

2011 Creative STORAGESM CONFERENCE

June 28th 2011 at the DoubleTree Hotel, Culver City, California

AN ENTERTAINMENT STORAGE ALLIANCE™ EVENT



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TITLE: Digital Archive Storage, An Alternative to Raid and Tape systems

ABSTRACT

Until recently, there have been few alternatives to traditional archive storage approaches for digital media. Yes, drives have gotten larger, but this has introduced a host new problems, such as longer recovery from system failure, and bit level data corruption on a more grand scale.

There are 2 inherent issues with today's long term storage alternatives. First, small format tape systems using LTO technologies have only a few years of shelf life before they can become corrupted at the bit level. Second, Raid technologies, for the most part, do not scale well. RAID technology starts failing with large data sets and ever-larger hard drives. RAID rebuilds failed hard drives, but can take a day or two to rebuild a 2-TB drive. That's a long time to increase the opportunity for further failures.

I will give an examination of traditional raid, tape drive systems, and new non raid solutions. I will introduce Amplidata, a developer of storage technology to handle massive amounts of data, which just recently introduced its first product, AmpliStor, with the potential to store billions of data objects on hundreds of petabytes of capacity. AmpliStor is an object storage system for storing unstructured data, particularly large files such as video.

Storage replication works to protect data, but often requires customers to keep two or three copies of data. We're getting to the point where the power and the cost of that extra capacity is too expensive.

AmpliStor overcomes these problems to provide massive storage capabilities via a number of proprietary technologies the company has developed. The first is BitSpread, a technology which replaces RAID by encoding the data and spreading the data over a multiple hard drives which can withstand multiple failures. The typical configuration using BitSpread is to spread data over 16 drives and allow up to four of them to fail before access becomes an issue. The number of drives per data set and the number which can fail can be set by the customer.

Amplidata is relatively new in the U.S., and only has a handful of customers and channel partners. However, its worldwide headquarters in Belgium already counts several government bodies as customers.

I will explain how the different archive technologies are best suited for companies now and into the near future

BIOGRAPHY

Jeff Spalla is Co-Founder of Reeldata, a company specializing in software and hardware solutions for Media management. Reeldata's java based software platform, MediaDB, is used by large production groups in Hollywood and around the US, such as The Dr. Phil Show and The Doctors. Mr Spalla is one of the principal architects of MediaDB, and understands many of the unique issues surrounding media management. In the production business since his late teens, and Editor for over 27 years, Jeff has watched the market change from film to a tape based industry, and now to the rapidly evolving file based work flows. He has been nominated for three Emmy Awards, and one Ace for editing. Before starting Reeldata in 2002, he was senior editor at several post facilities, and trained personnel for the legendary Grass Valley Group at TV stations and studios around the country. Jeff holds a Bachelors Degree from the University of Southern California School of Cinema/Television, and is certified on several production and post production systems including Avid Symphony, and Media Composer.