



Breece Hill Delivers ILM for the SMB

Analyst: David Reine

Management Summary

Everyone knows that “You don’t throw stones if you live in a glass house”. However, what happens when you do not live there, but you do work there? In IT, when there is a problem with a server in the “Glass House”, the data center, the staff does not have to worry about throwing stones at it! Go to the IT Director and ask him or her to throw more resources at it. First, ask for more processing power; that usually works. If it doesn’t, then ask for more memory. That should work. If memory doesn’t work, try more storage. Disk is cheap. When none of these options do the trick, go to the CIO and ask for another server or more people. When all else fails, throwing additional people will surely fix the problem. After all, its only money! You can always convince the CFO that the data center needs more money to fix this problem for the mission-critical enterprise application. This scenario is all too familiar for anyone who has worked in the enterprise data center.

However, what happens in the “other” world, the world of the small-to-medium-sized business, also known as SMB, when a problem occurs. There, you are the CFO. You are the CIO. Moreover, you may be the IT Director. You may be the entire IT staff. With one or two open systems servers with a directly attached disk array to run your entire operation, you do not have any more “resources” to throw at it. You must depend upon technology to solve the problem.

Whether you work in a small, medium, or larger enterprise, there are problems associated with protecting the mission-critical information that drives the business. This information is truly essential to the everyday operation and continuity of the enterprise. Large enterprises, with their terabyte-sized databases, generally have this under control. Since the 9/11 tragedies, companies such as IBM, EMC, Veritas, and Legato, among others, have enabled a myriad array of hardware and software solutions to ensure the efficient backup and recovery of enterprise files and data from everyday human and mechanical faults. They also provide disaster recovery scenarios to further protect the enterprise. They have even implemented policy-based rules so that publicly owned enterprises may comply with federal regulations and keep another CxO out of the headlines and out of jail. Unfortunately, the cost of these solutions makes them unavailable to the smaller enterprises. What can you do?

A new community of companies has appeared to enable smaller enterprises to protect their gigabyte-sized databases with products that allow the timely and secure backup and restoration of their critical data to and from tape. One of these companies is Breece Hill. To learn more about the Breece Hill *iStoRA 4000* solution, please read on.

IN THIS ISSUE

> ILM and SMB Data Operations	2
> Who is Breece Hill	2
> The iStoRA 4000	3
> Conclusion	4

ILM and SMB Data Operations

Over the past two years, there has been a virtual plethora of discussions and new product introductions to handle the requirements of Information Lifecycle Management (ILM).¹ A lot of it has been focused on the impact of new federal regulations upon the financial transactions of publicly held Fortune-500-sized companies. Stimulated by the irresponsible actions of companies such as Enron and Tyco, the legislature passed Acts such as Sarbanes-Oxley which may not impact companies in the SMB space as much. This bill, and others, ensures that companies preserve all of their financial data generated in the bowels of their accounting departments, and all of their email. Email provided an audit trail of executive actions that played such a large role in the recent criminal investigations involving Martha Stewart, among others. To ensure compliance, Congress attached fines of \$1M and/or a 10-year prison sentence. Worries about the privacy of our health records caused enough concern to pass HIPAA, an act to preserve and secure the health histories of this nation's employees in HMOs, hospitals, and doctor's offices. Here again fines of \$25K per violation can provide a negative impact on profitability.

Enterprises can be required to supply the government with information about everyday business transactions. That's OK, because you can say, **I do not run a big, publicly-traded enterprise.** I just have a small, million-dollar business with an open systems server in the corner, or perhaps a small LAN connecting several two-to-three-person departments. Those regulations could not pertain to me. However, depending upon the extent of financial transactions involving your business, **not only could they, they will, and, as President, CIO, CFO, and data administrator, you had better be prepared to comply.** In fact, every enterprise must have the capability to manage data that is going to double or triple in size, perhaps even more, if for no other reason than operational continuity. Most of that information will not have to be available in the primary disk storage, but it must be accessible and secure. Furthermore, it must be backed-up. In fact, the average backup

window today takes over 12 hours, depending on the volume of data and the number and the throughput of the drives. What is the impact if the business doubles or triples the data in the storage array? Is your business prepared to archive unused data? Can it even identify it? To handle this burden requires a secondary storage capability in an affordable, easy to use package so that information storage does not cripple the bottom line of the smaller enterprise. This is where Breece Hill enters the smaller enterprise world with the *iStoRA 4000*.

Who is Breece Hill

Breece Hill is a leader in the tape-automation arena, and they have been since 1993, with a focus on the small to medium business (SMB) market, those companies or departments with revenue in the \$10-50M range. They develop cost-effective and innovative solutions for information storage and retrieval. These solutions involve tape appliances, autoloaders, and libraries. The largest product that Breece Hill markets is the *6.210 Tape Library*, which supports up to 6 drives and up to 210 cartridges, for a total capacity of 46.2 TBs.

Breece Hill's initial offering was the industry's first DLTtape library for mid-range computing environments. They have continued to manufacture tape storage products with unsurpassed reliability, performance, capacity, and innovation for the SMB customer. Breece Hill's *Information Storage and Retrieval Architecture (iStoRA)*, introduced in 2003, is a disk-to-disk-to-removable-storage platform that enhances previous levels of data protection and retention capabilities for both the SMB and department-level requirements.

As with the rest of the Breece Hill product line, the *iStoRA* family is flexible enough to fit into any existing open storage architecture. Independence in tape technology, with access to LTO-2, SAIT, VS-160, & SDLT 600, means an easy migration and protection of the investment that any data center or SMB makes in its backup/recovery and archival architecture. This company's tape library products interface with all leading operating environments, including Windows NT, and UNIX, meeting all industry standards. This is one of the reasons that Breece Hill has shipped more than 25,000 autoloaders and mid-range tape libraries since 1993. Their latest product is the *iStoRA 4000*.

¹ See **The Clipper Group Explorer** dated May 11, 2004, entitled *Top 10 Things You Should Know About Information Lifecycle Management*, available at <http://www.clipper.com/research/TCG2004041.pdf>.

The iStoRA 4000

The iStoRA 4000 is the first in a series of Disk-to-Disk-to-Tape (D2D2T) storage appliances with integrated RAID disk, tape, and software from Breece Hill. In fact, the software controls both the data traffic flow and storage management activities. (See Exhibit 1, below.) **iStoRA 4000 is the first truly-integrated D2D2T product designed to satisfy the requirements of the less than enterprise-sized businesses.** It provides the individual with minimal Information Technology (IT) staff with the ability:

- To manage mission-critical and compliance data in an ILM environment
- To initiate policy-based replications from any client in the network; files may be migrated, copied, or removed;
- To prepare a staged backup from primary to secondary disk immediately, with a migration of backup data from disk to tape when it is convenient for the business;
- To facilitate a rapid recovery from secondary storage or directly from tape, and
- To provide regulatory compliant technology in a turnkey appliance using WORM protection.

The iStoRA 4000 combines the best features of

Exhibit 1 – iStoRA 4000 Software

- Policy-based management
- Automated replication to multiple storage locations
- Automated migration & grooming
- Media-independent storage
- Offline media tracking
- File-level recovery online, nearline, off-line or off-site
- Easy, fast data recovery

NAS and tape automation. It enables the SMB with the resources to relieve the pressure on a company’s primary storage and to complete instant recovery, replication, and archiving via multiple data streams. Moreover, it does this in an easy-to-install single-box architecture. In effect, **the iStoRA 4000 removes stale data from the expensive primary storage and migrates it to inexpensive secondary storage**

(SATA) for the short term, and even lower cost tape for archiving and remote storage for disaster recovery. Furthermore, this appliance accomplishes its tasks with a high performance, gigabit Ethernet throughput and reliable operation. Breece Hill has measured throughputs of 40-60MB/second over the ip network.

The iStoRA 4000 storage vault consists of four major components in a rack-mountable 4U configuration:

1. A disk array made up of up to six 250 GB SATA disk drives for a maximum capacity of 1.5 TB;
2. A tape autoloader with a single drive and 10 cartridges capable of supporting 13 TB (See Exhibit 2, below, for optional formats and cartridge capacity.);
3. An Intel controller-based motherboard with 512MB of memory and support for RAID 0/1; and
4. Integrated storage management software.

Because of the use of industry standards in the implementation of the tape autoloader, the iStoRA 4000 can avail itself of any of the open systems tape architectures. This includes those that may use a Write-Once-Read-Many (WORM) format, such as Sony’s SAIT, which already has WORM in its future.² For redundancy, an expansion tape drive can be attached to assure access. Because of the network-attached design, the iStoRA 4000 software carries a single, economical license based on disk storage capacity and the type of tape device installed. No client license fees apply. This greatly reduces deployment costs.

Exhibit 2 – Tape Formats, Capacity (GB)		
	<u>Native</u>	<u>Compressed</u>
VS160	80	160
SDLT600	300	600
LTO1	100	200
LTO-2	200	400
SAIT	500	1300

² See **The Clipper Group Explorer** dated May 7, 2004, entitled *Tape Drive Selection – A How-To Guide* at <http://www.clipper.com/research/TCG200440.pdf>.

Conclusion

For any business, the iStoRA 4000 provides the enterprise with an assurance of business continuance to enable the entire executive board to sleep a little sounder. For those businesses involved in financial transactions, the iStoRA 4000 enables affordable legislative compliance that only lawyers could appreciate, and keeps you out of jail.

With a list price just above \$19,000, with an LTO tape drive³, Breece Hill has delivered just such a D2D2T appliance. Positioned for the business with more than \$10M of revenue, your IT staff can deploy a staged backup and recovery or archival solution with an easy to install, easy to use architecture using policy-based replication rules. **Breece Hill has broken the storage management paradigm. By designing a D2D2T appliance for SMBs with revenue under \$50M, they have changed ILM from a “four-letter” word to an acronym for success.** If your business fits into these parameters, look at the iStoRA 4000 from Breece Hill. It may be the solution tailored for you.



³ A different format tape drive may be substituted with an adjustment to the purchase price.

About The Clipper Group, Inc.

The Clipper Group, Inc., is an independent consulting firm specializing in acquisition decisions and strategic advice regarding complex, enterprise-class information technologies. Our team of industry professionals averages more than 25 years of real-world experience. A team of staff consultants augments our capabilities, with significant experience across a broad spectrum of applications and environments.

- ***The Clipper Group can be reached at 781-235-0085 and found on the web at www.clipper.com.***

About the Author

David Reine is Director, Enterprise Systems for The Clipper Group. Mr. Reine specializes in enterprise servers, storage, and software, strategic business solutions, and trends in open systems architectures. He joined The Clipper Group after three decades in server and storage product marketing and program management for Groupe Bull, Zenith Data Systems, and Honeywell Information Systems. Mr. Reine earned a Bachelor of Arts degree from Tufts University, and an MBA from Northeastern University.

- ***Reach David Reine via e-mail at dave.reine@clipper.com or at 781-235-0085 Ext. 23. (Please dial “1-23” when you hear the automated attendant.)***

Regarding Trademarks and Service Marks

The Clipper Group Navigator, The Clipper Group Explorer, The Clipper Group Observer, The Clipper Group Captain's Log, and “*clipper.com*” are trademarks of The Clipper Group, Inc., and the clipper ship drawings, “*Navigating Information Technology Horizons*”, and “*teraproductivity*” are service marks of The Clipper Group, Inc. The Clipper Group, Inc., reserves all rights regarding its trademarks and service marks. All other trademarks, etc., belong to their respective owners.

Disclosure

Officers and/or employees of The Clipper Group may own as individuals, directly or indirectly, shares in one or more companies discussed in this bulletin. Company policy prohibits any officer or employee from holding more than one percent of the outstanding shares of any company covered by The Clipper Group. The Clipper Group, Inc., has no such equity holdings.

Regarding the Information in this Issue

The Clipper Group believes the information included in this report to be accurate. Data has been received from a variety of sources, which we believe to be reliable, including manufacturers, distributors, or users of the products discussed herein. The Clipper Group, Inc., cannot be held responsible for any consequential damages resulting from the application of information or opinions contained in this report.