

Nexsan 10 Minute Case Study



Stargate Studios Builds Highly Efficient Storage Infrastructure with Nexsan

Quick Summary

Popular episodic television special effects studio, Stargate Studios, was facing increasing management costs related to their “white box” storage systems that were chosen solely on price. Regular system failures and unresponsive vendor support were causing serious headaches. When the studio lost 100’s of GBs in a single failure, they had to make an immediate change. The studio turned to Nexsan to deliver highly efficient storage systems that would eliminate reliability issues while conserving power and space. This result was achieved right out of the box; with powerful fibre channel-based controllers, Stargate achieved the performance they needed but also found a level of reliability and world-class support they didn’t expect.

STARGATE STUDIOS



“*Nexsan also enabled us to consolidate our storage, further reducing management requirements and freeing staff to do more critical tasks of value to our business.*”



*Dr. Joseph Meier, Chief Technology Officer,
Stargate Studios*

ENVIRONMENT

- Approx. 400TB of digital data, of which 340TB is on Nexsan storage systems
- Four Nexsan SATABeast® units, of which two are the Xi systems for primary enterprise file serving, and D2D backup and recovery
- One Nexsan SATABoy® unit for off-line and on-line editing

NEXSAN HIGHLY EFFICIENT STORAGE BENEFITS

- Reduced energy consumption by 70%
- Eliminated costly maintenance and equipment servicing
- Benefitted from high density storage for rack space efficiency
- Achieved high performance backup and archiving support with a lower total cost of ownership

CUSTOMER OVERVIEW

Founded in 1989 by Sam Nicholson, a distinguished cinematographer, ASC member and visual effects supervisor and producer, Stargate Studios was conceived as a high tech production company offering visual effects and production services to the film and television industries. Today, Stargate has studios in Los Angeles, Vancouver and Toronto with over 150 artists, supervisors, and producers covering all areas of digital production and visual effects. Stargate Studios provides turnkey support for high-concept film and television production and is the only independent entity which blends all the available production technologies into one fully integrated, high tech production and editorial service. As their multiple Emmy® and Visual Effects Society® awards attest, Sam's vision has become a reality.

In addition to film and HD production, matte painting, 3D, compositing and editorial services, Stargate Studios also offers innovative Virtual Backlot™ utilizing VB Live™ (its real time compositing system) and Virtual Backlot Library™, which includes hundreds of photo-real, virtual locations covering 28 major cities from around the world. To achieve the highest quality of work in an efficient and cost effective way, Stargate Studios is uniquely designed to provide online, real-time networking to each artist in NTSC, HD, 2K or 4K. This allows shots to be worked on by multiple artists simultaneously and streamlines production, editorial and film output.



THE BEAST UNLEASHED

SATABeast Xi from Nexsan is an extremely dense, energy efficient storage array designed to meet the challenges of the most demanding storage environments. Featuring both Fibre Channel and iSCSI connectivity, SATABeast Xi provides unmatched flexibility along with enterprise-class features, performance and proven reliability.

- Employs Nexsan's revolutionary AutoMAID® [Automatic Massive Array of Idle Disks] energy-saving technology, reducing power consumption and operational costs without compromising performance.
- Supports standard high performance RAID implementations as well as back up, VTL [Virtual Tape Library] and archiving applications.
- Utilizes dual RAID engines on each SATABeast controller to provide extremely high throughput across 42 disks.
- High availability including continuous background integrity scans to ensure drive health and data accessibility.
- Each component is fully redundant and hot swappable with each controller featuring full cache coherency to maintain data integrity even in the event of a power loss.

BUSINESS CHALLENGE: REDUCE OPERATIONAL COSTS AND OPTIMIZE DATA CENTER SPACE WITH POWER AND SPACE EFFICIENT STORAGE SYSTEMS

As a major force in the fast-moving episodic television special effects business, Stargate Studios does not have spare time when it comes to managing its storage infrastructure. With more than 400TB of digital data to store, the studio was facing mounting storage costs and management headaches. Their existing low-cost storage solutions were riddled with poor reliability, spotty technical support and high energy costs. As a result, the time spent maintaining the systems and servicing the equipment was becoming a significant budget and resource drain. In addition, mounting volumes of data were stretching the studio's rack space to the limit, driving up power, cooling and space requirements. The resulting operational cost was spiralling out of control.

"Some of the storage solutions we had in place were originally selected solely on the purchase price," said Dr. Joseph Meier, CTO, Stargate Studios. "But ultimately, they were costing us much more in downtime and ongoing maintenance; furthermore, they were not well supported by the vendor and none of the other systems we reviewed were space or power optimized. When one of the systems experienced a data loss of hundreds of GB in a single failure, we knew it was time for an immediate change."

With stringent deadlines to meet for episodic television titles including 24, Heroes, Grey's Anatomy, Private Practice, Life Unexpected and NCIS, Stargate Studios put reliability at the top of its storage criteria list. Yet, power efficiency, space efficiency and cost efficiency were also key considerations. Finally, Stargate sought a storage vendor that could deliver world-class support to assist them in times of need.

"For us down time can mean the loss of hundreds of thousands of dollars," continued Dr. Meier. "We found that the total cost of ownership with a 'white box' storage solution can be a killer. So when we needed to enhance our storage infrastructure, we turned to a proven supplier we had used in the past with great success – Nexsan. Nexsan delivered it all: unparalleled reliability, power-efficiency and space-efficiency at a competitive price."



“Nexsan’s service and support has been very impressive. They truly stand behind the quality and reliability of their products.”

*Dr. Joseph Meier, Chief Technology Officer,
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SATABOY BENEFITS FOR STARGATE

- **High performance.** SATABoy incorporates advanced features such as dual RAID engines, a high performance cache mirroring ASIC, and active/active failover to deliver uncompromising availability and reliability, feature rich functionality and high performance. With sustained throughput speeds of up to 540 MB/s per controller, SATABoy provides superior performance across all standard platforms and operating systems;
- **High reliability.** SATABoy offers redundant and individually hot-swappable active components (RAID controllers, fans, power supplies and disks). Further, SATABoy offers industry leading system reliability with an innovative design in vibration reduction and cooling;
- **“Single pane of glass” management.** SATABoy supports management in one, central location through a simplified management console without the need for special agents or capacity keys;
- **Highly efficient storage for backup and recovery.** SATABoy features 14 drives in 3U. It is designed with very energy efficient components thereby reducing power and cooling requirements. SATABoy also comes standard with AutoMAID energy saving technology, which reduces power consumption and cooling without penalizing storage performance;

SOLUTION: NEXSAN SATABEAST, SATABEAST Xi AND SATABOY HIGHLY EFFICIENT AND FAST STORAGE SOLUTIONS

Stargate put an end to its high storage maintenance costs and poor reliability by installing two Nexsan SATABeasts for staged backup operations and direct D2D use and two Nexsan SATABeast Xi systems for digital file serving. On sheer reliability, Nexsan has reduced Stargate’s operational expense. The total cost of ownership for their storage infrastructure was slashed even further with industry leading power and space efficiencies via Nexsan’s high density arrays and exclusive AutoMAID® power management intelligence. “The ability to redirect our artistic staff to a different server and disk array containing the latest D2D backups (because of a primary server hardware failure) with just a reboot of their workstations has been an IT godsend,” noted Dr. Meier. “Furthermore, by opting to configure the SATABoy for speed, we are able to use the array for both on-line as well as off-line editing, even of 4:4:4 uncompressed material.”

Stargate has been very impressed with the Nexsan support organization. Even though Nexsan solutions require far less maintenance, Stargate has been extremely pleased with Nexsan’s support response when they have called.

“Nexsan’s service and support has been very impressive,” added Dr. Meier. “I have worked with support engineers from the ‘old’ HP and Cisco, and I can easily compare the in-depth product knowledge and problem-solving abilities of the Nexsan support teams to those groups. They truly stand behind the quality and reliability of their products. Nexsan also enabled us to consolidate our storage, further reducing management requirements and freeing staff to do more critical tasks of value to our business.”



RESULTS: NEXSAN HIGHLY EFFICIENT STORAGE ELIMINATES HIGH MAINTENANCE AND OPERATIONAL COSTS

Nexsan's highly efficient storage solutions delivered the reliability, density and power efficiency Stargate needed at a price-performance ratio that was unmatched by any other vendor. The systems easily fit into the studio's rack space while leaving room to grow. And by leveraging the power of Nexsan's AutoMAID power management, Stargate has been able to achieve a 70% reduction in energy consumption.

The flexibility of the Nexsan product line has also enabled the Stargate tech staff to devise some unique responses to the demanding networking challenges of our industry. "We are currently experimenting with some network architecture changes that may significantly increase our throughput, and the Nexsan arrays are at the heart of those experiments," added Dr. Meier.

Stargate's key benefits from Nexsan's highly efficient storage:

- Superior power efficiency. The Nexsan SATABeast, SATA-Beast Xi and SATABoy systems come standard with AutoMAID® energy saving technology for significant reduction in power consumption and cooling without penalizing storage performance.
- High Density. The SATABeast and SATABeast Xi systems deliver an impressive density of 42 disks in a small 4U configuration to maximize Stargate's data center space.
- High Performance. The SATABeast Xi and SATABoy storage systems are high performance RAID solutions built around the latest high-capacity SATA disk drives.
- High Reliability. The SATABeast Xi and SATABoy offer fully redundant and individually hot-swappable active components (RAID controllers, fans, power supplies and disks). Further, they offer industry leading system reliability with innovative design in vibration reduction and cooling.

"Nexsan solutions are engineered for reliable and efficient operation," said Dr. Meier. "Overall, they have reduced our storage system power consumption by as much as 70% while optimizing space within our data center for a TCO and operational efficiency that is truly superior."

Presented by Nexsan

About Nexsan

Nexsan Corporation is a leading provider of energy-efficient, long-term storage systems. Nexsan delivers secure storage appliances and modular, capacity-optimized disk-storage systems for a broad range of applications including fixed content storage and archiving, email, medical imaging, compliance and litigation support, disk-based backup, digital video security, and rich media.

Nexsan's solutions are the choice of small and medium-sized companies as well as large global enterprises and major governmental agencies around the world who are seeking cost-correct, high density storage solutions. Founded in 1999 and based in Thousand, Oaks, Calif., Nexsan sells its products exclusively through a select global network of VARs, OEMs and system integrators. For more information, please see the company's website at www.nexsan.com.



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