



Storage Management Software

Special points of interest:

- **New Performance Numbers**
- Considerations to reduce archive management costs.
- New Application provider
- Windows 2003 support and NAS 2003 Storage Server support

Winter 2004

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From the President's Desk...

by Roy Slicker

Corporations are mandated to store and maintain records like never before. This increases cost pressure on IT departments to manage this critical archive data and increases associated hardware costs as well. In this article I would like to identify some of the costs associated with data archive and explore some means of mitigating these costs.

Media selection can be a significant cost driver in the archive. Why, because the data archive will only last as long as the media it is stored on. This is to say that if media is damaged over time for any reason the data must be migrated to newer media, and this is a significant expense.

Data archives have to be able to outlive the application, operating system and the hardware they were created on. The reason for this is, data archives need to meet regulations that require they be available up to 10 or even 100 years from when they were created. Computer systems are not designed to be around that long, and are generally updated and/or replaced every 2 to 5 years. This is also true of magnetic media such as hard drives. The typical hard drive has a usable life of only 2 or 3 years before it should be replaced. Ideally the media selected should be portable from system to system without having to migrate the data from one media technology or operating system to the next. Each time data is migrated there is a risk of losing or corrupting data. Therefore, by reducing the number of times data is migrated over storage technologies, the less risk there is in compromising that same data.

Consider the cost of system hardware upgrades over the life of the data to be managed; migration administration, and associated cost for audit trail management. Data migration can be a significant associated cost for any archive solution. Data migration cost time and we all know time is money. Any magnetic media solution will re-

quire frequent media updates as hard drives and tapes fail over time.

Blue Laser technology provides a significant reduction in the cost of archive management with respect to hardware. When compared to red laser technology such as MO or the new ATA hard drive solutions from EMC and Network Appliance, IT manager are looking at 50% or more in reduced cost by using blue laser technology over comparable ATA SoftWORM or red laser WORM technologies. In addition IT manager will see faster transfer rates over ATA SoftWORM technologies and gain the ability for off-lining data without having to move it to tape.

Considerations to reduce archive management costs:

A strong data lifecycle management solution to automate the archive and data retention process
Archive data stored in a file format that can outlive the operating system as it gets updated over the life of the archive

Select a durable medium: designed to be relatively impervious to environmental contaminants and protected by a robust cartridge

Non-rewritable non-erasable media: offering protection of electronic records at the media and storage management component level

Removeability: offering the ability to off-line inactive archives or near-line active access to electronic records. Also facilitates in creating and retaining disaster copies of electronic records.

Media longevity: the ability to archive data for longest possible shelf life of any digital media (Ideally the media shelf life spec should be twice as long as the data need be available)

Backward compatibility: a history of successfully providing the ability to read older media generations with newer write/read generations. This reduces the number of data migrations, thus reducing the risk of data loss.

Definition

Archive: to file or collect (as records or documents) in an archive or other repository: a place where historical documents are preserved.

**New Version
Provides
Significant
Performance
Boost**

InveStore is now Faster

Pegasus InveStore has gone through some performance enhancements. It is now transferring data more than twice as fast as before.

In addition to some coded streamlining, we have increased our available buffer size which helps to increase transfer rates significantly.

These enhancements will be included in our next

update of InveStore, to be released next month. This is just in time to take advantage of new media types such as UDO and ProData with their higher capacity and faster transfer rates.

This upgrade is free for all users currently on InveStore v4 with up to date annual maintenance. For those of you not currently using InveStore v4 this is a good reason to upgrade. If your maintenance contract is up to date, you can take advantage of significant discounts for upgrades to v4.

Upgrade Now and Save!

Upgrade from InveStore 3.x to InveStore v4 before March 31, 2004 and receive an additional savings on top of the standard 50% upgrade discount (including maintenance).

In InveStore v4 you will find feature enhancements such as support for Windows 2003 and added device support that includes the new Blue Laser technology: Ultra Density Optical and Professional Disk for Data.

InveStore v4.11 Enhancements

- Qualified Windows XP and 2003 Operating System with InveStore v4.11.00
- Enhanced GUI with support for Microsoft Management Console (MMC)
- Intelligent Volume Spanning with added functionality to rebuild directory files automatically for an incomplete volume set
- Added "Auto-Reinitialize" format option that causes rewritable volume sets to be re-initialized after all the files & directories on the surfaces of the volume set have been deleted (For backup applications)
- Pluggable application support for backup with CA BrightStor, and VERITAS NetBackup and Backup Exec.
- Pluggable application support for Information Lifecycle Management CaminoSoft Managed Server HSM, and VERITAS NetBackup Storage Migrator.
- COM/DCOM Developers Interface
- Remote System Administration

New Device Support

- Added DVD-RAM Drive support from Hitachi, Panasonic, and Toshiba

- Added support for Plasmon enterprise D-series device.
- Added support for DISC NSM4000 DVD-RAM device.
- Added support for JVC DVD-RAM devices
- Added support for the Asaca DVD-RAM device.
- Added support for Sony Professional Disk for Data, blue laser device. (<http://bssc.sel.sony.com/Professional/bluelaser/index.html>)
- Added support for Plasmon Ultra Density Optical drive. (<http://www.plasmon.com/udo>)
- Added support for UDO enable G-series enterprise and Mid-Range G Series

Upgrade Benefits

Windows XP and 2003 Support

By upgrading, you can take advantage of the current operating system functionality of Windows XP and 2003. Windows 2003 Server provides enhanced functionality with increased security, reliability, availability, and scalability. For more information regarding Windows 2003 features, click [here](#).

Reduce overall Storage Cost

With the support of new technologies such as Plasmon Ultra Density Optical and Sony Professional Disk for Data you can now drive down the cost of archive and compliance storage through a technology upgrade. The chart below shows the cost of managing data based on capacity and technology over a three-year period. The assumption includes software and hardware management costs as well as media, server, power and cooling costs.

Technology	3 TB	9 TB	20 TB
MO	\$ 56/GB	\$ 43/GB	\$ 40/GB
DVD	\$ 16/GB	\$ 9/GB	\$ 7/GB
UDO	\$ 24/GB	\$ 17/GB	\$ 10/GB
ProData	\$ 24/GB	\$ 20/GB	N/A

To take advantage of this special upgrade offer, contact Pegasus directly at (925) 314-1800 or email us at sales@pegasus-afs.com

CaminoSoft Selects Pegasus for Archive Media Manager

Meet
Our New
Application
Vendor

CaminoSoft's Managed Server HSM™ software provides an information lifecycle management model that is a cost-effective solution for managing the complexities of data storage management. By combining Managed Server HSM with InveStore, the result is a finely tuned data storage resource that enables virtually infinite storage growth, while meeting strictly regulated compliance requirements and increased data availability with a minimal amount of effort and expense. As storage requirements increase or change, additional storage devices can be simply added to the pool.

Richard Krueger, Vice President of Channel Sales and Marketing at CaminoSoft, stated, "We are very pleased to establish this important business relationship with Pegasus. Their comprehensive InveStore media management portfolio provides IT professionals with access to a broad and versatile range of archival storage alternatives, includ-

ing M-O, CD-R, DVD-RAM/ROM, and planned tape peripherals. Pegasus' support of WORM devices and media is especially important due to the established and emerging regulatory procedures that govern data retention in several industries, most notably banking, finance, and healthcare."

Krueger continued, "The seamless integration of Pegasus' modular InveStore software and CaminoSoft's Information Lifecycle Management solution results in scalable, affordable offerings for NetWare & Windows 2000 environments that satisfy channel partner product requests and address end-user customer compliance needs."

For more information regarding solutions from CaminoSoft, go to www.caminosoft.com.

Pegasus announces Windows 2003 Support for InveStore

InveStore now supports Windows 2003 with the current shipping version 4.11.

This enables users of compliance based secondary storage systems to integrate their system within the Windows Server 2003 environments.

InveStore provides transparent drive letter access and a developer API for archive solutions operating in Windows NT, XP, 2000 and 2003 Professional, Server, Advanced Server, and Datacenter Server environments. Pegasus maintains compatibility with Microsoft Windows via the Installable File System (IFS) or file system driver and is a Microsoft Management Console plug-in, enabling single-point, transparent access to the storage products while supporting standard Microsoft securities and off-the-shelf applications.

"End users have become considerably more concerned about their data and how to comply with

the onslaught of regulations regarding that data. Optical has passed the test of time and litigation and has proven itself as the gold standard for data protection. With support for Windows 2003, InveStore helps end users meet their compliance needs by allowing connectivity to current operating systems while allowing access to both legacy data and hardware," explained Roy Slicker, Pegasus President and CEO.

Pegasus maintains compatibility with Microsoft Windows via the Installable File System (IFS) or file system driver and is a Microsoft Management Console plug-in, enabling single-point, transparent access to the storage products while supporting standard Microsoft securities and off-the-shelf applications.

For product information or to request an upgrade please contact Pegasus Sales at (925) 315-1800 or send us an email to sales@pegasus-afs.com

Pegasus
releases support
for Windows
2003



Storage Management Software

Pegasus Disk Technologies, Inc.

2333 San Ramon Valley Blvd
San Ramon CA 94583

Phone: 925-314-1800
Fax: 925-314-1801
Email: sales@pegasus-ofs.com

PEGASUS DISK TECHNOLOGIES INC.

The Pegasus Flyer



About the Flyer

We are always looking for suggestions on content, particularly product stories with our hardware and software partners. If you have ideas or suggestions about future content, want to be added to our circulation or would like hard copies of the newsletter for your customers, please send us an email at marketing@pegasus-ofs.com.

Up Coming Events

You can see Pegasus at the up coming events:

AIIM, with HP booth 1744 and Plasmon booth 1267 New York, NY 8-10 March

CeBIT, with **Dicom** Hall-1 stand 6a1, **Plasmon** in Hall 1 stand 9a4, and **Headway** Hall 1 stand 7f 1 Hanover, Germany 18-25 March

VERITAS Vision Las Vegas, NV 3-7 May , Benelux 9-10 June, France 22-23 June, Germany 15-16 June, and United Kingdom 24-25 May

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