WORLD IN BRIEF

IPTV subscription on the rise in SE Asia

JAKARTA – A 6% increase between July and September last year has seen the number of IPTV subscribers in South-east Asia jumped to 6.7 million. Most of this growth can be attributed to Indonesia, reported market research firm Dataxis.

Mobile data traffic on upward surge

BOSTON – Mobile data traffic growth reached a six-year high in Q3 2017, increasing 115% globally year-on-year, reported Strategy Analytics in a new report. India and China accounted for half of all traffic growth globally.

News key TV genre in India

NEW DELHI – India's Broadcast Audience Research Council (BARC) has released data that indicates 'news' being the third-largest TV genre in India. While 'general entertainment' still dominates, 'news' accounted for 8% of total viewing time.

Broadcast developments in 2018: Evolution, not revolution

BY SHAWN LIEW

SINGAPORE – Many technologies came to the fore in 2017, bringing with them the promise of more cost-effective and streamlined broadcast processes.

As a new year dawns, many broadcasters will continue to ponder which technologies to invest in — and how best to utilise them. This, in all probability, will ensure that 2018 will be a year of slow evolution, rather than revolution, when it comes to innovation in broadcast, said Dr Peter Siebert, executive director, the DVB Project.

"Historically, the broadcast industry does not assimilate new technologies overnight, due to the necessary investment in production and studio equipment," he told *APB*. "Also, there has to be sufficient receiver take-up by consumers to

Media City Development's Graham Stephens: "The biggest challenge that broadcasters face is to stay relevant to a generation that is now so phone-centric."

The DVB Project's Dr Peter Siebert: "Historically, the broadcast industry does not assimilate new technologies overnight, due to the necessary investment in production and studio equipment."

Ideal Systems' Fintan Mc Kiernan: "The early adopters who have already ventured into IP infrastructures are planning trial systems for 4K/UHD in 2018, and are working out ways to achieve this in IP, rather than 12G-SDI."

warrant the introduction of new services."

One highlight for DVB over the past 18 months, Dr Siebert reported, was the standardisation of resolutions beyond HD, combined with new advanced feature such as high dynamic range (HDR), high frame rate (HFR), a wider colour space and new audio coding schemes.

While these new technologies have the potential to deliver audio visual content at an optimum quality — a performance close to the limits of the human eye — it also means that it is unlikely that further advancements can be realised in the near future, he added.

Technologies such as virtual reality (VR), augmented reality (AR) and 5G will continue to be demonstrated and discussed, but at this moment in time, are they more marketing hype than reality? Dr Siebert asked. "5G, for instance, requires a very expensive network, at a time where mobile operators are confronted with stagnant or even falling revenues."

Broadcasters explore VR as a key storytelling tool

BY JOSEPHINE TAN

SINGAPORE – Virtual reality (VR) is set to "radically change" the way media is consumed, promising consumers an immersive experience and interaction on a level of engagement never imagined before, declared Doreen Neo, chief content officer, Mediacorp.

Neo, speaking at the launch of Mediacorp Studio's VR Incubator Programme, said the pro-

gramme aims to produce "compelling experiential content for the next generation of viewers".

Kick-started last November, the 12-month acceleration programme is designed to provide in-house training for Mediacorp personnel, providing them with VR knowledge, from content creation to post production.

As part of the programme, Mediacorp is also grooming at least 20 internal VR experts to produce VR content within the next 12

months. At least six VR content productions are in the pipeline, including both scripted and live 360 events, which will be delivered across Mediacorp's online and social media platforms.

Neo added: "Mediacorp Studios has been producing dramas and variety programmes for more than three decades. Now, we want to deliver VR content extended from our popular intellectual properties (IPs), as well as creating

Dogged determination to redefine broadcasting a must in 2018

Sports has the inherent ability to inspire, unite and heal society. For broadcasters, live sports not only allows them to draw in record number of viewers, but also acts as a test-bed for key technology trials.

At the Winter Olympics taking place from Feb 9-25 in Pyeongchang, South Korea, NBC is presenting more than 50 hours of live VR coverage. World football governing body FIFA has also confirmed that all 64 matches of the 2018 FIFA World Cup will be shot in 4K/Ultra HD (UHD) + high dynamic range (HDR).

These technologies, and others such as AR, AI, IP and 5G, will continue to be demonstrated and discussed this year, but will this really translate into widespread adoption of new technologies across the broadcast chain?

In terms of innovation in broadcast, expect 2018 to be a year of steady but slow evolution, rather than one of revolution, assessed Dr Peter Siebert, executive director of the DVB Project, who pointed out that historically, the broadcast industry does not assimilate new technologies overnight.

And in any event, the onus is on broadcasters to pay due diligence in understanding these technologies and how best to utilise them. Or, as Graham Stephens, CTO of Media City Development, Malaysia, described: Technology for technology's sake in broadcasting is now very much a thing of the past.

While this may sound backward-thinking, one of the key priorities for many Asian broadcasters this year is to make a successful transition to digital terrestrial television. Within this framework, which emerging technologies will truly benefit them in embracing the digital domain, and perhaps more crucially, cultivate a lasting relationship with today's viewers?

If there is to be a definitive forecast to be made this year, it will probably be this: The consumer's romance with streaming video over connected mobile screens is not going to be over in a hurry. Video streaming services provided by global behemoths like Netflix, Amazon, YouTube and Facebook will continue to proliferate, while more modest regionalised offerings will attempt to find a niche for themselves through the appeal of localised content.

Despite these developments, it is worth re-iterating that linear TV is not going to be thrown on the scrapheap. However, there is also no denying that the concept of consuming content anytime, anywhere and on any device has already been deeply ingrained into the lifestyles of many consumers.

2018 then, may well be a year of contemplation for broadcasters — not only in terms of which technologies to adopt, but also how they can continue to stay relevant to audiences with increasingly disparate requirements.

As you continue to ponder your strategic plans in a new era where broadcast is being redefined, the *APB* team would like to wish all our readers Gong Xi Fa Cai and a progressive and prosperous 2018.

SHAWN LIEW
MANAGING EDITOR

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Making our way into the all-IP era

BY MATTHEW GOLDMAN

We are on the verge of a revolution in how professional media facilities handle audio, video and ancillary data. While this shift — from serial digital interface (SDI) to Internet protocol (IP) — is just as monumental and as significant as the industry's transition from tape to file-based operations, it can be seamless if engineers plan out the transition carefully.

The end of the SDI era

For the past several decades, the professional media industry has used different variants of SDI to move around high-quality real-time video. SDI (defined by nearly two dozen SMPTE standards) has served us very well — meeting the industry's "24/7/365" requirements for high image quality, high aural quality, "always on" real time and high availability — and continues to do so as an immensely useful solution. However, industry-specific interfaces, protocols and infrastructure limit effectiveness in addressing the challenges of modern media production and distribution, including scalability and complexity concerns.

Since the development of SDI those many years ago, we have entered the information technology (IT) age. Because computers are ubiquitous and hundreds of billions of devices are in use worldwide, it has become possible to realise significant economies of scale in working with IT technology. By moving away from the industry-specific interfaces, protocols, and infrastructure of SDI and towards IP, and leveraging off the more scalable and cost-effective interfaces, protocols and infrastructure of IT, professional media facilities have the freedom and agility to rapidly deploy new solutions and quickly realise new capabilities that can simplify operations, reduce costs and improve their competitive potential.

When engineers understand the new standards that support the migration to all-IP operations, producers and on-air talent will not even know something has changed. They will, however, experience its impact in countless ways.

The impact of going all-IP

Following the lead of the networking industry, the broadcast industry is beginning to take advantage of IT: By virtualising operations and shifting to software-defined networking (SDN) and media processing, with the data and control plane functions separate from one another; by leveraging more economical commercial off-the-shelf (COTS) hardware, including servers and switches; and by abstracting video processing capabilities as software from the underlying hardware.

In addition to accelerating development and updating of software solutions to address evolving market needs more quickly and more cost-effectively, the industry's embrace of IT also enables the transport of professional media over managed IP networks.

Top six reasons for moving to all-IP

1. To enhance the flexibility and agility of the video plant, with "video" meaning professional media, including video, audio and ancillary data.
2. To enable compatibility with network interfaces on COTS Ethernet switches and COTS servers.
3. To achieve the flexible association of streams into desired groups of media.
4. To establish network-based registration and discovery of devices, streams and media capabilities.
5. To realise much greater density than was possible with SDI, over an inherently bidirectional connection.
6. To create a standard suite that is agnostic to the specific video and audio formats that are being carried on it, and which uses the same carriage mechanism regardless of resolution, bit depth, frame rate, number of channels, and so on.

In short, all-IP allows media professionals to do more, and to do it with greater flexibility and speed — and at a lower cost — than ever before. With an understanding of the latest SMPTE standards, facilities can execute their transition and realise these benefits with surprising ease.

The path towards all-IP

Building on advances made earlier by the networking industry, the professional media industry is now writing its own specific software-defined media processing software to ride on COTS servers and switches. In taking this step, we will be enabling the software-oriented virtualised video production plants of the future.

The first phase of achieving this goal is to facilitate the carriage of video, audio and ancillary data essence in a manner consistent with the six aforementioned reasons for embracing IP. We have taken this vital step by creating the SMPTE ST 2110 suite of standards, titled Professional Media Over Managed IP Networks.

The new standards suite describes the carriage of video, audio and ancillary data — all co-timed and related to each other so that everything can stay in sync — while maintaining the flexibility to run on generic IT infrastructure.

Underlying these capabilities is a common time-based system that is precise enough to handle real-time video, and capable of working seamlessly with generic switches. IEEE 1588 Precision Time Protocol (PTP) serves as a common, very precise time base that can be carried point-to-point on IP over Ethernet networks through switches and servers.

By creating a profile for the use of PTP in professional media environments and establishing time-aligned signal generation, another SMPTE standards suite — SMPTE ST 2059 — defines the interoperable use of IP-based media equipment and also permits interoperation with conventional genlocked SDI equipment.

> **"Following the lead of the networking industry, the broadcast industry is beginning to take advantage of IT by virtualising operations and shifting to software-defined networking (SDN) and media processing."**

While the combination of SMPTE ST 2059 and ST 2110 lays the foundation for the broadcast migration to all-IP, we already have SDI over IP now, thanks to SMPTE ST 2022-6. Together, all of these standards provide broadcasters with the flexibility to migrate incrementally to IP, using legacy SDI gear along with newer IP-capable systems and equipment, or to make a wholesale shift to all-IP.

We are now beginning to see implementation solutions for doing just that — going all-IP all at once. The viability of this approach has become evident through a series of interoperability demonstrations for professional media over IP. SMPTE is one of eight sponsors of what is known as the IP Showcase, a multi-vendor interoperability demonstration that first took place at IBC 2016 and has continued at key trade shows, including the SMPTE 2017 Annual Technical Conference & Exhibition, with standing-room-only crowds for presentations related to the IP migration.

These standards provide the professional media industry with a toolset for embracing IP. Media technology suppliers can deliver the solutions that facilitate IP operations, and broadcasters and other content creators can deploy IP-based solutions that give them greater agility in providing the timely, engaging and unique content that today's consumers demand.

Like any major industry-wide advance, the migration to all-IP has called for extensive work in standards development and testing, with input from a wide array of stakeholders. Now, however, a great deal of that work has culminated in standards — and the SMPTE ST 2110 suite, in particular — that pave the way for professional media companies to make a painless, even seamless, shift to the fantastic new world of all-IP. **APB**

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Broadcasters a strong backbone for VR

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original stories to give viewers the level of engagement and immersive experience which is the current global trend."

Another broadcaster who believes in the power of VR as a storytelling tool is the BBC, who recently announced the establishment of a new VR studio — the BBC VR Hub.

A continuation of the BBC's experimentation in VR over the past few years, the VR Hub is designed to spearhead the BBC's VR production while exploring how the technology is able to create "real audience impact".

Operating as an internal hub, the new unit will work with programme makers and digital experts across the BBC to produce, create and commission VR content.

Each commission is targeted at a specific set of audience needs and occasions, thus ensuring the VR experience is compelling enough to encourage viewers to put on a VR headset.

Zillah Watson, head of content commissioning for the VR Hub, wrote in a blog post: "VR has proven itself as an exciting new medium. Storytellers have been quick to recognise its potential as a means to transport viewers to immersive and believable locations. That opened up a whole new world of possibilities in the art of storytelling.

"Instead of witnessing a story,

PHOTO CREDIT: ISTOCK BY GETTY IMAGES

Broadcasters such as Mediacorp and the BBC are banking on VR becoming the new norm of storytelling for next-gen viewers, as they continue to increase their investment in VR development and study.

viewers are now at the heart of it."

VR is about designing the virtual world, and the most important elements in VR are presence and embodiment, said Salar Shahna, CEO and co-founder of the World VR Forum (WVRF).

He told *APB*: "Presence enhances the immersive side of VR, which is different to putting on a 3D goggle during a film. In a film, the viewer is merely an observer, but with VR, it places the viewer as part of the virtual world."

To help broadcasters tap into VR, WVRF partnered the European Broadcasting Union (EBU) during the Cross Video Days event last October to promote VR/AR, and

will be sharing their expertise at the Asia-Pacific Broadcasting Union (ABU) Digital Broadcasting Symposium (DBS) 2018 this March in Kuala Lumpur, Malaysia.

Broadcasters can be a strong backbone for VR because of the network, finance and expertise in creation of content that they already have, Shahna suggested. "Asia is big, especially with China having its specificity in rolling out VR.

"Hence, we have to understand the specificity of each region while finding ways of collaborations, because if Asia can collaborate as an unified region, it will help in the creation of better content."

US net neutrality repeal may affect free & easy access to content online

KUALA LUMPUR – If the Federal Communications Commission (FCC) is successful in repealing the net neutrality ruling in the US, it will create a barrier for consumers to access a wide range of content at affordable prices, said Dr Amal Punchihewa, director, technology and innovation, Asia-Pacific Broadcasting Union (ABU).

Speaking to *APB*, he continued: "Consumers have already paid a price to obtain broadband services from an ISP. As bandwidth becomes more affordable for consumers over the past few years, ISPs, either in collaboration with another service provider or individually, cannot discriminate their services to throttle or block content — that is the fundamental principle of net neutrality."

Without proper regulations and enforcement, ISPs may choose to provide preferential treatment in the delivery of specific content at the expense of others, a scenario that will not only affect the public's access to content, but also potentially prevent broadcast and

other media service providers from offering services to other markets, said Dr Amal.

In Asia-Pacific, he cited the example of the Telecommunication Regulatory Authority of India's (TRAI) decision to prevent the proposal by Facebook and a local ISP to provide free broadband access. "If the proposal by Facebook had been accepted, it will form a wall garden that restricts users to selected sites only. This is a violation of the principle of net neutrality," Dr Amal explained.

While acknowledging that regulators, both in Asia-Pacific and globally, are looking to create more sustainable media industries in their respective countries, he believes that in the absence of regulations, the global media industry will be negatively impacted.

"Although there will be no major follow-on effects from the US repeal to other regions and countries, it will still slow down the growth and impede collaboration between telcos and broadcasters."

Broadcasters' tech upgrades now driven by consumers' needs

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Technology for technology's sake in broadcasting is now very much a thing of the past. Instead, technology upgrades are today being driven by commercial needs, said Graham Stephens, CTO of Media City Development, Malaysia.

He continued: "The biggest challenge that broadcasters face is to stay relevant to a generation that is now so phone-centric and they are so into posting their own content, rather than watching content that is pre-digested by others.

"Broadcasters will be driven by the requirement to retain audiences by catering for on-demand viewing, alongside their more traditional linear scheduled channels."

And in the months ahead, consumers' needs and viewing habits will dictate terrestrial broadcasters' next move.

With limited access to spectrum, will HD, combined with HDR, be a more viable option than 4K/Ultra HD (UHD)?

Stephens believes that there is still no compelling commercial rationale to migrate to an all-IP infrastructure, bar broadcasters who need to supply content in

uncompressed 4K/UHD.

In contrast, Fintan Mc Kiernan, CEO of Ideal Systems, South-east Asia, predicted a "marked pick-up" in the deployment of IP-based broadcast systems and infrastructure in 2018. "The early adopters who have already ventured into IP infrastructures are planning trial systems for 4K/UHD in 2018, and are working out ways to achieve this in IP, rather than 12G-SDI."

However, Mc Kiernan acknowledged that in regions such as Asia, an "IP utopia" will not happen any time soon. "A lot of broadcasters in Asia are adopting the approach of 'if it's not broken, don't fix it', and are clinging to their current SDI/baseband infrastructure until the standards wars have calmed down a bit."

Other key technology developments Mc Kiernan identified includes over-the-top (OTT) and the cloud. Pay-TV operators will continue to be compelled to evolve their offerings to stay competitive, as OTT subscriptions continue to rise in Asia.

"OTT will evolve too, as more local and global players come to Asia. Watch out for the likes of YouTube TV going international."

Broadcasters can also look

forward to new cloud offerings based around a true cloud-based architecture, instead of running old systems on virtual machines. Mc Kiernan noted: "This will see new players coming into the market, and as legacy broadcast equipment manufacturers struggle to become full software solution providers."

Sharing Mc Kiernan's enthusiasm for the cloud is Shad Hashmi, vice-president, digital development, global markets and operations, BBC Worldwide Asia. He declared that cloud-based services are changing the face of the industry. He said: "Broadcasters are no longer tied to a geography, and content processing, playout and distribution can be truly untangled from the constraints of location.

"This will allow broadcasters to take advantage of cost-effective locations and move towards a truly global delivery chain where specialists scattered throughout the globe can be sewn together to form a homogenous, end-to-end process."

While acknowledging that running a global operation poses many challenges around true collaboration, staffing and the guarantee of quality, Hashmi urged broadcasters to adopt a spirit of innovation. "Try,

BBC Worldwide Asia's Shad Hashmi: ❝Broadcasters [should] take advantage of cost-effective locations and move towards a truly global delivery chain.❞

Seven Network's Andrew Andersen: ❝We are now seeing the 24/7 streaming of regular channels, some with addressable advertising, and this is definitely where the action is.❞

test, re-calibrate and repeat — there is no reason why migrating to the cloud will not result in brighter days ahead," he said.

In Australia, and indeed in many parts of the world, the current buzz word is "streaming", observed Andrew Anderson, head of broadcast operations, Seven Network (Operations). "We are now seeing the 24/7 streaming of regular channels, some with addressable advertising, and this is definitely where the action is.

"In the world of broadcast, the costs of these streamed services need to be offset on the traditional creation world. Therefore, a higher focus on workflows and technology that produce content for both will be key."

Anderson also sees an opportunity for broadcasters to reconsider channel count in the on-demand content world, and proposed the

consolidation of highly reactive services as an area of opportunity.

As transmission and playout systems continue to evolve towards IP-based solutions, a cost point "far lower" than traditional systems can be realised, although the human cost of highly reactive channels will remain, Anderson pondered.

An example of a highly reactive channel, he explained, is live sports with variable commercial breaks. This requires operators to move, edit or change breaks and content on-the-fly. A non-reactive channel, on the other hand, is one that takes a playlist that does not require edits during its run.

"The costs incurred by highly reactive channels then need to be offset by the non-reactive services being highly reliable and mass produced for a very low cost per channel, per annum," Anderson concluded.

High-impact productions use videowalls

TRENDING

As you flip through channels on the TV and watch programmes produced in studios, be it live or otherwise, what strikes you immediately is the large number of screens, video walls or just simple displays inside the studios.

In almost all shows, the displays are not passive elements acting just as a backdrop, but are a very active and engaging part of the storytelling. The large video walls in News project vivid images, maps, charts, text or video as the presenter walks across from end to end, draws viewer attention and reinforces the story. Or the large number of displays you always find in a sports-related set, with content that somehow seem synchronised as the story unfolds with images of players, club logos, game fixtures and more, keeping the viewers entranced and enthralled.

There are scrolling banners in studios providing sports or stock data in real time, displays under the anchor desk, over the shoulders. You also find displays that can be moved on rails or raised on pedestals so these can be combined in different ways for different programmes. Some of the displays are LEDs, like in an outdoor signage; some are huge tiled displays; and some are plain television — all within the same studio space. Displays are becoming ubiquitous as producers and presenters experience the flexibility and power of storytelling and visual branding they help achieve.

Advancements in display technologies have created a spurt in display usage in broadcast studios, thanks largely to greater flexibility in set design and more affordability. Technically, they take less space, less power consumption and low heating, which also make them suitable for use in space-constrained studios, leading to adoption in studios of all sizes. Using one or more screens also provide set designers greater creative freedom and flexibility in managing content and thematic context using

RV Krishnan, VP Graphics APAC, Vizrt

dynamic elements.

As Avi Atias, chief director & COO, Israel News Company, said: "When we first started designing our new studio, it was clear to us that we will use many screens, which will be physically large, and with a great quality."

Vizrt has been offering video wall solutions for many years now, empowering producers and presenters with tools to visually enrich their story telling. The Viz Multiplay is the latest in the range of innovative solutions that Vizrt offers to help broadcasters take full control of the all studio screens and harness them to the full potential in a simple, intuitive and elegant manner.

Brand and technology-agnostic, size or contour and resolution-independent, Viz Multiplay is helping leading broadcasters to manage video, images, animations and live content in studios, creating a most captivating and immersive experience for the viewers. One such user is the Isreal News Company.

Atias continues: "The amount of content and variation of content we are dealing with daily is great. There is a special significance to a workflow, which needs to be flexible to produce content and transfer it to the studio, as quickly as possible. Vizrt Multiplay gives an excellent workflow for our needs and managing the screens and content is now a simple task." ❏

To find out more about Vizrt's solutions, visit www.vizrt.com

Vizrt's video wall solutions are being deployed in news studios worldwide.

Janice Lee, managing director of PCCW Media Group, and Lo Ting-fai, general manager of HK Television Entertainment, collaboratively announced that Now TV and ViuTV will be broadcasting the 2018 FIFA World Cup Russia in Hong Kong.

■ PCCW Media brings 2018 FIFA World Cup Russia to HK

HONG KONG – PCCW Media, the operator of Now TV and ViuTV, has secured the broadcasting rights of the 2018 FIFA World Cup Russia in Hong Kong.

The soccer tournament, which is held every four years, will take place from June 14 to July 15. All 64 matches will be broadcast live on Now TV.

Meanwhile, ViuTV will broadcast 19 selected matches live, including the opening match, two semi-finals and the final match.

Janice Lee, managing director of PCCW Media Group, said: "With our extensive experience in producing and broadcasting international and local sporting events, including LaLiga, Premier League, UEFA Europa League and UEFA Euro 2016, Now TV aims to offer viewers World Cup enjoyment, whether on a live or on-demand basis, on our TV, Internet and mobile platforms."
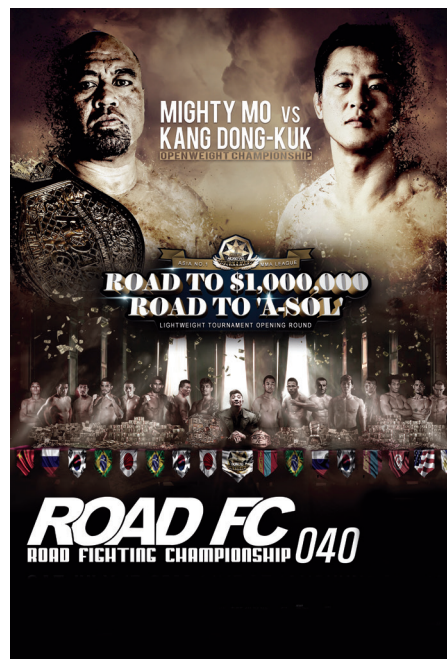
Premiering in January at KIX is *Road FC*, which showcases Asian-focused mixed martial arts and championship fights.

■ Face-off at KIX

HONG KONG – In the fifth season of *Steve Austin Broken Skull Challenge*, a new group of competitors joins in the reality TV competition show created and hosted by former professional wrestler, Steve Austin. Each week, the competitors will face off against each other in the desert heat, in a series of intense challenges with only one advancing to the dreaded "Skullbuster", designed by Austin.

In addition, KIX is bringing more Asian-focused mixed martial arts and championship fight events to viewers. *Road FC*, a stage packed with legends and epic battles, launches the all-women MMA League — *Road FC XX*. In the main event, Jin-Hee Kang faces Raika Emiko in the flyweight division. And in *Road FC 043*, viewers can catch Kim Hoon and Choi Young battling out at the Jangchung Arena in Seoul for the interim middleweight title.

■ Lifetime Asia premieres *The Best Moment to Quit Your Job*

SINGAPORE – Lifetime Asia has debuted a South Korean original production by A+E Networks Korea, titled *The Best Moment to Quit Your Job*.

Directed by Jung Jung-Hwa, *The Best Moment to Quit Your Job* is based on the webcomics series of the same title published by COMICA.

The eight-episode series explores the stifling reality confronting the working class who just started embarking on their career paths. Starring Ko Won-Hee, Lee Chung-Ah, Jei Kim and Jung Yeon Joo, *The Best Moment to Quit Your Job* follows four millennial women on their quest to find themselves in the early days of their professions.

The Best Moment to Quit Your Job is the first South Korean-produced original titles from A+E Networks Korea to air across Asia on Lifetime.

Bringing Asian culture to a global stage

promptings

Content has no geographical boundaries. Its genre, whether action, thriller or romance, is the language that is understood by audiences across the globe. Already renowned as the go-to channel for Hollywood films, HBO Asia has been producing its original local content since 2012, and is continually ramping up its local content library with collaborations with many regional filmmakers. **APB** *prompts Jessica Kam, senior vice-president for HBO Asia Original Production, for more details.*

For the past 25 years, HBO Asia has been bringing the best of Hollywood to Asia through its partnerships with several Hollywood studios, including Paramount Pictures, Sony Pictures, Universal Studios, Warner Bros and Lionsgate.

And in a region embodied by richness in culture and histories, HBO Asia has also been producing original content since 2012, creating 10 Asian Originals to date.

Last year alone, HBO Asia premiered four Asian Originals, including the second season of *Halfworlds*, a dark action fantasy drama series set in Bangkok; *The Teenage Psychic*, its first original Chinese series set in Taiwan; *SENT*, a comedy drama series that premiered in September; and *The Talwars: Behind Closed Doors*, HBO Asia's first original documentary series.

Jessica Kam, senior vice-president for HBO Asia Original Production, told *APB*: "It is part of the company's commitment to producing more content, and we're ready to inject more budget into doing this. By producing more content, we're able to create more genres, which is a critical aspect of our strategy.

"Besides catering to different genre preferences, we have to appeal to a wider age range. For instance, we want to target younger audiences as well, because in the new world of the Internet, the audiences tend to be younger than our typical HBO audiences. Therefore,

we have to expand our genres to captivate them."

Declaring that the media industry is facing a completely different landscape brought forth by the emergence of over-the-top (OTT) services, Kam pointed out that the key to a competitive strategy is still content. She elaborated: "Although technology has changed how media companies reach out to their audiences, it is content that really drives them to the channel.

"Audiences will come to the channel if there is good content. More importantly, audiences today are aware of the programmes they want to watch, but the question is where can they watch it? We're in an age of viewers finding the service instead of accommodating to them, and our job is to create even more compelling content so that they will be drawn to us."

HBO Asia is a wholly owned subsidiary of Time Warner's HBO, and has reached out to 23 territories in Asia with six 24-hour subscription movie channels — HBO, HBO Signature, HBO Family, HBO Hits, Cinemax and Red by HBO — as well as an Internet streaming platform, HBO GO, and a subscription video-on-demand (SVoD) service, HBO On Demand.

With a commitment to expanding its repertoire further for audiences in the region and globally, the network plans to increase the number of HBO Asian Originals productions scheduled to premiere

in the coming years.

One series premiering on HBO Asia's network of channels is *Folklore*, a six-episode, hour-long horror anthology series that takes place across multiple Asian countries including Indonesia, Japan, South Korea, Malaysia, Singapore and Thailand, with each episode based on each country's superstitions and myths.

Helmed by different directors from various countries in Asia, each episode will seek to explore societal dysfunctions in a manner that is specific to the country, yet possessing themes that will resonate across the continent.

HBO Asia has also entered a partnership with HJ Holdings, the operator of Hulu subscription SVoD service in Japan, to co-produce an original drama series — *Miss Sherlock*. The eight-part Japanese drama series will be aired across 20 countries this April on Hulu in Japan and on HBO Asia's network of channels, including HBO GO and HBO On Demand, in the rest of Asia.

Describing the collaboration as a "good marriage" of combining resources from both HBO Asia and Hulu Japan, Kam said that the partnership was a "natural progression" for the network to embark on, as Japanese content has always been well received across the region.

However, she also highlighted the challenges in managing content distribution to more than 20

countries, as each country has its own language, culture and religion. She explained: "The challenges we face in Asia is very different from what my counterparts in the US will be facing — the US is big but is also more homogeneous. This is why I stressed a lot on genres because genres communicate clearly, and the key is picking the genres that travel better, re-

gionally and globally.

"At HBO Asia, our team picks the best content that we believe will travel. Because as HBO Asia becomes more sophisticated as a brand, a channel and a content provider, we have to evolve. We have to tell more authenticated stories by going deeper, more locally, and that's where I see as the next era of HBO Asia."

> **❝We're in an age of viewers finding the service instead of accommodating to them, and our job is to create even more compelling content so that they will be drawn to us.❞**
>
> — Jessica Kam, Senior Vice-President, HBO Asia Original Production

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Calendar of Events 2018

■ JANUARY

January 14 - 16
CABSAT 2018
Dubai World Trade Center
www.cabsat.com

■ FEBRUARY

February 27 - March 1
BVE 2018
Excel London, UK
www.bvexpo.com

■ MARCH

March 5 - 8
ABU DIGITAL BROADCASTING SYMPOSIUM 2018
Malaysia
www.abu.org.my

■ APRIL

April 5 - 7
VIETNAM INT'L BROADCAST & AV SHOW (VIBA 2018)
Hanoi International Exhibition Center, Vietnam
www.vibashow.com

April 7 - 12
NAB SHOW 2018
Las Vegas, Nevada, USA
www.nabshow.com

■ MAY

May 15 - 18
KOBA 2018
COEX Exhibition Centre, Seoul, South Korea
www.kobashow.com

■ JUNE

June 26 - 28
BROADCASTASIA2018
Suntec Singapore
www.broadcast-asia.com/

June 26 - 28
COMMUNICASIA2018
Marina Bay Sands, Singapore
www.communicasia.com/

■ SEPTEMBER

September 13 - 18
IBC 2018
RAI Amsterdam
The Netherlands
www.ibc.org

■ OCTOBER

October 9 - 11
APSCC 2018
Venue to be confirmed
www.apscc.or.kr

October 30 - November 1
CASBAA CONVENTION 2018
Hong Kong
www.casbaaevent.com/events/casbaa-convention-2018/

■ NOVEMBER

November 14 - 16
INTER BEE 2018
Makuhari Messe, Tokyo, Japan
www.inter-bee.com

Digital technologies art of storytelling

A picture is worth a thousand words. Marrying this saying with the advancement of technologies, content producers today have even more tools at their dispense to enhance the art of storytelling, as **Josephine Tan** writes more.

Venice is Sony's new 6K digital motion camera, which is equipped with a 36x24mm full-frame image sensor, designed for the demands and performance of cinematography.

In the late 1990s, director George Lucas took moviemaking into a new era with his decision to film *Star Wars: Episode II — Attack of the Clones* on digital 24p high-definition video cameras. Shot using the HDW-F900, Sony's first 24p digital camera, the movie shaped the future of digital cinematography as Locus showcased how digital acquisition is capable of empowering creative minds.

The success of the HDW-F900 ushered in the development of Sony's CineAlta digital camera series. The range has since expanded to include the F23, F35, F65, F55/F5, as well as Venice, a 6K full-frame digital motion camera.

Equipped with 24x36mm full-frame image capture ability, Venice is able to manage 6K recording in Sony's 16-bit acquisition format, X-OCN, when paired with its AXS-R7 recorder. To enable filmmakers to create emotion in every frame, Venice is enhanced with image capture in key areas of dynamic range, colour rendition and large-format aspect ratio freedom.

Hiroyuki Takahama, assistant general manager, content creation solutions marketing, professional solutions company (PSAP), Sony Corporation of Hong Kong, tells *APB*: "Apart from the surging demands from moviemakers for digital motion cameras to create the filmic look, broadcasters are also increasingly 'upping their game' to cre-

> ❝Apart from the surging demands from moviemakers for digital motion cameras to create the filmic look, broadcasters are also increasingly 'upping their game' to create more filmic looking content for their drama and documentary production to impress their audiences.❞
>
> — **Hiroyuki Takahama,**
> **Assistant General Manager, Content Creation Solutions Marketing, Professional Solutions Company (PSAP), Sony Corporation of Hong Kong**

ate more filmic looking content for their drama and documentary production to impress their audiences.

"And with the multitude of formats available for acquisition, content producers are given the flexibility to achieve the best possible quality. Moreover, they enjoy the option to re-master in different resolutions and dynamic range, based on the maturity of the media industry and network infrastructure as well as viewers' preference."

In Asia-Pacific, there is an escalating demand for bigger 4K/Ultra HD (UHD) and high dynamic range (HDR) TV sets, alongside 4K/UHD and HDR content productions, Takahama points out. "The powerful appeal of HDR constantly drives Sony to enhance our offerings. For instance, we have developed solutions such as the 4K/UHD HDR workflow for our digital cinema cameras — F65 and F55 — that captures 16-bit linear RAW data with high-latitude HDR."

For TV distribution, he reveals that Sony's HDC-4300 and HDC-4800 cameras have been well received by media companies. Coupled with the SR Live for HDR workflow, the cameras can create both 4K/UHD HDR and HD

SDR pictures based on Sony's S-Log3 or hybrid log gamma (HLG) format.

And in the area of sports broadcasting, technologies have been empowering broadcasters to deliver live action from the pitch to audiences across the globe. This year, some of the major sports events that will be taking place include the Winter Olympics in Pyeongchang, South Korea, the Commonwealth Games in Gold Coast, Australia, and the FIFA World Cup in Russia.

During the broadcast of these sports events, broadcasters are required to provide slow-motion playback so that viewers are able to catch the detailed movement of a particular action replayed in split seconds. In such circumstances, technologies like high frame rate (HFR) allow broadcasters to capture more of the action in frames, resulting in a "smoother" slow-motion replay during sports events, such as a goal scene of a football game, says Takahama.

Suggesting that HFR brings "dynamic excitement" of live sports to life in vivid details, he adds: "Today's TV sports fans demand better-looking pictures, revealing every instant of explosive on-pitch action with clarity, colour and contrast. The adoption of

In Asia-Pacific, there is an escalating demand for bigger 4K/Ultra HD (UHD) and high dynamic range (HDR) TV sets, alongside 4K/UHD and HDR content productions.

ChyronHego hires Marco Lopez as CEO

Marco Lopez has joined ChyronHego, a portfolio company of Vector Capital, as its CEO. Lopez will replace Johan Apel, who will continue serving the company as executive chairman of the board with an emphasis on ChyronHego's market leadership in sports solutions. Welcoming Lopez to the ChyronHego family, Apel commented: "With this change in our executive team, Marco will apply his experience and leadership skills to grow our business among broadcast customers, while I will work with the team to continue expanding our worldwide presence in sports. I look forward to working with Marco, as we enter this exciting new growth phase."

PCCW Global's VR project wins at WCA

PCCW Global has won the Moving Pictures Award at the World Communication Awards 2017 in London, UK. The success of the award was attributed to the collaboration between PCCW Global and content partners at the 2017 Cathay Pacific/HSBC Hong Kong Sevens rugby tournament, where PCCW Global delivered a 360° virtual reality (VR) viewing experience to its viewers. In a statement, PCCW Global said the success of the project showcased the company's ability to deliver live VR streaming experience to the 360° VR audience while demonstrating its ability to extend its traditional broadcast capabilities to include a live VR service to other events and broadcasters.

Next Month @ Creation

Subtitling and Closed Captioning Systems

PANELLISTS

Dr Ahmad Zaki Mohd Salleh
Group GM, Engineering
Media Prima

Phan Tien Dung
CTO
Vietnam Digital Television

Mike Whittaker
CTO
Fox Networks Group

craft the

HFR in live sports production reduces judder on moving objects, and motion blur, which is more obvious on larger TV screens, resulting in a generally sharper and smoother image.

"HFR also achieves more satisfying slow-motion footage for playback purposes. The technology enables the creation of slow-motion sequence of key moments in a game, provides broadcasters a platform to analyse athletes' decisions and unfold the drama during the game, thus delivering bigger returns."

Sony has also developed a "Super Motion Camera" that is equipped with the ability to capture up to four hours of 4K/UHD video footage, allowing for "complete" slow-motion video coverage of sports games.

Sharing how this "game-changing" technology delivers slow-motion video, Ryosuke Amano, HDC-4800 imaging module designer, Sony Corporation, explains: "What Sony is aiming for is to capture every single moment, even when shot in 4K/UHD at 480fps, so that when all the data recorded by the camera is sent to the processor unit, the colours of the image created will match that of other cameras.

"In sports, for example, the focus is obviously on covering the main action, the scenes where players are moving. But by taking a wider shot and capturing something taking place away from the players, that part too can be cut out to make two videos originating from the same camera."

For Panavision, the company recently organised a workshop — *The Beauty of 8K Large-Format* — during the Camerimage International Film Festival of Cinematography, which took place in Bydgoszcz, Poland, from November 11-18 last year.

At the workshop, Panavision discussed the math, science and artistic components to high-resolution and large-format subjects. These topics included the differences between sharpness and resolution, the impact of a wider field of view and less depth of field, as well as the importance of utilitarian benefits that high resolution offers creatives.

Michael Cloni, senior vice-president of innovation, Panavision and Light Iron, elaborates: "Digital image capture has taken a new evolutionary step with the recent deployment of large-format motion picture sensors. Until now, shooting large-format

motion was typically reserved for a few specialty film projects, and came with a number of physical and financial challenges.

"But with the new large-format digital sensors deployed by ARRI, Red, and Sony, large format is about to become a common format with a wider reach, which is going to open up a new world of opportunities for cinematographers to create images that, in many cases, weren't even possible until now."

In this transition to produce large-format images, one of the challenges is to increase the resolution of a sensor, says Cloni. "With increased resolution, there is concern about the impact of the sharpness, contrast and the clarity of an image that could deter from the intended large-format look."

To allow cinematographers to increase their creative control over the imaging chain, Panavision has launched the Millennium DXL 8K camera. Developed through a collaboration between three companies, the Millennium DXL brings together large-format optics and modular accessories from Panavision, an 8K sensor from Red, and colour science and optimised workflow from Light Iron, Panavision's post workflow company.

With optics, camera and colour working together as an integrated camera system, the Millennium DXL is able to capture 8K images using the REDCode RAW codec,

Attached to the octocopter is ARRI's Alexa Mini camera, which Skynamic has used to capture aerial shots for a Chinese action film.

a visually lossless compression algorithm.

In addition, the camera is able to capture 2K proxy files in the form of Apple ProRes for Avid DNx, which enables a 2K workflow that every production is more acclimated to. With the proxy file engaged, 8K files can be saved for the finish while the 2K files can be used during post, thereby reducing the cost, time, and complexity associated with 8K.

"In all, a better story is often crafted through more creative control. The best technologies should not only serve the creative process, but elevate it in ways that were not previously available," Cloni concludes.

When it comes to shooting overhead or steady motion video shots, the use of camera cranes has become a reliable choice for many filmmakers. However, the advent of drones has brought forth new possibilities to aerial photography, making the crane-style shot more accessible to video

productions of all sizes.

One company who is specialised in utilising drones in aerial filmmaking is Skynamic. Founded in 2012 by Gabriel Manz and Julian Glöckner, the German company has been involved with projects such as *Berlin Station*, an American drama series, and a TVC shooting for German bank, Commerzbank.

Glöckner says: "Drones are tools directors of photography (DoPs) use for telling stories in a different way, with technology that was not available a few years ago. The drone can be a crane, a dolly in the air. This is a new method to combine several tools in one, while saving time and costs."

Also a drone camera operator himself, Glöckner explains that the time taken to set up a drone is around 10 minutes, and the DoP is ready to do a crane shot from any place on the set. "It is a tool that is very versatile, opening up the limits for DoPs to come up with more ways to execute a shot than he usually is used to," he adds.

However, drones have their limits and disadvantages when compared to other tools. For instance, drones have limited flight time and payload, and are dangerous to fly close to people with the spinning rotors, unlike what a crane is capable of doing.

Glöckner elaborates: "DoPs who have not worked with drones before tend to have a complex mindset of how to execute a shot with the drone. They think that drones have the ability to capture the most fantastic movements imaginable, but they forget about the safety aspect, and that the pilot needs to have a visual on the drone.

"So during the creative process, it is important to talk with the DoP and figure out what is possible, to be on the same page. It is always a compromise between the imagined shot, and the technical and physical abilities of the drone."

Recently, Skynamic embarked on a trip to Morocco to capture aerial shots for a Chinese action film. For this project, the

"Dust everywhere, huge differences in temperature between day time and night time, lots of smoke. The conditions were really difficult, but we never had any problems with the camera — Alexa Mini can handle it all."

— Julian Glöckner,
Co-Founder, Skynamic

Skynamic team worked in pairs on-site, with a pilot flying the drone, and a camera operator who controls the gimbal and concentrates on the shot.

Attaching an ARRI Alexa Mini camera on an octocopter, Glöckner had to manoeuver the drone steadily through air-down narrow alleys and amid flocks of birds, as well as past low-hanging power lines in varied wind conditions.

"As the production team has been using Alexa cameras throughout the entire shoot, they decided to deploy the Alexa Mini on the drone so as not to compromise quality up in the air," Glöckner explains. "Dust everywhere, huge differences in temperature between day time and night time, lots of smoke. The conditions were really difficult, but we never had any problems with the camera — Alexa Mini can handle it all."

ARRI's Alexa Mini is a 35mm format film-style digital camera, featuring a compact carbon body, and switchable active sensor area. Designed with mounting and shooting options, the Alexa Mini can be operated in a number of ways: by wireless remote control, as a normal camera with the ARRI MVF-1 multi-viewfinder attached, or with an on-board monitor and controlled via the user button interface on the camera body.

Apart from managing 4K/UHD and HFR recording, the Alexa Mini also captures HDR images as ARRI has been equipping the Alexa family with HDR since the introduction of Alexa in 2010.

Marc Shipman-Mueller, product manager, camera systems, ARRI, concludes: "As HDR becomes available in more TV sets, and as more HDR projection systems become available, the industry will continue to explore the best way to transport HDR images from the set to the screen.

"What is important for us is the filmmaker's ability to preview HDR on set. While this is currently possible, we are working on various improvements to expand on this capability." APB

"In all, a better story is often crafted through more creative control. The best technologies should not only serve the creative process, but elevate it in ways that were not previously available."

— Michael Cloni, Senior Vice-President of Innovation, Panavision and Light Iron

Jointly developed by three companies, the Millennium DXL brings together large-format optics and modular accessories from Panavision, an 8K sensor from Red, and colour science and optimised workflow from Light Iron, Panavision's post workflow company.

HKJC races ahead with Bolero wireless intercom system

The Hong Kong Jockey Club (HKJC), a sports organisation and Hong Kong's premier horse racing operator, has chosen Riedel Communications' Bolero wireless intercom system to streamline communications for its video productions.

Bolero is integrated with Riedel's Artist digital matrix intercom system to provide communications across two separate HKJC race courses and in the HKJC studio located in Sha Tin. Reliable wireless communications are essential for HKJC's live TV productions of horse races, according to Yeung Shui Kin, senior broadcasting services manager at HKJC.

He continued: "Our production crews located all around the race courses have to able to count on clear, stable and uninterrupted comms from the TV studio. After just two weeks of operation, the performance of Bolero has

more than met our expectations by delivering outstanding sound quality from any point on our race courses. Also, Bolero's integration with our Artist frame is a huge plus."

Founded in 1884, HKJC provides horse racing, sporting and betting on horse racing and overseas football events. HKJC has initially purchased 12 Bolero backpacks, with plans to add more this year, for communications links between its TV studio in the Sha Tin district and its Happy Valley and Sha Tin race courses.

The Bolero systems first went into service for international races in early December.

Introduced last year, Bolero is an expandable, DECT-based wireless intercom system in the licence-free 1.9GHz frequency range. Riedel's exclusive Advanced DECT Receiver (ADR) technology improves RF robustness by reduc-

ing sensitivity to multipath RF reflections, enabling HKJC crew members to roam efficiently at either race course without losing audio quality.

Cameron O'Neil, director, APAC, Riedel Communications, said: "HKJC is not only an outstanding provider of global entertainment for horse racing enthusiasts, but also the largest community benefactor in Hong Kong — making significant donations every year to support the community and contribute to the betterment of local people.

"It gives us great pleasure to provide Bolero, our groundbreaking wireless intercom, for HKJC's race tracks at Sha Tin and Happy Valley, in addition to their TV studio. We are confident that Bolero will provide not just the best possible coverage, but also a great benefit to users through its intuitive and advanced features."

The Hong Kong Jockey Club (HKJC) has integrated Riedel Communications' Bolero wireless intercom system with its existing Artist digital matrix intercom system to provide communications across two separate HKJC race courses and in the HKJC studio located in Sha Tin.

Panasonic and Atomos create optimal conditions for low light shooting

Panasonic has released the new GH5S mirrorless camera, which users can combine with the Atomos Ninja Inferno 4K/Ultra HD (UHD) monitor/recorder. The Ninja Inferno records up to DCI 4Kp60 10-bit 4:2:2 over HDMI 2.0 directly into production-ready Apple ProRes or Avid DNxHR on SSD drives.

According to the companies, users can now enjoy saturated colours and capture "sparkling shots" even when shooting in V-Log format in the dimmest conditions. "Colours are rich and deep even in super low light and reds are really red. Huge amounts of colour information are retained with 10-bit," the

companies added.

Using the GH5S with Ninja Inferno also allows users to shoot in the hybrid log-gamma (HLG) high dynamic range (HDR) standard at DCI 4Kp50 and 60. The correct metadata tags are added to be displayed on YouTube and HDR screens, while the AtomHDR mode on the Ninja Inferno allows for quick and easy setting of exposure when shooting log or HLG images for HDR or regular Rec.709 (an ITU-R Recommendation for HDTV) shooting.

For demonstration purposes, Atomos has released a video shot using a pre-production GH5S near a London landmark. Shot late at

night and only in available light, the video was captured in Panasonic V-Log, with the London buses rendered a deep red, and detail otherwise invisible to the naked eye clearly seen on the statue of Admiral Nelson, according to Atomos.

The crew shot in DCI 4Kp50 with the camera's ISO set at either 3200 or 6400 ISO. Lenses used were a Voigtlander 10.5mm f0.95, 25mm f0.95 and a Canon 70-200mm f2.8 zoom with a Metabones Speedbooster. These combinations allowed a shutter speed at 100th of a second to be achieved with good exposure at all times.

AtomHDR mode was used on

To provide the most optimal conditions for low light shooting, Panasonic encourages the use of the new GH5S mirrorless camera in combination with the Atomos Ninja Inferno 4K/Ultra HD monitor/recorder.

the monitor to assess the image and ensure that noise was suppressed while retaining maximum

levels of highlight detail.

The full video can be watched at https://vimeo.com/250123214.

TSL Products releases new audio monitor

TSL Products' MPA1 Mix SDI audio monitor is now available. Part of the company's MPA (Monitor Plus Audio) range, the MPA1 Mix SDI is equipped with an audio monitoring tool that enables quick and easy creation of audio monitor mixes comprising of embedded SDI audio, AES and analogue audio sources.

At only 1RU high and 100mm deep, TSL Products recommends the MPA1 Mix SDI for use in confined environments, such as outside broadcast vehicles and lightweight flight packs. Equipped with two 3G/HD/SD-SDI inputs, as well as AES and analogue audio inputs, the MPA1 Mix SDI allows users to simultaneously monitor as many as 16 audio channels of their choosing. Mixes can be created using any

of the available audio sources, whether embedded in SDI or presented as AES, analogue or any combination thereof.

Stephen Brownsill, audio product manager at TSL Products, described: "Up to 16 separate audio mixes can be remotely created and then recalled directly on the front panel of the unit using the MPA1 Mix SDI Web page and even using simple network management protocol (SNMP). This allows our customers to address differing applications and achieve more efficient workflows."

All system parameters can be controlled remotely over an Ethernet network using a built-in Web server, while audio signals, signal status and formats can also be viewed remotely via the Web graphical user interface (GUI).

TSL Products' MPA1 Mix SDI audio monitor.

Brownsill continued: "As with the MPA1 Solo SDI, the MPA1 Mix SDI displays audio level meters and mix configurations on its front-panel display, as well as 3G/HD/SD-SDI video sources."

An HDMI output provides convenient confidence monitoring of any chosen 3G/HD/SD-SDI video source on any external HDMI monitor, the output of which is also stored as part of the 16 mix states.
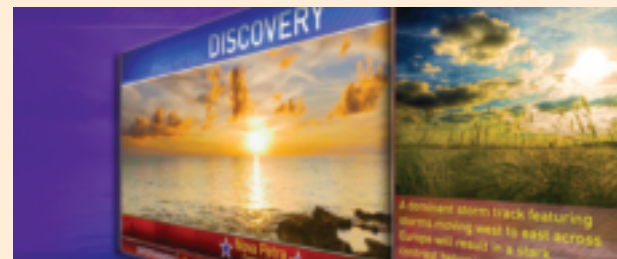
Bringing content to life with graphics

Avid has released the latest versions of its Maestro Designer and Maestro News solutions, designed to enable content creators to create "superior, high-resolution graphics more efficiently than ever before".

Avid's award-winning Maestro Designer graphics authoring software is now equipped with greater rendering power to create higher quality graphics, as well as enhance visual identity and production value. Graphic designers can now create and view their content in 4K/Ultra HD (UHD) resolution, without having to adjust the resolutions of their graphics. Improved workflow efficiencies have also been added to Maestro Designer to increase productivity and enable

the faster turnaround of content, including font handling, animation editing and mask editing.

As for the Maestro News on-air graphics suite, it now comes with enhanced operational efficiencies for both news and production environments. With the latest version of Maestro News, users can quickly and easily re-use content and even mirror data between different production systems. A simplified workflow now facilitates faster page creation and the ability to manage complex content more efficiently through its new rundown filtering capability.

Alan Hoff, VP of market solutions, Avid, said: "To maximise engagement, today's broadcasters must create out-

New upgrades to graphics solutions from Avid aim to help content creators bring their content to life.

standing content that's tuned for any consumer device. The latest enhancements available in Maestro Designer and Maestro News help broadcasters deliver video and 3D graphics in new and compelling ways to audiences everywhere."

A close-up look at *Monday Night Football*

ESPN and Fletcher Sports are using Sony HDC-4800 4K/Ultra HD (UHD) ultra-high frame rate cameras with Fujinon PL20-120mm Cabrio lenses for goal-line close-ups for the broadcast of *Monday Night Football*, a live TV broadcast of weekly American football games.

According to Fletcher Sports, the Sony 4800/Fujinon lens combination allows cameras once considered "specialty" to enhance the quality of live game production in real time. Ed Andrzejewski, programme manager at Fletcher Sports, explained: "In the past, a lot of the 4K/UHD and high frame rate camera systems, once you get up to the ultra-high frame rates, are pretty much there as just a replay tool.

Fujinon PL20-120mm Cabrio lenses, in conjunction with Sony's HDC 4800 cameras, is helping ESPN shoot goal-line close-ups of the *Monday Night Football* programme.

"Now with the camera quality that Sony brings and the lens quality Fujinon

has brought on for the 4K/UHD cameras, specialty cameras can be cut in live to your regular production."

He added that while high-speed cameras used for replay shots were previously placed higher up in the stadium — which required a longer lens — they are now placed at the same level as the main game cameras, thus requiring a wider angle lens.

A variety of lenses were tested prior to the Monday Night Football season opener, and the Fujinon PL 20-120mm Cabrios were chosen for their wide angle, clarity and speed. The zoom range enables camera operators to zoom out to capture every player on the field and, in the same shot, zoom in to determine if the ball crossed the goal line.

The Fujinon PL 20-120mm Cabrio zoom features a detachable servo drive unit, making it suitable for use as a standard PL lens or as an electronic newsgathering (ENG)-style lens. It features flange focal distance adjustment and macro function, and is lens data system (LDS)- and /i metadata-compatible.

The lens weighs just 2.9kg and features a T stop of T3.5 end-to-end, a 20mm-120mm focal range. It covers an S35-sized sensor (Super 35 format) on a digital cinema-style camera. The lens is also fitted with a nine-blade iris to capture the most natural-looking imagery possible, and is equipped with all the lens data outputs that are required by today's cine-style shooters, said Fujinon.

whoBuyswhat

■ **Brios handles all audio sources for Bleacher Reports**

As part of a studio upgrade, online sports publisher Bleacher Report has purchased two Calrec Audio Brio compact audio consoles.

Mark Steinmetz, studio operator and audio engineer at Bleacher Report, said: "The Brios are our first Calrec desks, and they're a great addition to our team. We chose the Brio because of its user-friendly layout and powerful features, which really set it apart from the other boards we saw at trade shows.

"Brio can accommodate any skill level, which makes it really ideal for our crew. Our audio operators love the console's ease of contribution and mix-minus features, with a layout that's easy to grasp at first glance and displays the data in a very intuitive and natural manner."

Bleacher Report streams its content

through its own app and also through online platforms such as Facebook, Instagram and Snapchat. The online broadcaster produces its own shows in both its 600sqf and 1,400sqf studios, which may be occupied with up to 15 Facebook Live streams every week during peak season.

One of the Brios is now in production handling audio mixes for both studios, while the second Brio is being readied for mobile shoots — both handle Bleacher Reports productions' audio sources, including Dante, AES, SDI and analogue.

Steinmetz continued: "Not only were our previous console's mix settings cumbersome and hard to use, but the desk [also] wasn't up to the task of managing all of the audio I/O in our facility. The Brio's automixing makes our panel discussion shows much simpler to mix, and we're able to dial in settings that make the most sense for our facility and workflow.

"The Brio has improved our workflow by giving us the ability to route anything, anywhere in and out of the facility — we can send audio wherever it needs to go, and it's fast and easy."

Online broadcaster Bleacher Report has added two Calrec Audio Brio audio consoles to its inventory as part of a studio upgrade.
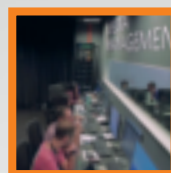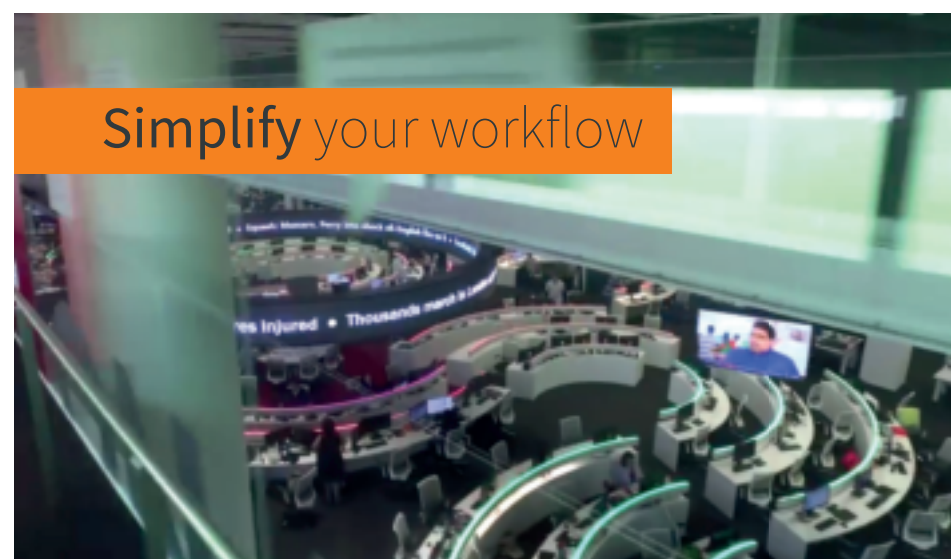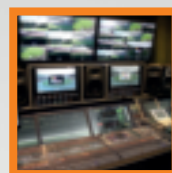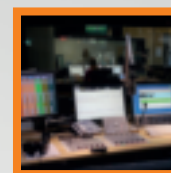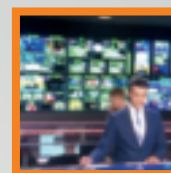
MANAGEMENT

AJA lines up new solutions for 4K/UHD, HDR workflows

AJA Video Systems has equipped the Io 4K Plus with Thunderbolt 3 performance. The Io 4K Plus features 12G-SDI and HDMI 2.0 I/O connectivity for 4K/UHD, and 2K/HD/SD with HFR support up to 60p at 4:2:2. AJA has also released a desktop software v14 for Io 4K Plus, in addition to new enhancements for AJA KONA and Io products. The new software empowers editors with control and integration between timeline audio, host system application audio, and microphone inputs. Using the new software, post professionals will also be able to review and play audio files from multiple locations — including locally stored files, or via a MAM or Web browser — in project timelines, and record voiceovers to existing media on the timeline.

Scott Lührs joins BFE

German systems integrator BFE has appointed Scott Lührs as head of division for KSC Controller Systems. In his new role, Lührs will oversee the technological and commercial advancement of the KSC product line, as well as BFE's software and hardware solutions. Products, such as broadcast control and monitoring solutions, KSC CORE, and broadcast software-defined network (SDN) controller, KSC SILKNET for video over IP system environments, will also be under his purview.

Next Issue @ Management
Storage and Archival Solutions

PANELLISTS

Fintan Mc Kiernan
CEO
Ideal Systems
South-east Asia

Patrick So
Regional Manager
Asia Pacific
Magna Systems & Engineering

Craig Johnson
Managing Director - Media
Nielsen

A media lifecycle within BI and

Content distribution can never be the same again in the world of video streaming. To deliver content across multiple platforms and devices, media companies are required to develop several different workflows. However, business intelligence (BI) and media asset management (MAM) systems have the capability to manage the entire content lifecycle, streamlining them into one workflow, as **Josephine Tan** finds out.

During this Fourth Industrial Revolution, where emerging technologies — such as the Internet of Things (IoT) and artificial intelligence (AI) — are creating new possibilities in enhancing production techniques, traditional media companies are facing an even more challenging period. A wave of technology changes is impacting their business models, compelling them to transform and redevelop their strategies in order to cater to audiences in the digital space.

For decades, the single and direct way of TV broadcasting has set the bar in media and entertainment. In today's digital era, however, the Internet has brought significant changes to consumers' viewing habits, with audiences heightening their expectations in terms of accessibility to quality content and programming.

And with more connected devices, coupled with the continued rise of social media, media companies have to react quickly to audiences' changing behaviours by accelerating their pace of innovation, which requires fluid modes of content creation and distribution methods.

Owing to the rising demand for TV Everywhere, including social media channels, broadcasters and content providers are faced with increasingly complex workflows, says Parham Azimi, CEO of Cantemo.

He tells *APB*: "Of course, on the content creation and provision side,

Parham Azimi, CEO of Cantemo, outlines that MAM systems should help media operators manage the entire workflow, such as enabling automated workflows — from ingesting content, transcoding assets into the correct format based on specific criteria, enabling access controls, distributing content, and sending it to archive.

more platforms equate to more versions of each item of content. This makes managing that content and distributing it to the right platform at the right time more complex, and more important at the same time."

In addressing these demands and challenges, Azimi encourages media companies to review their existing workflows, moving them towards a "create once, repurpose often" approach. By creating content that can be easily adapted for different platforms, he adds that media companies can make this process more efficient.

This type of workflow, according to Azimi, also opens up more opportunities for media companies to look at regionalising, or even personalising content for consumers, depending on geographical locations and personal preferences. This, in turn, enables media companies to address the changing demands of today's audiences.

He elaborates: "Having multiple content versions also represents the importance of being able to manage

that content and workflow effectively. For instance, the implementation of MAM systems can help to keep content organised, allowing operators to find the correct version easily.

"In addition, a MAM system should help manage the entire workflow, such as enabling automated workflows — from ingesting content to transcoding assets into the correct format based on specific criteria, enabling access controls, distributing content and sending it to archive."

Suggesting automation as the most critical element within a MAM system, Azimi explains that automated workflows minimise chances of error, thus enabling media companies to better tailor content to suit their audiences.

"Being able to dynamically control those workflows is also important, as the industry is changing at such a rapid pace, which means business objectives are also changing quickly," he continues. "Reporting is another crucial element brought forth by business intelligence (BI) and MAM systems, giving media companies an oversight of content, the workflow and consumption patterns. All of this helps operators to adapt when needed, and improve overall efficiency, as well as customer satisfaction."

ITV, a TV network in the UK, has implemented a campaign management system to streamline the production and delivery of on-air and digital marketing campaigns. The campaigns are targeted at millions of ITV viewers, informing them about up-and-coming ITV programmes, and fill over £270 million (US$372 million) of air-time a year on ITV's broadcast channels and digital services.

For this project, ITV Technology worked with NMR, a UK-based media technology systems integrator, whose software partners includes Vidispine and Cantemo. Codenamed Project Phoenix, the project combines a media planning application for broadcast and digital media with a MAM system to

> With more connected devices, coupled with the continued rise of social media, media companies have to react quickly to audiences' changing behaviours by accelerating their pace of innovation, which requires fluid modes of content creation and distribution methods.

landscape mapped MAM systems

> ❝Media companies differentiate themselves by providing content that their consumers want to consume. To do this, they must have a better understanding of their customer, and develop a customer profile resulting in improved personalisation of content creation and delivery.❞
>
> **— Johan Vanmarcke, Managing Director, Asia, MediaGenix**

keep track of video assets.

Matt Scarff, director of ITV creative and events, explains: "The new campaign management system had to work on multiple platforms, be able to integrate across the various marketing, creative and production disciplines, work with our affiliates and partners (UTV, STV, ITV Choice), be Web-based and, as ITV Creative is a vital link in the transmission chain, co-exist with our programme scheduling system, and talk to the team at Ericsson where we play out the UK channels.

"We needed a system that took the complexity and effort out of managing the operational process of handling hundreds of campaign management assets every month. To support our ambition to the best in-house creative agency, we needed a system that would handle broadcast, digital, social and off-air, all in one place."

Calling the system a "single source of truth" for all the marketing, media planning and creative teams, Scarff and his team spent 12 months to build and configure the system, before integrating it into a host of ITV applications and services used for channel scheduling, channel playout and archive.

For ITV's marketing teams, the priority is to have access to campaign data, and enter marketing briefs for specific campaigns. This has been achieved by integrating the campaign briefs into Google Apps, allowing users to create a shareable document with a single click. Using the system, the marketing team is able to view the finished campaign assets on the system's Promo Viewer, and give final approval before sending them onto ITV's broadcast playout centres.

As for the ITV creative teams tasked to spring up ideas for campaigns, the implementation of the system has enabled them to search for assets and build their own campaign dashboard, so that they can view the works they have been assigned to. Moreover, integration into the Avid production system enables movement of rough cuts and finished assets into the system for review, approval, and delivery to broadcast and digital channels.

ITV also benefited from the installation of the Cantemo Por-

> **BI and MAM systems ensure the right content is being distributed to the right platform, at the right time.**

tal, a solution designed to house a pool of videos, audio, still images and other forms of digital media. In a multi-tiered storage environment, Cantemo Portal provides search and playback of the content, wherever it is stored. Additionally, the solution can be integrated with third-party tools such as non-linear editing (NLE) systems, transcoders, distribution engines and archive solutions.

"Having content that is easily discoverable and can be distributed onto multiple platforms in a timely manner ultimately allow media companies to satisfy consumer demand, compete in an increasingly competitive landscape and monetise their content," Azimi says. "These systems should be future-proof, and the best way to achieve that is to install a modular system where different features and integrations can be added or removed accordingly to needs."

BI and MAM systems ensure the right content is being distributed to the right platform, at the right time. And the descriptive metadata and timing metadata enable automated workflows, which is necessary for both distributed playout and personalised video content channels, Roger Franklin, CEO for Crystal, points out.

He explains: "Well-decorated content that has descriptive metadata and timing metadata has a much longer lifecycle, because the key segments of that content can be replayed to the right viewer, at the right time and place.

"The descriptive metadata, including distribution rights, should be available from the MAM systems, but the timing metadata can only be extracted from the playout system for content that

is 'aired' live on traditional TV channels. However, many MAM systems today are not populated with as much descriptive metadata as media companies need them to be."

As for BI systems, he adds that the solution will have to capture as much information about the viewer as possible, and the data might have to be shared with distribution partners.

Franklin continues: "When combined, media companies can ensure that content be properly personalised and monetised by distributing it accordingly to the correct platform in a timely manner. Especially for over-the-top (OTT) services, it is also important to be able to include right advertisements, depending on the viewers, the distribution rights, and the content.

"Having automated systems in place to replace ads or dynamically adjust geographical overlays at precisely the right time, and for the correct duration, is absolutely critical."

For Asia-Pacific, he says that it is a fragmented market with a mobile population made up of many different cultures, customs and languages. Language and preference can no longer be defined by country borders, bringing forth the effectiveness of content personalisation, he adds.

Stressing that metadata is often overlooked by media companies across the globe, including Asia, Franklin highlights that the value of metadata to OTT is "undeniable". He explains: "For content owners looking to compete in the OTT market, an ability to reduce cost, shorten time-to-market, and unleash the potential for rev-

enue by developing personalised advertisement and personalised content, is of irrefutable value."

Cantemo's Azimi agrees with Franklin's point on metadata, and elaborates: "Metadata is crucial for media provision and management. Most providers are using it to some degree to keep track on media files and enable automated workflows based on specific metadata."

iconik is Cantemo's media aggregation platform that uses AI to extract metadata based on the specific content within the media asset. With iconik, users are able to tag video and images based on their content while reviewing suggested tags and requesting approval on items.

"This is an area that has the potential to be a game-changer for media management," Azimi claims. "Providers need to reduce man hours on managing content, as this enables them to make the process of producing, editing and distributing content much quicker. This could make all the difference when it comes to attracting viewers."

For MediaGeniX, the company's flagship product is WHATS'ON, a broadcast management software platform that is designed to manage the flow of the content lifecycle. To allow media companies to better target content to their audiences, MediaGeniX has integrated modules that addresses: Linear scheduling, video-on-demand (VoD) scheduling, rights and finance management, material management, promotional and interstitials — compliance and regulations, workflow automation, as well as reporting.

Describing the content-centric solution as the backbone for

media operations, Johan Vanmarcke, managing director, Asia, MediaGeniX, highlights that WHATS'ON manages the flow of content as it moves from initial concept in the long-term plan to fully prepared and formatted material — complete with promos and secondary events — allocated to diverse linear channels and VoD services.

And as the media and entertainment industry becomes more complex with the rise of more distribution platforms across broadcast, broadband streaming, VoD and mobile, and as content can be scheduled and distributed regionally and globally across several platforms, media companies then have to manage more workflows. These include risk and compliance, contracts and rights management, as well as media material requirements, says Vanmarcke.

He concludes: "Media companies differentiate themselves by providing content that their consumers want to consume. To do this, they must have a better understanding of their customer, and develop a customer profile resulting in improved personalisation of content creation and delivery.

"To manage this complexity from a business operation's point of view, and having all departments working together, this is where WHATS'ON comes in. WHATS'ON streamlines, automates and optimises the core business processes of media companies. Through the process, WHATS'ON ensures operators stay within budgets, deliver quality media, reach their editorial targets, and comply with regulatory requirements." **APB**

> ❝Well-decorated content that has descriptive metadata and timing metadata has a much longer lifecycle, because the key segments of that content can be replayed to the right viewer, at the right time and place.❞
>
> **— Roger Franklin, CEO, Crystal**

AI set to transform content owners' understanding of their digital media assets

BY KEITH LISSAK

Thanks to the unprecedented demand for content across a variety of platforms, media organisations today are building immense — and continually expanding — libraries of content. Countless interns working day and night could not possibly tag or catalogue all of this material, so it has not been possible for media organisations to extract metadata from every digital asset within their libraries. Consequently, much of the content they own and store remains unknown, invisible and effectively unavailable for re-monetisation.

With the embrace of artificial intelligence (AI) by the media and entertainment industry, however, valuable content is no longer consigned to anonymity within the depths of massive digital media libraries. Utilising cognitive engines that perform processes such as transcription, face recognition, object recognition, sentiment identification, translation and geolocation, AI enables fast, automated examination of files and near-real-time extraction of minute details that

Will 2018 see a growing adoption of AI by the media and entertainment industry?

PHOTO CREDIT: ISTOCK BY GETTY IMAGES

previously were unobtainable.

In applying cognitive engines to a digital media library, media organisations can automatically generate the metadata essential to creating more customised video-on-demand (VoD) offerings, providing more useful return on investment (ROI) data to sponsors, and quickly finding and accessing the timely or relevant content that is key to creating compelling programming.

With a new level of insight into the character of all stored content, media organisations and content creators have greater choice and creative freedom in building a narrative, recounting a history or documenting an event. In some cases, this simply means tracking down needed B-roll footage already stored within the library, rather than spending time and money to shoot specific scenes all over again.

In other instances, the metadata extracted by cognitive engines can help creatives find video and audio related to a particular person or event. Such content can make for much more engaging — and more competitive — sports packages, news programming and entertainment shows.

In producing sports events, the team can easily gather a wealth of content connected with specific competitions, leagues, teams and athletes, and then compile it to offer a unique perspective on a current event or broadcast.

In reporting and production for news and public affairs programmes, the data generated by cognitive engines can support searches of speeches and other public comments — not only by keywords but also by faces and objects — to reveal candidates' and politicians' positions on important issues or to track the issues themselves.

For entertainment programmes, these same capabilities can allow producers to perform highly specific searches: every mention of a popular musician, every segment

in which a famous actor arches an eyebrow, or every utterance of a particular word or phrase. The possibilities enabled by AI processing and metadata extraction are limitless.

When first introduced to the media and entertainment industry, AI was available only as a cloud-based processing tool. Going into 2018, though, media organisations have access to a growing array of engines both on the ground and in the cloud.

The ability to process large volumes of content stored on-premise allows a content owner not only to eliminate the cost and hassle of transferring media files to the cloud, but also to realise some peace of mind in knowing that digital assets will remain behind the organisation's own firewall.

The convenience and security of this model and the incredible insights it yields are sure to drive the industry's growing adoption of AI in 2018.

Keith Lissak is senior director, media and entertainment solutions marketing at Quantum.

Grass Valley promotes David Cohen

Industry veteran David Cohen has moved up to become Grass Valley's new vice-president of marketing. Previously in charge of product marketing and related activities as senior director of market development at Grass Valley, Cohen's new role includes responsibility for marketing communications and product marketing.

Describing the changes that have taken place over the 14 years he has spent in the broadcast and media industries as "dramatic", Cohen told APB: "My time in the industry began when the transition to digital in the US was taking place and the questions about when the

David Cohen, vice-president of marketing, Grass Valley: "Broadcast today is nothing like it was just 10 years ago and the rate of change only seems to be increasing."

industry would move to HD were just beginning.

"Technology advancements have been a regular thing, but the influx of new players in the content distribution world caused even more disruption. Broadcast today is nothing like it was just 10 years ago and the rate of change only seems to be increasing."

As to how he intends to move Grass Valley into an era where viewing habits continue to evolve and key technology transitions start to take place, Cohen elaborated: "The market and our customers' shifting needs help determine our direction. Our goal is simply to help our customers create, control and connect content no matter the method that's being used to consume that content."

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Magna Systems and BFE team up in Asia-Pacific

Systems integrators Magna Systems and BFE have announced a new Asia-Pacific partnership, which will see the former promote, sell and support the latter's broadcast control and monitoring systems in Australia, Indonesia, New Zealand and Singapore.

Magna will also be responsible for sales activities, as well as pre-configuration, commissioning, installation and integration of all BFE solutions.

Matthew Clemesha, group CEO of Magna Systems, told APB: "Magna Systems and Engineering is delighted to partner with BFE in Australia, New Zealand, Singapore and Indonesia as this brings Magna an exciting new product set in the BFE KSC product line.

"This in turn will bring opportunities to our customers throughout these regions when it comes to purchasing broadcast control and monitoring systems — by offering another seriously good alternative to the current players in this market."

He reiterated that Magna will handle all aspects of what is needed to sell, promote, commission, install and integrate the KSC product line, and provide the right professional support level needed

to bring confidence to customers looking to purchase the BFE KSC product line.

Echoing Clemesha's enthusiasm for the new partnership is Berend Blokzijl, senior sales manager at BFE, who said: "Magna is a very reputable company in APAC and has strong ties with regional broadcasters. It prides itself not only in delivering broadcast products and solutions, but also in taking care of local implementation and support.

"We are delighted to extend our partner network for BFE in the APAC region with such a well-known company as Magna Systems and Engineering."

The new partnership will also allow Magna to better address

Matthew Clemesha, group CEO, Magna Systems and Engineering: "We are looking forward to a long-standing relationship with BFE and

also look forward to working with them to promote and sell the KSC product line across the Asia-Pacific region."

Patrick So, regional manager, Asia-Pacific, Magna Systems and Engineering: Broadcasters are urged to keep an eye on technologies in the

compression space, as when "new compression techniques and algorithms such as HEVC and H.265 become the norm, this will in turn bring down over-the-top and content delivery network costs."

the needs of broadcasters in 2018, as Patrick So, regional manager, Asia-Pacific, Magna Systems and Engineering, explained: "Broadcasters are looking to streamline their workflows and reduce head count, and having a central control system such as BFE allows this to be possible. They are able to change the backend systems but keep the same user interface, and BFE solutions also allow them to integrate with different hardware and software providers to create an agnostic control system."

So also urged broadcasters to keep an eye on technologies in the compression space. "As new compression techniques and algorithms such as HEVC and H.265 become the norm, this will in turn bring down over-the-top (OTT) and content delivery network (CDN) costs," he concluded.

Break down silos to drive revenue

During the Jakarta stop of Ooyala's Media Logistics Forum last October , Bea Alonso, business development director for Media Logistics in Asia-Pacific, Ooyala, presented how the company is able to help media companies to enhance operational efficiencies and production workflows.

In an attempt to resolve issues media companies are facing in today's competitive media landscape, Ooyala has organised the Media Logistics Forum. The event's objective is to bring together media executives in an open dialogue to discuss industry trends that are impacting broadcast operations, production workflow bottlenecks and the strategies to address them.

Last year, the Media Logistics Forum toured across several regions, from Australia to the US and Europe, as well as Asia. During a Jakarta stop last October, the majority of Indonesian media executives interviewed for an Ooyala poll agreed that their media operations were "moderately efficient", and have potential for improvement.

Over half of the respondents come from companies offering video-on-demand (VoD) and/or are involved in production and linear TV broadcasting. In enhancing efficiency, the respondents indicated that improvements in workflow management (23%), integration of different business functions with media operations (18%), and better connection of operational silos (16%) will be key.

Bea Alonso, business development director for Media Logistics in Asia-Pacific, Ooyala, told *APB*: "Today, media executives are overwhelmed by the explosion of media devices, channels and content. Among the business priorities identified by forum respondents, the top two were: increase revenue and, increase market and audience share.

"To achieve these goals, media executives understand the need to increase efficiency in operations. This is of utmost importance, and hence is a key concern for the majority of the attendees. Specific to Asian audiences, the need to break down silos and improve workflows was an area of focus."

The Jakarta event was joined by Media Prima Digital, the digital marketing and technology arm within the Malaysia-based Media Prima Group. Media Prima Digital has launched 'tonton', a VoD service, which houses a library of content for viewers in Malaysia, and has started to expand its footprint in the region with launches in Singapore and Brunei.

Powered by Ooyala, the tonton service offers different monetisation options and audience analytics, to help drive revenue while expanding audience reach. Additionally, Media Prima Digital has also adopted Ooyala Flex, a media logistics platform, for enhanced metadata processing — including import of programme and schedule information from their broadcast systems — and exclusive content curation.

Mohamad Rezwan Khalil Azmi, general manager for IT infrastructure and digital media platform, Media Prima, concluded: "The partnership with Ooyala has helped Media Prima Digital make strategic decisions about content, advertising and our overall business. As we expand our tonton business in the region, time to market and operational efficiency are key to our success in driving revenue."

Royal Academy of Music uses KVM to manage live A/V recordings

Located in the heart of London, the Royal Academy of Music has been harnessing the most talented musicians around the world since 1822.

To better train its nearly 850 current students from over 50 countries in more than 20 musical disciplines, the academy recently embarked on a long-term programme to upgrade and update its buildings and technical facilities. The ongoing work centres on the construction of a new theatre and recital hall, as well as re-locating and re-designing the associated control rooms.

What proved to be a "fundamental challenge" was transmitting live audio and video signals between buildings over distances in excess of several hundred metres. Thus, the academy sought to facilitate a more efficient and comfortable centralised environment in which producers can manage the wide variety of recordings and live productions undertaken each year.

To meet this objective, the academy identified IHSE's keyboard, video and mouse (KVM) extenders as the most appropriate devices to remotely manage a wide range of audio and video switchers and servers located in the central equipment room. The addition of a Draco tera compact KVM switch provides the added benefit of extending operations to locations beyond the main control room.

Direct connection is achieved

The Royal Academy of Music identified IHSE's KVM extenders as the most appropriate devices to remotely manage a wide range of audio and video switchers and servers located in its central equipment room.

between the Draco tera switch and the CON devices spread throughout the building over Cat 5 cabling on the shorter links within the main building, and single mode fibre on the longer runs between buildings.

All types of media format are handled, including VGA, DVI and HDMI video and analogue, as well as digital and networked audio streams.

David Gleeson, head of recording at the Royal Academy of Music, concluded: "We need to accurately manage sound and picture at the very highest levels of quality so that producers and editors can create the best possible material for live transmission and recordings.

"IHSE KVM extenders allow us to meet that challenge by providing instant excess to centralised production, editing and recording tools from several locations around the facilities, making it an efficient and straightforward process."

For Kaleidescape, content security starts with NexGuard

Kaleidescape, a manufacturer of home theatre movie players and servers, has integrated NexGuard's watermarking solution into its movie players.

This provides protection for content including early release and 4K/Ultra HD (UHD) movies that offer high dynamic range (HDR) and lossless multi-channel audio support. According to Kaleidescape, NexGuard's content protection technology is essential for the highest fidelity movies and equally important for titles which are still playing in local theatres and offered as premium rentals for home entertainment.

Cheena Srinivasan, founder and CEO of Kaleidescape, elaborated: "Kaleidescape's Movie Store relies on strong relationships as we continue to establish with the world's leading content owners for the highest quality, finest films and TV programming offered to subscribers.

"Content protection, copy protection and anti-piracy measures that we implement set the highest bars for premium content. With increasing customer appetite for theatrical content at a premium price, it is important to offer a higher degree of assurance to content owners. NexGuard provides exactly what the content owners are seeking to deter piracy at its source, and to continue to grow our high-quality movie service offerings."

Kaleidescape, a manufacturer of home theatre movie players and servers, has integrated NexGuard's watermarking solution into its movie players.
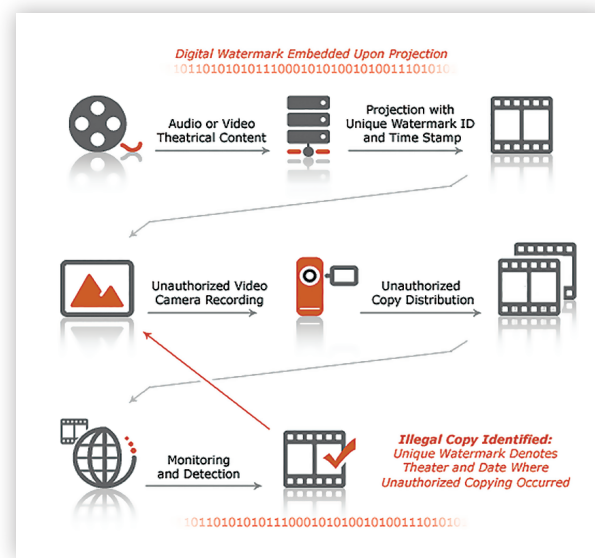
GatesAir bolsters executive team

GatesAir has appointed John Belza as chief financial officer (CFO). Reporting to CEO Bruce Swail, Belza will oversee the finance function, and develop new processes and initiatives to drive operational efficiencies throughout the company. Also overseeing the human resources and information technology functions for GatesAir, Belza was most recently CFO at Lombart Instrument, a private equity-held medical equipment distribution company.

ABOX42's smart STB platform helps launch multi-screen IPTV service

1&1, a Tier 1 Internet and telephone service provider in Germany, has launched a multi-screen IPTB service powered by ABOX42's M30-series smart set-top box (STB) platform. ABOX42's STB platform is pre-integrated with the multi-screen TV solution from Zattoo, which allows 1&1 subscribers to view TV content on the main TV screen, as well as on secondary devices such as tablets, smartphones, streaming devices and PCs. The M30 ensures "efficient streaming" of HD broadcast and on-demand content using MPEG-DASH playout for live TV with multi-audio and teletext, local and cloud recording/time-shift, as well as multi-DRM support.

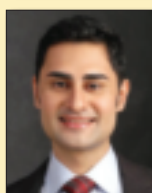### Next Month @ Distribution
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Cellular-based transmission: More flexibility in live remote productions

As 3G, 4G and, to a lesser extent, 5G networks become more prevalent around the world, cellular-based transmission is providing an increasingly viable option to traditional satellite broadcast vehicles, as **Shawn Liew** discovers.

Bon Om Touk, or the Cambodian Water Festival, is an annual festival celebrated fervently by Cambodians from all walks of live, and characterised by boat racing along the Sisowath Quay in Phnom Penh.

To capture the vibrancy of last year's *Bon Om Touk*, held in November, Cambodia's National Television of Kampuchea (TVK) deployed LiveU's LU600 HEVC/H.265 solution, a portable transmission unit designed for global newsgathering, as well as live sports and events coverage.

Khim Vuthy, director general of TVK, explains: "We were really impressed by the LU600's video performance, as well as the bandwidth efficiency it provides. We were getting bandwidth at around 10Mbps, and even when we capped the bandwidth at 5Mbps, the video quality stayed the same."

For its coverage of past editions of *Bon Om Touk*, TVK used satellite outside broadcast (OB) vans, which restricted mobility, according to Vuthy. "With LiveU's cellular bonding technology, we had no such limitations and were free to go live wherever we wanted, including on boats to cover the races and from the top of a building when the King arrived.

"We are now planning to use multiple LiveU units for our daily newsgathering and event coverage," he continues.

According to LiveU, the LU600 delivers the "highest video quality and bitrate in the market (up to 20Mbps), and is set to offer the fastest file transfer (60Mbps), lowest delay and 100Mbps high-speed Internet connection." Field-upgradable to HEVC/H.265, the LU600 is also tailored

Cambodia's National Television of Kampuchea (TVK) deployed LiveU's LU600 HEVC/H.265 transmission unit to capture the vibrancy of Bon Om Touk, or the Cambodian Water Festival.

to the needs of mobile journalists with the offer of a new streamlined user interface that comes with an "ultra-responsive" five-inch capacitive touchscreen.

Does the TVK's usage of the LU600, also represent a clear shift towards cellular bonded solutions in the field, *APB* asks Ronen Artman, VP of marketing, LiveU. "It's true that in remote areas or harsh conditions, hybrid solutions provide broadcasters with a cost-effective and versatile replacement to traditional satellite trucks," he replies. "However, in areas with strong 3G, 4G and slowly emerging 5G networks, 4K HEVC/H.265 cellular bonding solutions are providing

> ❝In areas with strong 3G, 4G and slowly emerging 5G networks, 4K HEVC/H.265 cellular bonding solutions are providing an extremely high-quality, reliable and cost-effective solution for live video acquisition and production.❞
>
> **— Ronen Artman, VP of Marketing, LiveU**

The BBC and Sky are examples of broadcasters who have used Mobile Viewpoint solutions to cover live events in the field.

> 66Cellular-based transmission provides big cost-savings, and also delivers a far more flexible way of working and unleasing new formats.99
>
> — Michel Bais,
> CEO, Mobile Viewpoint

an extremely high-quality, reliable and cost-effective solution for live video acquisition and production."

To further bolster the transition to cellular bonding, a report released by LiveU last December found that data traffic for live video over IP has doubled over the past two years. LiveU alone delivered around 1.5 million live broadcasting hours in 2017. HD 720/1080 video traffic accounted for almost 80% of all traffic delivered in 2017, with an increase of over 120% in live HD sessions compared to 2016.

Perhaps more importantly, LiveU reported that 79% of all bonded video is now delivered over cellular networks only — wired Internet connection, Wi-Fi and satellite accounted for the remaining share. The worldwide average uplink speed for video acquisition has reached 4.5Mbps, with developed areas experiencing approximately 9Mps on average.

Specifically, Africa has seen a move away from satellite to cellular bonding, with cellular often replacing satellite in countries such as Ghana, Kenya and South Africa. This, according to LiveU, can be explained by the strength of the region's 4G networks and the lower costs offered by cellular, while some broadcasters are also creating multi-camera productions using cellular transmission units.

Artman adds: "The LiveU report reflects the transition away from traditional transmission methods to cellular bonding, which is gaining ever greater traction with 4K HEVC solutions.

"With the growth in live IP video traffic, this shift will become even more apparent. Bringing higher quality with even greater reliability to the market, HEVC/H.265 enhances the use of cellular technology across multiple genres, such as live sports."

Arguably, one broadcast terminology that is increasingly becoming synonymous with cellular-based transmission is remote production. While remote live production previously required an OB van and a crew to create a talk show, press conference or any remote production, this is changing, notes Michel Bais, CEO of Mobile Viewpoint. "With the introduction of our WMT products, two to four video feeds can be transported back to the studio with minimal equipment, where a director can decide which feed to use," he describes. "Being able to easily transmit several feeds to a central studio location makes it much easier for a producer or director to carry out multiple productions in a single session, which saves time and money, and which otherwise would have been spent on having personnel out on location."

Mobile Viewpoint's Multicam portfolio, for example, enables broadcasters to transmit four separate video streams from a remote location, and also features four intercom and and tally channels to enable full four-camera registration.

Making the case for cellular-based transmission, Bais says: "It enables the production of live video via mobile. It allows people to broadcast from places such as trains or cars. Cellular-based transmission provides big cost savings, and also delivers a far more flexible way of working and unleasing new formats.

"Products such as Mobile Viewpoint's WMT range makes it possible to go live from aywhere, with no need for cables or satellite connections, at just 10% of the original cost."

Going beyond live video transmitted over mobile networks, Bais also predicts proxy editing through mobile to be the "next big thing". Some, he notes, are calling this the 'connected camera', in the sense that editing can begin from the central storage by using low-resolution clips that are transferred from the camera over bonded cellular.

Proxy editing, Bais believes, will result in a much faster turnaround, enabling producers to create the final product on location.

"Also, by using a bonded cellular unit, the high-res clips can be downloaded after they are created, and can be used to go live instantly on social media platforms, for example, when the edited version is saved for the evening news or a talk show." APB

Pilgrim Media uses the EnGo to catch *The Runner*

It was more than 15 years ago that Matt Damon and Ben Affleck came up with the idea of *The Runner*, but it took until 2016 for technology to be available to make the multi-platform idea work for a mainstream entertainment audience.

The idea behind *The Runner* is that a 'runner' has 30 days to make it across America, while the entire country attempts to solve clues that help their favourite 'chasers' — who are constantly in pursuit — go after thousands of dollars in prize money. If the runner is caught, then a new runner takes over from that point.

Because *The Runner*'s game play and audience engagement depended on coverage of the action in real time, nobody could really know in advance where the action or the story would go. The key challenge was to figure out how to quickly move high-quality content back to the studio for editing and provide live feeds from constantly changing locations.

Pilgrim Media Group worked closely with the project's technical consultant, Jerry Kamen, to develop the infrastructure and workflow necessary for a project like *The Runner*. It was then that Pilgrim Media Group approached Dejero about using the latter's technology for the groundbreaking reality competition series.

Pilgrim Media Group (formerly Pilgrim Studios) is a leading independent reality-TV production company based in North Hollywood, California, USA, and who specialises in quality non-fiction cable programming. Some of its most popular shows include *Ghost Hunters* (SyFy), *Wicked Tuna* (National Geographic Channel), *The Ultimate Fighter* (Fox Sports 1), and *Fast N' Loud* (Discovery).

Pilgrim has also entered the emerging digital video and video-on-demand (VoD) space with shows like *The Runner* (Go90) and *Zane's World* (FB/YT).

For *The Runner*, the Pilgrim production team used nine Dejero EnGo mobile transmitters to encode and transmit all live and recorded video back to Pilgrim Media Group's Los Angeles studios for daily editing. Small enough to be wearable or mounted on the camera, the form factor and the fact that it was battery-powered made the EnGo ideal for this highly

Dejero's EnGo mobile transmitters were used to capture *The Runner*, a reality TV series conceptualised by Matt Damon and Ben Affleck

mobile shoot, said Pilgrim.

When a traditional camera would risk drawing attention to the runner — making it too easy for the chasers — producers used the Dejero Mobile App whenever discreet shooting was required to create and share video content from their phones.

As it was impossible to predict the moment when a runner would be captured, using the app often proved easier and more efficient than setting up a camera. This meant content delivered by the Dejero Mobile App was frequently featured in *The Runner*'s unscheduled "Breaking News" segments.

Dejero's patented network blending technology created a virtual network that dynamically and intelligently managed the routing of packets to minimise the effects of fluctuating bandwidth, packet loss, and latency differences of individual cellular connections. The blended network provided the necessary bandwidth to quickly transfer Pilgrim's content back to the studio for editing.

On location, the field crews composed of a team of camera operators and a manager. They used a combination of Dejero EnGo mobile transmitters and Mobile Apps on their phones to capture footage of the runner and the chase teams. Once their USB flash memory drives were full, they connected them directly to the EnGo.

Using Dejero's network blending technology, the files on the USB drives or captured on the phones were transported to the Dejero Broadcast Server over multiple cellular connections. Back at the studios in LA, editors set up watch folders to get alerts for when a new file was added. From there, the editors either edited the content or sent it directly to air.

Jerry Kaman, broadcast engineering consultants, Pilgrim Media Group, commented: "The ability to get our footage to the studio rapidly was vital in order to meet our deadlines for the three daily live shows. Dejero's blended network technology was the only realistic tool for producing *The Runner*, as the teams began in one city and ended in another every single day. I'm delighted with Dejero's technology, which has performed extremely well, and the support has been outstanding."

The Runner, added Dejero, is an excellent example of how Dejero's technology can be used for so much more than the live transmission of video. On average, the Pilgrim production teams were able to transmit nearly 100GB of content per day, in addition to another two hours of live video, resulting in 75 episodes over 30 days.

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Ross Video grows SDP ecosystem

Ross Video has launched the latest addition to its software-defined production (SDP) ecosystem at CABSAT 2018. According to Ross Video, SDP is a new and growing family of products based on the view that broadcasters should be free to choose the transport that is most appropriate for their project. SDP is designed to deliver adaptability, scalability and agility to broadcasters by moving away from single-function devices, which mostly sit idle, towards a pool of flexible resources that are able to meet production needs on-demand.

BeckTV builds IP-centric production facility

Systems integrator BeckTV has completed work on the University of Notre Dame's state-of-the-art production facility. Known as the Rex and Alice A.Martin Media Centre, the facility is said to be one of a handful of live production media centres in the world to boast an all-IP routing infrastructure. The new facility includes one large studio, one teaching studio, two nine-position production control rooms, two audio control rooms, a camera shading room, a slow-motion replay room and eight fibre-connected editing suites.

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TV Everywhere for today's disparate viewers

As the shift away from linear TV viewing continues unabated, TV operators need to ensure that their content reaches their audiences anywhere and everywhere. **Shawn Liew** reports.

If someone were to invent a currency today for the media entertainment industry, it might as well be embossed with the logos of Google, YouTube, Facebook and Amazon.

Barron, an US weekly financial magazine, recently predicted that by 2020, Google and YouTube parent Alphabet, Facebook and Amazon could have a combined US$100 billion in free cashflow. Comparatively, broadcasters ABC, CBS, NBC and Fox combine for a relatively meagre $30 million.

At a time when video streaming services are ramping up their original content production, this is a significant development, without even going into potentially *the* defining game changer —

> ❝Having spent a lot of money on content rights, content distributors still need to make sure they are able to deliver it without buffering, delays or glitches, and while operating within manageable costs.❞
>
> — **Richard Brandon, CMO, Edgeware**

To combat piracy in a TV Everywhere environment, Edgeware offers a forensic watermarking solution that integrates ContentAmor's technology into Edgeware's TV CDN platform.

sports content rights.

When, and not *if*, traditional broadcasters and pay-TV operators begin to lose their monopoly on sports rights, a new era of TV Everywhere may well emerge; only this time, the TV set potentially has a diminished role to play.

How, then, can traditional operators prepare themselves for a new era of TV Everywhere? The idea behind TV Everywhere is three-fold, suggests Richard Brandon, CMO of Edgeware.

He tells *APB*: "It is about giving consumers the ability to watch programming at any time, in any place and on any device. Wide availability has changed viewers' expectations and they now expect unlimited access to the best quality content."

As for what will be key components in creating a successful TV Everywhere strategy, Brandon identifies three: How good your programming is; how well you deliver it; and whether you can do it cost-effectively. "Having spent a lot of money on content rights, content distributors still need to make sure they are able to deliver it without buffering, delays or glitches, and while operating within manageable costs."

For the best results, deploy a content delivery network (CDN) that is designed to specifically deliver TV programming. Compared to a generic CDN-as-a-service, the former can "hugely improve" content distributors' overall TV Everywhere offering.

Brandon explains: "A TV CDN can be the 'difference maker' in delivering programming without buffering, delays or glitches, and also lets content distributors deploy additional functionalities such as forensic watermarking, personalised advertising, user analytics and edge repackaging.

"With a TV CDN, content distributors are in complete control of services from start to finish, so they can repackage programming at the end of the delivery process, rather than at the start."

For instance, when two users — one using a tablet and another using a computer — request the same programme, it only needs to be delivered to the edge once, where the programme can be repackaged specifically for the end-user's device. Because only one version of each programme needs to be delivered, content distributors can operate more cost-effectively by saving on the deployment of resources and storage space.

The concept of TV Everywhere, by definition, contains an element of variability, offers Stein Erik Sørhaug, VP of product strategy, Vimond.

While it can be used to describe an authenticated business model for over-the-top (OTT) services to multiple system operators (MSOs) and mobile network operators (MNOs) in the US, TV Everywhere also broadly defines a catch-all for multi-screen video services, says Sørhaug.

He continues: "On the authenticated play, the standard-'based' video pipeline must be top-notch. From the application of digital rights management (DRM) to pristine device-focused video formats, the TV Everywhere users expect a common and simple navigation to their favourite content.

"These include features such as seamless pause and resume playback across devices with TV-like video quality and performance, without stuttering and buffering."
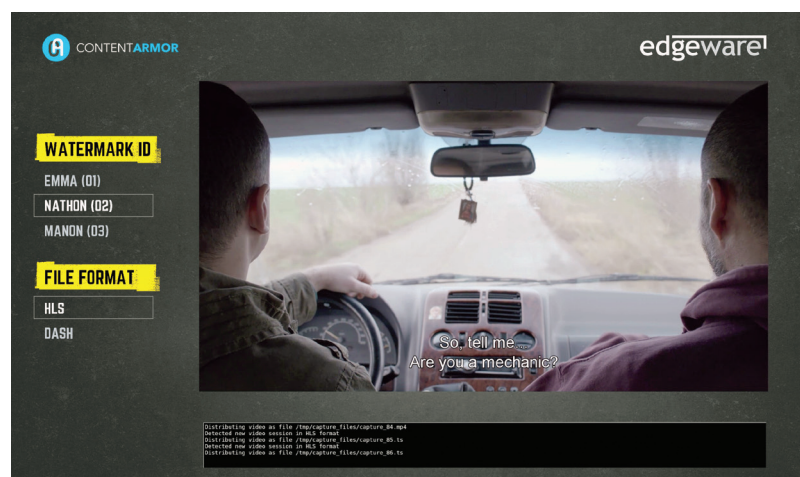
To encourage long-term usage, as well as return viewing and stickiness, Sørhaug recommends the easy discoverability of content, as well as the

personalised linear-like playback of either editorially curated, or algorithmically machine-recommended content.

A third application to TV Everywhere is standalone subscription video-on-demand (SVoD) services that are decoupled from an operator's billing system. "To support this model, you need to employ a complex and rule-rich product monetisation module," Sørhaug adds, while emphasising the Vimond provides an end-to-end suite of products to support every step in setting up and running a successful TV Everywhere ecosystem.

He describes: "Vimond's deep application programming interface (API) library and editorial tools enable front-ends with discoverability and usability in mind — with tools for real-time and dynamic content updates to keep the service fresh and relevant, keeping viewers coming back day after day to watch their favourite shows and movies."

And while cord-cutting is increasingly a worrisome trend as content consumption moves towards connected devices and screens, there is also a need to address the cord-nevers — people who have not had any pay-TV subscriptions to speak of — as Sørhaug points out.

For this segment of consum-

Vimond offers an end-to-end suite of products to support every step in setting up and running a successful TV Everywhere ecosystem, including Vimond IO, a cloud-based editing tool.

Stein Erik Sørhaug, VP of product strategy, Vimond: TV Everywhere offers the potential to better understand what viewers want through technologies such as AI. Content discovery, particularly, is an immediate application for AI.

ers, keeping content fresh and relevant is critical, alongside the offering of cost-effective and flexible subscriber plans. "For these paying customers, it is extremely important to apply functionality, as Vimond does, to reduce churn and reduce customer retention costs."

Because TV Everywhere involves the streaming of video content over the open Internet, there exist challenges and oppor-

tunities in equal measure. Where the former is concerned, piracy is an existential concern.

Content protection is indeed an increasingly important topic, highlights Edgeware's Brandon. "A few years ago, those wanting to pirate a movie would have to go into a cinema with a camera and produce copies of a video or DVD. Now, because so much content is delivered online, programming

is more exposed to the threat of piracy than it has ever been."

To combat this, Edgeware offers a forensic watermarking solution that integrates Content-Amor's technology into Edgeware's TV CDN platform. The solution, which was awarded the IABM Design and Innovation award at IBC 2017, is able to identify and manipulate several pixels within video streams and change them in a way that creates a specific code within the video itself.

"And again, because programming is delivered from the edge of the network, a distributor can add this watermark at the latest point, so each viewer has a unique code," says Brandon. "This is what makes it easy for us to help content distributors spot exactly who has stolen a particular video stream."

The transition to the online video domain, however, offers the golden opportunity to truly understand each consumer, and reinvigorate the discovery process by offering personalised content that will truly appeal to the target audience.

As sophisticated metadata continues to proliferate, artificial intelligence (AI) is likely to come to the fore this year. Vimond, for example, recently announced a technology and marketing partnership with video AI company Valossa. With the integration of

their respective products, the companies add content recognition capabilities to Vimond's platform, making it easier to search for contextually relevant images and video content.

Vimond's Sørhaug says: "While many AI solutions in the market have been waiting for a business plan, Vimond and partners like Valossa have found real-world applications for the now in AI."

One area AI has made great strides, he believes, is in video recognition and the automated creation of "deeply rich" metadata that can be searched in the cloud to open up vast content archives previously inaccessible. "This opens new opportunities for using historic video to rapidly create new materials and content." For example, if there is a celebrity death or a royal marriage, archive content can be accessed, and using Vimond's storytelling tools, new and deep content can be quickly created.

Content discovery, Sørhaug agrees, is also an immediate application for AI. "Using machine learning and intelligent understanding of human behaviour, you can now blend with editorially curated content from a human, a personalised linear viewing experience targeted exactly to your own interests beyond simple genre matches." APB

New CEO ready to scale new heights with Imagine Communications

Imagine Communications was born out of a desire to drive the broadcast and media industry towards IP, the cloud, virtualisation and software-defined networks. Where these transitions are concerned, how would you access where the industry is now, and what factors, if any, is holding back adoption?

Tom Cotney: After working through the *why* and the *when* issues surrounding the transition of their operations — even the mission-critical ones — to a new and more agile technology foundation over the past couple of years, media organisations are now clearly focusing on the business aspects behind the modernisation of their networks.

That IP, virtualisation and commercial-off-the-shelf (COTS) equipment are the future is indisputable. Entering 2018, media companies of all types — broadcasters, content owners and over-the-top (OTT) players — are focused on figuring out the most cost-effective and strategically viable way to transition operations to a virtualised, software-based setting. There is little, if any, hesitation related to the readiness of technology.

The standards are there and

Having worked with companies such as Apple and IBM, Tom Cotney has been named the new CEO of Imagine Communications. He succeeds Charlie Vogt, who is joining the Gores Group as a senior adviser to continue to drive M&A and business development activities at Imagine Communications. Speaking with *APB*, Cotney details how he intends to build on the legacy of Vogt to build a "bigger and stronger" Imagine Communications.

broadcast engineers are steadily acquiring the skillsets to design and maintain next-gen facilities.

Can you share with us some of the key strategic initiatives that you will be implementing to continue the work that Charlie Vogt and team have put in place over the past four years or so?

Cotney: I view the continuation of the work that Charlie has done at Imagine over the past few years as one of my top strategic objectives. The leadership transition at Imagine is purposely designed to be as seamless as possible and I will continue to work closely with Charlie, who is now focused full time on inorganic growth initiatives, to fully realise the vision that he and his team unveiled a few years ago.

We are 100% committed to the technology and product path, defined by IP, software-only and

cloud-native, that Imagine has been pursuing since 2014. I have worked for some of the most innovative companies in the world, including Apple and IBM, and I can state without hyperbole that Imagine is delivering some of the most innovative technologies I've ever been associated with.

For me, job number one is helping our clients move forward and keep pace with change, rather than falling behind. That includes making it easier for them to gracefully and cost-effectively transition their networks, without squandering existing investment or disrupting current operations.

Media companies are struggling with their own issues. In addition to evolving consumption preferences, many are dealing with ongoing M&A activities of their own. They don't want to work with suppliers who bring more drama into the equation. They want sup-

pliers who are big enough and strong enough that they will be around for years to come. The market does not want to buy from small suppliers with questionable longevity or from a fragmented marketplace. I am laser-focused on helping Imagine get scale and make it as easy as possible for our customers to buy our solutions and services.

What are some of the key trends and developments you expect to dominate in 2018, and how is Imagine Communications geared up to help your customers address the challenges ahead?

Cotney: As I have said before, we have a huge advantage in next-gen technology — from IP to microservices, then to more modular designs for our software systems. Now, we need to focus on execution. It's not enough to dominate

with the availability of a good technology. What I want to dominate is the issue of flexibility for the operators and financial stewards in the broadcast world.

As a technology provider, we can no longer rely on large orders that require hand-wringing and over-analysis by our clients. Their cost structures are under pressure. The burden is on me to innovate both commercially and technologically, so that we will emerge as a dominant player in terms of being a leading entity with which to partner.

That flexibility will also help us be dominant in the category of adding value to the top-line growth of our clients with ad management software that produces higher yields on static inventory and offers new sources of inventory to buyers.

Again, this theme of getting bigger and stronger comes into play. In the ad management portion of our business, we need to be ultra-selective about how we build on our strengths. We literally have 100% share in certain markets. In those markets, we need to grow by adding new products and services to that already-strong base. In other markets, we will focus on growing our geographic coverage.

OTT defining APAC pay-TV industry

BY STEPHANE LE DREAU

OTT and content delivery

In 2018, the APAC pay-TV industry will continue its pace towards implementing IP content delivery infrastructures, as consumers increasingly look for a seamless, easy-to-use TV experience that combines linear, over-the-top (OTT) and on-demand viewing across all screens.

Pay-TV operators will also focus on adopting advanced content protection methods in tandem with enhanced user experiences that offer personalised services to keep up with disruptive providers such as Netflix and Amazon.

Consumer appetite for accessing content anywhere, anytime will also continue to grow this year. To this end, we will increasingly see the take-up of industry-wide OTT services that boost content quality and delivery. And in the race to satisfy consumers' needs for content anytime and on any device, a growing number of pay-TV cable companies and telecom operators will invest in multifaceted IP-based delivery models, including OTT, IPTV or a mix of both.

Rise of content piracy

As content piracy takes a greater toll on the bottom lines of operators, content owners and providers, the threat will remain on pay-TV executives' agendas this year. With piracy evolving and increasingly making use of illicit IP-based live streaming through illegal hardware and software, we will see a push towards developing innovative technologies that can turn the tide against the pirates.

In an OTT-driven era, the recipe

> ❝Despite the emerging challenges, APAC's OTT market will continue to grow, with premium OTT emerging as the most popular option.❞

for success will lie in a strategy that combines both content and security to deliver richer consumer experiences.

Emergence of new OTT services

Furthermore, with OTT content now being delivered not just via set-top boxes but also games consoles, tablets, computers, smartphones and smart TVs, content owners will need to adopt multi-device holistic defence strategies to be at the vanguard in the fight against piracy.

But despite the emerging challenges, APAC's OTT market will continue to grow, with premium OTT emerging as the most popular option. And as these services gain traction worldwide, operators will work towards creating feature-rich experiences while achieving flexibility in managing content security.

Summary

As we look at the year ahead, it is clear that the APAC pay-TV industry faces plenty of challenges — from the ever-evolving threat of piracy to on-boarding IP-based delivery models. The operators who can overcome these challenges and achieve success will be those who are willing to innovate and adapt their service offerings and content strategies, paying close attention to the needs of their subscribers and the on-demand, OTT-driven landscape.

Stephane Le Dreau is SVP and regional GM, APAC, Nagra.

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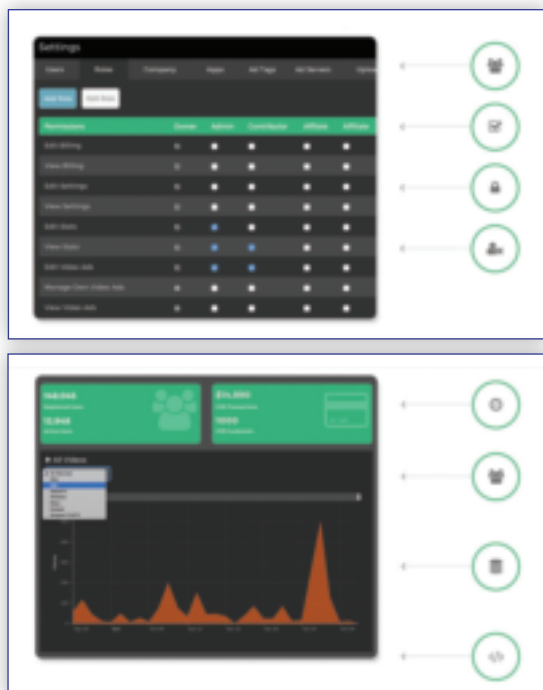
dotstudioPRO helps brands expand OTT reach

dotstudioPRO, an online video platform that delivers streaming video to multi-platforms, is expanding beyond being a service provider to focus on strategic monetisation initiatives for streaming video.

According to the company, the combination of its core strength in content delivery with audience management allows its customers to expand their reach on over-the-top (OTT) and devices through distribution and syndication by using an OTT video network.

Citing Juniper Research, who forecasted OTT revenues to reach US$120 mil-

dotstudioPRO offers a hybrid OTT model designed to empower owned-and-operated platforms to choose their revenue model, maintain ownership of viewer engagement, and provide the flexibility to self-manage and syndicate their own content.

lion by 2020, dotstudioPRO also believes that there is a "significant opportunity" for content owners to capitalise on this growth. The company offers a hybrid model designed to empower owned-and-operated platforms to choose their revenue model, maintain ownership of viewer engagement, and provide the flexibility to self-manage and syndicate their own content.

Joe Pascual, CEO of dotstudioPRO, said: "OTT streaming has exploded in recent years. In order to remain competitive and relevant, players really need to understand how the technology can be used to leverage audience behaviour.

"dotstudioPRO is ideally positioned to become a one-stop-shop distribution network across branded OTT and other established syndication platforms such as PlutoTV, ReachMe TV, SlingTV, Xumo and Roku Live, extending audience reach to millions of viewers."

In addition to serving its enterprise brands with its OTT platform services, dotstudioPRO's new OTT Network will also be available to new and existing customers, and will be based on a revenue-partnership model.

Pascual concluded: "For content owners who publish content to their site, app or channel, the dotstudioPRO team will work to syndicate to publishers who are looking for content to distribute to audiences. As a non-exclusive, dotstudioPRO can customise a distribution blueprint based on a business model to help its partners maximise their potential opportunity and reach."

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