

# The highway to virtualize the backup of mission-critical data

## Bull StoreWay Virtuo

The StoreWay Virtuo family of Virtual Tape Libraries (VTL) reduces the cost and streamlines the administration of data protection throughout the organisation. By consolidating and optimizing existing backup operations, StoreWay Virtuo delivers outstanding levels of performance, reliability and flexibility in both Open and Mainframe backup environments.

StoreWay Virtuo solutions integrate seamlessly into existing backup environments, protecting existing backup software investments, and delivering immediate benefits including reduced backup and restore times, improved reliability of backup and restore operations, and Disaster Recovery support.

### Outstanding Performance

Backing up data to disk enables high performance and more reliable data recovery than traditional magnetic tape environments.

Supporting a high number of virtual tape drives, StoreWay Virtuo enables multiple simultaneous backup and recovery operations, increasing backup & restore performance.

StoreWay Virtuo is the highest performing VTL on the market with a sustained performance up to 40 TB/hr through the use of innovative algorithms that reduce the number of I/O operations within the StoreWay Virtuo system. The modular architecture of StoreWay Virtuo enables scalability in both performance and capacity.

### Optimised Storage Usage

A capacity optimisation feature with data reduction at a hardware level reduces storage usage. The StoreWay Virtuo data reduction ratio can be up to 7:1 (7 TB data stored in 1 TB of disk space). The data reduction provided by StoreWay Virtuo enables more back-up data to remain on-line for fast restore and reduced storage usage.

Continuous cache allocation eliminates invalid volumes from the disk cache and tape, saving storage space.

### Flexibility at the service of your backup policies

The various Disaster Recovery levels are:

- **Tape vaulting** (Y copy and 3rd copy) enables the StoreWay Virtuo on the production site to copy data into a remote tape library. These tapes can then be conserved in an external tape vault.
- **Standby** mode allows synchronized replication between StoreWay Virtuo systems at primary and secondary sites by using a mirroring mechanism. If data are stored on physical tapes, they are also duplicated in two different tape libraries. Disaster Recovery contingency is supported through fail-over to either a production or secondary site. The fail-over process can be started by scripts which are tailored to the customer's DR plan. In the event of a tape library failure, a disk cache larger than 1 petabyte ensures backup continuity.
- **Advanced DR** mode enables multiple production sites, with one StoreWay Virtuo appliance at each site, replicating selected back-up data to a secondary site. Backup volumes containing mission critical data can be transferred over medium or high bandwidth network links and then stored in a centralized backup site with an optimal StoreWay Virtuo configuration which is usually smaller than the configuration at production sites. These volumes can be a subset of the total number of volumes of each production site.

PRODUCT SPECIFICATIONS



Architect of an Open World™

## Highly Secured Backup

Backup security is built into the heart of StoreWay Virtuo, operating 24x24, 365 days per year. It supports disk cache in a RAID-1, RAID-5 or RAID-6 configuration and has redundant fibre-channel connectivity that allows StoreWay Virtuo to continue to function even following disk or hardware connectivity failures.

## Seamless Integration

To ensure seamless integration within mainframe environments and the open world, StoreWay Virtuo is seen either as a tape library by the backup software in the open world or as a stand-alone tape drive in the mainframe environment. Through the use of available standard interfaces, existing backup

software and tape library investments are protected. Changes in physical media become easy to manage and make it possible to preserve the backed-up data over the long term.

## A comprehensive range of services

As well as its extensive product portfolio, Bull StoreWay offers a complete range of services, from consultancy through to system design, integration and maintenance. From the factory pre-integration of storage solution right through to project management, installation and support services, Bull StoreWay provides tailored assistance to ensure rapid, well-managed implementation.

## StoreWay Solution Center

Bull StoreWay has forged strong partnerships with the storage industry's major players, including EMC, NetApp, Brocade, CommVault, Symantec, NEC, Sun/StorageTek and Overland. This close relationship was the driving force behind the creation of the StoreWay Solution Center, an international center dedicated to data protection and virtualization technologies. Located in Grenoble, France, the center embodies Bull StoreWay's high level of expertise and know-how in storage infrastructures, and offers IT professionals the opportunity to exchange ideas and test new technologies, providing an ideal environment for defining and building optimized storage solutions.

Virtuo Model		1700	2700	3700-C, -P	4700-P	5700
Emulated hardware		StorageTek tape drives and libraries 9840, L180 and L700. For MVS- z/OS: 3480, 3490 and 3590				
Usable capacity (min/max.)		1 TB RAID 1	5/336 TB with 2 TB SATA disks; RAID 5 6	5/840 TB with 2 TB SATA Disks; RAID 5&6 or 6/630 TB 450 GB SAS disks; RAID 5	12/756 TB with 450 GB SAS Disks; RAID 5	>1PB
Number of virtual libraries (max.)		2	4	8	16	32
Total no. of virtual tape drives (max.)		10	64	128	384	512
Physical libraries supported (non restrictive list)		StorageTek L180, Overland Neo 4000E Series			StorageTek: L180, L700e, L1400, SL8500, STK9310, Overland: Neo 4000E Series, Neo 8000E, Quantum i2000	
Physical tape drives		STK 9840B, 9840C, 9840D, LTO			STK 9840B, 9840C, 9840D, 9940B, LTO	
Remote library support		No	Optional	Optional	Optional	Yes
Hardware compression		No	Optional: 1 card	Optional: 1-2 cards	Optional: 2-4 cards	Optional : on request
Host connections, disks cache and tape libraries		1 host No ext. disk array 1 library	2 hosts 1-2 SATA disk arrays 1-2 libraries	2-6 hosts 1-5 SATA or SAS disk arrays 1-2 libraries	4-8 Hosts 2-6 SAS disk arrays 1-2 libraries	According to customer requirements
Host Connectivity	Open, GCOS7, 8	1 HBA/FC (8 Gb or 4 Gb)	1 HBA/FC (8 Gb or 4 Gb)	1-3 HBA/FC (8 Gb or 4 Gb)	2-4 HBA/FC (8 Gb or 4 Gb)	FC
	MVS-z/OS	No	ESCON, FICON	ESCON, FICON	ESCON, FICON	ESCON, FICON
Back-up software Interfaces (minimum version requirement)		Open: Bull StoreWay Calypso, Bull OpenSave, CommVault Galaxy, CommVault Simpana, IBM iTSM, Symantec (Veritas) NetBackup; EMC <sup>2</sup> (Legato) NetWorker, HP DataProtector, SUN (StorageTek) ACSLS, Atempo Time Navigator, other on request. Proprietary: Bull OpenSave (GCOS7), TMS (GCOS8), IBM MVS- z/OS: DFSMSrmm, DFSMSdftp, DFSMShsm, CA1, CA-TLMS, CTLT, Zara				
Host system connection		GCOS7, GCOS8, MVS- z/OS , AIX, Windows, Solaris, HP-UX, Linux, Unisys				



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