

Hollywood April 2019

On 25 April, the Hollywood Section met at the Academy of Motion Picture Arts and Sciences' Linwood Dunn Theater in Hollywood to discuss cybersecurity. The meeting was produced by Hollywood Section Manager Ramón Bretón, chief technology officer at 3rd i Digital, and Juan Reyes, senior director of home entertainment and technology at Convergent Risks and a Trusted Partner Network (TPN) qualified assessor. During the networking reception, which preceded the meeting, attendees enjoyed refreshments sponsored by Convergent Risks. Section Chair Jim DeFilippis and SMPTE Executive Director Barbara H. Lange, also the executive director of the Hollywood Professional Association (HPA), delivered opening remarks to the audience.

Setting the stage for the evening was John Kronick, the regional director of risk management and compliance at NCC Group. Kronick, a 30-year veteran of the security industry, opened the audience's eyes to the fact that everything can be and is being hacked, including cars, phones, the credit cards in our pockets, home



Barbara H. Lange.

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security cameras, smart electric meters on our homes, pacemakers, smartwatches, Google Homes, Amazon Alexas, and more. Kronick went on to point out that many of the notorious hacks of large companies reported in the media involve third-party vendors, a relationship mirrored in the numerous partner facilities used by Hollywood studios to create their content.

After hearing about the problem, it was time to learn how Hollywood is mitigating the risks associated with cybercrime. Guy Finley, executive director of the Content Delivery and Security Association (CDSA) and chief executive officer of the TPN, with Keith Ritlop, chair of the App and Cloud subcommittee of the TPN, presented a thorough explanation of the TPN. The TPN is a joint effort between the Motion Picture Association of America and the CDSA, involving nearly all major, as well as many independent, Hollywood studios. The TPN ensures that third-party vendors servicing entertainment content meet minimum security requirements through a thorough assessment process. Additionally, the TPN provides its global membership awareness of current cyberthreats as well as the latest in cybersecurity best practices.

Next, a panel discussion gave meeting attendees an in-depth look at the TPN assessment process to learn what to expect when undergoing a TPN assessment. The panel consisted of Janice Pearson, vice president of global content protection at Convergent Risks, Juan Reyes, senior director of home entertainment and technology at Convergent Risks and a TPN qualified assessor, and Rick Soto, vice president of global IT infrastructure and security at Pixelogic Media.

Pearson commented on the explosion of new content created, which has led to smaller vendors being tasked with handling high-value content, indicating that the assessment process applies not only to large posthouses but to very small facilities as well. Reyes echoed this sentiment, as he has completed close to 50 assessments around the globe for companies of varying sizes and capacities. Soto, representing Pixelogic Media, a company with an international footprint, praised the efficiencies offered by the TPN. Where previously, Soto had to manage individual assessments conducted at the behest of numerous studios, the TPN—with its extensive roster of media and entertainment company members and its repository of vendor security data—has streamlined the assessment process.

To wrap up the evening, all presenters returned to the stage to field questions from the audience. The attendees proved to be very engaged in the evening's topic, asking many specific questions about the TPN and the assessment process. The audience left with a deeper understanding of the threats posed to Hollywood films and television programs, as



Keith Ritlop and Guy Finley.



Panelists at the Hollywood Section meeting: (L–R) John Kronick, Ramón Bretón, Juan Reyes, Janice Pearson, Rick Soto, Keith Ritlop, and Guy Finley.

well as an understanding of how the TPN can help protect those assets, the production of which provides the livelihood of nearly all SMPTE members.

—Ramón Bretón
Section Manager

Ohio May 2019

The Section meeting on 30 May was combined with the Central Ohio area SBE Chapter 52 and took place at the Mills-James production lot in Hilliard-Columbus with approximately 45 members/guests in attendance. The principal guest speaker for the evening was Ohio Section Manager Terry Douds, who is a broadcast operations supervisor for the WOUB/TV/AM/FM broadcast stations, affiliates of PBS, located at Ohio University in Athens, OH. Douds began his presentation with a summary of the conferences and



Ohio Section meeting presenter Terry Douds.

displays at the 2019 NAB Show in Las Vegas, NV, by using photo and powerpoint slides. He also outlined a presentation he gave at that NAB event related to immersive audio technologies, with which he was also a member of the standards committee that helped shape/establish those standards for the next generation ATSC 3.0 broadcasts. He then reviewed the projected ATSC 3.0 launch time tables and the schedules of the local Columbus television stations, which now show the first two Columbus TV stations to complete their repacking activities this year and then launch actual ATSC 3.0 signals, i.e., WTTE and WSYX. Douds then looked at some of the added factors that

a local ATSC 3.0 TV broadcaster will likely encounter when launching such an advanced multifaceted terrestrial broadcasting service in the future. He pointed out that the new time table for a consumer in the U.S. to be able to purchase one of the new/future ATSC 3.0 TV sets now indicates that it will be around the time of the next Consumer Electronics Show, scheduled for January 2020. One of the first national network sports broadcasts here in the U.S. after that launching will be the 2020 Olympics coverage from Tokyo, Japan, beginning in July 2020. A lively Q&A session followed.

—Gene Batey
Secretary/Treasurer

Toronto May 2019

The Toronto Section meeting, held at Ryerson University on 14 May, focused on practical and future use cases of artificial intelligence (AI) and machine learning (ML) in the media and entertainment industry. Paul Cramer, managing director, Veritone, provided an excellent overview of the state of technology today, while Brian Campanotti, president and chief executive officer of cloudfirst.io, showed the infrastructure/architecture that AI drives when using the cloud. The meeting included a panel, moderated



Moderator Neal Bilow (standing) and panelists at the Toronto Section meeting.

by Neal Bilow, managing partner, Chromata Solutions, with panelists Cramer, Campanotti, Pierre Fortin, vice president of media technology and operations, Rogers Media, and Ryan March, director, data and advanced advertising, Corus, which provided lively discussion with amazing audience participation with topics ranging from additional practical use cases for AI/ML in media, ideas for companies to begin looking at AI/ML, the skillsets and technology backgrounds, and even touched a little on ethics. After the event, attendees continued the conversation. Many of the attendees were not SMPTE members, which allowed the Toronto Section the opportunity to publicize the mission and mandate with the potential to expand membership. The event was recorded and will be available on YouTube.

—Neal Bilow
Manager

New England May 2019

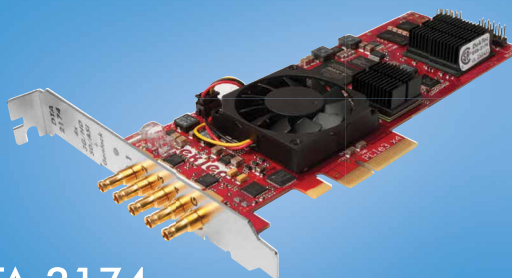
The SMPTE New England Section meeting on 22 May featured an in-depth look at image sensor technology

and development over the past 40 years with Hugo Gaggioni, chief technical officer at Sony. The host for the evening was Rule Boston Camera of the Boston suburb, Newton, Massachusetts.



Paul Beck records video for future access via video-on-demand of the New England Section meeting.

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Over the past several decades, there have been many fundamental technical advances in materials and manufacturing processes that have given rise to dramatic improvements in resolution, dynamic range, color gamuts, high frame rate, signal-to-noise ratio, miniaturization, power consumption, features, and functionalities of imaging sensors. Hugo Gaggioni, chief technology officer at Sony, provided a historical perspective covering both the development of the charge-coupled device (CCD) and the complementary metal-oxide-semiconductor (CMOS), explaining in some detail how each function differs in design. He went on to describe the various improvements that have been made over the years and how the myriad technical challenges were overcome—always in pursuit of satisfying the needs of an ever-burgeoning imaging industry. Once the undisputed underdog of the imager hierarchy, the formerly ignoble CMOS imager has finally come into its own, assuming the mantle from its long and formidable rival, the CCD.

During this nearly two-and-a-half-hour presentation, Gaggioni showed us how this all came about with a methodical and detailed chronology of how each technical achievement built upon the previous one to reach a new plateau. Some topics that were covered included global



(L-R) John Rule, Hugo Gaggioni, and Steve Dirksmeier.

versus rolling shutters, noise reduction, Bayer filtering, and debayering strategies, making the most of imager “real estate,” filtering for Nyquist, and of course, “are three chips still better than one?” Gaggioni belongs to the camp that holds to a belief in three-chip supremacy, a view he supported with sufficient visual proof.

He also predicted that higher dynamic range could gain in significance over increasingly higher resolution, particularly in the film world where he asserts that cinematographers are more interested in producing a specific look than merely achieving a sharper image.

The New England Section wishes to profusely thank John Rule of Rule Boston Camera and Sony’s New England Broadcast Representative Steve Dirksmeier for making this meeting possible. A link to a video of the full meeting is available at the Section website: www.smpte-ne.org.

—Marty Feldman
Section Chair

Washington, D.C. April 2019

The April Washington, D.C., SMPTE Section took place at the Raging Wire data center located in the suburban Washington community, which is home to the largest concentration of data centers in the world, collectively processing some 70% of the world’s internet traffic.

The 24 April meeting got underway in the lounge area of the voluminous 245,000 square-foot facility with refreshments and an opportunity for socializing and networking among the roughly 25 members and guests. Later, the group moved to a presentation room for a short Section business meeting conducted by Section Chair Tom Hackett before turning the proceedings over to Cliff Hughes, Raging Wire’s senior sales engineer. In his presentation—“What Are



Hugo Gaggioni was the presenter at the May New England Section meeting on the topic of imager technology.



Cliff Hughes, presenter at the Washington, D.C., Section meeting.

Data Centers, and Why It Matters Where IT Assets Live?”—Hughes described the role and scope of the Raging Wire operation.

As explained by Hughes, the data center that hosted the meeting is known as VA3 and is one of seven structures planned for the 78-acre Virginia campus. A very high level of physical security and elaborate backup systems are essential to the uninterrupted operation of such a facility, and, according to Hughes, these have been very carefully thought out and executed in the construction of the center. There are multiple levels of security, including “anti-climb” perimeter fencing, multifactor and multilevel challenges to personnel entering security zones, heavily reinforced concrete construction, and internal “mantraps” designed to control access to the more sensitive operational areas.

Hughes stated that the amount of electrical power required for operating the numerous servers and other equipment, as well as to provide cooling, is huge, amounting to some 16 MW. In addition, to separate redundant utility, company substation feeds to ensure uninterrupted operation, the facility is backed up by some 33 MW of onsite backup generating capacity with diesel-powered alternators housed in multiple physically isolated structures on the campus. He noted that the Virginia facility was one of three Raging Wire data center



An overhead view of a portion of the server room at the Raging Wire data center facility.

operations in the U.S. and that the company is part of a global network of 140 data centers located in 20 countries.

Following the formal presentation, the group toured a portion of the

facility, observing some of its server farms and electrical power generation and distribution areas.

—James E. O’Neal
Section Manager

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