

## SOLUTION BRIEF

# FalconStor Virtual Tape Library (VTL) Support for IBM iSeries

## Highlights

**Tight integration with IBM iSeries delivers the following benefits:**

- > Emulation of IBM 3584 and 3583 tape libraries and IBM 3580, 3590, 3592, LTO-1, LTO-2, LTO-3, and LTO-4 tape drives
- > Works with common iSeries backup tools and methods, such as BRMS, SAVLIB, and LXI MMS, including backup of open Domino database files
- > Supports system IPL from virtual tapes
- > Enhanced security through encryption of data written to physical tape and data sent via replication
- > TOTALLY Open™ architecture offers backup flexibility on heterogeneous disk arrays (from EMC, Sun, HP, IBM, Pillar, Copan, Spectra Logic, etc.)
- > Data deduplication to reduce storage utilization and optimize data transport over the WAN
- > Integrated copy-to-tape operations

## *Easily integrated high-speed backup-to-disk with data deduplication and reduced costs for disaster recovery (DR)*

For too long the standard method of backing up iSeries (AS/400) systems has been with a locally attached tape drive or library. This resulted in limited backup streams, excessive manual tape handling, and no way to secure data offsite other than resorting to manual transportation. In addition, the iSeries backup environment is often an isolated IT island falling outside the rest of your backup operations.

FalconStor® Virtual Tape Library (VTL) provides a complete backup solution integrated with iSeries that speeds up backup, facilitates rapid recovery, enhances security, and simplifies data movement all while reducing your total cost of operation (TCO).

## Easily integrated into existing operations

FalconStor VTL precisely emulates the same tape libraries and formats recognized by iSeries servers. Therefore, replacing your physical library with a virtual library doesn't change anything about how you run backup operations. Existing tools such as LXI Media Management System (MMS) and Backup Recovery and Media Services (BRMS) work the same way. However, in this case, because a virtual library can accept far more data streams than a physical library, you can run more jobs at once.

You can also create as many tape libraries and drives as you need (up to 128 libraries and 1024 drives per FalconStor VTL system). This means that you can deploy multiple backup targets and no longer have to worry about managing save times across iSeries systems.

Because FalconStor VTL works with its own disk resources, you don't consume costly iSeries storage like you do when using internal i5/OS virtual tapes. Furthermore, there is no impact on internal iSeries disk consumption. FalconStor VTL makes it easy to manage this.

If desired, the FalconStor VTL can also be used for open systems backups (Windows, UNIX, Linux), letting you consolidate all backup operations on a single platform.

## High-performance Fibre Channel (FC) backup to disk

FalconStor VTL accepts data feeds over high-speed FC connections. Direct block-based access to storage means that backups are fast and reliable. Because there are no tape loading mechanics, backup operations are optimized even when backing up numerous small objects.

## Faster recovery to restore business processes

The goal of all backup is to be able to restore critical business data and operations as quickly as possible. Downtime means lost revenue. By moving data restore operations from physical tape to virtual tape, restores are both faster and far less subject to failure. In addition, FalconStor VTL supports direct initial program load (IPL) from virtual tapes. At either the local or remote site, iSeries systems can boot directly from virtual tape images, facilitating fast recovery.

## Integrated data deduplication saves on storage costs

Data deduplication is built into the FalconStor VTL solution, allowing you to keep far more data on disk to facilitate recovery operations. Deduplication rates of 20:1 or more dramatically reduce the amount of disk you need to purchase and power you need to use by as much as 90% or more. More data on disk also means that you can reduce your physical tape media costs by switching from daily backup to tape, to weekly or even monthly tape backups.

## Tape replication reduces transportation and media costs, enhances data security

Virtual tape replication lets the FalconStor VTL electronically vault tapes across any distance over standard IP networks. Because only deduplicated data is sent over the wire, bandwidth costs are reduced significantly. Electronic vaulting means you no longer have to incur the costs and security risks of shipping physical tapes. Data over the wire is encrypted, and data written from the FalconStor VTL to tape can also be encrypted, ensuring your data is safe even if a tape is lost or stolen. Tape encryption is provided by the FalconStor VTL, not by the tape drive, so it works with any format of physical tape.

## Physical tape integration simplifies management, reduces costs

While backup to disk provides many benefits, most enterprises still require that some data be maintained on physical tape. FalconStor

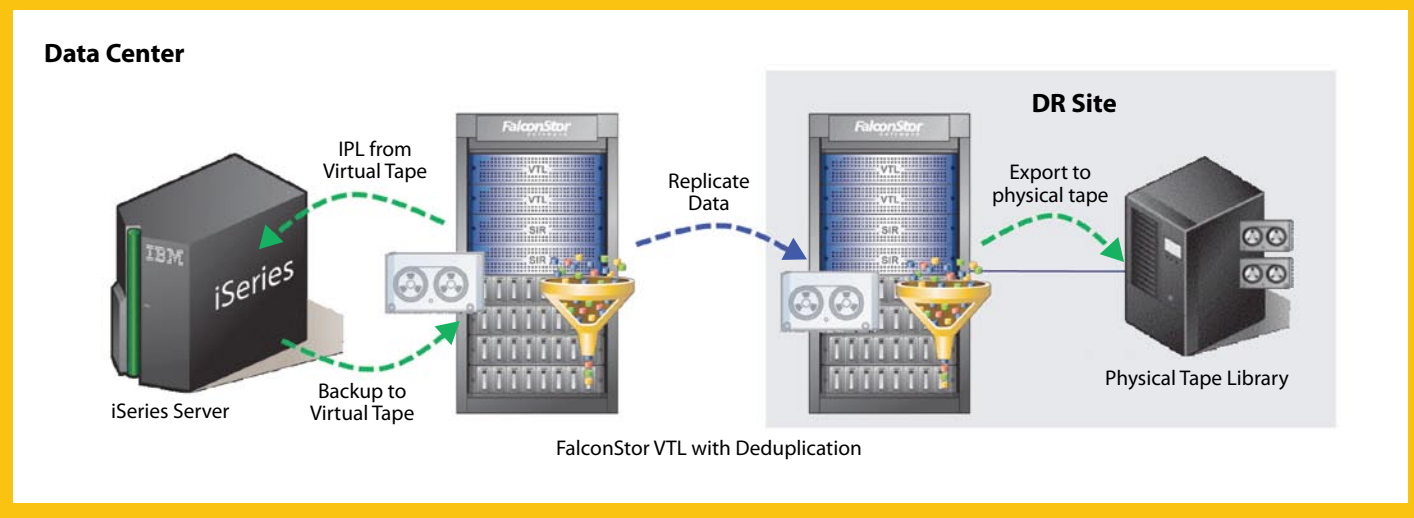
VTL can connect directly to dozens of industry-standard tape libraries, providing direct export of virtual tapes onto physical tapes. Because data is streamed directly from storage to tape, without being pushed by application servers, tape drives can stream at their maximum performance levels, speeding the tape creation process and reducing the number of tape drives needed to produce media.

FalconStor VTL technology can also cross tape drive boundaries. Normally, iSeries servers recognize only a few physical tape formats that the FalconStor VTL solution emulates. FalconStor VTL can bridge these virtual tapes to physical tapes that are normally unusable with iSeries systems. For example, an LTO-2 virtual tape can be copied to an STK 10000 physical tape. Tape stacking lets multiple smaller virtual tapes consolidate onto a larger physical tape format, allowing you to make use of larger data format media while maximizing media utilization to reduce overall tape consumption.

## Unique features, maximum benefits

FalconStor integrates key VTL features – high-speed backup and restore, data deduplication, encryption, and replication – with iSeries-specific support to provide maximum benefits to iSeries users. Overall operational and media costs are reduced while performance levels increase dramatically to meet stringent application recovery service level agreements (SLAs). Deployment is non-disruptive and supports your existing backup procedures and expertise for a solution that delivers immediate, recognizable return on investment (ROI).

### FalconStor VTL in an IBM iSeries backup environment



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

Corporate Headquarters  
USA  
+1 631 777 5188  
[sales@falconstor.com](mailto:sales@falconstor.com)

European Headquarters  
France  
+33 1 39 23 95 50  
[infoeurope@falconstor.com](mailto:infoeurope@falconstor.com)

Asia-Pacific Headquarters  
Taiwan  
+866 4 2259 1868  
[infoasia@falconstor.com](mailto:infoasia@falconstor.com)

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Software

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