

Case Study: ASTRA Platform Services GmbH

About APS

Based in Unterföhring near Munich, Germany, APS ASTRA Platform Services GmbH provides broadcasters with platform management, playout and uplink, multiplexing, interactive services, and encryption from one of the most modern broadcasting centers in Europe. With 150 employees in a four-building complex, APS broadcasts more than 210 television and radio programs as well as more than 60 data services via analog and digital transmission.

Currently, APS distributes all German HDTV channels, including Premiere's Film HD, Discovery HD, ProSieben7 HD, Sat.1 HD, and Anixe HD. Other APS customers include Home Shopping Europe HSE, Deutsches Sportfernsehen DSF, Tele 5, 9Live, and DMAX, the new free-to-air Discovery channel. APS's two largest customers are Premiere, Germany's top pay-per-view broadcaster, with 3.5 million subscribers; and ProSiebenSat.1, the largest private television group in Germany.



The Challenge

In 2005, APS (which was then known as Digital Playout Center or DPC) recognized that its cumbersome tape-based archive created unacceptable workflow inefficiencies due to the necessity of error-prone and labor intensive labeling, tape-machine loading, and shelving of content. To this end, APS engineers and management sought a content storage management solution provided by a vendor with a deep knowledge of the broadcast world. The product had to give APS the ability to manage its assets flexibly, and it had to interface with new and legacy systems, in particular APS's own Playout Traffic System.

The Solution

To meet the challenge, APS selected DIVArchive from Front Porch Digital to help make the transition from a tape-based system to a digital file-based system by managing content throughout its life cycle, from ingest to transmission and preservation.

APS's streamlined workflow uses its own home-grown Playout Traffic System (PTS) to download transmission playlists received from customers, quality-check content, generate a playlist log, and assign content to it for the automation system. If the content is not found, the PTS generates cache lists for ingest and a pull list for content retrieval. Files are ingested into a server, then moved via high-speed FTP (at least 200 Mb/s) either to the transmission server or into the digital archive using LTO-3 tape drives in an ADIC (now Quantum) i2000 robot.

APS selected DIVArchive on the basis of several critical features, and both DIVArchive's exceptionally smooth integration into the APS workflow and its ongoing contribution to the operation speak to the wisdom of the selection. For APS, the key selling points included:

- DIVArchive's hardware independence, enabling it to support all major digital tape libraries;
- Front Porch's well-documented API, which made it easy for APS's in-house software engineers to integrate the system with their own Playout Traffic System;
- DIVArchive's Storage Plan Manager, which automatically handles the migration of content between near-line disk and datatape storage and allows configuration of business rules to facilitate oversight of how data is being handled;
- DIVArchive's parallel data mover architecture, which moves resources quickly, enabling APS to take full advantage of its LTO-3 tape drives' 80 MB/s bandwidth capability. The data mover architecture ensures scalability of the system (if more transfers are needed, just add data movers).

As of fall 2007, APS's DIVArchive, which has 800 TB capacity, stores some 30,000 hours of content with new material being added at the rate of about 1,000 to 1,500 hours per month. Most of the content is long-form movies and documentaries. The facility still has legacy videotape in storage, but the amount has dwindled by about 50 percent since DIVArchive was implemented. The efficiencies gained at APS are particularly significant because a lot of its customers' broadcasts are repeated programming.

Prior to DIVArchive it was necessary to manually retrieve from a shelf and load the same movie, for example, into a VTR every time the movie was shown. Now, with the support of DIVArchive, the process of retrieval and playout of the digital file is fully automated.

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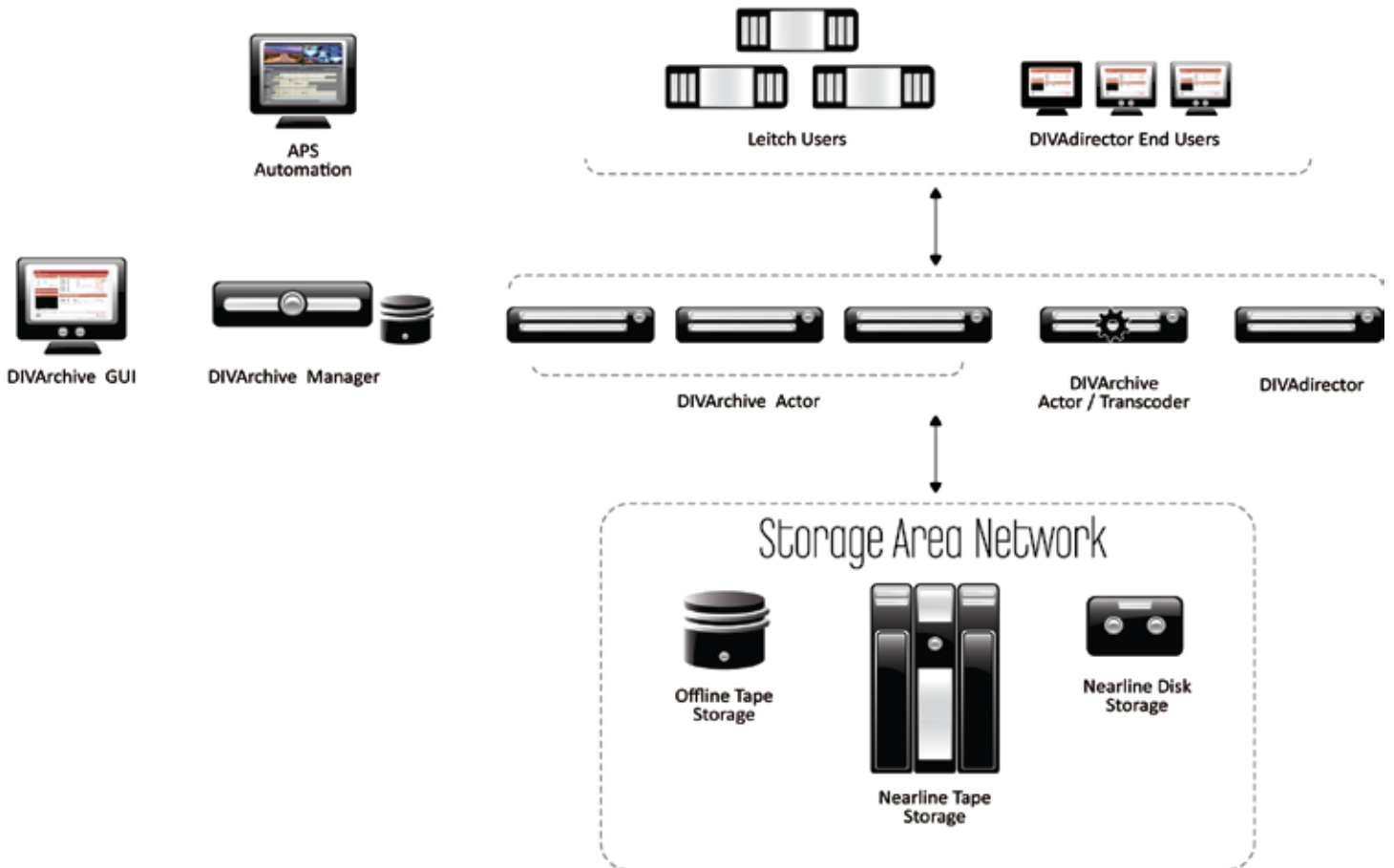
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A uniquely efficient feature of DIVArchive is that it enables data transfer directly from the LTO-3 digital tape drive to the Harris Nexio video server without the intermediate step of cache storage.

Future Evolution

Looking to the future, DIVArchive’s scalability has become its most significant virtue for a growing business like APS. In November 2007, APS added a second datatape library, and DIVArchive’s modular design will make it easy to accommodate future content storage management needs cost-effectively and with no interruption of broadcast continuity.

APS Network Architecture



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