2005 COMPUTERWORLD HONORS CASE STUDY

MEDIA, ARTS & ENTERTAINMENT

A DIGITAL MEDIA OPTIMIZTION PROUJECT ADDRESSES ONE OF THE CENTRAL ISSUES FACING BROADCASTERS AND CABLE NETWORKS IN THIS DECADE: AUDIENCE DIS-AGGREGATION OR "THE END OF THE MASS MARKET." PROJECT GOAL: SEEL OUT THE VIEWER ON THEIR PREFERRED PLATFORM OF CHOICE AND MAKE A RICH SELECTION OF PROGRAMMING AVAILABLE TO THEM IN THEIR PREFERRED ENVIRONMENT. **[20055366]**

Robert Carrigan,
Chairmen of the Chairmen's Committee

Ron Milton,
Vice-Chairman of the Chairmen's Committee

Dan Morrow,
Chief Historian

SUMMARY

One of the central issues facing broadcasters and cable networks in this decade is that of audience dis-aggregation. The Financial Times addressed this issue in an April 16th, 2004 article entitled "The End of the mass market". The key point of the article is that consumers are finding ever more diverse methods to access and view news and entertainment media. Three key quotations from the article provide insight into the nature and extent of the problem. "The mass media doesn't exist anymore" Bob Liodice, Chief Executive US Association of National Advertisers • •"Fragmentation is still the most important trend across all media platforms" John Lavine Head of Media Management Center North Western University • •David Hillier, SVP Tribune Company predicts "An endless multiplication of channels". As our audiences find ever more convenient methods to access media, including Digital Video Recorders, Video on Demand, Personal Portable media players, cell phones to internet and broadband services, we must find a method to support all of these preferences in order to re-aggregate an audience of sufficient size to continue to support our business. We must not limit our selves to the television or cable business, but rather to be our own disruptors and seek out the viewer on their preferred platform of choice and make a rich selection of our programming available to them in their preferred environment.

APPLICATION

In order to address dis-aggregation we needed to have the media in a form that was optimized for distribution to each viewer platform. The problem in doing this is that each platform needs to have media specifically prepared for it in a specific format. This could mean multiple redundant encoding manual techniques one or more for each platform to be served. We were finding that we could spend up to 18 hours of effort to produce one hour of programming in each of the viewer platforms we were then supporting. As more and more platforms emerge this model of media preparation was not going to be viable and expense as well as the time consumed was going to increase time to market and limit the amout of programming we could offer in each platform. As each new platform emerges, utilizing traditional techniques to encode specifically for it, could create a business model too onerous to support emerging platforms until they achieve a critical mass of audience, but without programming for that platform, could an audience size develop that would make a viable business case. It has long been the Turner philosophy to enter early into new market segments and establish a strong brand presence. This serves our business well and also increases the viewers choices in access to media.

Our goal then became to create a new model to optimize the encoding, storage and management of media so that we could ingest once and use everywhere.

The creation of a centralized and cost effective tiered storage environment that could evolve to embrace new and more suitable media storage technologies, with suitable characteristics for each media usage pattern, that would permit devices called "media requestors" for to pull form the centralized media storage pool and transform that media into the form required for the viewer platform that this requestor represents, would provide an efficient and automated way to achieve our goal.

This goal has been realized utilizing generalized commodity computer technology. Turner has created a central reposition with long term, medium term and short term storage devices, that are specifically suitable for the optimum media access and usage profile for each type of media as well as each supported viewer media device.

BENEFITS

This project benefits Turner Broadcasting and it's thousands of employees and their stakeholders by address the very viability of the company in the long term as a provider of news and entertainment programming. It benefits our viewers by removing limits of space, time and device. It provides them with a rich variety of programming where they want it and when they want it in the method and environment that they prefer to use.

IMPORTANCE

The technology to achieve this level of performance has only recently become practical. The challenges for managing large pools of media and creating the rules and policies for the storage and migration of the media as well as the compute power and algorithms to transform the central archive to each media typ and to meet the performance required a high reliability, 1 GB/second transfer rate have only recently become practical on a sustained basis.

ORIGINALITY

This is the most advanced media storage application in the industry. We have visits on a regular basis from broadcast and cable networks ranging from all over the world, such as CBS, BBC, NHK. During a recent tour by 122 members of the Society of Motion Picture and Television Engineers (S.M.P.T.E.) during their Advance Motion Imagery Conference, resulted in frequent statements and follow on emails of congratulations, with the most frequent comments being, "I regularly visit facilities all over the world and this is by far the most advanced" and " I had no idea that such a solution was even possible. In a visit by Time Warner's Dr. Norman Koo , he stated that "this solution is by far the most advanced in the industry and bears out our theories on the use of multiple tiers of storage and their management."

SUCCESS

The project has met or exceeded all it's original goals. Not only do we support 24, standards definition and high definition, broadcast and cable services, we have recently launched new services for programming with three different cell phone providers but in addition, in partnership with Sirius Satellite radio we announced a new service at the annual Consumer Electronics Show in Las Vegas, that provide live real time access to carton for children riding in the back seat of suitably equipped automobiles, all without additional manual encoding of media management.

In addition we now have realized the additional benefits that can be derived in worldwide product distribution to our facilities in Buenos Aires and London. An investigation is even underway to potentially reuse this technology for a remote disaster recovery site for our business continuance program.

DIFFICULTY

The difficulties in achieving this project included:

The management of development, testing, integration and then scaling this technology across a large number of equipment and software suppliers.

Creating an open and productive work environment for traditional broadcast technology suppliers and I.T. technology providers.

Establishing a common framework of coordinating and cooperation among manufactures who are traditionally competitors.

Education of our staff as well as our technology partners on new and emerging technologies that are outside their normal realm of activities.

Overcoming internal organization resistance and disbelief in the achievability of the goals.