



## CASE STUDY

### National Broadcasting Network of Indonesia Relies on StorNext for Accelerated Workflow and Large-scale Archiving

When Indonesian broadcast pioneer TVRI needed to upgrade its storage systems across its 29 regional broadcast centers, it standardized on Quantum's StorNext shared storage and data management solution. The result—faster workflows, improved collaboration, and secure, long-term data protection.



#### FEATURED PRODUCTS



StorNext gave us exactly what we needed—storage and software for high-performance collaboration that will support our digital content management, and an archiving capability that will let us meet our requirement to store digital assets for the foreseeable future.

Hari Setiya  
SAB. MAB. TVRI



## SOLUTION OVERVIEW

- StorNext® shared storage and data management solution
- StorNext QXST™ RAID arrays
- StorNext AEL Archive libraries
- Brocade Fibre Channel switches

## KEY BENEFITS

- High-performance file sharing accelerates content production by enabling collaboration between editors.
- Support for both SAN and LAN connectivity provides flexibility and keeps costs low.
- Flexible scalability across different storage types allows the system to grow economically to accommodate future needs.
- Automated archiving provides a large-scale repository to store assets, share them between users, and allow repurposing.
- Extended Data Life Management (EDLM) automatically scans LTO media for wear and writes content to new tapes for secure, long-term retention of key assets.

Located in Senayan, Central Jakarta, Television for the Republic of Indonesia (TVRI) is the public broadcasting network for this immense island nation, and is the country's oldest television resource. Supporting broadcasting operations in Indonesia, the world's fourth most populous nation, presents a unique set of challenges. The combined area of the country, counting both land and sea, is nearly three-quarters of a million square miles, and the 17,000 separate islands within its borders—including Java, Sumatra, Bali, and Sulawesi—contain approximately 300 distinct ethnic groups speaking more than 700 different languages and major dialects in addition to the national language.

Indonesia's national motto, "Unity in Diversity," underscores the importance that the country attaches to binding together its diverse population into a single national identity, while preserving the unique richness of its local traditions, languages, and customs. The TVRI organization mirrors this challenging combination of goals and dictates many of the technical challenges facing the company.

## HIGHLY DISTRIBUTED NETWORK CREATES UNIQUE CHALLENGES

With its motto, "the national unifying channel," TVRI fulfills its responsibility by providing programming that presents elements of politics and culture that affect everyone. At the same time, the company is charged with preserving the diversity of the nation by providing broadcasting operations designed to serve each of the different regional centers. As a result, TVRI maintains both a central broadcast operations center in Jakarta, the nation's capital, and 29 separate regional branches, which produce and air their own original programming. In fact, the charter for each of the 29 regional stations mandates that each regional office give priority to creating and broadcasting local content, including news, sports, and cultural programming.

"Nowadays, the TVRI main broadcast center really provides two distinctly different roles in the company," explains Hari. "It creates and airs content of its own, and each station shares their own rich and varied programming

among themselves." For 50 years, TVRI has continually upgraded its capabilities to keep up with advances in broadcasting technology. The company successfully made the shift from a videotape-based workflow to file-based production and expanded its networks to allow the distributed sites to share content. In 2016, TVRI decided to make another major upgrade.

#### **COLLABORATION AND PRESERVATION KEY GOALS FOR NEW SYSTEM**

"We had two major goals in mind as we planned our latest expansion," explains Hari. "The first was to increase collaboration—allowing editors in each broadcast and production center to share content among themselves, and enable faster and more efficient sharing between locations. The second was to create a large secure, scalable archive capability." The archive would allow the company to preserve all the content created across all sites in a central location—providing an important historical record and allowing TVRI to easily reuse existing content.

#### **SEARCH LEADS TO STORNEXT SCALE-OUT STORAGE**

To determine the best system for its needs, the TVRI team contacted the leading international companies that provide media and entertainment storage. The new system would need to support TVRI's overall long-term goals, provide reliable regional service and support, and easily integrate with the company's existing infrastructure and production tools. TVRI decided to standardize on Quantum StorNext solutions. "StorNext gave us exactly what we needed—storage and software for high-performance collaboration that will support our digital content management, and an archiving capability that will let us meet our requirement to store digital assets for the foreseeable future," says Hari.

#### **STORNEXT STREAMLINES COLLABORATION**

Each TVRI site has a new StorNext system that includes an Xcellis Workflow Director appliance and QXS primary storage. With StorNext, content can be shared between editors using either the high-speed SAN interface or LAN-based clients. StorNext allows users to access and work on the same files simultaneously—dramatically streamlining workflows and decreasing the time needed to get content ready for broadcast or uploaded to the company's web-based platforms.

The new StorNext system also automates and simplifies the process of copying files to the central repository. At each regional broadcast center, the IT group configures dual-site sharing storage. Each site is able to access and retrieve content from the primary location, or vice versa, for data consolidation.

#### **AEL ARCHIVE PROVIDES SECURE, LONG-TERM RETENTION**

The archiving component of the new TVRI system is located in the main broadcast center. A StorNext AEL500 LTO tape library stores copies of content shared from the regional offices, preserving it for future use such as repurposing to create new programming for regional stations. StorNext AEL Archives are designed with multiple features to provide secure, extended file retention. Files are moved automatically to the archive based on StorNext policies. Options for creating multiple copies on different media provide DR protection, and duplicate file sets are retained in off-site locations. AEL libraries are easy to scale using an economical, capacity-on-demand model that allows existing physical slots to be licensed and enabled when they are needed.

TVRI's AEL library also includes a feature specifically designed to preserve data indefinitely—Extended Data Life Management (EDLM). EDLM periodically inserts media

**"Service from Quantum and its partners in the region has been strong, and we have confidence it will support us as we carry out our plan of extending StorNext over time to all of our regional broadcast centers."**

**Hari Setiya, SAB. MAB.  
TVRI**



stored in the library into a dedicated drive that reads the content and scans the media to identify signs of wear. If the number of recoverable errors on the tape reaches a predefined threshold, the contents are automatically written to new media to keep the contents safe. EDLM supports migration of assets to new, more advanced generations of media to provide an effective long-term retention strategy.

"We view the contents from our regional broadcast centers as irreplaceable cultural assets," says Hari.

## ABOUT TVRI

Founded in 1963, TVRI is the public broadcasting network for the nation of Indonesia, and is the country's oldest television resource. Its mission is to use broadcasting as a unifying force for the entire nation. Its 29 regional broadcasting centers provide a wide spectrum of educational, cultural, and entertainment programming that is ethical, balanced, and informative, and furthers the nation's motto—Unity in Diversity—by preserving and celebrating the full range of Indonesia's rich, vibrant, multi-cultural heritage. Today, TVRI is pioneering the revolutionary transition from an analog to digital broadcast system in Indonesia.

## ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive, and data protection. The company's StorNext® platform powers modern high-performance workflows, enabling seamless, real-time collaboration and keeping content readily accessible for future use and re-monetization. More than 100,000 customers have trusted Quantum to address their most demanding content workflow needs, including top studios, major broadcasters, and cutting-edge content creators. With Quantum, customers have the end-to-end storage platform they need to manage assets from ingest through finishing and into delivery and long-term preservation. See how at [www.quantum.com/customerstories-mediant](http://www.quantum.com/customerstories-mediant).

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