

Industry

- Media and Entertainment

Business Issues

- Complete transition from videotape-based to digital storage of a year of content (representing 5,000 hours of programming)
- Reduce use of costly videotape and tape machine support costs
- Enable cost-effective, secure and highly reliable delivery of digital programming to millions of subscribers

Solution

HBO has standardized on Sun™ and Grass Valley technology to make the transition from videotape-based environments to a digitized, server-based storage and play-out system that enables high-speed and 99.999 percent (five-nines) system availability to support its bicoastal network of 30 standard-definition (SD) and 4 high-definition (HD) channels, as well as on-demand distribution.

Business Results

- Eliminated 80% of the existing videotape equipment
- Realized significant savings in both labor and maintenance costs
- Enhanced ability to provide near-seamless content delivery to broadcast and on-demand subscribers

Products/Services/Solutions

- Sun Fire V440 Server
- Sun StorageTek 9990 System
- Sun StorageTek 9980 System
- Sun StorageTek 3510 FC Array
- Sun StorageTek QFS
- Sun Cluster
- Solaris™ Enterprise System
- SunSpectrum™ Support

URL Reference

sun.com/customers

With shows such as The Sopranos, Deadwood and Entourage, Home Box Office (HBO) has become the most successful television network in the United States and is taking the lead in international markets as well. A division of Time-Warner Entertainment Company, HBO first began broadcasting to cable customers in 1972 and now boasts two 24-hour premium TV services (HBO and Cinemax) and revenues exceeding \$3 billion annually. HBO airs more than 90 motion pictures—ranging from top box office hits to cutting-edge independent films—as well original movies, series, comedy, documentaries, family shows and world-class sporting events, each month.

Success at a glance

Broadcast television has gone through a number of major changes since its inception in the 1930s, but the biggest may be underway right now: the shift from analog to digital. Moving television into the digital domain broadens the range of target devices from the traditional home-based TV set to laptops, cell phones, personal digital assistants (PDAs) and other mobile devices. HBO—always a leader in broadcast innovation—began offering digital programming in 1999, years ahead of its competitors.

By 2003, HBO's goal was to move its standard-definition (SD) programming from a tape-based platform to a fully digital server architecture while maintaining the 99.999 percent, or five-nines, reliability of traditional play-out mechanisms, to reduce cost and increase HBO's overall operational efficiency. The company chose Sun and Grass Valley as its suppliers for this endeavor.

To create a digital repository for its SD and HD programming, HBO originally deployed two Sun Fire™ 6800 servers to manage and stage content and two Sun StorageTek™ 9980 storage systems installed in a mirrored configuration. Sun StorageTek QFS high-performance file-sharing software provided the scalability needed to store the large program-length video files and the powerful performance required to meet HBO's demanding throughput goals. Sun Java technology ensured cross-platform compatibility and aligned with HBO's strategy to develop its Video Network systems in the Java programming language.

In 2005, Sun delivered an additional multitiered storage solution that could house the HD content the broadcaster needed to access as well as a robust storage architecture that allowed easy and affordable distribution of unique content to a broader array of constituents. To address HBO's HD storage needs, Sun deployed 192 TBs of Sun StorageTek 9990 storage.

HBO's Oracle-based broadcast scheduling applications run on clustered Sun Fire V440 servers which are attached to a Sun StorageTek 3510 disk array. Again, based on the software's ability to handle large blocks of streaming data and enable simultaneous, HBO chose Sun StorageTek QFS file-sharing software to support the applications.

This marriage of computer industry and broadcast industry technology gave HBO an environment that provides broadcast-quality throughputs and broadcast quality-of-service (QoS) levels at costs well below what could be achieved through a traditional video-tape based storage and delivery system.

The reliability, redundancy and high availability of the Sun solution supports HBO's aggressive mission to provide five-nines availability to its customers.

Sun's effective enterprise servers, storage solutions, software and services provide the reliability and HBO needs to plan for tomorrow's programming challenges. More, Sun's willingness to partner with proprietary broadcast service providers like Grass Valley means the Sun solution deployed at HBO maps precisely to the broadcaster's expectations. The tight integration of computer and broadcast systems is enabling HBO to eliminate videotape entirely to create an end-to-end digital media workflow and delivery solution that supports an unparalleled user experience.

And of course, that's what entertaining television is all about.

"Sun's enterprise storage systems allow us to distribute content on a global scale while keeping costs at a minimum. Sun offers a truly exceptional high-quality solution that increases efficiencies and allows for the continuing reliability of our business-critical distribution."

Charles Cataldo

Senior Vice President,
Broadcast and Studio Operations, HBO