

DIRECTIONS FOR THE 21ST CENTURY ESTABLISHING A DIGITAL MEMORIAL TO HOLOCAUST VICTIMS

When Yad Vashem first opened its doors in 1953 as Israel's official Holocaust memorial, it began a poignant and stirring journey to become what is now considered to be the world's preeminent library, museum and archive to preserve the memory of over 6 million Holocaust victims.

Today, Yad Vashem - also known as the Holocaust Martyrs' and Heroes' Remembrance Authority—spans 45 acres on Jerusalem's Mount of Remembrance and includes unique museums, memorial sites and research facilities.

Despite its rich, current impact, the sprawling complex still faced a challenge similar to many organizations charged with preserving history: How to continue to make its documents and recorded audio and video testimonies relevant to future generations.

“The pricing of Nexsan is about one third of what you’d pay for an EMC Clariion or comparable system, and Nexsan’s SATABeast delivers very good performance for us.”

MICHAEL LIEBER
CIO, YAD VASHEM

PUTTING A NEW DIGITAL FACE ON ITS RICH INFORMATION REPOSITORIES

A few years back, not content to sit passively and just wait for attendees to visit its campus, Yad Vashem’s management team, headed by chairman Avner Shalev, began to wrestle with how best to extend the rich history of the holocaust beyond the confines of its physical walls and geographical campus boundaries into a more pro-active, virtual world that knows few boundaries.

Reaching its 50-year anniversary in 2005 hit home a key truth for the organization: There would come a time in the not too distant future when living survivors of the Holocaust would no longer be available to provide the critical relevance and link to its history for the current generation.

Over the next 50 years and beyond, individuals like Shalev thus reasoned, that Yad Vashem would need to be transformed to appeal to the varied needs of new generations. “The generation of the future is immersed in a world of stimulating, high-impact media. We must relate to the visitors of the 21st century in their language,” he reasoned.

Keeping to the original spirit of the Hebrew phrase Vehigadeta Lebincha (“And you will tell your children”), Shalev and his team set out on an ambitious, multi-year development plan that included digitizing much of its existing archives and library. The end goal is ultimately to offer as much of its documentation, names database and testimonies via the Internet, on-demand, from anywhere in the world.

According to Michael Lieber, CIO of Yad Vashem, fulfilling such a vision has been both exciting and daunting at the same time. He is quick to note the task before him would have been practically impossible to achieve without the availability in recent years of more affordable options for disk storage.

Being conscious of the non-profit organization’s limited budget, Lieber knew he would have to look outside of Yad Vashem’s more costly production systems in order to solve the problem of where to house such a large digital archive.

The current production system – responsible for on-going efforts to digitize and catalog new materials coming online – incorporated Oracle and a document management system, along with about 30TB of higher-end EMC disk storage.

“We have close to 100 million pages of documentation, 300,000 photos connected to the Holocaust, and something like 50,000 hours of audio and video testimony. The average cassette and video are each about three hours long,” he said. “Once you digitize that information, you have to be able to store those digital materials somewhere. To bring Yad Vashem’s new vision to life, we needed enormous amounts of online storage for these read-only materials.”

Two to three years ago, it would have taken somewhere between \$100,000 and \$200,000 to do the whole thing. Now, with Nexsan, it's a whole different ball game."

MICHAEL LIEBER
CIO, YAD VASHEM

While that level of storage worked well for the on-going needs of system developers and those inputting catalog information, Lieber knew that type of system would be overkill for the on-going needs of the digital archive, especially once the digitized data had reached a more static, read-only state.

USING NEXSAN SATABEAST TO VIRTUALIZE HOLOCAUST TESTIMONIES

We already knew we couldn't afford to have all our systems on EMC or Hitachi storage. We had to decide where we most needed the high-end systems and where we could incorporate more economical storage," said Lieber.

During his quest for more economical storage, Lieber was told to check out Nexsan Technologies by the CIO of the University of Southern California's Shoah Foundation Institute for Visual History and Education.

He soon followed up on the tip and contacted Nexsan to see about getting a demo storage array to test in his own environment. During the test, Lieber connected 80 local terminals in Yad Vashem's Visual Center to a Nexsan ATABeast™ system and soon began serving video testimonies over it. After running the test for just three days, he was sold on the technology and ordered the first of two SATABeast enterprise-class storage systems from Nexsan.

Most CIOs are risk takers because they have to decide on which technology to bet. In my case, the risk is even worse, since I must be very careful with how the organization spends its funds. On the other hand, it forces me to take risks where other CIOs might decide to wait. That risk paid off when we went to Nexsan," said Lieber.

"In all, the pricing of Nexsan is about one third of what you'd pay for an EMC Clariion or comparable system, and Nexsan's SATABeast delivers very good performance for us. The price is even low enough to put two systems together and copy the information between them. In effect, Nexsan has brought the cost down to virtually a commodity level. This leaves us asking, 'Why pay high prices for an archive when we don't have to?'"

Yad Vashem currently has two SATABeast arrays in use on the organization's storage area network, with more planned in future as the organization invests in infrastructure to support a more extensive Internet delivery model.

One SATABeast currently serves the on-demand video and audio needs of 50 workstations at the organization's visual center, while another SATABeast acts as an intermediate, online backup repository for copies of disk-based snapshots and data taken from the primary production systems. Lieber's team also uses the second SATABeast as a virtual tape library, used in conjunction with existing IBM Tivoli Storage Manager (TSM) backup procedures.



Besides its primary use as an economical digital archive for large quantities of testimonies and documents, Lieber estimates the SATABeast has easily saved his team as much as a few hours a day on backup and recovery tasks. "Access time for retrieval of backup data, like retrieving a mailbox, has been nearly instant from the Nexsan system," he said.

Lieber looks forward to the day his team has Yad Vashem's "enormous" video-on-demand system running full-steam and ready to furnish audio, video or documents on demand across the Internet and other multimedia venues around the world. His current plans include putting a Nexsan system on the Internet during the next upgrade phase of the project.

In the meantime, he plans to use Nexsan to help add another 8.5 thousand testimonies to Yad Vashem's digital archives. The testimonies, already recorded by USC's Shoah Foundation Institute, comprise about 40TB of data. Up until Nexsan, Lieber could see no easy way to obtain and integrate digital copies of the testimonies for Yad Vashem.

Now, with Nexsan, he hopes to use the SATABeast system as a "digital suitcase," sending it to the Shoah Foundation in Los Angeles and having them copy all of the testimonies on it before shipping it back.

"Nexsan has brought things down in price to make digital archiving viable," he said. "Two to three years ago, it would have taken somewhere between \$100,000 and \$200,000 to do the whole thing. Now, with Nexsan, it's a whole different ball game."

ABOUT NEXSAN

Nexsan® is a leading independent provider of disk-based storage systems purpose-built and priced for the mid-market, offering industry-leading reliability, space and power efficiency. Nexsan storage systems provide scalability, integrity and security for growing volumes of unstructured data and are ideal for virtual storage, data protection, secure online archiving, bulk and cloud storage applications. Overcoming the challenges of traditional storage, Nexsan delivers a different kind of storage experience with easy-to-use, efficient and enterprise-class solutions that reduce the complexity and cost of storage. Nexsan delivers its storage systems through a select global partner ecosystem of solution providers, OEMs and system integrators. Nexsan is based in Thousand Oaks, Calif. For more information, visit the company's website at www.nexsan.com.

©2011 Nexsan Corporation. All rights reserved.