

# Voom HDNews Accelerates the HD Video Editing Process with a Shared Digital Storage Solution



**Voom HD Networks is one of the nation's leading high-definition entertainment divisions, its programming operations includes 10 original high-definition channels.**

## **Business Results:**

- Increased staff work-flow editing efficiency
- Simplified storage management
- Enhanced data consolidation
- Reduced cost of overall storage

## **The Challenge:**

When Voom embarked on the creation of a new high-definition (HD) 24-hour news channel, the company determined it needed an advanced video editing and storage solution. This solution needed to have the bandwidth and performance to allow editors at the new channel— Voom HDNews —to quickly retrieve and store large, uncompressed video files in the 1080i high definition digital TV (HDTV) format.

HDNews needed a digital content storage solution that would allow multiple editors to access and share the same video content at the same time. This capability would simplify workflows and accelerate the production of news clips and promotional content.

## **The Solution:**

After evaluating the features, functionality, costs and availability of the market's off-the-shelf solutions, HDNews determined it could find efficiencies and get more of the functionality it needed by building its own editing and storage solution out of leading-edge component products.

They turned to Sanbolic, Inc., a StorageTek and Cisco Systems partner, providing software tools and services to enable high bandwidth-shared access to data. Sanbolic designed and implemented a robust Fibre Channel storage area network (SAN) to support the company's digital editing and storage needs.

Sanbolic brought these diverse components together to form "a very elegant and state-of-the-art solution for SAN editing," said Milan Krainchich, Director of Operations for the HDNews operation. "While every product speaks for itself and has its own strong points in terms of performance and quality, it's Sanbolic that glued all of it together, and made the solution seamless."

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### **Solution Components Included:**

- **Melio FS, an advanced symmetrical cluster file system, and LaScala, a symmetrical cluster volume manager, from Sanbolic.**
- **D-Series disk storage systems (now called FlexLine) from StorageTek**
- **MDS 9216 storage switches from Cisco Systems**
- **Video editing workstations from 1Beyond with Adobe Premier editing software and Bluefish capture cards**

### **Business Benefits:**

The use of a SAN-based shared video storage has enhanced the workflow process, according to Krainchich. Staff members can work in any editing room, have access to the same pool of data, and make their edited program material available in any other room.

“This type of system helps staff keep pace with the tight deadlines of the news programs,” Krainchich said. “For instance, while editors work on news clips, promotions personnel can put together promos for the same stories.”

Among other benefits, the solution offers built-in redundancy. If one editing room goes down because of technical problems, staff can move to another editing room and continue working with the same content, which remains available via the SAN.

On the SAN's back-end, StorageTek's D-Series disk systems deliver the high reliability that HDNews needs for its around-the-clock operations. “We have found the D-Series systems to be very robust,” Krainchich said. “They are on 24x7. They are in almost constant use. Over the past year and a half, in general, the systems have been very reliable.”

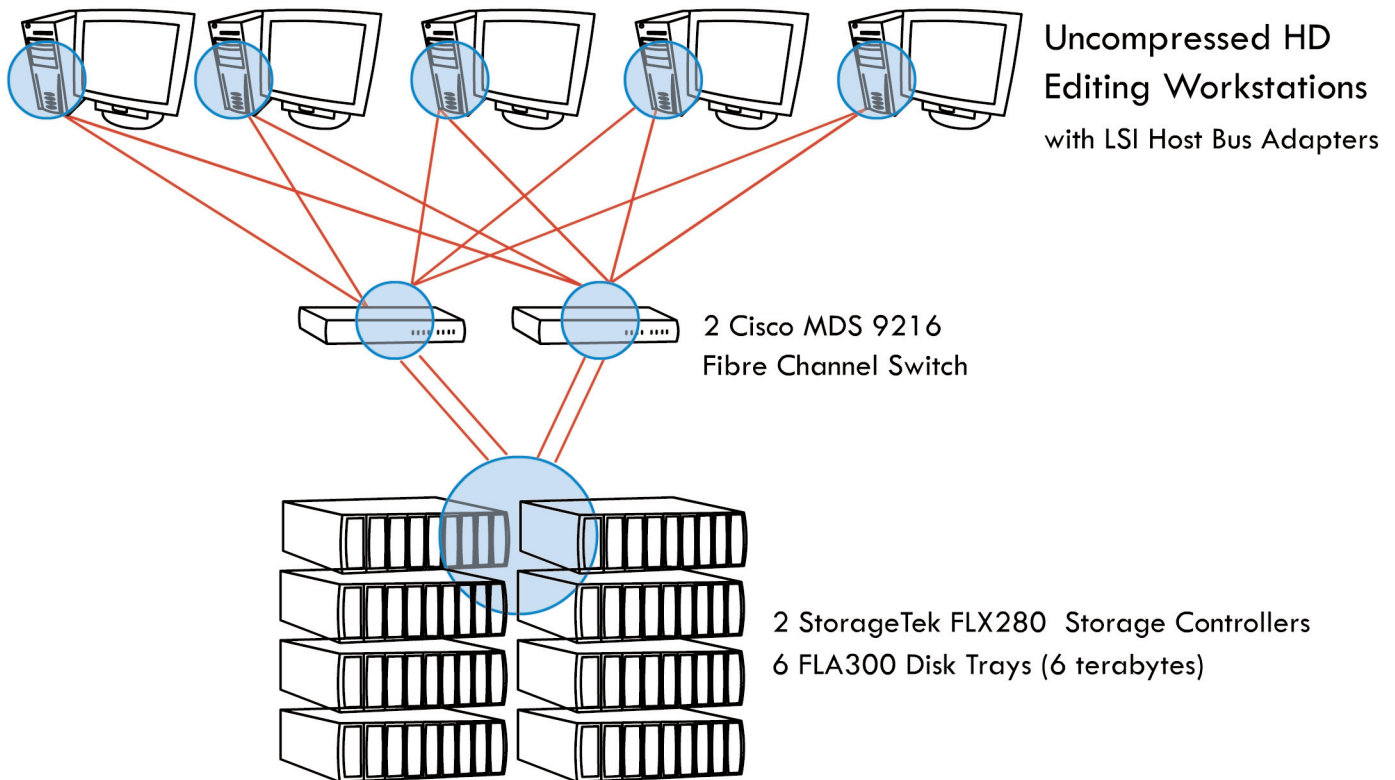
### **Financial Benefits:**

The solution is helping increase staff productivity. The speed of the Fibre Channel SAN and D-Series disk systems allows editors to move uncompressed HDTV files in and out of the storage quickly and easily.

The solution is also increasing system management productivity. The use of a shared, SAN-based storage allows the operations team to manage a single pool of data and a single disk system, rather than multiple smaller storage pools and multiple disk drives. LaScala volume manager simplifies centralized creation and management of storage volumes, improving workflow management.

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“The whole process is simpler and more straightforward,” Krainchich said. “While the SAN requires management time, for the increased flexibility, it has far fewer requirements vs. stand-alone storage distributed throughout the facility. That equates to fewer man hours expended.”



### Technology Benefits:

With the components from StorageTek, Cisco and Sanbolic, the SAN-based storage solution delivers the high throughput performance required for work with uncompressed 1080i HD video files. Sanbolic's Melio FS clustered file system and LaScala Volume Manager allows multiple edit stations to have concurrent read and write access with guaranteed bandwidth of better than 165 MB/sec. In aggregate, the solution built on high performance StorageTek disk arrays provides more than 1 gigabyte per second of bandwidth into the network from the shared storage pool.

“In high definition 1080i, the files are very large,” Krainchich said. “The speed of the Fibre Channel SAN makes moving large files very quick and very easy. The throughput is there.” What's more, the system can “sustain the data playback rate simultaneously on multiple systems without causing video stutter or a system crash.”

The 1Beyond workstations support high-definition editing in the studio and low-resolution proxy editing in the field. This enables the HDNews operation to gain the simplicity that comes with using the same editing software in the studio and in the field.

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Looking ahead, HDNews has the option of directly integrating nearline archiving into the SAN so HDNews employees can more easily repurpose existing content and archives.

### **About VOOM HD Networks**

VOOM HD Originals is an innovative package of HDTV channels that include movies, sports, music, travel, fashion, the arts, cartoons, and news - all in stunning HD. Created by Rainbow Media Holdings LLC, the channels are currently available to subscribers of Dish Network.

VOOM HD Networks offers in-your-face action sports on RUSH HD; a portal into intriguing people and extraordinary landscapes on EQUATOR HD; cartoon worlds in astonishing detail on ANIMANIA HD; the world of art brought to life on GALLERY HD; 24/7 news shot in native HD on HDNEWS; spine-chilling movies on MONSTERS HD; immersive pop music concerts on RAVE HD; fashion, beauty and style on ULTRA HD; plus the largest selection of special interest, commercial-free HD movie channels, including a never-ending hi-definition film festival on MAJESTIC HD and movies for the above-average Joe on GUY TV HD. Please visit [www.voom.tv](http://www.voom.tv) for more information.

### **About Sanbolic Inc.**

Sanbolic, Inc. is a privately held company located in Watertown, Massachusetts. Sanbolic's products address the growing customer need for tools that simplify data storage management, increase system flexibility, and enable high bandwidth shared access to data. To learn more about Sanbolic, visit [www.sanbolic.com](http://www.sanbolic.com) or call 1.617.926.2806.

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## About StorageTek Corp.

StorageTek (Storage Technology Corp., NYSE: STK) is a \$2 billion global company that utilizes its information lifecycle management strategy to help businesses align the cost of storage with the value of their information. The company's innovative storage solutions manage the complexity and growth of information, lower costs, improve efficiency and protect investments. For more information, visit [www.storageitek.com](http://www.storageitek.com) or call 1.800.877.9220.

## Performance Metrics Summary

Goal	Before StorageTek Solution	After StorageTek - Sanbolic Solution	Result
Enable concurrent storage sharing of video files	Storage attached directly to individual editing systems	Storage consolidated into D-Series disk systems on a SAN	Multiple staff members can access same data simultaneously from any editing room
Support editing demands of multiple, shared uncompressed 1080i video workstation	Limited ability to share or move large files over a network	Ample bandwidth to move and share large uncompressed 1080i media files and sustain HDTV output speeds from multiple workstations	Increased staff productivity and greater work-flow efficiency

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