

Organization

JSBC, a major Chinese broadcaster based in Jiangsu province, one of the most advanced regions in China.

Challenge

JSBC aimed to set up a non-linear HD editing platform.

The new solution had to meet the following requirements:

- High bandwidth
- Expansion capabilities
- Low latency
- Overall reliability

Solution

Infotrend's ESVA Fibre-host solution met the challenge with:

- Consolidated storage structure that easily meets performance demand
- Redundant hardware design and high-end data protection
- Easy management

China's Jiangsu Broadcast Center (JSBC) Adopts Infotrend's ESVA for New HD Editing Platform

In recent years, the Jiangsu Broadcast Center (JSBC) has experienced rapid development: its business model has continued to evolve, and the quality and quantity of its programs have increased. As a result, data storage capacity and performance demand of the editing department's non-linear editing operations has grown significantly. The company had previously adopted Infotrend's ESVA (Enterprise Scalable Virtualized Architecture) Fibre-host solution for another project following a recommendation by UDSAFE. Infotrend was selected by JSBC from a group of vendors including many well-known international companies.

The excellent performance of this ESVA solution satisfied the company's storage needs. JSBC recently initiated another project for which it required new storage equipment. This project involved setting up a non-linear editing platform for HD content, in order to avoid issues with its existing platforms, which simultaneously process SD and HD content. After a stringent selection process, Infotrend's Fibre-host ESVA solution was again chosen by the company to serve as the foundation of the new HD non-linear editing platform.

The Challenge: Bandwidth, Expansion Capability, Latency and Reliability

Bandwidth

As the user environment mainly involves HD video non-linear editing, demand for bandwidth was high. In the existing environment, featuring both SD and HD non-linear editing, the required bandwidth had already reached 1.4GB/s. For the new platform, the company demanded bandwidth up to 2.4GB/s.

Expansion Capabilities

With an increasing number of channels and programs, JSBC's demand for storage capacity is also growing steadily. Therefore, the company focused on expansion capabilities of storage solutions during the selection process, including maximum capacity and potential performance impact after expansion. JSBC hoped that the new systems would be able to increase performance when capacity is expanded.

Latency

The customer's requirements in terms of latency were particularly stringent. The new system needed to provide latency below 400ms.

Reliability

As the source for program editing and broadcasting, the storage system is a critical part of the company's infrastructure. The storage systems have to maintain 24*7 operations to safeguard the stability of the entire platform.

The Solution and Its Benefits: Infotrend's ESVA

The company adopted a SAN configuration including four ESVA systems each connected to two expansion enclosures. Through virtualization functions, the four physically independent systems are consolidated into a storage pool, collectively supporting the performance and capacity needs of multiple front-end hosts.

Virtualized Storage Architecture Easily Meets Performance Demand

The consolidated storage model of the ESVA solution provides excellent bandwidth and processing power. The four ESVA systems combined feature 16 PowerPC CPUs, eight ASIC667 engines, 32GB cache memory and 16 8Gb/s FC ports. These hardware specifications combined with virtualization features and automatic load balancing technology deliver excellent overall performance.

Redundant Hardware Design, High-end Data Protection

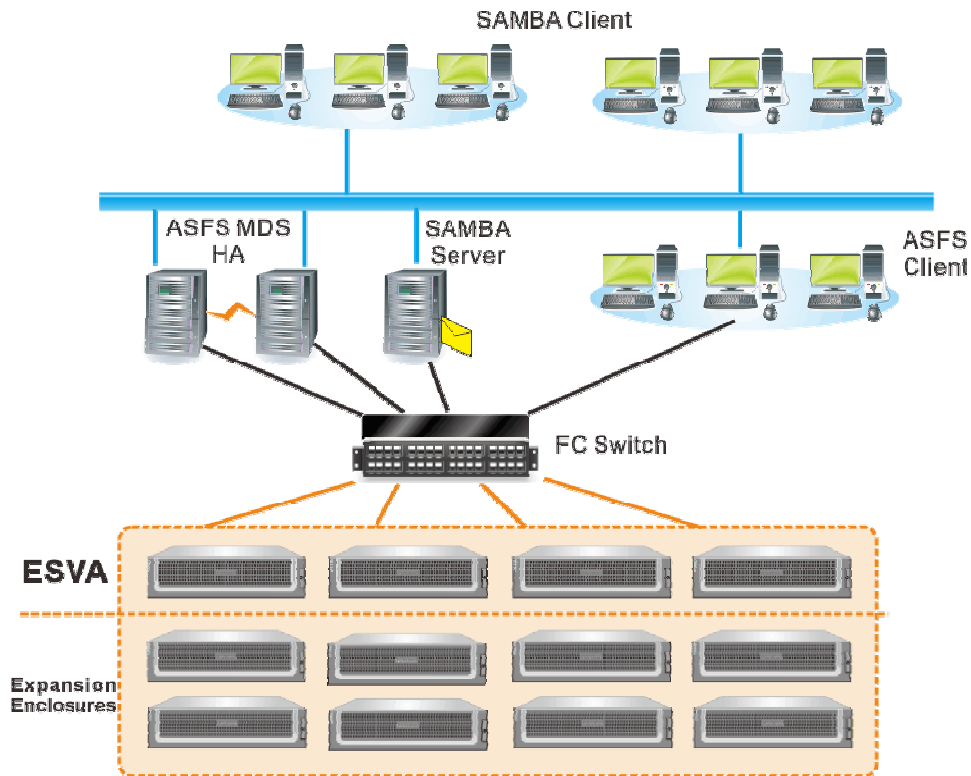
Each ESVA system adopts a redundant hardware design, eliminating any single point of failure. The RAID 6 technology offered by ESVA protects data even in the event of multiple disk drive failures.

Easy Management with SANWatch

Infortrend's Java-based SANWatch management suite offers centralized management of multiple ESVA systems. Features such as RAID level assignment, data volume allocation and data protection can be completed within only a few clicks of the mouse. From the perspective of the front-end hosts, the multiple ESVA systems are one logical array.

ESVA Improves JSBC's Competitiveness

Since coming online, the ESVA solution has delivered stable and high-performance operations. During tests with nearly 100 non-linear editing workstations simultaneously conducting Read/Write operations, the solution has been able to provide continuous bandwidth of 2.8GB/s in RAID 6 mode. Long-term monitoring has shown that the latency of the solution is stable at approximately 15ms, with only a handful of I/Os featuring a latency of up to 75ms. Overall, these figures are significantly below the 400ms latency originally demanded by the company. The successful deployment of the ESVA solution has met the capacity and performance challenges of the company's editing department and improved the company's competitiveness among the large number of TV stations operating in China.



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Asia Pacific
Infortrend Technology, Inc.
 Tel: +886-2-2226-0126
 E-mail: sales.ap@infortrend.com

Americas
Infortrend Corporation
 Tel: +1-408-988-5088
 E-mail: sales.us@infortrend.com

Europe (EMEA)
Infortrend Europe Ltd.
 Tel: +44-1256-707-700
 E-mail: sales.eu@infortrend.com

Germany
Infortrend Deutschland GmbH
 Tel: +49-(0)89-207042650
 E-mail: sales.de@infortrend.com

China
Infortrend Technology, Ltd.
 Tel: +86-10-63106168
 E-mail: sales.cn@infortrend.com

Japan
Infortrend Japan, Inc.
 Tel: +81-3-5730-6551
 E-mail: sales.jp@infortrend.com