

## Citistreet

### QuickView

**Organization:**

Citistreet

**Industry:**

Global Benefits Provider

**Application:**

Client Data Archive

**Solution:**

Symantec Veritas NetBackup/  
Enterprise Vault

Pegasus Disk Technologies  
connectivity

Plasmon UDO™ Libraries

**ROI:**

- > Significantly lower cost per GB
- > Larger capacity due to removable media
- > Greater retrievability

CitiStreet, owned by Citigroup, is a premier global benefits provider and one of the nation's largest retirement plan record-keepers. CitiStreet offers a broad range of products and services for defined contribution, defined benefit, and health and welfare plans of all sizes in all markets. These products and services include full-service record keeping, investment services, investment counseling, and award-winning, action-oriented communication and education programs.

### The Challenge

As part of its product and service offerings, CitiStreet is required by various regulations, including SEC Section 17a-4, Sarbanes-Oxley and HIPAA, to securely maintain and archive its clients' data. In addition to general compliance with these regulations, CitiStreet also needed to meet application requirements by implementing a cost-effective, secure removable WORM archive within an existing well-known infrastructure. Backup, file system and email archiving were required by CitiStreet in order to deliver its products and services effectively.



*CitiStreet Benefit Management Division utilizes Veritas solutions, Pegasus technologies and cost-effective UDO™ storage to archive critical data for regulatory-compliant data retention.*

### The Solution

Jeff Machols, Systems Integration Manager for Citigroup's CitiStreet said, "Managing compliance tools is extremely tough for us. We run the whole gamut. We have to have people dedicated to managing backups, archives, [UDO] platters, and restores."

Machols expects to have one less storage tier to manage soon. He's looking to replace his tape libraries with a tiered have people dedicated to managing backups, archives, [UDO] platters and restores."

He explained, "By the end of the year, we'll be completely off tape. If we needed information, we always pulled it off tape but then you have the problem of 'This tape's five years old, we can't read it any more.' Not having the media work any more is no longer a good excuse for not being able to produce the data.

We make sure we're writing everything, and what we're writing it to is the most secure piece of media." Weaning his firm off tape involved a series of tasks and decisions for Machols. First, he had to decide where to store everything. CitiStreet uses Hewlett-Packard EVA and XP SANs for its primary storage. Machols put in a Sepaton Virtual Tape Library (VTL) for backup and the Plasmon UDO™ Libraries for online and archival storage.

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**Jeff Machols**

Systems Integration Manager  
CitiStreet



CitiStreet  
Massachusetts  
USA

"We were accumulating large amounts of data which required on-line storage in our production systems. The majority of this data was accessed very infrequently, if at all, but was being kept due to business needs — or in many cases, due to regulatory requirements. This on-line data was increasing the capacity needs of the disk subsystems. In addition to disk space, this data was also being backed up every week during the full systems backups. This caused the backup window to increase to the point of being unusable, and would require large capital outlays for additional hardware and backup media (LTO tapes). As a result, a near-line archiving solution was required."



The data being archived is made up of file system data from multiple applications. Some of the file systems are stores of documents such as Word documents, spreadsheets and text files. In addition, application files such as database files and dump files are stored in these file systems. Machols said, "In addition to the storage issues we were trying to overcome, Citistreet must comply with SEC, Sarbanes-Oxley and HIPAA regulations. These added the constraint of a permanent, write-once solution with a critical emphasis on reliability of recovery."

Citistreet selected Plasmon UDO (Ultra Density Optical) Libraries for its archive data repository. UDO was selected for several reasons:

- > **Cost** – The cost per GB for UDO is significantly less than for tape and other proposed storage technologies.
- > **Removable Media** – Unlike self-contained disk subsystems, UDO has media that can be removed, which creates larger capacity.
- > **Security** – With regulatory requirements, it is critical to have a policy in place to keep regulated data, but the data must also be retrievable. If media were to be subpoenaed and could not be read, Citistreet could be held responsible for the most damaging evidence presented. Tape is not reliable enough as media for long-term (multi-year) storage.

"There were different vendors competing for the complete application solution: these were EMC and Veritas. Both vendors offered solutions to the requirements but there were several challenges that had to be overcome."

Machols installed the Plasmon UDO Libraries last July after considering content-addressable storage (CAS). "I looked at [EMC] Centera, but it was real expensive, considering you're paying for SATA drives. It's really cheap disk, so how come I'm paying half a million dollars for disk that I can buy for \$50,000? We would have been paying for the software, the front end, and big engines built in, and we didn't need it. So we were paying for SATA drives that you can't rewrite to."



Citistreet had Veritas Netbackup in place as the backup-and-recover solution for all data and back-end systems. For consistency, Veritas Enterprise Vault was selected as the archiving software solution for documents. This would allow the data to appear on the servers so users would not have to remember where files were located. Also, it would permit CitiStreet to keep the current Netbackup environment, avoiding large software costs for new licenses, time and cost for installation, and training on new products.

But, Machols said, "As we were evaluating and testing the product, it was discovered that neither Veritas Enterprise Vault nor NetBackup was compatible with the UDO Libraries."



So Citistreet's main technical challenge was making Veritas connect to UDO devices. It turned out that these integration issues were far more challenging than the core technical ones. Pegasus software was able to provide the solution, but as Machols said, "Even though there were advantages to keeping Veritas, there was a new-found challenge of connecting to the UDO devices. EMC had a solution that would provide all the hardware and all the software from one vendor. Having multiple software products from different vendors can cause wasted time during integration due to finger-pointing and third-party communication issues.

"This issue was resolved by Datalink, who provided the services to integrate and support Veritas and Pegasus — the certified media manager for UDO. Having 'one throat to choke' allowed us to have the advantage of one vendor, while keeping the Veritas software. Datalink helped facilitate communication between the vendors. In addition, the technical experience of the Datalink engineers gave an additional dimension to the problem-solving capabilities, which enables the process to move quicker and get problems resolved faster."



Machols added: "Pegasus software, being the certified media manager for Enterprise Vault and NetBackup, was really important. As the information being archived is critical information in terms of both business operation and regulatory requirements, Citistreet was not willing to put in a solution that didn't have

the full support of all parties. We could not afford to get into a situation where an issue arose and one or more of the vendors could not help.

"As a result of Citistreet's being able to address the stringent archive storage requirements with this solution, we are considering rolling out this system for not only Windows-based file systems and file shares, but also for core applications."

Alliance Storage Technologies, Inc. offers the only enterprise-class archive solution that ensures data permanence, authenticity, access, longevity and removeability, at the low total cost of ownership that businesses demand.

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