



# Banking on Xiotech at Heritage Auction Galleries

"When a dog's been kicked too many times, he's going to growl no matter how many times you pet him," says Brian Carpenter. Carpenter is senior network and systems administrator at Dallas-based Heritage Auction Galleries, the largest auction house for collectibles in the U.S, and he admits to being more than a little "growly" in his initial contacts with Xiotech.

"We really liked what Xiotech had to offer and were impressed with their people and service," he says, "but we'd just come off an extremely bad experience with another SAN (storage area network) supplier and were skeptical of any promises."

*"Magnitude 3D 3000 is the heart of our business"*

A close look at Xiotech's Magnitude 3D® 3000 storage system went a long way toward dispelling that skepticism, and a conditional installation of the system cleared away any remaining shreds of doubt. "We tested the daylights out of the system," says Carpenter. "Not only did Magnitude 3D 3000 pass every test, but it's improved our performance, freed up hours of our time, and given us the confidence that we can serve our member clients the way they expect to be served, come what may."

Carpenter has seen measurable improvements brought about by the Magnitude 3D 3000 systems: Disk I/O is 10 to 20 percent faster, and

online access speeds are about 10 percent faster, improving the quality of member interactions. IT staffers now spend significantly less time on system administration, and database analysts can accomplish their tasks in an estimated 15 percent less time. But the biggest change is one that is hard to quantify.

"We sleep better at night," Carpenter admits. "With the Magnitude 3D 3000 system, there is no single point of failure to bring us down. Before, a disk failure could have left us without a SQL application server, and that's the core of our business. We would have lost money by the minute and broken faith with our members. The Xiotech solution was a very affordable insurance policy against the worst disaster we could experience."

## Taking the Long Way

Heritage Galleries' path to Xiotech was neither short nor straight. In 2005, Heritage installed servers with 64-bit Intel Itanium processors. "We run Microsoft SQL clusters with tons of tables, so we need enormous amounts of memory," Carpenter explains. "We wanted to replicate data between two SAN systems with automatic failover between them, so, at the suggestion of our server supplier, we looked at the



### Industry

- Online sales

### Requirements

- Improved uptime with automatic failover
- Enhanced performance
- Interoperability with Itanium processors

### Xiotech Solution

- Magnitude 3D® 3000
- DataScale™ GeoRAID™

### Benefits

- Nonstop availability with resilient design and automatic failover
- Stronger performance, including faster online access
- Seamless interoperability with Itanium systems and more

### Operating Systems

- Microsoft® Windows® Server 2003 Enterprise Edition for 64-Bit Itanium-based Systems

### Applications

- Microsoft SQL Server

### SAN Infrastructure

- Cisco®

EMC CX300 SAN. We were told the system would support Autostart failover on Itanium within four months, so we bought the EMC system and waited. We waited eight months, but got no answers. By the end of a year, it was obvious our solution wasn't coming."

"We were told that upgrading to EMC's CX500 would give us disk-to-disk replication," Carpenter continues, "But that still wouldn't provide the automatic failover we needed. We would have had to replace our servers and use Autostart or hire a consultant to write a failover script. We estimated that scripted failover would take up to 30 minutes to get us running again after a failure. Our 275,000 members expect and deserve uninterrupted access, so that was unacceptable. Plus, the price of the upgrade wasn't much less than the cost of a whole new system, so we started over at square one."

Three weeks before making that painful decision, Carpenter had gone to Xiotech's Datapalooza™ event in Dallas, which prompted him to send a member of his staff to talk to Xiotech. "He came back very excited about Xiotech's clustered approach and virtualization technology," says Carpenter. "We asked for a quote and saw almost immediately how different Xiotech was from other vendors. Our local sales person showed up the next day with a quote, ready to answer our questions. What we saw gave us the confidence to move forward with something we hadn't even heard of a few weeks before."

But "confidence to move forward" was a far cry from easy acceptance. "We'd been burned," says Carpenter, "so our attitude toward everything was 'prove it.' We saw a demo and had some detailed

discussions about features and capabilities. Xiotech's solution seemed to include everything we wanted, so we offered to draw up a list of requirements, install a system, and put it into production. If it worked, we'd keep it. If it didn't meet the requirements to my satisfaction, we'd send it back. They put their reputation on the line and accepted the challenge."

## The Ultimate Test

Demonstration of the following was required to take place within five business days of installation:

- High availability and failover
- Controller level failover
- Host port level failover
- Storage port level failover
- RAID 10 drive failover
- Synchronous mirroring of RAID 10 volumes between drive bays
- Drive bay failover via DataScale™ GeoRAID™ software and RAID 10

The equipment—two Magnitude 3D 3000s systems, four fully populated drive bays, Xiotech's DataScale™ storage management software (including the GeoRAID option), and two Cisco 9216 fabric switches—was up and running within days, and then the torture testing began.

"We tested every possibility we could think of," says Carpenter. "We turned off an entire controller. We turned off three of the four power supplies and then turned power off completely on all the active stuff. We yanked out cables from both the host side and storage side. We failed two drives in RAID 10. We failed entire halves of the mirror to make sure it regenerated properly. We broke the mirror for half an hour. We watched Windows, SQL, and GeoRAID fail over successfully to the second node.

Xiotech passed with flying colors. They came to the table with a bunch of promises and kept every one."

The systems have run perfectly ever since. "The Magnitude 3D 3000 system is easy enough to manage that we took off running with virtually no training," he says. "Another huge benefit is that we've been able to do our clustering with no host-side software. And since the system is platform independent, it works with Itanium and anything else."

Carpenter and his staff still test the system monthly and have had no problems of any sort. Current raw capacity is about eight terabytes, though the amount of storage on the system is still growing.

"Magnitude 3D 3000 is the heart of our business," says Carpenter. "It runs our website, which is where we exist as far as our members are concerned. It's a great system."

### About Heritage

Heritage Auction Galleries is the world's largest collectibles auctioneer. Its 275,000 members are a testament to the company's reputation for professional business practices and unprecedented knowledge in the field of collectibles. Heritage's mission is to provide the Internet's most indispensable trading platform and source of information for serious collectors, investors, and dealers.

Heritage, established in 1976, offers a wide range of Americana, Books & Manuscripts, Art, Coins, Comics & Comic Art, Currency, Entertainment Memorabilia, Jewelry & Timepieces, Movie posters, and Sports Collectibles. The company's knowledgeable staff and suite of services help customers develop the best collections possible.

For more information, visit [www.heritageauctions.com](http://www.heritageauctions.com).



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