NEXSAN™
by **imation**

SILICON VALLEY MUSEUM POWERS SMART INFRA-STRUCTURE WITH IMATION STORAGE

The Tech Museum of Innovation needed to upgrade its storage infrastructure to support its Smart Museum concept. Nexsan E-Series SAN delivers performance, reliability and capacity with room to spare.

CUSTOMER OVERVIEW

The Tech Museum of Innovation® is a hands-on, technology and science museum for people of all ages and backgrounds. Housed in state of the art facilities in downtown San Jose, California, the non-profit museum's innovative use of interactive technology makes it a model for other museums around the world. Through programs such as The Tech Challenge, an annual team design competition for youth, Tech Summer Camps, and internationally renowned programs such as The Tech Awards, the museum celebrates the present and encourages the development of innovative technology for a more promising future.

Its Board Members represent former and current executives from some of the trailblazers in the technology sector including Accenture, Bain, Cisco, Google, HP, Intel, Microsoft, NetApp, VMware and many others.

"The Tech" as it is known around Silicon Valley, is supported by over 90 employees, 400 volunteers and an IT infrastructure designed to mirror the innovation and technology leadership that surrounds it. Hundreds of exhibits attract more than 400,000 visitors per year, including many young school children. Visitors can explore genetics, space exploration, clean energy, biotechnology and many other sciences and technologies. The museum also plays host to many traveling exhibitions from around the world.

BUSINESS SITUATION

When The Tech Museum opened in its current location, it featured all the latest and greatest in technology, but over time, that infrastructure aged and servers, storage and networking all needed to be upgraded or replaced. Furthermore, the aging hardware combined with increased demand for new technologies resulted in frequent outages and downtime, which impacted visitors' experience.

Working with Pleasanton, CA-based solution provider Peak IP Solutions, the museum embarked on a long term plan to upgrade the underlying IT infrastructure to support the museum's next generation exhibits and completely revamped Smart Museum system. Designed to enable the ultimate visitor experience, the Smart Museum is a comprehensive, flexible platform for monitoring and measuring visitor behavior and modifying exhibit content to match the needs and preferences of visitors. It can support many means for personalization including games, interactive data displays, tour recommendations, pre-visit learning materials, post-visit curricula, visit summaries, and online lessons. The Smart Museum extends the definitions of exhibits and visits to span the website, the museum, and Tech Labs, providing critical links to connect all of The Tech's properties to create a cohesive experience. The system requires a broad mix of technologies; however a robust server and storage platform are key components.

The Smart Museum project creates lots of valuable data that needs to be managed. On peak days, as many as 3,000 people visit the museum; sometimes as many as 1,000 at a time – all accessing exhibit content and being fed new information every few seconds from a data store depending on their location and preferences. This data represents much of the core of the visitor experience and it needs to be stored reliably and accessed easily.

imation

NEXSAN™

by **imation**

"

Powering the Smart Museum system requires a mix of technologies; however, robust and storage platforms are key components. Many visitors are accessing exhibit content and being fed new information every few seconds from a data store."

CHARLES PEARSON
SYSTEMS ANALYST
THE TECH MUSEUM

ENVIRONMENT

- Nexsan E-18 SAN with 27TB in 2U
- VMware
- VEAM Backup connected to a NetApp system via fiber channel
- Cisco x86 Servers
- Cisco 10GB switches

KEY NEXSAN E-SERIES BENEFITS

- Performance and reliability
- Ease-of-use
- Low cost per terabyte
- 3X capacity of typical arrays
- Savings of up to 85% on energy
- SAS, SATA and SSD in the same system
- Array-based snapshots and asynchronous replication
- Uninterrupted I/O during maintenance

They needed a flexible and scalable storage solution that could grow with the Smart Museum concept as it expanded to more exhibits and visitors. After evaluating different alternatives, solution provider Peak IP proposed the high density, high reliability Nexsan E-Series™ SAN with a 10G interface and ISCSI, connected to Cisco® switches and servers.

Nexsan E-Series offers industry-leading efficiencies at the lowest possible cost-per-terabyte and can be tailored to fit in any environment whether traditional, virtual or cloud. It delivers up to 3X the capacity in the same space as a typical array while consuming up to 85% less power and cooling when idle. A highly reliable architecture ensures enterprise-class data protection and easy to use functionality simplify deployment and management. It also comes pre-configured so it can be up and running in 10 minutes or less with intuitive wizards. The E-Series also supports VMware® VAAI (vStorage API for Array Integration) enabling greater efficiencies and scalability for virtual environments.

In addition to upgrading its storage infrastructure to meet these new data management demands, the museum also upgraded its server and networking infrastructure, along with deploying VMware to consolidate twenty servers to four – all running on the Nexsan E-Series.

RESULTS:

Today, the Smart Museum is alive and growing. The Tech's IT group sleeps better knowing their data is safe and sound. Automatic alarms and notifications alert the IT team proactively to any potential performance issues. The virtual server environment, supported by Imation, runs faster than the original physical environment and the museum has a much more flexible infrastructure to support a dynamic and changing museum experience.

Looking ahead, the museum will support a desktop virtualization initiative to support the different exhibits at the museum and is planning an HA/DR project. Both will run on VMware and Imation's Nexsan products.

The Tech is also looking to expand the Smart Museum concept to visitors after they leave the museum, extending their experience and their relationship with the museum. Visitors will be able to create personal online souvenirs from their museum exhibits and tours and staff will be able to reach out about upcoming exhibits, programs and more. In the meantime, The Tech continues to build new exhibits and add new layers of content, interactivity and services with data management providing the foundation for the visitor experience.

ABOUT **IMATION**

Imation is a global data storage and information security company. Imation's Nexsan portfolio features solid-state optimized unified hybrid storage systems, secure automated archive solutions and high-density enterprise storage arrays. Nexsan solutions deliver high performance for mission-critical IT applications such as virtualization, cloud, databases, and collaboration; and energy efficient, high-density storage for backup and archiving. For more information, visit www.imation.com/nexsan.

CASESTUDY   2