

Virtual Tape Library (VTL) Virtual Appliance for VMware Infrastructure

High-speed VTL with optimized data deduplication to enhance the quality and efficiency of your tape backup

FalconStor® Virtual Tape Library (VTL) Virtual Appliance for VMware Infrastructure is a preinstalled, preconfigured, and ready-to-run software application package bundled into a virtual appliance that brings the market-leading VTL technology with data deduplication to VMware environments.

Highlights

- > TOTALLY Open™ architecture integrates seamlessly with VMware Infrastructure
- > High-speed backup/restore via market-leading VTL
- > Integrated deduplication eliminates redundant data and compresses unique data, further enhancing efficiency
- > No impact on backup windows
- > Tape format awareness accelerates and optimizes the identification of duplicate data
- > Supports one-to-one and many-to-one offsite replication for disaster recovery (DR)
- > Lowers DR costs by slashing network traffic by over 95%
- > Direct export to tape through integration with backup software and physical tape library

FalconStor VTL Virtual Appliance offers fast backup, data deduplication, enterprise-wide replication, and tape integration in one solution, without requiring changes to the existing environment. Its built-in data deduplication feature automatically and transparently eliminates redundant data in backup and minimizes network traffic associated with offsite replication. As a result, this solution reduces infrastructure cost and complexity and maximizes return on investment (ROI) in virtual environments.

High-performance backup/restore via multi-streaming/sessions

High performance backup is critical to overcoming the challenges of disappearing backup windows and explosive data growth. FalconStor VTL Virtual Appliance provides multi-streaming, multi-session backup capabilities. This means that the appliance can connect to multiple backup servers and execute concurrent backup sessions, optimizing performance.

Tape format awareness optimizes deduplication without impacting backup windows

FalconStor VTL Virtual Appliance provides integrated data deduplication to eliminate redundant data. After data is backed-up, the built-in data deduplication engine scans for blocks that have been backed-up previously and preserves only one instance of each block, reducing the storage capacity consumed. This enables the fastest and highest performance backup while minimizing storage costs.

By understanding the tape format, VTL Virtual Appliance can identify file boundaries and thus better recognize duplicate data, increasing deduplication efficiency by more than 30%. VTL Virtual Appliance deduplicates all of the redundant data within a backup volume and across multiple backups.

Compression enhances storage efficiency

After deduplication takes place, FalconStor VTL Virtual Appliance compresses the unique data before it is stored in the data repository, further enhancing efficiency. For example, if backup data deduplicates at a rate of 15:1, the VTL Virtual Appliance will then compress the unique data at a rate of 2:1. The total reduction in data size will equal 30:1. The process works automatically and transparently in the background without affecting backup speed.

Integration with tape library for direct tape export

FalconStor VTL Virtual Appliance can automate data export to tape, enabling existing backup software to export virtual tape cartridges directly to physical tape devices in the background without impacting backup servers. This process is much faster than copying data to tape from the backup server.

Global deduplication enhances DR efficiency and speed

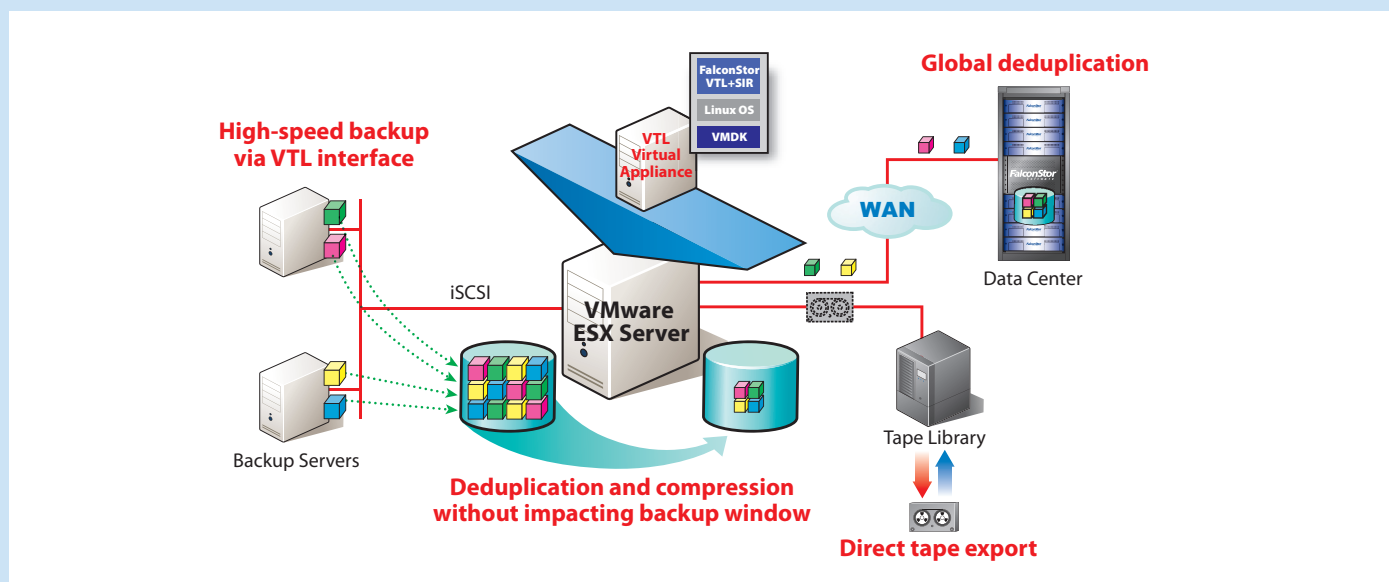
FalconStor VTL Virtual Appliance enables remote replication for disaster recovery (DR) through an existing WAN. By replacing traditional manual transportation with network transfer and data encryption, the appliance lowers tape management costs and the risks of data loss. In the process of remote replication, only unique data blocks are replicated to the remote site, reducing network traffic by as much as 95% based on a 20:1 deduplication ratio.

To reduce tape infrastructure costs, many organizations consolidate data from various distributed sites to a central data center. VTL Virtual Appliance supports both one-to-one replication and many-

to-one replication configurations to enable tape infrastructure consolidation at a centralized data site. With VTL Virtual Appliance deployed at each site, virtual tapes can be replicated via WAN to the data center, where VTL technology aggregates the data into a clustered repository of globally unique data.

Since identical data often exists at multiple sites, VTL offers global deduplication to further reduce network traffic and DR costs. At each site, VTL Virtual Appliance performs deduplication by checking if the same data blocks exist at the data center, and replicating only unique data. Users at the data center can leverage the VTL Virtual Appliance to migrate data to physical tape for archival or compliance purposes.

VTL Virtual Appliance solution architecture



Specifications

Form factor	Virtual Appliance
Host connections	iSCSI
Protected storage capacity (size of full backup)	0.8TB
Size of dedupe repository	2TB
Retention period (based on 2% daily change)	150 days
Equivalent storage capacity (based on 20:1 dedupe ratio)	40TB
Max. # virtual libraries/drives/cartridges	4/16/1024
Direct tape export	Included
Replication with encryption	Optional

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