



2009 Security Innovation Award: Silver Medalist



# Technicolor Goes High-Tech

*An innovative surveillance and video storage system helps Tony Castorino combat piracy and intellectual property theft*

By Tony Castorino

In late 2007, Sunset Gower Studios embarked on building some new facilities. Technicolor, one of the world's largest providers of production and post-production services to the motion picture, broadcast and cable industry, producers, advertising and ancillary home video and DVD markets, was also in need of a new location. Technicolor had been located in Hollywood for more than half a century, and was intent on remaining in that location. With the opportunity to move across the street and update its facilities with a new infrastructure that could leverage the latest and greatest in technologies that would increase the efficiencies of operations — including physical security — the fit was a natural. Once it is fully populated, it will house 350-400 employees.

As Technicolor's director of Physical Security for North America, I was tasked with selecting this new facility's video surveillance system, as well as overseeing its installation. Every day, Technicolor is entrusted with the high-value assets of the world's

greatest movie and television studios, video game producers, advertising and business clients. With the ever-increasing threats and costs of piracy and theft, there are increased costs and challenges in our security program.

The Motion Picture Association of America has certain requirements for video storage; however, our division of Technicolor has extended these requirements to one full year of video to ensure our place as the industry's technology leader, and because we believe that providing that coverage and forensic/investigatory capability is vital to the reputation we have built in the industry.

Each year, billions of dollars in intellectual property passes through the hands of our staff at Technicolor. International content creators from major Hollywood film studios to advertising agencies turn to our employees to provide sound services, visual effects, post-production and digital mastering for their finished work. In a 2006 study by the Motion Picture Association of America (MPIAA), the lost revenue from piracy and theft for just the Motion Picture industry alone was targeted to be more than \$6 billion. The Institute for Policy Innovation also embarked on a study which determined that extended piracy's effect on the U.S. economy is estimated at more than \$20 billion in lost output of U.S. production and costs. America has lost more than 140,000 jobs as a result. Clearly it is a major challenge, and one that we take very seriously.

### Future-Proof Surveillance

One focus in creating the video surveillance system was to create one that was not only current with today's technology, but one which utilized cutting-edge, next-generation technology and capabilities. We wanted to "future-proof" the system and create a world-class facility that was truly innovative. Our current facilities use either conventional closed-circuit analog cameras with images stored on tapes, or a mix of IP and analog cameras. We tend to outgrow these systems, and have concerns with the limitations in the video quality, labor and space in managing the video in order to meet our needs for extended storage. Moving forward, we made the decision that all new build outs are IP-only.

I discussed all of these concerns and opportunities with my long-time security consultant, David Sindaha of VAS Security Systems. VAS has been our security integrator partner for more than 20 years, and I place tremendous trust in them. Sindaha always uses top-of-the-line

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vendors and products and has provided me the best service and maintenance programs for my security installations for the past 20 years. I knew that working with VAS, we would find the answers to the most challenging of problems, and with an eye on the bottom line. I also knew that VAS would provide a vigorous evaluation of any cutting-edge technology to ensure we were getting exactly what we expected.

Together, we spent about six months looking at different IP systems and solutions — from the cameras to network

video recorders (NVRs) to Management Systems (VMS). Our research and extensive product demonstrations with many vendors led to one concern: the system had to be capable of efficiently and cost-effectively meeting our need for one year of storage. For our new building, we were installing almost 200 Sony IP cameras — many of which were megapixel cameras. Knowing that we needed to keep 12 months of footage and capture the highest quality video, the storage costs would have been prohibitive. Initial estimates exceeded 500 TB of storage in order to meet our program's criteria.

During my research, TimeSight Systems came onto our radar screen. I was instantly intrigued by its automated video lifecycle management (VLM) technology that reduces the size of an image of its useful life based on risk, business rules and events. This type of cutting-edge technology seemed to offer the solution that would best address our needs. As it was explained to me, VLM would enable me to capture high-quality video, and based on rules that I specify, compress the video over time as it ages. Knowing that time mitigates my risk, this innovative approach appealed to both the need for providing the highest level of security I needed, while balancing the real-life application of my business unit.



TimeSight Systems' automated video lifecycle management (VLM) technology reduces the size of an image during its useful life based on risk, business rules and events. VLM enabled Castorino to capture high-quality video, and based on rules that he specified, compress the video over time as it ages.

I would be able to get fantastic video and one year of storage at reduced cost. Best of all, I would be able to get complete coverage of every minute of every day in 16 TB — a savings of more than 90 percent. It sounded too good to be true, so I had to see for myself.

VAS arranged for a product demonstration of the TimeSight Enterprise rack-mount video surveillance appliance. We also had the opportunity to better evaluate TimeSight's "Motion Optimized Recording" (MORE) technique. With MORE, I can apply specific image/frame size, frame rate and retention policies for non-motion events — so if there is no motion in the camera's field of view, the system applies a much higher compression combined with lower frame rates to these non-motion periods of video. The net effect is I can dramatically reduce the size of the video and by extension, the storage requirements and costs, without increasing risk. In essence, the recording of these non-motion times is free; however it provides a significant value in minimizing my exposure to potential litigation. It provides 100-percent full coverage — there are no gaps in the time frame of the video that a "record on motion" system uses. We dramatically improve our security profile, reduce our risk and reduce our storage requirements without sacrificing resolution, frame rate or retention times.

Throughout the demonstration and conversations with TimeSight, I could only think that this was the type of cutting-



By using the Dynamic H.264 encoding and compression in an integrated hardware/software appliance, TimeSight delivered exceptional price/performance while allowing megapixel resolution combined with low storage requirements.

edge technology that would enable me to continuously improve my system over time without driving costs up. More importantly, it was innovation with a real effect on my bottom line, and on my ability to impact the business. Finally, it was a system that provided me with the peace of mind that we could indeed capture the highest quality video and archive it for extended periods of time. Best of all, we would be saving money in the process.

In the past, we have had incidents that needed to be researched 6 to 8 months after the occurrence. I was excited about the opportunity to add the VLM technology into my arsenal and have information available when and where I needed it, even from months prior.

### Testing and Deploying the New System

Before moving forward, VAS Security really put the system through the paces. I knew that Sindaha would confirm beyond any doubt that the system would perform as promised. He found TimeSight's easy-to-use GUI allowed for fast setup and made administration simple. It offered us scalability, reliability and compatibility within our system. By using the Dynamic H.264 encoding and compression in an integrated hardware/software appliance, TimeSight delivered exceptional price/performance while allowing megapixel resolution combined with low storage requirements.

The intuitive and powerful interface enables an investigator to go to any point in time on any stored image for any networked camera locally or remotely. It allowed for a watermarked export of video clips, easy search by camera, motion or time, and definable user permissions and privileges. We can quickly define a camera-by-camera rules-based strategy for motion and non-motion events and control compression and frame rates independently to establish our own customized retention policies. We can perform standard surveillance tasks, and depending on permissions, can search through retained data, export video, or stream video locally or remotely. A common client enables seamless access to multiple servers, simplifying monitoring, management and investigation.

The TimeSight System has been installed for more than six months, and we are impressed. We have the capability to zoom in and actually read the titles of the assets we're tracking and determine exactly how many of each was delivered. When we receive or ship elements, we have the ability to be able to review our footage and actually read the labels on the boxes. Everything going in and out of the building is tracked and we have it all captured in high-quality digital surveillance footage. This helps us from an Operations Management perspective in avoiding human errors.

*From the editors  
 of SecurityInfoWatch.com*

## IPSecurityWatch.com

Covering the world of IP-based  
 and integrated security systems





The new Technicolor building features nearly 200 Sony IP cameras — many of which are megapixel.

With the ability to store and manage video so effectively with our TimeSight Enterprise server, we now have an exponentially improved protection against piracy, which is especially important as the industry sees intellectual property theft continue to rise. The potential opportunity for someone to walk out of a facility with the intellectual property of our clients is always a looming threat.

Now with the system we have in place, we are well protected. Additionally, we can determine a true chain of custody for all of our assets, to an incredible degree of accuracy.

Our management loves it and the word has gotten out. All of the major studios know that we have a first-class video surveillance system installed. I don't believe anyone else in our industry can maintain one year of storage on their surveillance systems as easily as we can. Since the storage is resident on our server, we can go back without having to load anything in the system or use antiquated tape libraries that are off premises to search archives. Not only is that a big time-saver, but management views it as a differentiator between us and our competitors.

From an operating budget perspective,

I benefit from an incredible Total Cost of Ownership (TCO) advantage, because I don't have almost 500 TBs of additional hard drives to maintain, power and cool. Moreover, I think it's fair to say that our advantage in security translates into a competitive advantage in acquiring new, and servicing existing clients. ■



*Tony Castorino is Technicolor Inc.'s director of Physical Security for North America. Castorino, vendor TimeSight Systems and integrator VAS*

*Security Systems were recognized with the silver medal in this year's annual STE Security Innovation Awards. To read more about the awards, visit [SecurityInfoWatch.com/magazine/STE](http://SecurityInfoWatch.com/magazine/STE) and click on the September cover story. To learn more about entering next year's competition, e-mail Steve Lasky, editor-in-chief, at [steve.lasky@cygnuspub.com](mailto:steve.lasky@cygnuspub.com).*



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