

# HP solutions are a hit in digital transformation of Dutch public broadcasting

NOB Cross media facilities



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#### **Business need:**

NOB Cross media facilities provides innovative infrastructure and distribution services at the heart of public broadcasting for The Netherlands. Dedicated to developing the digital broadcasting platform of the future, NOB wanted to improve services, reduce costs – and optimize the production, storage, and distribution of digital programming.

#### **Solution overview:**

HP supplied the critical storage front-end platform, essential storage-management software, and integration services for NOB's revolutionary digital convergence solution. An HP storage area network incorporating four StorageWorks 5000 Enterprise Virtual Array storage systems provides an initial 40 TB of fast-access storage for digital video streaming and archiving. HP OpenView Storage Data Protector and OpenView Select Access provide scalable, secure data management in conjunction with a Sony PetaSite tape environment.



**NOB**  
Cross media facilities

#### **Adaptive Enterprise solutions channel the transformation of Dutch broadcasting**

NOB Cross media facilities, well known as the leading facilitator of public broadcasting for the Netherlands, partners strategically with broadcasters, producers, and other content and services providers for Dutch radio, TV, Internet, and mobile networks. NOB is headquartered at the Media Park campus in Hilversum, which is a non-stop hub for traditional and experimental production, storage, distribution services, and other multi-media technologies.

With its many years of experience, NOB knows that archiving and retrieving program content is a costly and time-consuming – but necessary – chore for its clients. Until recently, the broadcasting industry in the Netherlands and throughout the world mainly used traditional videotape. Lately, NOB's public broadcast clients, in particular, felt pressure to improve efficiency and control costs in every area.

To respond to this and other market pressures, NOB and its innovative AV Expertise Centre partnered with HP, Sony, and other vendors to reduce or eliminate reliance on traditional videotape by creating a nearly 100 percent digital-archiving and content-management platform. This new file-based digital storage architecture also enhances the firm's ability to provide content and data-storage services for a growing list of media customers.

#### **Digitization helps NOB air new broadcasting techniques**

"Videotapes are not a perfect medium for storing television broadcasts," explains Marcel Opsteegh, senior consultant for NOB AV Expertise Centre. "We wanted to introduce a file-based solution using an advanced storage infrastructure. Our objectives were clear: reduce costs,





handle the rapid growth of the video archive as efficiently as possible, and create an easy-to-manage storage environment for our employees and customers."

According to Opsteegh, the digitization of the television production and broadcasting process and the related archiving processes allow NOB to interlink components from the entire process. "This linkage enables networks to broadcast programs using new broadcasting techniques such as interactive TV, digital theme channels, mobile communication, and the Internet as well as traditional channels," Opsteegh says. "A fully integrated work process centered on the video archive allows network employees to more quickly retrieve high-resolution video material suitable for reuse."

After a long review process, NOB, together with Netherlands Public Broadcasting and the Netherlands Institute for Sound and Vision, selected Sony to act as its principal contractor in "De Digitale Voorziening" (The Digital Facility) project. NOB enlisted 13 companies to develop an integrated solution for digital-content management. HP supplies the critical SAN infrastructure to deliver fast access and digital streaming for current programming, as well as HP OpenView solutions and HP integration services.

**Programming an easily accessible archive**

NOB can now include a low-resolution browse copy and metadata describing the content with the computer files, making it easier for staff to locate and process content, even via the Internet. "The new storage environment saves our customers time through faster file access and handling," maintains Opsteegh. "In fact, we can access

and transfer high-resolution files five times faster with our new digital storage environment. HP Services provided excellent consulting and integration guidance. They will remain involved in the project, particularly for training."

NOB staff will use HP OpenView to guarantee the storage system's accessibility and availability at agreed service levels. HP OpenView Select Access will be used to provide identity management, including web-based single sign-on capabilities for a seamless user experience. Select Access helps reduce administrative costs and complexity.

The NOB digital archiving and management system uses a hierarchical approach designed to enhance access speed, flexibility, and economy. NOB staff stores the browse copies as well as high-resolution video files needed in the immediate future on the HP SAN, which consists of four EVA5000 systems with approximately 40 TB of virtualized, Fibre Channel and Fibre Attached Technology Adapted (FATA), disk storage. The staff stores older or less-popular programming and files on a Sony PetaSite tape library solution closely integrated with the HP SAN.

**Integration services tune in to technical needs**

"To merge these technologies, all components needed to be tuned correctly and certified," Opsteegh explains. "HP had the contacts, resources, and the Storage Expertise Centre to do this for us within a short timeframe. We experienced the advantages of teaming up with a leading company. And because we already work with HP as a server supplier, we already had a good working relationship – HP knows our systems better than anyone."

According to Opsteegh, Sony and HP cooperated seamlessly. "HP focused enthusiastically on developing an integrated system that would meet our specific requirements," Opsteegh says. "For example, the HP EMEA Storage Expertise Centre qualified and integrated the PetaSite tape library with HP OpenView Storage Data Protector."

"NOB staff will use HP OpenView tools to afford storage-system accessibility and availability at our customers' agreed service levels. HP Services provided consulting and integration guidance – and will remain involved in the project, particularly to provide training."

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#### **HP transmits fast, future-ready solution**

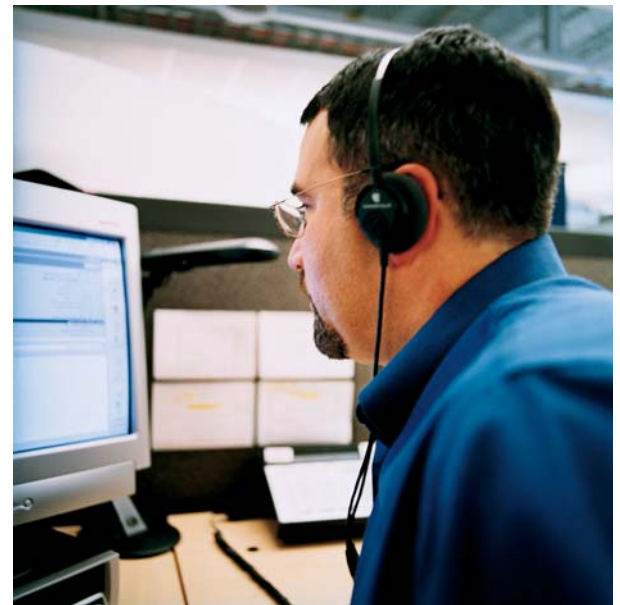
Opsteegh is also thrilled that the new digital asset management system is future-ready: with the virtualized environment, NOB can scale both the HP SAN and Sony PetaSite system to meet the company's growing needs. "By 2008, we want the storage system to have a 2 PB capacity," Opsteegh explains. "While data volumes such as this are unusual today in the broadcasting industry, HP and Sony have experience with this type of data-management challenge in the larger IT industry."

The new digital-content storage solution offers many benefits, including less quality degradation than traditional video tape. "From time to time we have to re-preserve important archive material, which is expensive and time-consuming. Our new system will reduce or eliminate that need, enabling our staff to focus on higher value work," Opsteegh affirms. "In addition, we can now make the video material available to our customers online in streaming format, which means they can search and retrieve their content faster and more efficiently."

Online availability also means that NOB customers can access programming anytime, from anywhere in the world – and therefore more easily and cost-effectively enter new markets. "Before we embarked on this journey, we analyzed whether this new style of managing content was truly a step forward and whether we could expect a rapid ROI," Opsteegh concludes. "Both our analysis and actual usage show that we made the right decision. We streamlined workflow to the point where we can efficiently serve a multitude of media-industry participants."

#### **About NOB Cross media facilities**

NOB Cross media facilities ([www.nob.nl](http://www.nob.nl)) provides daily radio and television broadcasts to the Netherlands' commercial and public broadcasting industry. The firm facilitates connections and stores, encodes, and transmits audiovisual programming materials. The NOB AV Service Centre – a knowledge repository and consultancy – develops new broadcasting and multimedia technologies, including the convergence of broadcasting, narrowcasting, Internet, ICT (information and communication technologies), and mobile services.



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## Challenges

- Develop fundamentally new ways for facilitating the creation, management, distribution, and archiving of broadcast content
- Replace traditional videotape operations with a new SAN-based solution
- Prepare for new market growth with an innovative, cost-effective, digital-content solution
- Respond to governmental demands for greater efficiency

## Solution

### Hardware

- 4 HP StorageWorks 5000 Enterprise Virtual Array (EVA5000) storage systems configured as a SAN with 40 TB of disk storage
- 40 ProLiant DL380 G4 two-way servers
- HP OpenView Storage Management Appliance

### Software

- HP OpenView Storage Data Protector
- HP OpenView Storage Operations Manager
- HP OpenView Select Access identity management solution
- Red Hat Enterprise Linux 3 AS operating system
- Microsoft® Windows® Server 2000 and 2003
- Oracle 9i database
- PolyServe Matrix Server
- ADIC StorNext File System

### HP Services

- EMEA Storage Expertise Center
- Consulting and integration services

## Results

- Provides faster access to programming and archived material
- Positions NOB to take advantage of increasing demand for streaming content and other evolving distribution methodologies
- Storage virtualization and heterogeneous server support provides a single, comprehensive view of enterprise information resources
- Facilitates increased frequency and reliability of critical backups
- Less quality degradation than traditional video tape

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5983-1947EN, 4/2005

