

Hitachi Inspire Series

Asian Trends In Media and Entertainment

Profitability, Cost Management, and Improved Media Workflow Deployment



DATA DRIVEN GLOBAL VISION CLOUD PLATFORM STRATEGIC CON
 ION POWERFUL RELEVANT PERFORMANCE SOLUTION CLOUD UNIFI
 VIRTUAL BIG DATA SOLUTION ROI FLEXIBLE CONSOLIDATE ACCELER

Bollywood, India's Mumbai-based Hollywood equivalent, generated over US\$2 billion in revenues in 2011, according to KPMG – roughly 20% of what was generated in the United States. US\$1.25 billion of the US\$2 billion came from domestic Indian theatrical releases, while the remaining money came from overseas or international revenues, home videos, and cable and satellite licensing rights. Bollywood produced nearly 175 movies, and dubbed another 100 movies into Hindi. Unfortunately, nearly 200 of these 275 movies lost money for their producers. Not a good track record.

China had an even larger media market in 2011. But China has a similar track record of financial return (non-return!). This is the case even in a country where many of the video products are dubbed imports rather than actually produced in China. (That is changing, however, because the Chinese government sees independent digital video production as an area of national investment that would provide employment, skills and education upgrading, and a method for evolving the Chinese entertainment markets. And this is beginning to happen in India also.)

Movies from Bollywood, on average, cost between US\$350,000 to US\$4.5 million to make, (exclusive of marketing costs) which compares to average Hollywood production costs of US\$15

million per movie. Some Hollywood films, of course, cost more. An average Woody Allen full-length production in the last decade cost US\$18 million. Blockbuster movies like John Carter (by Disney) and Brave (by Pixar-Disney) cost over US\$200 million each to produce. But while they are more expensive to produce, Hollywood movies are generally profitable, unlike Bollywood releases, which are only profitable about 20% of the time.

Hitachi Data Systems is investing in media and entertainment markets

With this much pressure on profits, Asian producers are naturally focused on keeping their production costs down. Hitachi Data Systems is

investing heavily in network-attached storage solutions (including the acquisition of BlueArc® in 2011) that help post-production houses and production studios to achieve faster renders, shorter WAN file transfers and data migration, and reduced transcode time windows. All of these contribute to lowering overall costs and delivering better video products to market in a shorter period of time. And all are sorely needed if the media industry in Asia is to turn the financial corner.

One way of increasing profits is to sell movies to satellite TV or Internet content distributors, who put their videos in library repositories where revenues can be generated on a per-view or share-of-subscription basis. High-performance storage is a critical element of infrastructure in media asset management for these services, and this too is a key area of focus for Hitachi Data Systems.

As reuse of digital assets becomes more pervasive, effective use of metadata can speed time to market. Storage file systems that integrate blocks, files and objects into the same platform are an advantage for speeding

products to market and for efficiently using the available capacity of the storage. Technologies like Hitachi NAS Platform, powered by BlueArc (HNAS) – where FPGA-based file systems extract metadata from the video (or file) data – enable high-performance search, faster reads and faster writes for applications that demand random read-and-write operations. Additionally, platforms that consolidate SAN and NAS storage into one unified storage platform, such as Hitachi Unified Storage (HUS), make data management easier and lower overall costs by eliminating the need to manage multiple data silos across the media workflow (hence the word “unified”).

Marketing costs and the advent of crowd funding

Marketing costs, especially when films are released internationally, are a huge investment for Asian studios. Caution is

the main approach, given the low likelihood of profitability. “Crowd funding” is becoming a more and more common method of raising funds, where the public as well as venture funds are able to evaluate video products, or short clips of a film, often done with animation, VFX or inexpensively-produced shorts, to decide on investing on further production of a video product. Test marketing by way of Internet crowd funding is becoming more and more common for mid-tier and emerging-tier production companies, which have historically bootstrapped their fund raising or had a tough time getting \$5 million together for full-feature films funding. This means projects that receive a viral swell of interest can dramatically take an emerging studio from a small operation to a huge enterprise overnight, and therefore scalability and high performance can become mandatory for storage infrastructure even in small studios. (This is new, as traditionally small

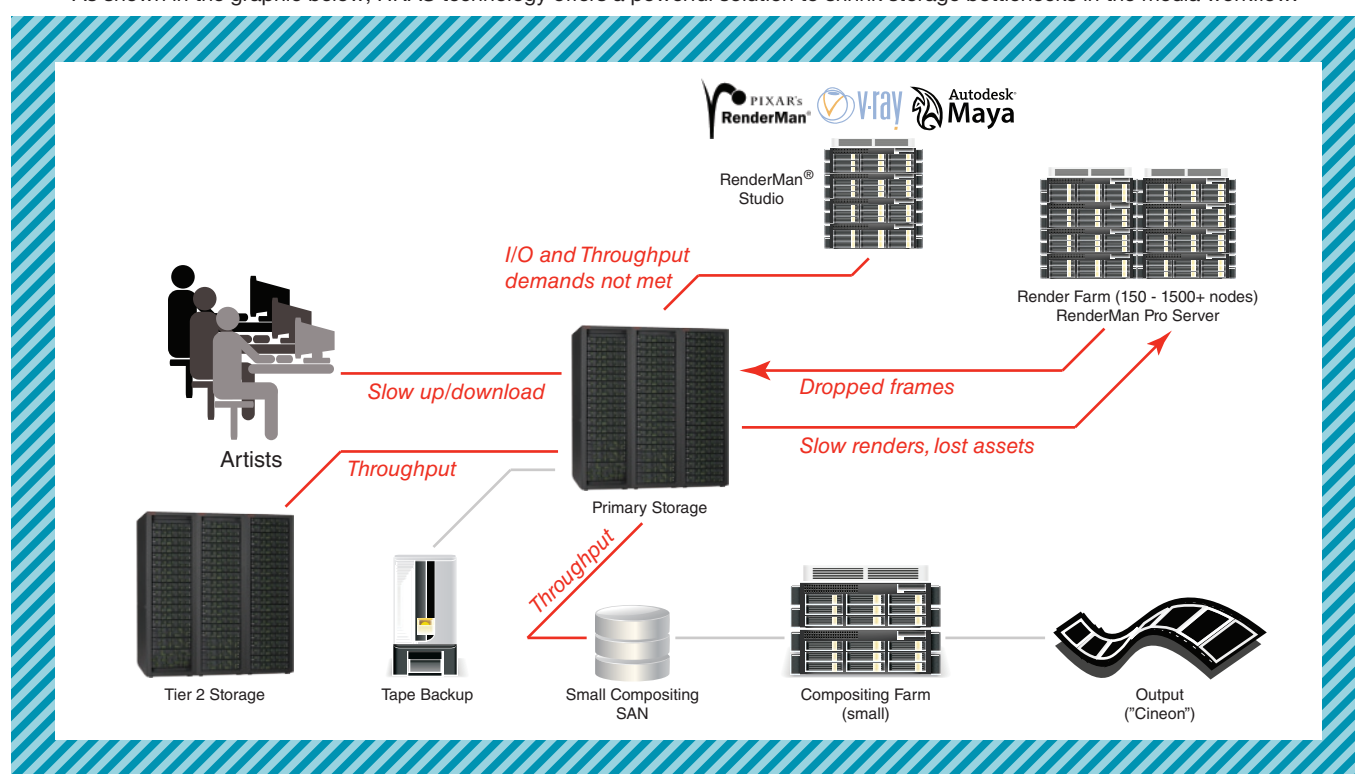
studios have tended to stay small, and large studios have tended to stay large. Not so, in today’s new digital world.)

Asian production and post-production companies usually employ these approaches to managing costs:

- Putting their studios in lower-cost geographic areas
- Employing technology that enables faster media development
- Spreading costs across multiple projects

There are locations like Film City, a suburb near Mumbai where many films are shot, and these production sites help keep costs down as they produce a number of movies, where the average quantity of films per production company is usually 2-3 per year. This is similar to the method that Television City, Sony Pictures Culver City, and Universal City have used in Hollywood for production sites, sharing their costs across multiple productions.

As shown in the graphic below, HNAS technology offers a powerful solution to shrink storage bottlenecks in the media workflow.



Targeting areas of media workflow that take the most time, such as rendering files and downloading or migrating file data, can impact time-to-market and thus lower cost-to-market for much of the effort associated with finalizing video files. Colorizing, editing, VFX, and animation all can be huge time drains that involve big costs, even if the hourly burden rate of artists and technical support staff is low. (Hourly rates in China and India for these highly skilled artists is often half of that of their counterparts in Canada, Sydney, Hollywood and in London, but the infrastructure itself, if slow or bottlenecked, can prevent them from doing additional iterations to improve the quality of their video imagery before finalizing shots for director review.)

Asia deadline for going digital: 2015

Asian broadcasters are facing a mandated digitization deadline of 2015 for all television and cable network broadcasts across most geographies, including India. Only 35 million of the 140 million Asian households with pay TV services are now digital. So the market is about to undergo a dramatic change, not just on the production side

but also on the consumer side. And that ought to open up a huge opportunity for services, entertainment, gaming, and other video library services. Clever operators are looking at pull factors like IPTV, OTT, smart TV, and DTT as an opportunity for advertising, subscription, and, hence, more viewership.

How Hitachi Data Systems is capturing these technology opportunities

Hitachi Data Systems sees this Asian market transition from a product development perspective, as an opportunity to develop solutions in 4 important areas:

- Media asset management
- Ingest-playout solutions
- Media repository offerings
- Enhanced cost and performance for block, file and object storage (that can benefit with a unified storage architecture)

These areas offer the most promise for **content creators** who need high performance and overall optimized cost structures. They also offer the best ROI for **content deliverers** such as broadcasters, and telecoms who offer

services for theaters, televisions, mobile devices and gaming systems.

Summary

The movie production world is changing, and Asia may actually be on the leading edge. With vast geographies and little previous investment to protect, Asia can move quickly to embrace new technologies, such as HUS and HNAS platforms and by using infrastructure software that manages objects and files within a single management framework. Combining the above with additional cost-saving functionality such as virtualization, media asset management, and media repository solutions can accelerate profitability and time to market.

And don't be surprised if many of the movies that you want to see in a theater are instead (or also) offered on-demand on your digital home entertainment or on-demand cable system, or on your iPad or tablet, and are offered with a complimentary pair of 3-D glasses. The future is bright. And in stereo. And coming to you, wherever you might be.





Jeff Greenwald
*Communications, Media
and Entertainment
Solutions Marketing
Hitachi Data Systems*

Jeffrey Greenwald is the Solutions Marketing lead for CME (Communications, Media and Entertainment) markets globally at HDS. This market covers Film, Television, Broadcasting, Gaming, Media & Promotion sectors, as well as the Telecomm, CDNs, and the Mobile services delivery sectors. Approximately \$10 billion worth of storage is purchased in these markets annually, and HDS is a prominent leader and pioneer in this space.

HDS has footprints at premiere post production studios and many M&E customers such as Arc Productions, Starz, HBO, Cinesite, Double Negative, Framestore, BlueSky Studios, Time Warner, Sony, Gelang Media, Foxtel and Red Chillies (in the M&E markets). And HDS storage is deployed in 9 of top 10 largest Telcos in the world including Telstra, China Unicom, Verizon, AT&T, Telefonica and Deutsche Telecom (for the Comms markets).

Jeff has nearly 20 years experience deriving revenue from these markets, and has led vertical and product marketing teams at IBM, Sun Microsystems, Toshiba, and he even worked at HDS from 1988-1992 then leading the US teams field marketing. He has a BA from Stanford University, and an MBA from UCLA.

He has traveled extensively throughout over 50 countries, and he has spoken at symposiums, customer engagements, and industry trade shows throughout the world.

Hitachi Data Systems

Corporate Headquarters

2845 Lafayette Street
Santa Clara, California 95050-2639 USA
www.HDS.com

Regional Contact Information

Americas: +1 408 970 1000 or info@HDS.com
Europe, Middle East and Africa: +44 (0) 1753 618000 or info.emea@HDS.com
Asia Pacific: +852 3189 7900 or hds.marketing.apac@HDS.com

Hitachi is a registered trademark of Hitachi, Ltd., in the United States and other countries. Hitachi Data Systems is a registered trademark and service mark of Hitachi, Ltd., in the United States and other countries. All other trademarks, service marks and company names in this document or on this Web site are properties of their respective owners.

Notice: This document is for informational purposes only, and does not set forth any warranty, expressed or implied, concerning any equipment or service offered or to be offered by Hitachi Data Systems Corporation.

© Hitachi Data Systems Corporation 2012. All Rights Reserved.