Optional	Optional	Optional	Optional	—
Replication with encryption	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Tape caching	Optional	Optional	Optional	Optional	Optional	Optional	Included	—
Secure tape	Optional	Optional	Optional	Optional	Optional	Optional	Optional	—
Open Storage Option	Optional	Optional	Optional	Optional	Optional	Optional	Optional	—
Hardware compression	Optional	Optional	Optional	Optional	Optional	Optional	Optional	—
ACSLs shared library	Optional	Optional	Optional	Optional	Optional	Optional	Optional	—

For more information, visit [www.falconstor.com](http://www.falconstor.com) or contact your local FalconStor representative.

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Software

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