Supports Business Continuity and Information Lifecycle Management in enterprise environments

IBM TotalStorage 3494 Virtual Tape Server Model B10

Highlights

- ***Can help reduce "real" tape mounts, because many mount requests are satisfied from the Tape Volume Cache (TVC)***
- ***Can help to improve performance due to the elimination of most of the physical movement of tape***
- ***Can reduce the number of physical tape cartridges required because of higher utilization of cartridge capacity***
- ***Can help reduce operating costs such as power, maintenance, operations and support staff***
- ***Can help reduce the floor space required to support the tape process, as a result of fewer physical resources***
- ***Supports the high performance, high capacity IBM TotalStorage® 3592 Tape Drive Model J1A***

Overview

The IBM TotalStorage 3494 Virtual Tape Server Model B10 (B10 VTS) is designed to enhance performance and provide the capacity needed for today's backup requirements. The B10 VTS can help reduce batch processing time, total cost of ownership and storage management overhead. A large portion of a company's data storage may be automated in a shorter period of time.

The B10 VTS is designed to help reduce or eliminate the number of bottlenecks in a given tape environment, depending on the characteristics of installed equipment and processor workloads. For example, if more drives are needed, up to 64 virtual drives may be configured to meet this need. If cartridge capacity is not fully utilized, the B10 VTS can alleviate this problem by filling the physical cartridge.

The B10 VTS initially creates a virtual volume in a buffer known as the Tape Volume Cache (TVC), a RAID-5 disk array. If these virtual volumes are re-referenced, they are accessed in most instances from the TVC, which helps to eliminate many of the physical delays associated with tape I/O and improves the performance of the tape process.

The virtual volume is also written to an attached IBM TotalStorage 3592 Tape Drive in a 3494 or 3584 Tape Library or a 3590 Tape Drive in a 3494 Tape Library. The virtual volume remains in the cache, which may support fast access if it is re-referenced by subsequent jobs.

Drives can be dedicated to a specific processor or shared in supported environments. This flexibility helps to maximize the efficiency of data transfer operations by allocating sufficient drives for a specific task.

A VTS is designed to provide a high degree of automated storage management capabilities. Migration and reclamation functions are dynamically managed whenever VTS internal thresholds are reached and necessary resources such as two idle tape drives are available.

Advanced Policy Management

Advanced Policy Management features are available to optimize the storage management for specific needs.

- *Cache management provides the ability to manage virtual volume retention or deletion from the tape volume cache.*
- *Volume Pooling provides the ability to group selected logical volumes on physically separate cartridges or cartridge pools.*
- *Selected Logical Volume Dual Copy provides the ability to create a second copy of the volume on a separate cartridge.*
- *Import/Export enables volumes to be moved for disaster recovery, workload balancing or volume archiving.*

IBM TotalStorage Tape Library Specialist

IBM TotalStorage Tape Library Specialist is available to monitor the B10 VTS. The IBM TotalStorage 3494 Tape Library Specialist is a Web-based user interface to the Library Manager. Using the Specialist, information such as current VTS status and statistics can be accessed from a Web browser by connecting to the Web server on the Library Manager PC.

Server attachment

The B10 VTS may be attached to IBM and non-IBM servers using FICON®, ESCON® and SCSI connections. A VTS can be supported at distances of up to 100km using channel directors or switches. Even greater distances are supported with WAN or ATM connections that use supported channel extension products.

Peer-to-Peer VTS

Two B10 VTSs can be coupled to participate in an IBM TotalStorage Peer-to-Peer Virtual Tape Server (PtP VTS) environment. The PtP VTS is designed to eliminate single points of failure, provide access to data through scheduled and unscheduled outages, and support business continuance.

IBM TotalStorage Master Console

The Virtual Tape Server supports the IBM TotalStorage Master Console (TSMC). The TSMC is designed to allow IBM Technical Service to download new microcode, remotely monitor the installation, and automatically dispatch a service representative when required.

The IBM TotalStorage 3494 Virtual Tape Server Model B10 at a glance

Specifications	Minimum	Maximum
Tape volume cache (GB)	648[1]	1,296[1]
Virtual drives	64	64
3590 tape drives	4	6
3592 tape drives	4	12
3590/3592 tape drives	N/A	N/A
Virtual volumes	250,000	250,000
FICON-only channels	2	4
ESCON-only channels	2	4
SCSI-only channels	8	8
FICON/ESCON channels	2/2	2/2
ESCON/SCSI interfaces	4/4	4/4
Warranty	1 year	

Supported environments[2]

z/OS® v1 or later

z/VM® v3 or later

— VSE/ESA™ v2.2 plus PTFs+ is supported as a z/VM guest

TPF v4.1 plus PTFs or later

VM/ESA® v2.2 or later

— VSE/ESA v2.2 plus PTFs+ is supported as a VM/ESA guest

AIX® v4.32+ or later

Sun Solaris v2.6+ or later

Microsoft® Windows NT®/Windows® 2000

HP-UX R11

Implementation services

In addition to the Installation Guides and Redbooks available for customer use to install this solution, IBM also provides a set of service offerings designed to expedite implementation. For further details, please visit

ibm.com/totalstorage

Competitive Financing Options

IBM Global Financing offers some of the industry's most competitive rates for a wide range of IBM products and services, including the VTS, for the duration of the financing term. For more information, please visit

ibm.com/financing

For more information

Contact your IBM representative or IBM Business Partner or visit

ibm.com/storage/tape

[1] At a data compression factor of 3:1

[2] Lists the minimum software level requirements for the basic VTS support. Please refer to the technical documentation for specific function or feature support.

IBM Systems and Technology Group
9000 Rita Road
Tucson, AZ 85744
U.S.A.

Produced in the United States
May 2005

TSD00168-USEN-04
G225-6925-04