



THE ART OF STORAGE

For online retailer MisterArt.com, the Dell™ PowerVault™ MD3000i Internet SCSI (iSCSI)-based storage array simplifies storage management and provides high performance in support of 80 percent annual business growth.

CHALLENGE

The MisterArt.com IT group needed to increase storage capacity to accommodate its 80 percent year-over-year business growth. The team wanted to simplify storage management with a reliable system that could deliver outstanding performance.

SOLUTION

After testing the performance of several storage systems, the MisterArt.com IT group selected a Dell PowerVault MD3000i Internet SCSI (iSCSI)-based storage array with a Dell PowerVault MD1000 disk expansion enclosure.

BENEFITS

- Dell PowerVault MD3000i nearly doubles performance compared with a competing system, with improved database response contributing to better system response, enhanced customer satisfaction, and increased employee productivity.
- High-availability configuration improves reliability, while standardized hardware design provides easy serviceability.
- Standard Ethernet connectivity and the intuitive Dell Modular Disk Storage Manager interface simplify storage administration.
- Modular hardware options ease future scalability.

Related Categories:

Case study, Dell PowerVault storage, Internet SCSI (iSCSI), MisterArt.com

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Established in 1996, MisterArt.com was among the first companies to sell arts and crafts supplies online. Today, the company maintains its competitive edge by offering more than 60,000 items to painters, illustrators, photographers, and hobbyists across the United States—and relies heavily on Dell technology to do so.

“IT is the engine that runs our business,” says Marco Nicolayevsky, CTO at MisterArt.com. “We’re an online company, so every customer interaction, every product purchase is handled by technology. We standardized on Dell PowerEdge servers and Dell storage solutions years ago because we needed reliable, high-performance systems that could deliver the best customer experience while also optimizing the productivity of our IT staff.”

BUSINESS GROWTH DRIVES THE NEED FOR SCALABLE STORAGE

The company’s reliance on IT means that its infrastructure must grow along with its business—and currently, the company is growing at a rate of 80 percent per year. “The company’s phenomenal growth placed significant demands on our IT infrastructure and staff,” says Nicolayevsky. “We needed to increase our storage capacity to make room for more product information and customer data. We needed to add storage that would accommodate our growth for the next 12 to 18 months.”

Although the IT group was satisfied with their existing Dell/EMC CX300 Fibre Channel storage area networks (SANs), they wanted to investigate cost-effective alternatives for expanding them. The IT team knew reliability was essential, and the enhanced system would need to support a round-the-clock online business while simplifying administration and providing outstanding performance.

Internet SCSI (iSCSI) provided the solution. Because it uses standard Ethernet components, iSCSI storage can be much easier to manage and less expensive to implement than Fibre Channel systems. “The Dell/EMC SANs had the reliability we needed. In five years, we never had an unplanned outage,” says Nicolayevsky. “Still, we realized that we could save significant costs on host bus adapters, switches, and drives by integrating an iSCSI system. If we could help our IT staff become more productive, they could spend more time on finding innovative ways to help improve our shopping site.”

After considering iSCSI systems from several vendors, the IT group tested the Dell PowerVault MD3000i iSCSI-based SAN array against a comparably priced system from another vendor. "We brought both systems into our lab, set up an identical environment, simulated typical workloads, and measured results. We recorded I/O operations per second, transactions per second, and megabytes per second," says Nicolayevsky. "The PowerVault MD3000i outperformed the competing system on all the metrics we tested. In one test, the Dell system delivered nearly two times the transactions per second of the other system."

DELL MODULAR DISK STORAGE MANAGER SIMPLIFIES MANAGEMENT

The intuitive Dell Modular Disk Storage Manager interface was another key feature for the IT group. "When I was first introduced to the PowerVault MD3000i, the Dell account team set up a Web conference so that I could test-drive the interface," Nicolayevsky says. "Even before the Dell engineer began the demonstration, I was able to start using the system on my own."

The common components of the PowerVault MD3000i and Dell PowerEdge™ servers help make the PowerVault MD3000i easy to service. "The PowerVault MD3000i uses the same 15,000 rpm Serial Attached SCSI drives as the PowerEdge servers," says Nicolayevsky. "Using the same drives for servers and storage lowers the cost of carrying replacement parts so our business can stay up and running. Of course, if we need it, we can always use our Dell Gold Enterprise Support for fast assistance—there is just one number to call."

As a result of the performance and interface tests, the IT group selected the high-availability configuration of the PowerVault MD3000i combined with a PowerVault MD1000 disk expansion enclosure for a total of 9 TB of storage. The 30-drive configuration would provide

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CTO at MisterArt.com
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both the capacity for growth and the performance necessary for running the company's applications, while the high-availability configuration helps ensure business continuity.

DELL POWERVAULT SUPPORTS PRODUCTIVITY AND BUSINESS AGILITY

Using the intuitive Dell administrative tool, the IT group installed the system rapidly. "We had a very short time to put the additional storage into production. Dell delivered the unit in less than one week—no question, the Dell sales team clearly understood our needs," says Nicolayevsky. "Once we had the system in the data center, setting it up was simple. . . . We were able to roll it into production in about 20 minutes."

The IT group received immediate positive feedback from employees about the performance of the new storage system. "We began to migrate some back-office applications from the Fibre Channel SAN to the PowerVault MD3000i without telling anyone. People actually asked me if I had upgraded a server because everything was faster," says Nicolayevsky. "That made me realize that the Dell SAN had a direct effect on worker productivity." He notes that the high level of performance should also help improve business agility, allowing MisterArt.com to quickly adjust prices in response to changing costs and providing an enhanced online shopping experience for companies.

As the MisterArt.com IT group looks ahead to further growth, they have a storage platform that can expand as the company grows. "With the Modular Disk Storage Manager, I can increase the size of volumes so I can provision more space to a server or a set of servers," says Nicolayevsky. "If we need more physical capacity, the modular design of the PowerVault MD3000i makes it simple to add another PowerVault MD1000 with 15 more drives. And if we need to move beyond the capacity of the PowerVault MD3000i . . . we can simply add another PowerVault MD3000i."

Although MisterArt.com was willing to pay a premium for reliability, performance, scalability, and simplified management, after looking at several SANs, the company found that the PowerVault MD3000i had all the features it needed at an attractive price. "For us," Nicolayevsky says, "the PowerVault MD3000i is an ideal storage foundation for an online business." 



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