

## Swedish Television makes news with IBM digital media solution.

### Overview

#### ■ Challenge

Overcome inefficiencies of legacy television broadcasting infrastructure based on analog media technology

#### ■ Solution

All-digital TV news broadcast infrastructure powered by IBM technology

#### ■ Why IBM?

Only IBM could provide a comprehensive, affordable solution that met stringent time and architecture constraints; IBM viewed as a proven vendor that could minimize the risk of multivendor scenarios

#### ■ Key Business Benefits

25% gain in workforce efficiency with no staff increase, due to more cohesive, collaborative workflow; significant savings based on low total cost of ownership (TCO) of Linux® platform; increased viewer satisfaction due to better quality broadcasts; ease of use

#### ■ Business Partner

Ardendo



SVT, Sweden's public service television company, operates five digital channels including an around-the-clock news channel and a European channel for Swedish-speaking viewers in Europe, North Africa and the Near East.

It's a familiar nighttime routine: you settle into your armchair and click the remote to your favorite news channel. Then, a barrage of images and sounds from around the world floods your screen.

Few television viewers stop to consider the tremendous investment in resources and human effort required to bring the news to their living rooms. But for most of the world's television broadcasters, airing news and sports means compiling, maintaining and accessing a huge library of analog videotapes that are manually indexed, researched, mounted, queued, edited and played by an army of employees.

*“As our tape archives continued to grow, finding a video segment was becoming increasingly difficult and time-consuming. We needed a total, enterprise digital production facility that would enable us to reorganize and benefit from a common workflow and shared resources.”*

*—Niklas Krantz, Project Manager for Special Projects, Swedish Television*

## ***e-business success—blending new technologies with established strengths***

### **Key Components**

#### *Software*

- IBM DB2® Universal Database™ for AIX®
- IBM DB2 Text Extender
- IBM Tivoli® Storage Manager
- IBM HTTP Server

#### *Servers*

- IBM @server pSeries™
- IBM @server xSeries™
- IBM TotalStorage™ Enterprise Tape Library 3494
- IBM 3584 UltraScalable Tape Library

#### *Services*

- IBM Global Services - Integrated Technology Services
- IBM Silicon Valley and Digital Media (Bethesda, Maryland) Labs

Until recently, Swedish Television (Sveriges Television or SVT) was one such broadcaster. On the air since 1956, Stockholm-based SVT ([www.svt.se](http://www.svt.se)) has nearly 3,000 employees and revenues approaching 3,600 million Swedish kronor (US\$414.6 million). Its 10 regional and 9 Stockholm news desks provide programming to a domestic audience of more than 8.5 million people, as well as to Swedish-speaking viewers throughout Europe, North Africa and the Near East.

SVT has always considered itself a leader—both in technological innovation and in the quality and objectivity of the information it provides. But, as SVT Project Manager for Special Projects Niklas Krantz explains, analog magnetic tape technology was impeding the broadcaster from meeting those goals. “As our tape archives continued to grow, finding a video segment was becoming increasingly difficult and time-consuming. Our news desks were either redundantly recreating the same materials or competing for the ones they had. We needed a total, enterprise digital production facility that would enable us to reorganize and benefit from a common workflow and shared resources.”

To address these issues, SVT inaugurated an all-digital TV news broadcast infrastructure powered by IBM technology, including DB2 data management software, digital media storage solutions and IBM @server xSeries and pSeries systems. With the new solution, SVT is one of the first national broadcasters to offer fully digital sports and news broadcasting. According to Krantz, SVT’s digital revolution has vastly improved the quality of its broadcasts, leading to heightened viewer satisfaction. “Leveraging the IBM solution for all our news and sports programming has enabled SVT to achieve a 25 percent gain in efficiency—with no increase in staff—by restructuring workflow and streamlining production processes,” he says.

The IBM digital media management solution has brought SVT a more cohesive workflow across all of its news departments. “Our teams now collaborate far more effectively, because newsrooms no longer need to compete for analog resources or work redundantly on the same footage. And digital technology lets journalists do their own editing, freeing technical staff to focus on crucial issues of transmission quality,” says Krantz.

*“Only IBM could provide a comprehensive solution at an affordable fixed price, within a tight timeframe and with the system architecture we required to support our future needs.”*

*—Niklas Krantz*

### **Relying on an excellent track record**

“We evaluated proposals from IBM, Oracle, Sony and other world-class vendors,” Krantz says. “Only IBM could provide a comprehensive solution at an affordable fixed price, within a tight timeframe and with the system architecture we required to support our future needs.”

The IBM digital media management system was implemented by IBM Global Services - Integrated Technology Services and IBM Business Partner Ardendo, a Swedish high-tech consulting company active in digital media management, networking and high-performance computing. IBM Silicon Valley Labs as well as IBM Digital Media Labs in Bethesda, Maryland, provided additional technical support and expertise.

When news and sports features are complete, program editors transfer them from digital workstations across SVT’s enterprise local area network as well as its wide-area network covering a radius of more than 1,000 miles. The features are then stored on an IBM TotalStorage Enterprise Tape Library 3494 and an IBM 3584 UltraScalable Tape Library, ready for transmission. IBM HTTP Server is the backend software that allows SVT staff to access content from their intranet, using a standard Web browser. IBM Tivoli Storage Manager performs highly reliable storage management and critical backup and restore functions.

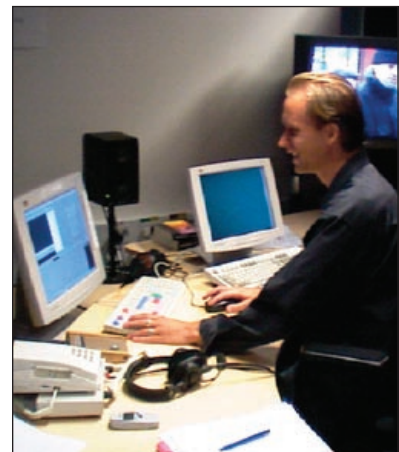
“As many as 3,000 to 5,000 gigabytes of data flow through our system daily, and many of our production segments span multiple tapes,” Krantz notes. “IBM tape libraries and Tivoli Storage Manager deliver the scalable, high-performance, cost-effective storage that such volumes demand. Jonas Engström, manager at Ardendo, agrees: “Using IBM’s partial-file caching technology, SVT can download a short segment of a program from its tape archive in 2 or 3 minutes, while other systems would have to download the entire program, taking a full 20 minutes,” he notes.

### **DB2 is the functional core**

IBM DB2 Universal Database for AIX, running on a pSeries server, houses and controls meta data—descriptive, technical and indexing information associated with the digital content, which is used by SVT’s media management applications. IBM DB2 Text Extender provides programming staff with powerful, flexible linguistic search capabilities, enabling sophisticated searches of the meta data in minimal time.

*“A news broadcast scenario allows no tolerance for outages or delays. The high-availability features that DB2 offers, such as parallel processing and clustering, help ensure that SVT can access the images and sounds it needs, the second it needs them.”*

*—Jonas Engström, Manager, Ardendo*



*IBM digital media technology helps SVT transmit digitally to approximately 90 percent of all Swedish households.*

"The database is the functional nucleus of a digital media management system," Engström explains. "A news broadcast scenario allows no tolerance for outages or delays. The high-availability features that DB2 offers, such as parallel processing and clustering, help ensure that SVT can access the images and sounds it needs, the second it needs them."

SVT's all-digital media management solution runs on seven pSeries systems, as well as seven xSeries systems running Mandrake Linux, Version 8. "IBM pSeries servers provide robust performance and reliability for critical components like database servers, file servers and storage," notes Engström. "And because xSeries servers are optimized for Linux, SVT can leverage the cost-effectiveness, Web-affinity and reliability of the Linux operating environment for applications like Web servers and media transcoding."

### **Leading the industry with proven IBM technologies**

Krantz believes IBM products and technologies will deliver even more benefits to SVT in the future. "We are considering upgrading DB2 to the latest release, which can offer us crucial enhancements in manageability and information integration," he says. "And we are currently evaluating DB2 Net Search Extender, which can provide our programming staff with even faster, more comprehensive query responses that will make their work more efficient."

SVT's all-digital broadcast infrastructure now serves all of its news departments, including 2 major news programs, sports broadcasts on both of its main channels, and a 24-hour news channel. Following that success, the broadcaster will soon inaugurate an all-digital children's channel using the same media management infrastructure, and plans to extend the IBM technology-based digital broadcast system to other programming and archival areas as well. "SVT plans to stay on the leading edge of the broadcast industry worldwide," Krantz notes. "IBM's broad range of digital media technologies, superior data management products and project implementation services will help us to meet that objective."

### **For more information**

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For more information about Ardendo, visit:  
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