

# An IDC Viewpoint



**Nick Sundby**

*Consulting Director  
European Storage*

## Enterprise-Class VTLs Expand Backup Options for Large Companies

Virtual tape library (VTL) solutions have become increasingly popular on open systems in the past few years as companies seek faster and more cost-effective methods of backing up and restoring data.

A VTL is a disk-based appliance that to the backup application software looks like one or more tape libraries. Since the IT department's backup processes and scripts can usually be preserved, a VTL can deliver the performance benefits of disk-to-disk backup with relatively little disruption. The time taken to locate and restore data can be significantly reduced compared to a tape library that must load and position a tape before a transfer can take place. For some users, using a VTL as the primary backup has allowed them to redeploy their tape libraries as archive devices or for offsite tape vaulting.

Much of the VTL vendor's focus is on the relatively high-volume midrange market for fiber-channel attached open-system appliances that target the needs of midsize companies. Larger companies with mainframe installations

have been able to deploy specialist mainframe VTL solutions with ESCON/FICON support, but solutions that support both the mainframe and open-system worlds are relatively uncommon.

Such a unified VTL solution has the potential to offer an enterprisewide degree of tape virtualization with a number of distinct implications and benefits, including:

- Companies using a range of tape hardware and formats generally incur higher administration costs and an increased chance of failed backups due to human error. Using fewer tape formats is likely to be cheaper and simpler to manage.
- A consolidated tape infrastructure typically requires fewer libraries, drives and tapes, and improves the tape cartridge and hardware utilization.
- Centralizing the backup function within the datacenter will typically simplify the task of providing high availability through mirroring and remote replication.

- The characteristic VTL benefits of faster backup and restore, together with lower SAN and server workload, can be deployed widely across the enterprise, with limited disruption to established processes.

Tape consolidation and virtualization on this scale requires a solution architected specifically for the requirements of the large enterprise. Such a system is currently offered by Fujitsu Siemens under the CentricStor brand.

The system supports simultaneous connection to a range of mainframe and open-system platforms (including NAS filers), with emulation of enterprise and midrange tape libraries and drives. Grid-type architecture allows for components of the system to be distributed across multiple physical locations, maintaining synchronized disk caches and providing redundancy in the event of a node becoming unavailable. The distributed architecture is compatible with the high degree of scalability required of an enterprise solution.

Enterprise-class virtual tape appliances can take on more of the tape management workload than

a VTL that simply emulates a number of drives or libraries. This could include the creation and verification of dual tape copies or the automatic migration from one tape format to another. Such appliances can manage the movement of data between disk cache, physical tape, and server storage in accordance with the ILM and SLA policies set down by the user, freeing up administrative resources and reducing the cost of ownership.

Tape remains a viable medium for the archive storage of data in a portable format. Tape virtualization through enterprise-class VTLs can help to streamline a large company's tape infrastructure while alleviating performance issues and reducing management cost.

The enterprise VTL market is becoming more active. Fujitsu Siemens is an established player with some 400 installed systems, primarily in Europe. As the benefits of enterprise-level tape virtualization through high-end VTLs become more widely understood, Fujitsu Siemens will have to keep developing its proposition in order to stay at the forefront of enterprise-class VTL suppliers.

IDC Viewpoints provide fresh, third-party content to your website. Written by leading IDC analysts, they express hard-hitting opinion on hot topics often of broad interest. Brief yet powerful, this tool has already provided a number of our clients with increased call-to-action follow-through and has helped build web loyalty. Viewpoints are also an effective component of integrated marketing initiatives. For more information, please contact sales at your local IDC office (a list of IDC offices worldwide can be found at [www.idc.com/offices](http://www.idc.com/offices)) or email [gms@idc.com](mailto:gms@idc.com).

Copyright 2006 IDC. Reproduction is forbidden unless authorized. All rights reserved.



IDC is a subsidiary of IDG, one of the world's top information technology media, research and exposition companies.

**Visit us on the Web at [www.idc.com](http://www.idc.com)**

To view a list of IDC offices worldwide, visit [www.idc.com/offices](http://www.idc.com/offices)

IDC is a registered trademark of International Data Group.