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HEADING TO THE CLOUD IN 2022

BY ANDY STOUT

Greater adoption of remote production will in turn accelerate the shift of live workflows to the cloud, according to an IBC Digital panel tasked with examining the broadcast and media tech trends that will define 2022.

Unsurprisingly, having been accelerated by Covid, remote production figured strongly in the discussion among the technology leaders.

As Gordon Castle, SVP for technology and operations in EMEA for Discovery, pointed out, cloud already plays a limited role, with cloud-based contribution used as backups to big events.

"What's going to happen next is that we're going to move big media processing, vision mixers, communication systems and audio systems all into the cloud," he said.

"You can do all these things in the cloud today but not at the full scale you need for a big live production," said Castle, stating that there are two key hurdles. One is handling the sheer complexity of a large-scale live event with multiple inputs, replays and complex audio mixing. The other is latency.

"This is why contribution in the cloud is so important. Once the contribution is in the cloud, you're not adding latency. The first access you have is to audio and video and then you can process it directly in the cloud and distribute it on. That's really the enabler."

Hurdles still remain to a native cloud contribution workflow, especially when it comes to the crucial first-mile resiliency which is currently handled by multiple redundant paths. But the momentum in the industry to solve these problems is strong.

Caretta Research's Rob Ambrose (top, left) with Gordon Castle, Mike Davies and Anna Lockwood

"There's not a broadcast or an event that we do that doesn't have some cloud component or cloud element, and I think that will absolutely continue to grow in the future," agreed Anna Lockwood, head of international at Telstra Broadcast Services. Meanwhile Mike Davies, SVP at Fox Sports, said that the network is doing 80% of its college football and 90% of its college basketball remotely.

"I would never have thought that was possible, and the other component that I think the cloud potentially will help with is some of the ancillary assistance technologies that will aid us in producing live programming," he said.

He also, though, sounded a note of caution about the prospects of achieving 100% cloud workflows. "I think that last 10% of development that's needed for cloud to be used in live is going to take a little while. Live sports or live production is the torture test for all of these kinds of technologies, and I think that is going to be a steep climb."

Watch the session on-demand on IBC Digital

IBC Digital in 2022

More than 100 companies have taken part in IBC's Accelerator Media Innovation Programme this year, with 40 of those organisations involved in three projects focused on 5G.

Two of the Accelerators – 5G Location-Based eXtended Reality and 5G & Innovation in Live Workflows – were presented during sessions on IBC Digital last week and are now available on demand. The third, titled 5G for Remote Production in Live Sports, will be presented in January.

Ahead of two major global sporting events in 2022 – the FIFA World Cup in Qatar and the Winter Olympics in Beijing – this project, led by Al Jazeera Media Networks, has been putting current 5G capabilities for live sports content production to the test. This includes the development of fan engagement experiences, new contribution technologies and assessing new live remote production workflow architectures at the FIFA Arab Cup which recently took place in Doha, Qatar.

Al Jazeera Media Networks executive director of technology and network operations Ahmed Alfahad said: "We were particularly keen to unlock exciting new immersive experiences for fans as well as new creative production techniques for sports, news and events broadcasters. Working collaboratively with such a team of world-leading sports broadcasters, mobile networks and specialist production technology vendors to trial use cases at the FIFA Arab Cup this month, our learnings have been extensive, and we look forward to sharing some of the insights with IBC's global audience of industry professionals."

INSIDE

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From remote production to robotic viewing

OBS said "massive cloud adoption" supported production of this year's Olympic Games

In the many years that the IBC Daily has been published, this must surely be the latest that an edition has been issued. The reason for this late December distribution is to allow us to roundup some of the sessions and presentations that have been published on IBC Digital over the past few weeks, but it also provides us with an opportunity to look back on the year.

With the pandemic continuing to curtail many of our lives, remote production in its various guises features heavily in most end-of-year discussions, particularly for anyone involved in sport and live production. And one of the common features of any conversation about the impact of Covid and the adoption of remote production is the acceleration in the pace of change; as Inga Ruehl, executive director, Production Services and Operations, Sky Sports, explains on page 18: "Covid fast-tracked [projects] that we had started or were working on… We did things in six months that we had planned to do in two or three years". It's a point echoed by NEP Group chief executive Brian Sullivan, who on page 16 says "the amount of innovation that's happened over the past 18 months is probably more than the previous 10 years. Some of the innovation that's happened is going to stick with us for a long time."

And, as our front cover article notes, greater adoption of remote production will in turn accelerate the shift of live workflows to the cloud, with more elements and even larger scale productions moving to the cloud. To emphasise the point, OBS CEO Yiannis Exarchos said during his IBC Digital session that OBS thought that "massive cloud adoption" by broadcasters would happen somewhere between the Paris 2024 Olympics and the Los Angeles 2028 Olympics. "It's clear that we are there now, because of the pandemic. We were there even in Tokyo."

Vendors are of course responding, as you'll see in the product news in this issue. To paraphrase one supplier of QC tools: as more media workflows move to the cloud, it is imperative to have a strategy that resides where the media is being processed.

As we look forward, IBC's Technical Papers provide a reliable guide to what's on the near and more distant horizon and, as you'd expect, use of the cloud, including for production, is well covered in a few sessions. While creating content can be achieved remotely, an isolated experience doesn't extend so well to viewing, which is why the author of one paper has proposed a TV-watching companion robot for lonely viewers. Turn to page 21 to find out more and for a link to the Cutting Edge Technologies presentation on IBC Digital.

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INSIDE

PROMOTING INNOVATION

Tim Richards, chairman, IBC Board

It would of course have been wonderful to be able to welcome people back to a physical IBC event, but the ongoing impact of the pandemic has unfortunately once again prevented us from meeting at the RAI.

Instead, we welcome you all online where we hope you will be able to experience much of what Amsterdam would have offered.

Over the past few years – long before the pandemic – we moved towards a 365-day-a-year presence, with digital events, information and networking supporting the days in Amsterdam.

When Covid struck, that became the centre of our efforts, and in 2020 IBC was purely a digital event. That did not change either the scope or the ambition: we still had presentations from all the world's leading vendors; keynote addresses and technical papers; comment and networking.

This year, we knew that if a physical event was to take place that some of you would not have been able to attend, and so it was important to be able to provide content and the chance to connect with exhibitors in an online environment.

We see a hybrid of physical event and a continuing online presence in depth as the new normal for IBC and as the best way to serve the industry.

So, the first big change from 2019 to 2021 was the launch in October this year of IBC Digital, which I see as truly embodying all the flavours of IBC in an online form. It provides us with the ability to deliver a hybrid – and this year, fully online – event, and includes Workflow Tours, thought-leading keynotes and presentations, along with the ability to network and share knowledge.

Those are the key factors of the live event, so we have been keen to incorporate them into our online offering. Rather than a conference away from the show floor, this year would have seen the integration of presentations on stages in exhibition halls, so they would have been available to all. And, of course, the same is now true with this year's online experience; once you have registered, many hours of content are available to you on-demand.

The broad themes for these panel and demonstration sessions are production and post production, live and remote production, the content supply chain, and the challenges of OTT and D2C. Sessions include both insight from key industry figures and detailed experiences from leading vendors.

This notion that users and vendors should work together is at the heart of an IBC initiative I find particularly exciting. The IBC Accelerator Media Innovation Programme was first held in 2019, and it is even stronger in 2021.

The idea behind the programme is that IBC provides the stimulus for novel partnerships to come together and create something new and potentially industry changing. It is a framework for agile, collaborative, fast-track innovation which brings together the best from each of the partners.

This year there are eight projects in the programme. Three take 5G as their technological starting point but move in very different directions: live workflows, remote production for sport, and location-based extended realities.

Three look at the ways technology can drive forward both productivity and user engagement: using smart remote production for real-time animation, developing immersive audio imagery, and 3D and extended reality content creation.

The last two are very much of this time. BBC, BT Sport, Sky, Albert, and Multichoice and SuperSport are championing thoughtful, innovative work on sustainability in live production. And Al Jazeera is championing the application of AI to bias detection. It aims to detect, measure and report bias in the representation and portrayal of diverse genders, cultures and ethnicities.

Each of the eight is led by one or more Champions, who are seeking to drive the innovation forward. They are joined by technology collaborators, who draw on leading-edge technology in attempting to realise the ambitious targets.

Following the success of the 2019 programme, the IBC2021 Accelerator Programme brings together some of the leading names in the industry, like AP, Audible, Digital Domain, EBU, ESL, Fox Sports, OBS, Reuters, Pixar, RTÉ, TV2, VRT, YLE, Unity Technologies, Unreal/Epic, ViacomCBS and more.

Collaboration, sparking ideas off each other, pushing for the best possible outcome. This is what we wish for all who participate in IBC. We hope that you are able to join us on IBC Digital, we very much hope that IBC2021 delivers for you.

Tim Richards is chair of the IBC Board, which is made up of representatives from the six partner organisations: IABM, IEEE BTS, IET, RTS, SCTE and SMPTE.

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NETFLIX'S TAUZIA ON THE IMPORTANCE OF PARTNERSHIPS

BY TIM DAMS

Over the past decade Netflix has emerged as the number one global SVOD platform with 214 million subscribers worldwide. Its growth has often been attributed to its aggressive spend on new content, with the streamer having earmarked $13.6 billion for investment in programming in 2021.

However, in an IBC Digital keynote interview, the role that partnerships have played in the SVOD's rise was underlined by Netflix VP of partner solutions Vincent Tauzia.

"We're just getting started really," he says. "It took us about 10 years to get to our first 100 million streaming members. It took us less than half that time to get to the next 100 million. So how do we get to the next 200 million members?"

Building such a service requires focusing on a few core areas, he explains. The first is "great value content – great stories that people will connect with, love and literally can't wait to watch." He cites shows such as Lupin, Squid Game and Money Heist.

Tauzia adds: "We have to do it in a way that provides an amazing experience, better than the experience consumers have with other entertainment options. And that experience has to constantly improve and re-delight our users – we want to surprise them; we want them to really enjoy being on the Netflix service.

"If we do a good job at that, more people will trust us to entertain them and give us more of their time, and they will value our service even more. We will then be able to invest all that value and create more great content and ultimately a better user experience."

As such, Netflix looks to create a virtuous circle: create more and better content; improve the member experience; grow the member base; and then increase investment in content.

To create the best experience for members, Tauzia singles out engineering product design and engineering resources, like slick transitions to content, attractive pause screens or smart post-play features, as well as high-quality UI, and video and audio features such as 4K and HDR.

"We work very closely with many partners to bring this experience – the content and the product – to our members," he adds.

Also key has been integrating Netflix into consumer set-top boxes, smart TVs, consoles, platforms and TV and mobile bundles. "It took time to convince operators because some of them were afraid of cannibalisation," Tauzia says. "We are way past that. Several years ago, this perspective shifted. More and more TV operators see us like another premium channel and consider the actual value in integrating with us into their set-top boxes and into their overall offerings like bundles."

He says that Netflix is now integrated into the platforms of around 200 operator partners around the world. The partnerships span device integration, billing and payments, and co-promotion. "We expect to add more and more operator partners over the coming years as we seek ways to better connect with the next 200 million members and to create value for us," he adds.

Vincent Tauzia, Netflix

According to Tauzia, Netflix works hard with its operator partners to integrate Netflix seamlessly into their product and in their commercial propositions. "That is the core of what we do in partnerships in Netflix."

"First and foremost, we want to make sure Netflix is easy to access on the set-top box," he continues. "We also make it super-easy for consumers to get Netflix bundles without TV subscriptions, or broadband or mobile."

Netflix also looks to create impactful commercial offers with its partners. The partners then work on deeper integration and innovation together. "As we work closer together, we create a better user experience – our joint subscribers love it, and it translates into more subscriber satisfaction," he concludes.

INSIDE PLUTO TV'S STRATEGY AND GROWTH PLANS

BY TIM DAMS

FAST channels like Pluto TV bring together "the best of two worlds" – linear TV and digital platforms for viewers and advertisers, according to Olivier Jollet, SVP and general manager of Pluto TV at ViacomCBS Networks International.

In a keynote interview with IBC Digital, Jollet provides insight into the fast-growing Pluto TV platform. Founded in 2014, it is now a $1 billion-a-year business in terms of revenue. Available in 26 markets globally, including the US, Latin America and Europe, the ad-supported service has 54 million monthly active users. It has live channels, often based around specific shows like Most Haunted or genres such as true crime, and an on-screen programming guide to replicate the traditional TV viewing experience.

Jollet says Pluto TV's current footprint of 26 markets was "the beginning of the story" and that it will be launching in more markets. Coming up next is a move into the Nordics.

ViacomCBS Networks International has partnered with Scandinavia's leading streaming company Nent Group to launch a new Pluto TV service across Sweden, Denmark and Norway in 2022. Under the partnership, Nent's standalone AVOD service, Viafree, will be integrated into Pluto TV.

Jollet says Viacom will bring its content, tech expertise and global scale to the partnership, while Nent will bring local content and advertising expertise. "I think we are building a win-win partnership on both sides, and it is clearly a model that we are willing to replicate in other regions or countries, because we truly believe there is something big in doing those partnerships."


Olivier Jollet, Pluto TV, speaking with Atonik's Nathalie Lethbridge

Looking ahead, Jollet says Pluto TV will "continue expanding with an eye on Asia and Africa".

He notes that ViacomCBS is taking a very different approach to digital platforms than many rival media groups, describing Pluto as "free in the age of subscription, linear in the age of on demand, and ad-supported at a time where most people thought ad-supported had no future".

Jollet adds that FAST services like Pluto TV "bring back the 'lean back' experience into streaming" at a time of huge on-demand choice from SVOD services. FAST and SVOD services are often complementary for users, he believes. Sometimes viewers are "more into the lean back experience" of having channel editors take the decisions for them about what to watch, just like traditional linear TV. But other times, viewers want to have more freedom to choose what they want to watch through on demand SVODs.

As well as convincing audiences to watch Pluto TV, it's important to make the ad experience enjoyable for them, says Jollet. Advertisers, he explains, have been one of the biggest losers from the boom in SVOD services, which don't carry commercials. However, "everyone knows that TV is still the most powerful media when it comes to brand building".

FAST channels like Pluto TV bring the best of TV and the best of digital for advertisers. "FAST through the TV is a digital product. We can measure and we can target way better than TV can, and really serve the needs of advertisers whether it is in terms of audience targeting, frequency capping or in terms of measurement to really know how many people really watch an ad." Pluto TV had an ad completion rate of 95%. "People don't skip the ads," he adds.

Watch both interviews on IBC Digital

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OBS BOSS HAILS EARLY CLOUD ADOPTION

The boss of Olympic Broadcasting Services reveals how the "massive" adoption of cloud technology ahead of Tokyo 2020 helped the host broadcaster to deliver the Games safely

BY TIM DAMS


Exarchos: "We love technology, and we love using new things and innovating"

Yiannis Exarchos, CEO of Olympic Broadcasting Services (OBS), has told IBC Digital that producing the host coverage for this year's Tokyo Games was "the most challenging but also most rewarding" operation in the organisation's history.

Exarchos says that OBS, which delivers live coverage of all Olympic and Paralympic competitions and ceremonies to rights holding broadcasters around the world, produced 10,400 hours of content in the two weeks of the Tokyo Olympics.

OBS published 12-13 times more content from the Tokyo Olympics than it did from the Athens 2004 Olympics to meet rising demand from digital platforms, according to Exarchos. All this was done against the backdrop of the pandemic – and helped by the rapid take up of cloud and virtual production techniques.

Ahead of the Games, OBS had develop cloud-based platform OBS Cloud with tech partner Alibaba to distribute content to broadcasters around the world, meaning that they did not need to send large teams to Tokyo.

Exarchos says that in the period between the postponement of the Games in 2020 and the event taking place in 2021, "the number of bookings of services based on cloud by our broadcasters were multiplied by a factor of seven".

AHEAD OF TIME

Before the pandemic, Exarchos says that OBS thought that "massive cloud adoption" by broadcasters would happen somewhere between the Paris 2024 Olympics and the Los Angles 2028 Olympics. "It's clear that we are there now, because of the pandemic. We were there even in Tokyo," he adds.

This cloud adoption in turn allowed broadcasters to bring 39% fewer staff to Tokyo compared to the number they brought to Rio 2016, "even though they had to handle, and they posted almost 35% more content across more platforms".

Moving to the cloud also allowed OBS "to be efficient, to be able to do many more things with less infrastructure and less hardware, and also to be far more sustainable", says Exarchos.

He points out that the cloud allowed OBS to use 25% less space at the Games' International Broadcast Centre (IBC), and 25% less space in sports venues, even though it was covering five additional sports and it was producing much more content. "That was a direct result of this innovation," he explains. "That was huge savings for the Organising Committee – fewer spaces, less logistics and so on."

VIRTUAL OB VAN

Looking ahead to the Beijing 2022 Winter Olympics, Exarchos says that OBS will trial a more radical "de-materialisation of production".

"We have a pilot project in Beijing, that is going well so far, to try and do coverage with a virtual outside broadcast van – without actually using a broadcast van but replicating more of its functions on the cloud," he explains. "It's easier said than done. If this goes well, this may change a lot of things in the way sports coverage and sports production in general is done. We may start not being so dependent on moving trucks around the world when we need to be consuming less carbon."

"For us, the use of technology is not about showcasing technology, but about helping us to tell the stories of these incredible human beings, the best athletes in the world," Yiannis Exarchos, OBS

Elsewhere in his IBC Digital interview, Exarchos reflects on the technology innovations that OBS had introduced in Tokyo. "We love technology, and we love using new things and innovating," he enthuses. However, he adds that OBS was guided by certain principles in how it uses technology: "For us, the use of technology is not about showcasing technology, but about helping us to tell the stories of these incredible human beings, the best athletes in the world."

Exarchos notes that Tokyo was a "milestone" Games for being the first to be covered natively in 4K HDR. It was also the first Games to be produced using full immersive audio, moving from 5.1 to 5.1.4 sound. "It was not just that we did surround sound, but we did a version of sound that completely envelops the listener and the viewer," he adds.

This helped to compensate for the lack of spectators in the venues, he believes: "It allowed us to do a more aggressive mix of our audio. And this created a more emotional and immersive sense when you follow the images. Because of audio, which is more emotional than image, people started forgetting that the venues were actually empty."

He cites other tech innovations used at the Tokyo Games too, including 3D replays, biometric data such as measuring the heart beats of archers in the archery competitions, 5G (especially in the ceremonies) and virtual reality.

In particular, he highlights one of the innovations introduced in Tokyo to compensate for the lack of spectators that will likely continue in future Games coverage. This was the sourcing of reactions, cheers and digital interactions with athletes' friends and families who were unable to attend.

He says: "We sourced reactions or cheers from people from 205 nations around the world, cheering for all 205 participating National Olympic Committees in the Games. We had a total of 250 cheers/reactions during the Games. We had thousands and thousands of people who were sending us their cheering videos, and we were sending them in the venues."

Exarchos adds: "The connection of the athletes with their friends and families – I believe that this is here to stay. We started it in order to try to address the issue of the absence of spectators. But athletes loved it. Fans loved it because it gave them a sense of participation. Broadcasters loved it. It added a lot of colour in the coverage. And they all insist we will do it in Beijing where there will be spectators. I think it's one of the innovations which is here to stay and to be further developed."

For the upcoming Beijing Winter Games, Exarchos says that OBS will "maximise the use of 5G cameras".

"In Beijing, we have the benefit of a very, very comprehensive 5G infrastructure… China is one of the most advanced countries in terms of 5G technology. 5G is a liberating technology for a lot of things in broadcast, especially in difficult areas like outside venues.

"So, we will maximise the use of 5G cameras. We will go to places, especially in outside sports, where it would have been difficult to go with cable cameras or even with traditional RF equipment."

Watch the full interview on IBC Digital

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GIBBONS REVEALS DISCOVERY+ LAUNCH LESSONS

BY TIM DAMS

One year on from the launch of its new streaming service, Discovery's UK and Nordics boss James Gibbons shared with IBC Digital the unscripted giant's learnings from launching into the highly competitive SVOD market.

Gibbons was interviewed by Omdia senior research director for TV, video and advertising Maria Rua Aguete, who noted that Discovery+ was operating in a market with more than 5300 video streaming services.

Against this background, Gibbons cites two key lessons from the past 12 months of Discovery+, which launched on 4 January and has since amassed more than 20 million paying subscribers worldwide.

The first lesson is the importance of great content to stand out. "You've got to go big; you've got to make a splash; you've got to amp up and turn up the volume of everything," he says. "Your talent has to be higher profile, and your stories have to have bigger impact."

Secondly, Gibbons says that streamers like Discovery+ are "hungry beasts". "The appetite of the audience is just enormous. Whatever you put up there is just consumed. And then you have got to have more. The volume is another learning that we have responded to."

Thirdly, Gibbons, says that the acquisition and retention of subscribers must be a major focus for SVODs.

"You know when you do a direct consumer business that you have to worry about gaining subscribers and retaining your subscribers. But the theory and the practice are two different things.

"The practice is that it's expensive and tough to deliver those subs. You're competing with every single piece of attention that is out there. And then the retention piece is equally expensive and challenging. Unless you do both well, you don't have a business."

He claims that Discovery+ was the fourth biggest of the major streamers in terms of new SVOD subs each quarter. "Around 15-20% of new SVOD subs will come on to Discovery+," he says. "The growth has been very, very satisfying and really exceeded our expectations."

Gibbons also highlights that Discovery has managed to grow its audiences on linear channels at the same time as attracting subs for its streaming service. "There's not a cannibalisation," he says. The reason for this, is that the audiences are different. "There's a 20-year age difference, on average, between the two cohorts. What that means is that as a business, the two complete each other, they don't compete directly. So, by having video and streaming, you can basically reach all the available audience."

"The appetite of the audience is just enormous. Whatever you put up there is just consumed," James Gibbons, Discovery+

Gibbons says that many of Discovery+'s subscribers watch on PCs, the web and mobiles, and that it is important to be able to reach them there. "But there is no question that the big screen is king," he adds. "The TV is king. The main audiences for premium video are the people who have access to a big screen, whether it's a smart TV or pay-TV provider."

Gibbons also spoke of the importance of pricing. Discovery+ is available in the US for $4.99 a month with

Gibbons: "The growth has been very, very satisfying"

advertising, and $6.99 a month for an ad-free version. However, in the UK and other markets, Discovery+ does not have the cheaper ad-supported version, although he said Discovery is looking at expanding its ad-supported version.

"We do believe that if you want to serve all of the audience, then you do need to have ad-supported," he adds.

Gibbons explains that there is a genuine difference in what people are willing and able to pay for content. "There are segments of people who will pay nothing, who will pay a little bit and who will pay more. So, the only way to make sure that you're reaching each of those [segments] is to make sure that you've got a service that's priced accordingly. To have a lower price, high-quality SVOD service, you have to have ad-supported."

STARZ'S KALLE ON CREATING A "BEAUTIFUL COMPLEMENT" TO BROAD APPEAL STREAMERS

BY TIM DAMS

Lionsgate-backed streamer Starzplay is now available in more than 60 countries following a rapid global roll-out over the past three years. Superna Kalle, president of international networks at Starz, tells IBC Digital that her role is to bring the global streamer into every home in the world outside the US.

Starz operates under three brands: Starzplay Arabia for the Middle East and North Africa; Lionsgate Play for South Asia and Southeast Asia; and Starzplay for Europe, Latin America, Japan and Canada. Starzplay international subs have nearly doubled over the past year to 7.5 million.

Explaining the rise, Kalle says that during Covid-19 lockdowns, audiences around the world who were stuck at home discovered Starzplay and its shows such as Normal People, The Great and Ghosts. "[They] really just rose to the top of the charts for us – we're really quite happy with the reception we received in almost every single country."

Kalle adds: "Global audiences are finding stories from other cultures and other countries in languages that are outside of their own home country… It's something that we have leaned very heavily in on lately."

Starzplay is available as a direct-to-consumer proposition, but the streamer is also working with partners such as Amazon Channels in many countries and Viaplay in the Nordics.

Superna Kalle with Tim Westcott of Omdia

While its direct-to-consumer app allows Starzplay to "harness a tonne of data", these partnerships were important for reaching customers, stresses Kalle.

"Amazon Channels… own the customer, but we work super-closely with them to make sure that our brand is front and centre on their homepage," she says.

The partnership with Viaplay has allowed Starzplay to launch into the Nordics. Kalle adds: "We've got multiple models, and each country is a bit different in terms of how we approach it, and each partner is different. But, in terms of what we look for with a partner, we look for trusted brands that people recognise and that have a fantastic funnel of people coming in onto their platform who can then find us."

Starzplay carries content from Lionsgate, studios and independent producers. "We aim for at least one new exclusive hit show every month. We don't tend to put things on that are – for lack of a better way of saying it – flanker content," says Kalle, who pitched the streamer as a "beautiful complement" to more broad-based streamer services.

"We lean very heavily into crime and high drama – authentic storytelling, no matter the country of origin, the writer or the producer. We lean heavily into sex as well, I think more than a lot of other [streamers]. It's important to us that our brand stands for something that you wouldn't see on broadcast television, certainly. We're very premium in production values, writing quality and in character."

Kalle says that original programming has also "ramped up", both with US productions coming from Starz and via Starzplay local-language commissions. For example, the streamer is rolling out a slate of six Spanish-language originals starting with Malayerba.

There have been reports recently that Starz may be spun-off as a separate company to its listed parent Lionsgate. Asked about this, Kalle replies: "I think that management has spent a lot of time and effort building up Starz and Starzplay and the international division, and I don't think that we're getting the value from the stock. So, I think that it's early days, so we'll have to see what happens."

Watch both interviews on IBC Digital

IBC DIGITAL KEYNOTE: JOHANNES LARCHER, HBO MAX

The exec in charge of HBO Max's international roll out tells IBC how he plans for the streamer to reach 190 markets by 2026

BY TIM DAMS

HBO Max head of international Johannes Larcher has spelt out his strategy for rolling out the WarnerMedia streamer to 190 markets by 2026.

HBO Max first launched in the US in May 2020 and is now in 46 countries with a focus on Europe and Latin America. Next year, it is set to launch in 21 more European countries and is also "looking very hard" at Asia Pacific, says Larcher, in an exclusive IBC Digital keynote.

Larcher, who joined HBO Max in 2020 after spells at Middle East streamer Shahid VIP and Hulu in Japan, says four priorities underpinned the roll out internationally: quality content; technology; local stories; and local teams.

"It's clear where it all starts is great content," he says, citing Warner's extensive IP including Harry Potter, Game of Thrones, the DC Multiverse, The Sopranos and Looney Tunes.

From there, he says it was important to focus on technology. Key priorities for HBO Max have been globalising the platform by making sure it can transact payments in the countries in which it operates, localising content and ensuring it "can acquire, engage, retain and win back customers efficiently". Adds Larcher: "A big part of the past 18 months has been about the foundational work that was needed to ensure we can take the platform efficiently and effectively around the globe."

STAYING LOCAL

Larcher says that HBO Max couldn't rely exclusively on the strength of the WarnerMedia content catalogue. "Local content matters tremendously to the success of services like ours internationally," he says. "We have redoubled and increased our investment and focus on creating local stories for local audiences across the globe."

In Latin America, HBO Max has committed to 100 new originals in the next 18 months and will increase its European originals slate from 12-14 scripted shows in Spain and the Nordics to 24-30, including a move into unscripted content.

Larcher also stresses the need for HBO Max to have its own teams on the ground around the world. He says the platform now has a significant presence in Latin America and a big team in Europe. "We need to be present in the region where it matters," he adds. "Of course, our technology is a global stack that has tremendous economies of scale, our brand is global, and a lot of our American content is global in nature. But our teams executing, building the business, working with our customers, engaging the audience, managing the signs of growth marketing, day by day, are highly local teams."

Larcher frames HBO Max's global roll out as part of a two-pronged broader transformation and "reorientation" of the WarnerMedia business.

Firstly, he says a key priority for WarnerMedia is to "go global". Larcher notes that 70% of its revenue traditionally comes from the United States and 30% from international markets. "In order to succeed, we have to flip that ratio over the next five to 10 years and become a much more global business."

Secondly, he says that WarnerMedia is focused on becoming a direct-to-consumer business, having previously delivered brands like Warner Bros, CNN and HBO through distribution partners and affiliates. In doing so, WarnerMedia is gaining more direct consumer data and can use it "to improve our services, our content and our marketing for these customers".

Longstanding distribution partnerships with the likes of Sky in the UK, Germany and Italy have meant HBO Max delaying launches in those key European territories. He addresses the Sky deal specifically, describing HBO Max's relationship with the broadcaster as "superhealthy".

"They distribute our content, they make it popular in the UK, in Germany, in Italy," he expands. "They are very happy with that content, they know the value our content brings, and they pay us a significant amount of money for their right to distribute that content for the time being. That revenue funds a lot of what we do in terms of launching HBO Max in other territories.

"It's only a matter of time until we will focus on bringing HBO Max as a direct-to-consumer service into those Sky territories as well once those rights revert back to us."

WIDER APPEAL

Larcher also addresses HBO Max's original content strategy, describing the streamer as a "broad, general entertainment service for everyone – and not just for the traditional HBO audience".

"We want to bring in audiences that are traditionally maybe a little less affiliated with the HBO audience, especially younger audiences, more female audiences. So, we are broadening our content portfolio."

He cited recent US hits such as dramas The Flight Attendant and Raised by Wolves, and unscripted shows like Tiger Woods biopic Tiger and Tina Turner feature doc Tina. "We're applying the same strategy internationally," says Larcher, explaining that some of HBO Max's biggest successes since launching in Spain have been with unscripted shows like Dolores: The Truth about the Wanninkhof Case. HBO Max has also greenlit its first animated series in Spain, Poor Devil.

"So, we are going broad, and we are bringing more unscripted content to the market," he says.

Larcher also talks about pricing. In the US, HBO Max costs $14.99 a month without ads, making it more expensive than rivals Netflix or Disney+, or $9.99 with ads.

However, Larcher says that it is important to price the service internationally so that it is "right for each individual market and for our customers in that market, rather than having a broad-based strategy that is one-size fits all".

For example, in Latin America there are two tiers for HBO Max – the standard tier and a cheaper mobile-only tier. "That came out of an insight and recognition that 70% of Latin American consumers only use their mobile phone to access the internet," he explains. "They don't necessarily need access on their 4K 65in living room screen."

"We try and bring our product to the market in a way that makes best sense in each individual market," says Larcher.

Watch the full interview on IBC Digital

CLICK this icon for video

WORKFLOW TOURS: CONTENT SUPPLY CHAIN AND CREATIVE PRODUCTION

BY SHERYL HICKEY

Visitors to IBC Digital can join two of IBC's latest Workflow Tours, one on the subject of content supply chains and efficiently preparing, managing and storing media, and another on the cutting-edge technology that is enabling every aspect of the creative production process.

IBC has designed four Workflow Tours through partnerships with market-leading companies. Their aim is to provide a forum for discussion and provide an overview of the latest innovations, advancements and buyer behaviour throughout the industry.

During the Content Supply Chain Tour, viewers will hear from leading names in the industry including Dalet, OpenDrives and Nielsen Gracenote. The tour explores the emerging tools and techniques for creating an efficient multiplatform content supply chain. Specific technology, storage and workflows, both in the cloud, on-premise and with service providers, will all be discussed.

During this tour Sharif Khan, presales solution architect at Dalet, discusses how content needs to be produced and distributed with the influence of industry changes. He explains the need for intelligent content supply chains that support remote production workflows and bring quick and easy access to content, while cost-effectively integrating with a wider technology ecosystem.

Sean Lee, chief strategy and operations officer of LA-based OpenDrives, shares his insight into delivering the highest performing software-led solutions to match individual performance needs, on-premise, remote and in the cloud.

In addition, Nielsen Gracenote MD Simon Miller offers his experience of facilitating leading video distribution platforms in EMEA, LATAM and APAC, overcoming content search, discovery and personalisation challenges in order to deliver highly engaging entertainment experiences.

View the Content Supply Chain Workflow Tour HERE

Open Drives' Sean Lee with Ed Barton of Caretta Research, Emma Clifford of Remodus and host Jo Wheeler

Stephen Tallamy of EditShare with Dawn Shaw, Salford University, Eben Clancy of Hound Dog Post and host Jo Wheeler

Victor Kortekaas of Roe Visual

CREATIVE PRODUCTION

The Creative Production Workflow Tour will feature insight from EditShare, Dell EMC, Dell Precision Workstations, Elements and Roe Visual/Ghostframe. The tour explores live production and content acquisition, production and post-production, storage and cloud, the latest AI-enabled tools and virtual studio technology.

During this tour, EditShare CTO Stephen Tallamy speaks with Jon Wardle, director of the National Film and Television School (NFTS), about the shift to remote workflows and the role of the cloud in NFTS students' education and future employment.

Dell's business development manager Alex Timbs and Animal Logic's head of production technology Aidan Sarsfield discuss the impact of remote work on creativity and how Animal Logic uses Universal Scene Description (USD) and automation to empower its creatives internationally.

Matt Allard, Dell's director of strategic alliances, reviews workflow trends in creative production and post production and how they're impacting technology requirements.

Filip Milovanovic, media engineer at Elements, introduces an all-new file system to the media and entertainment industry, designed to power supercomputers. It will enable the building of highly efficient cloud and on-premise storage environments that benefit from high-performance Ethernet workflows with on-demand cloud possibilities.

Representatives from Roe Ghostframe's four partners, AGS, Megapixel VR, TrackMen and Roe Visual, introduce the key features of Ghostframe technology – which combines the strengths and possibilities of LED and camera technology – and explain how it can be used for broadcast or film production.

View the Creative Production Workflow Tour HERE

Along with tours on Content Supply Chain and Creative Production, other Workflow Tours hosted by IBC cover Live and Remote Production and Content Distribution. All four tours, which have been produced by Caretta Research, are exclusively available on-demand on IBC Digital.

Visit IBC Digital to watch the Workflow Tours

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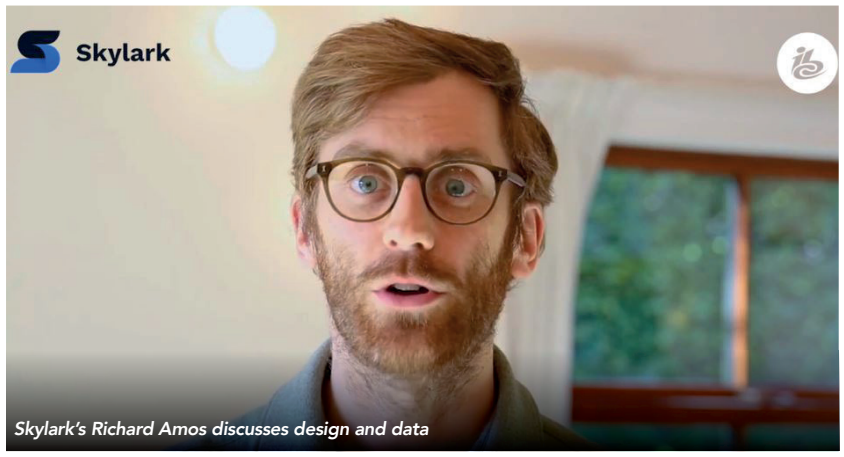
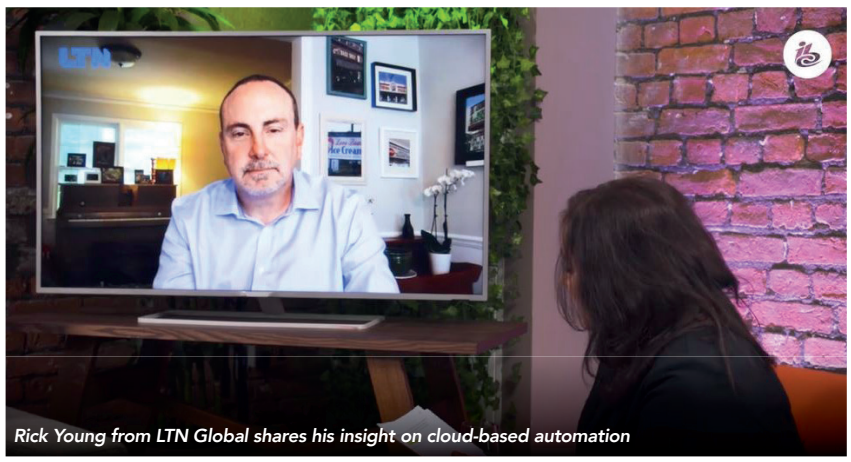
WORKFLOW TOURS: CONTENT DISTRIBUTION AND LIVE AND REMOTE PRODUCTION

Brightcove's David Bornstein in conversation with host Jo Wheeler



Skylark's Richard Amos discusses design and data



Rick Young from LTN Global shares his insight on cloud-based automation


The BBC's Ian Wagdin and Caretta Research's Ed Barton in the studio with Jo Wheeler

BY SHERYL HICKEY

Streaming, video-on-demand and the challenges of delivering a great direct-to-consumer experience are the focus of IBC's Content Distribution Workflow Tour, while the Live and Remote Production Tour covers the fast-changing world of live production, including news, sports and live events.

During the Content Distribution tour, which is available on demand on IBC Digital, viewers will hear from industry experts ARM, Divitel, Skylark (Ostmodern), Brightcove, Witbe and Huawei.

The tour, one of four Workflow Tours, explores the fast-growing market for online video, CDNs, content security and delivery, and cloud playout. User experience and personalisation, along with monetisation and advertising, will also be discussed.

During this tour Richard Amos, chief product officer of Skylark, discusses how to leverage design and data to allow audiences to discover engaging content.

ARM's senior manager Andrea Luigi Cantone and senior director of technology Rob Suero share their insights into market trends, particularly the growing influence and reach of streaming services worldwide.

Chief business development officer of Divitel Gerton Van Den Beld discusses developing control and efficiency in delivering quality video content as consumption increases.

Witbe's chief executive Mathieu Planche and chief operations officer Yoann Hinard disclose how major broadcasters ensure Quality of Experience through leveraging technology to perform automatic service tests on any device.

Brightcove's chief technology officer David Bornstein examines how illicit access and broadcast occurs and the most effective tools to protect content from video piracy.

Finally, Ming Chow, senior director of Huawei, defines a content delivery strategy framework to address market challenges and looks ahead to a diversified future of video development.

View the Content Distribution Workflow Tour HERE

LIVE AND REMOTE PRODUCTION

The Live and Remote Production Workflow Tour explores the latest in live and remote production, covering topics such as greater automation, remote production/REMI and the rise of cloud, and more efficiently and creatively enabling IP.

During this tour, LTN Global's director of network distribution Charles Theiss and senior vice president Rick Young discuss how using cloud-based automation and workflows can help content providers reach more markets, platforms and audiences without significant CAPEX. They will also disclose how sports betting content provider SportsGrid grew exponentially by integrating IP-powered cloud production and distribution workflows.

Telstra's head of architecture and integration Carl Petch and Steven Dargham, head of major events at Telstra Broadcast Services, discuss the benefits of international remote production. Telstra has been at the forefront of development here, delivering content of all value from venues to remote facilities between Asia Pacific, North America and Europe.

View the Live and Remote Production Workflow Tour HERE

The Content Distribution and Live and Remote Production Workflow Tours are part of a series of four tours, with the other two covering Creative Production and Content Supply. All four tours, which have been produced by Caretta Research, are exclusively available on-demand on IBC Digital.

Visit IBC Digital to watch the Workflow Tours

IBC 2021 INTERNATIONAL HONOUR FOR EXCELLENCE: BBC SPORT'S BARBARA SLATER

Barbara Slater, BBC director of sport, has been awarded the IBC 2021 International Honour for Excellence in recognition of her career and for bringing women to the fore in sports broadcasting. She spoke to IBC about her career and achievements, and the technological innovations she has overseen at BBC Sport

BY MICHAEL BURNS

Barbara Slater was an athlete before she was in television production, initially a talented diver, then an international gymnast who competed at the Olympic Games in Montreal in 1976. Her big move into sports broadcasting came after retiring from competitive gymnastics in the early 1980s.

"When I joined BBC Sport back in 1983, there were very few women. I joined on a training scheme, and what made an enormous difference was the fact that I had been an athlete," says Slater. "That sort of scepticism – does a woman really know, does she get this? – was something they couldn't say because, at that time, I was probably the only member of the department who had actually competed in an Olympics. I had a degree of acceptance and credibility because of that background.

"I remember being advised: 'Keep your head down, they don't like noisy people, they don't particularly like women'. And I just totally ignored that advice. [During that scheme] for six months I asked to do as much, and try as many different things, as I could. Off the back of that, I applied for one of the assistant producer jobs and was successful."

Slater worked her way up to doing some fledgling outside broadcasts (OBs). "I was able to start on smaller events," she says. "Essentially there was no training school for sports directors, you learn on the job. I spent hours in the library looking at how events had been covered in the past, trying to take from that coverage what worked, what didn't work. Gradually, the OBs you do get more and more ambitious. I just always loved being in that director's chair. I remember doing three cameras on outside courts at Wimbledon and I was determined to try and make three cameras look like I had 20."

"By the way, it's entirely different now. You don't have to compete in the Olympics to get a job in BBC Sport," she adds. "But you have to have a passion for it and that applies across genders. We've got some fantastic female talent in many roles as commentators, as reporters, as pundits and as presenters."

Slater has also observed a "dramatic change in attitude" towards the coverage of women's sport, but it's been an all-too recent one. "For too many years, women's sports were seen as somehow second class. I'm so impressed and delighted about the momentum that we currently have behind women's sport, and I feel really proud of the role that the BBC has played in that."

Slater was appointed director of sport at the BBC in 2009. "Of course, by that time, we had the 2012 Olympics on the horizon," she says. "This was such an amazing opportunity for the UK, let alone the sports broadcast industry, to have a global event like the Olympics coming [here]. There was real determination inside the organisation to be incredibly ambitious in that coverage. We did a lot of audience research to track through the Games and it's no exaggeration to say this lifted the whole mood of the nation. I think everyone was so proud of what was achieved with the coverage of 2012."

Slater says such major global competitions result in a step-change in the way that events are broadcast. "You could go back as far as the Athens Olympics [in 2004], and the Red Button was first introduced," she says. "Then you move on to Beijing, where you started to see digital access increase significantly. In 2012, it was taken to another level, it was the first time that we had multiple streams. There was a choice for everyone."

"It's entirely different now. You don't have to compete in the Olympics to get a job in BBC Sport," Barbara Slater, BBC Sport

"At that time, [multiple streaming] was just a one-off opportunity, almost a special construct, but what we now have is the ability to effectively 'do a 2012' every single day," she continues. "We work with of a lot of sports governing bodies to showcase their sport. Every weekend of the year there'll be a choice on our streaming platforms, complemented by our BBC Sport website. So we offer not just the big network TV moments, but also the incredible richness that's offered by our digital platforms."

REMOTE CONTROL

BBC Sport has innovated in response to other factors too, most recently with the impact of Covid.

"If we turn the clock back to early 2020 I remember things unfolding at incredible speed," she recalls. "It was an extraordinary technological feat to keep services going."

Covid accelerated BBC plans for remote production by around four years. "Across our production base in Salford, we now have several remote galleries where the individual camera feeds are coming in, as opposed to having to send people on site. We've shown extraordinary innovation and adaptability," she says. "Not only have we covered events like domestic cricket and the Premier League [remotely], but we had events like the Tokyo Olympics, where we did the bulk of the production from Salford.

"That was an entirely new production model that was set up in a very short space of time. Commentary was being done from here, as well as production and presentation. I am sure that in terms of remote production this terrible period of time will leave an extraordinary legacy."

Slater: "I think everyone was so proud of what was achieved with the coverage of 2012"

It also chimes with sustainability. "We've suddenly got that raising of awareness and sense of responsibility that the industry has towards a sustainable future," she adds. "Remote production has to be integral to that, actually being able to produce these events in the most efficient and sustainable way is really important."

For a career in sports broadcasting and leading the way in establishing women's sport and bringing women to the fore in sports broadcasting, the IBC2021 International Honour for Excellence was presented to Barbara Slater at the IBC Innovation Awards on the 23 November, held on IBC Digital.

"Disparities still exist between men and women's sport in terms of viewership and coverage, but Barbara Slater has played a pivotal role in helping level the playing field during her time at BBC Sport," said Michael Crimp, CEO of IBC. "It's hugely appropriate we recognise Barbara Slater for her commitment to technological excellence and equality in sports broadcasting."

"I am extremely honoured to receive this prestigious award," said Slater. "I am so proud of my career in sports broadcasting and would like to say a huge thank you to IBC for this accolade, which in turn recognises the significant advancements women's sport has made."

Watch the full interview on IBC Digital

EMBRACING INNOVATION

Chief executive of NEP Group Brian Sullivan is all too aware of the effect the pandemic has had on the sports and live events side of his business, but he has also learnt that big disruptions can sometimes drive innovation

BY MICHAEL BURNS

Sullivan: "We're trying to move a little ahead of the market"

"A lot of companies have had a very hard time during the pandemic, but the marketplace is going to move whether we like it or not," says Brian Sullivan, NEP Group CEO. "It's going to be a series of progressive steps, but I think they will happen a lot faster than everybody was expecting. I do not mean to dismiss how hard it has been. But I'm excited about [innovation] and I'm going to make sure that NEP is positioned to be able to help everybody who wants to go down those paths in an as efficient and effective way as possible."

NAVIGATING CHANGE

Sullivan joined NEP in the middle of the pandemic, having previously spent time at McKinsey & Company, Fox Networks Group, Sky Deutschland and Sky UK.

"Similar to many other companies, it's been probably the hardest time in all of our working careers, both professionally and personally," he says. "It is always worth reminding yourself that this is not just a business impact event. This is a global event and has as much if not more impact on people as it does on the business and industries that we work in."

Sullivan says NEP has managed to navigate through to the latest stage of the pandemic in quite a strong fashion. "In large part [this is] because of the people that we have, and because of the diversification of the company."

He uses the Broadcast Services division as an example, which has a lot of business in global sport. "This has responded to disruption in ways that are almost unimaginable," he says. "The amount of innovation that's happened over the past 18 months is probably more than the previous 10 years. Some of the innovation that's happened is going to stick with us for a long time and will drive the progress of sports coverage even faster than it would have done naturally."

But, he admits, it's also been a tough time. "Every major event is just that much harder. To do the same thing takes twice as many people, twice as much time, and in some cases a lot more equipment because you're doing things differently. It's been almost a case study in the resilience of human beings to be able to get things back on track that fast."

Sullivan sees an opportunity to overlay the traditional OB truck, infrastructure and capabilities, with a whole new layer of centralised production, cloud production and connectivity.

"We've been in this space in a pretty large-scale way and we're now focusing on the remaining markets, which includes the United States," he says. "We'll be building up hubs and spokes for centralised production work. That will eventually all be networked. Clients will be able to tap into it no matter what they're doing and where they're doing it. We're 25% of the way down the path there, but the pace has accelerated rapidly during the pandemic. In part that's how we were able to actually solve the problems for our clients when they were faced with these new challenges overnight."

"It's been almost a case study in the resilience of human beings to be able to get things back on track that fast," Brian Sullivan, NEP Group

NEP's Live Events business was rapidly growing prior to the pandemic. "It suffered a larger hit, because so many live events, particularly corporate events, had to be cancelled because of the risk of exposure to Covid," Sullivan says. "That has actually come back strong over the course of the past six months. In the meantime, there have been all sorts of new businesses that have come to us. A lot of these events didn't want to disappear, they didn't want to disconnect with their customers and audiences. So they pivoted into a virtual [space]. With the experience we have across all the different types of media production, the availability of technology, and the flexibility that our scale gives us, we were able to pivot very fast. We already had a number of studios dotted across the globe, but we spun up just as many more over the course of the first few months of the pandemic.

"We had our clients in the studio doing productions that were much more than just a Teams call or a Zoom call. They were super-interactive, very multi-layered and highly engaging. We think that virtual hybrid component will stay because it allows clients to [massively] extend their audience versus what they can have in an arena or an event space."

The pandemic period also saw the formation of the Virtual Studios group. "We leaned into a combination of our scale and expertise on the deployment of LED technology, which already existed on Live Events. We combined that with work that we had started to do with a number of clients, using media servers and the Unreal Engine to do virtual production in corporate," Sullivan explains. "We've now spun up a whole group that is focused specifically on the TV and film business. We acquired the leaders in this space [Lux Machina Consulting (LuxMC), Halon Entertainment and Prysm Collective], and it's being run by Cliff Plummer, who's the former CTO for ILM. That group is actually going into a completely new category and completely new space."

Just prior to this interview, NEP Virtual Studios and Trilith Studios announced a partnership to set up one of the world's largest virtual production stages in Atlanta, Georgia.

"We also do work specifically for clients like Netflix, Apple and Warner Brothers," says Sullivan. "So we will have client-specific virtual production projects and we will have stages where clients can come in and utilise it on an as-needed basis. We're super-excited about it."

WORKING TOGETHER

"There have been very big challenges for people to work through, and they're going to continue through the next year," he predicts. "Providers and clients need to work more closely together than ever before; the suppliers are under the same pressures. I actually think the partnerships are going to get closer. I certainly hope that they do because that's also a place that [drives] innovation."

"The way we are approaching this at NEP is we're trying to move a little ahead of the market, maybe even a little faster than our customers are ready to move," he adds. "We want to make sure when they do want to adopt new technologies and capabilities, that we are already there so that we can make that change quickly and seamlessly."

Watch the full interview on IBC Digital

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GETTING THE FANS ON BOARD

How does a major sports broadcaster mobilise its audience and suppliers into taking action on sustainability? And just how can diversity on TV be advanced? Sky Sports' Inga Ruehl tells IBC what broadcasters can to do solve some of today's issues

BY MICHAEL BURNS


Ruehl: "It's a real struggle for women in a lot of roles on productions"

As executive director of production services and operations for Sky Sports, Inga Ruehl is in charge of the production management team that manages all of Sky Sports' output, which includes over 800 host broadcasts a year and 11 live channels. She is also responsible for the operations department, which looks at workflows, considering new technologies and how the company is going to change the way it operates.

Part of this is looking at how to influence partners towards sustainable production, for example Sky's involvement in Game Zero, the world's first net-zero carbon elite football match between Tottenham Hotspur and Chelsea earlier this year.

Ruehl says Sky has been sure to get its own house in order too. "Sky Sports has been carbon neutral since 2006, but obviously, net-zero carbon is a lot more ambitious, because we can't just offset our carbon emissions, we have to reduce them," she says. "My team focuses a lot on what we do behind the scenes, how we create our productions and how we reduce our emissions."

"All our OBs are using biodiesel," she continues. "We've been using biodiesel for a while on all of our journeys. It's not the perfect solution, but it has drastically reduced emissions. We also work closely with the content teams [who feel] we have such an amazing opportunity to not only inform the customer but possibly also influence the customer, and hopefully eventually mobilise the customer.

"The Sky Sports audience is not necessarily an audience that engages with this subject so much, but all sports will be affected by it. It's a great opportunity to get to an audience that's not proactively looking for content around the climate crisis."

INNOVATION ACCELERATION

"Covid fast-tracked [projects] that we had started or were working on," Ruehl observes. "We did things in six months that we had planned to do in two or three years."

Remote production is probably the biggest example of this. "We've been on the remote production journey for around seven years," she says. "The first sport that we took remotely completely was F1. We don't produce the event coverage, but we had quite a significant presence to produce the presentation coverage. We've now done that remotely for ourselves, Sky Germany and Sky Italy for around four years."

The big game-changer for Sky happened pre-Covid when it took its English Football League (EFL) coverage remote.

"That meant not just presentation, but the whole match coverage," says Ruehl. "We only brought the people on site who had to be there with a small truck, then brought all the feeds back to base in Osterley [Sky's TVC in West London]. We had nearly a full season under our belts when Covid hit and that allowed us to iron out workflow issues, operational issues, skills issues and technical issues."

"When we knew sport was coming back, we were in a really good position to take everything else remote because of the work we had done beforehand," she continues. "We took the Premier League remote, which for us was massive. It also really helped us with reducing our carbon emissions. We always knew that it would, so it was always in our trajectory, but it just happened a lot quicker."

Sky now produces most of its live match coverage at Osterley. "That's been the biggest transition," she continues. "Obviously the more you rely on technology to do it, the more you rely on the people with skills to look after that, and while we've got amazing people, we've just not got quite enough of them."

"It's a great opportunity to get to an audience that's not proactively looking for content around the climate crisis," Inga Ruehl, Sky Sports

DIVERSE SKILLS

The latter point ties into the skills, training and recruitment side of the broadcast industry, which Ruehl feels could be more diverse.

"We have to acknowledge what our pipeline looks like: predominantly white and male," she says. "How do we address that? We're doing as much as we can on education and keeping the conversation going at every level. We've got Sky Content Academy. We've got production junior roles where we really focus on this."

"From what I've seen, particularly in the last year and a half where we've worked so hard on the subject, there are no quick fixes," she adds. "We've tried to be as creative as we can on all different levels. [In recruitment] will it be more helpful to create more diversity in the team rather than going for exactly the skillset? In the past, I would have only looked at the skillset of the individual. Now I think about the fact that if want a truly diverse team, I will value the diversity an individual brings as highly as a skill."

Ruehl also points out that production is not necessarily a very family-friendly environment.

"Whether you're a content creator, behind the scenes, crew, or technical or production manager, you have to work when the events are. In sport, they're very often on the weekends. The hours are often unsociable, we're working shifts, and so on," she says. "That's difficult for any parent. But we still live in a society where a lot of that is carried by the mothers. It's a real struggle for women in a lot of those roles on productions. What will help with that, as society moves along, is more fathers taking their paternity leave and looking after the children as well."

She feels that Sky is a leader in this area. "Sky has leaned into making sure that we make this workable for women," she says. "It has been amazing around flexible working and reduced hours.

"You also sometimes feel that when you're in the minority, you bring a bit extra because you have a different perspective, and I feel like that is valued here."

Ruehl also feels that representation of women is increasing on-screen."The FIFA Women's World Cup was probably the one event that showed everyone that the interest is absolutely there," she says. "Finally I think there's some acknowledgement that the audiences are there, and the home audiences want to watch. I think it's great that a lot of the broadcasters are now really putting it more front and centre.

"At Sky, and Sky Sports in particular, we've been taking the opportunity to use our voice more and step into subjects that we think we should be on the right side of, whether that's women's sports, or whether that's racism, online hate, or sustainability."

Watch the full interview on IBC Digital

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IBC PRESENTS THIS YEAR'S TECHNICAL PAPERS

IBC is world-renowned for the quality, timeliness and innovative subject matter of its Technical Papers. They provide an opportunity for technologists and companies to unveil their ideas and research to media industry leaders hungry for new technology concepts, their possible uses and practical applications.

The Technical Papers Programme received entries from across the media, entertainment and technology sector, spanning subjects such as facial recognition, networked homes, AI in media and the cloud for live production.

This year, all of the accepted papers are available for download via IBC365 while presentations comprised of multiple papers, listed below, are available on IBC Digital.

FACIAL RECOGNITION: VARIOUS FACETS OF A POWERFUL MEDIA TOOL

Facial recognition is one of today's most controversial media technologies. Recent claims are that it can reliably recognise subjects wearing sunglasses or medical masks, and that it can even differentiate between identical twins.

Not all of its many possibilities are sinister, however. In this session, viewers are shown how facial processing is already employed by a global broadcaster and that it is demonstrating its value in several areas of live broadcast production, such as assisting a commentator to recognise each of 500 runners in a road race. A second presentation explores how a convolutional neural network has been trained to classify facial expressions, allowing it to recognise and tag emotion in video material. This provides an entirely new way of categorising and searching drama and movie content.

ORCHESTRATED DEVICES: A VISION OF NETWORKED HOME ENTERTAINMENT

The number of devices in the modern home that are capable of reproducing media content is already considerable. However, a user will typically employ only one when enjoying a particular form of entertainment. Suppose that all the devices in the home were connected and synchronised through an internet-of-things-type network; it would then be possible for the home to come alive, as the same entertainment could engage with multiple elements: screens, speakers, mobile phones, shaking sofas – even domestic lighting and smart appliances.

This session includes how a prototype audio orchestration tool has been designed and trialled on several productions to evaluate the principle of creative orchestration, with extremely positive results. In a second presentation, intelligence within the home automatically orchestrates the incoming media across the available devices taking account of the content, the environment and the wishes of the user.

CUTTING EDGE TECHNOLOGIES: A PREVIEW OF SOME EXPERIMENTAL CONCEPTS

This session examines three new ideas which are thought-provoking and potentially media game-changers. First, the robot companion who watches TV with family and friends, and shares the fun and the emotional engagement. Implemented as an autonomous, free-standing character, the robot attends to the screen and enjoys discussing the content.

The next on-going experimental development concerns a live performance where musicians in a concert hall will play together with itinerant musicians who are walking through the streets of the city. We chart the considerable technical difficulties involved in conveying several low-latency audio and 4K video signals through 5G networks, together with the associated production and artistic challenges.

The third initiative is a novel means by which an individual's entire media streaming history, from all their service providers, can be used to provide personal recommendations without any contributing service needing to hold or process their data.

AI IN MEDIA PRODUCTION: CREATING NEW MARKETS FOR LINEAR CONTENT

For decades, broadcasters have been producing linear programmes, such as news, magazines or documentaries, which contain valuable audio-visual information about a vast variety of individual topics. The problem is that these individual topics are often neither addressable nor findable. Could AI and machine learning segment or chapterise this archived material so it would be reusable in the interactive digital world? Might AI even be able to re-edit it into personalised media? We look at a fascinating project which is doing all this and more. Improvement is still required, especially in the editorial challenges for AI of creating recompiled media, but public-facing trials are underway and generating much interest.

Also key to the reuse of these repurposed assets is the recognition of the diversity of today's video delivery platforms, in particular social media. AI can be used to cleverly target particular content offerings across platforms according to: predictions of audience interests; trending stories; particular localities; anniversaries, etc – all achieved through news scanning and online trend monitoring. Content can also be automatically adapted to suit the style and culture of each platform. Visit IBC Digital to hear from an ambitious European project which is seeking to optimally craft and distribute video across a diversity of channels.

ADVANCES IN AUDIO: USING SOME REMARKABLE SIGNAL PROCESSING

Every broadcaster knows that the most common complaint from viewers is that programme dialogue is hard to discern against a background of atmospheric sounds, mood music and competing voices. It is especially a problem of age, where 90% of people over 60 years old report problems. In this session, the results of trials by a collaboration of researchers using their deep-neural-network-based technology across a wide range of TV content and age groups are presented.

Exciting research using cloud-based AI and 5G connectivity to deliver live immersive experiences to a variety of consumer devices is also presented. Key to the experience is the ability of viewers to change their content viewpoint, with live rendering taking place in the cloud.

THE CLOUD: FOR LIVE AND PRODUCTION WORKFLOWS

Cloud-based production is revolutionising the working practices of journalists and entertainment media producers, allowing increased flexibility of location and

opportunities for innovation and speed of creation. In this session, authors explore two advances which contribute to the efficiency of the workflow. First, the development of an app-based news service where journalists not only create the stories but drive the whole content creation and delivery processes. The design must therefore focus on ease of use with intuitive interfaces.

The second cloud presentation delves deeper into the technology involved in developing a hybrid premises or cloud-based system for live and production workflows. It focuses on the JT-NM reference architecture and it will be seen how this allows media to be input from anywhere and stored either locally or in the cloud, and staff can work in any place which has a reasonable internet connection.

ST-2110 ON MODERN IT INFRASTRUCTURE: HOW DIFFICULT IS IT?

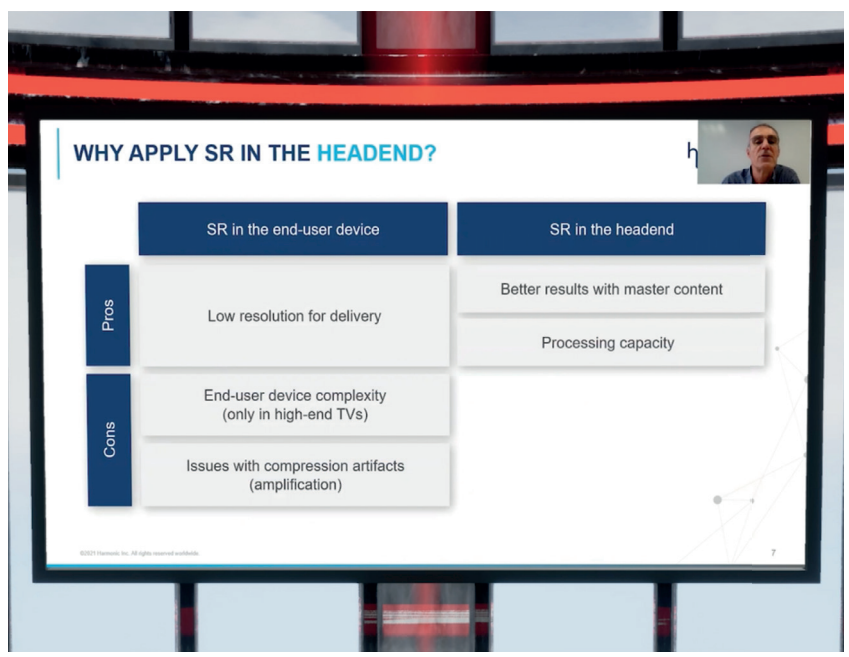
The goal of leveraging modern high-performance IT fabric for professional media handling is laudable. But just how difficult is it? And how close to commercially off the shelf (CoTS) IT equipment are we? In this session, viewers will learn from an expert who lays bare their practical experience of the complexities and challenges of implementing ST-2110 and asks whether this is the right solution to achieve the goal. In the second paper the author demonstrates a state-of-the-art GPU/DPU in a Microsoft Windows device outputting ST-2110 to a networked attached display.

5G: DELIVERING ON THE PROMISE

Scratch below '5G is faster' and you'll uncover a technically sophisticated framework with detailed architectural solutions designed to support many new use cases and business models. In this session we look at two extremes – edge computing, enabled by 5G, which promises highly customised and computationally demanding media experiences to individual users – but what do you actually implement and how do you deploy and manage this extraordinary degree of customisation – our author has been doing just this. At the other extreme, with the standardisation of 5G Terrestrial concluded, the convergence of mobile and broadcast is finally done. Here, our author argues further changes, including that a new radio design may still be needed for viable commercial operations. Finally, our supporting paper provides an update on the status and ongoing work in 3GPP's Media Streaming, Broadcast and recent release 17 work on new codecs and edge computing.

MORE FORMATS, MORE CONVERSIONS

While the enhanced video formats of Ultra High Definition (UHD), Wide Colour Gamut (WCG) and High Dynamic Range (HDR) present in spectacular quality, they also bring myriad format conversion challenges, whether that is up-converting legacy content for use in new productions or down-converting HDR/WCG to suit traditional devices. In this session, we address both of these challenges – one demonstrating an effective colour mapping model that takes into account the behaviour of the human visual system and the other using machine-learning for super-resolution in a production environment. Our supporting paper continues the enhancement theme assessing the effectiveness of machine learning to reduce coding artefacts.



OPTIMISING STREAMING: SAVINGS AT SCALE

Streaming is ubiquitous, and both bandwidth and storage hungry. In this session we focus on improvements to both of these challenges, a must for cost saving at scale. Our first paper investigates, tests and provides an open-source solution that optimises viewer experience when adaptively streaming context-aware encoded video, a particular challenge due to its bursty bit profile. Our second paper addresses the storage challenge of supporting both HLS and DASH low-latency streaming, with clearly illustrated examples and experimental results. In our supporting papers we continue the optimisation theme as well as seeking to address the 'watch together' synchronisation challenge.

ADVANCES IN VIDEO CODING

In this session, Technical Paper authors showcase significant coding gains arising from both traditional and artificial intelligence based techniques. Quantization is at the heart of compression and in this masterclass paper, viewers will see how practical advances in rate-distortion optimisation continue to drive encoder gains, across codecs. Then there is the rise of artificial intelligence which is playing an increasingly important role in video compression. Here you will hear how machine learning has been successfully used to identify salient areas of a picture for concentrated bit allocation, but is it robust and predictable?

XR PRODUCING IMMERSIVE EXPERIENCES

For XR to come of age, we need practical capture systems, familiar production processes and an effective blending of game and multimedia technologies. In this session, authors address all three of these challenges: showcasing a production environment with 6 degrees of freedom (6DoF) video and spatial audio capture composited using a game engine, a practical real-time (30fps) point cloud capture system – as well as discussing the current state of convergence between game and traditional multimedia in XR systems.

Watch the Technical Papers Programme on IBC Digital

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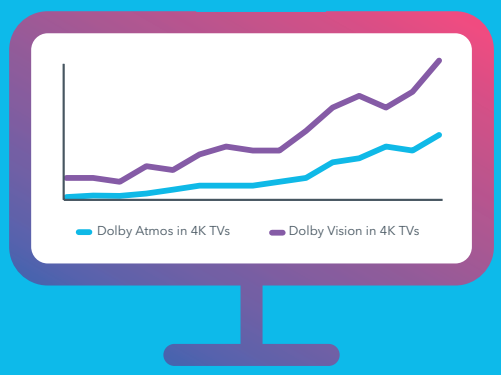
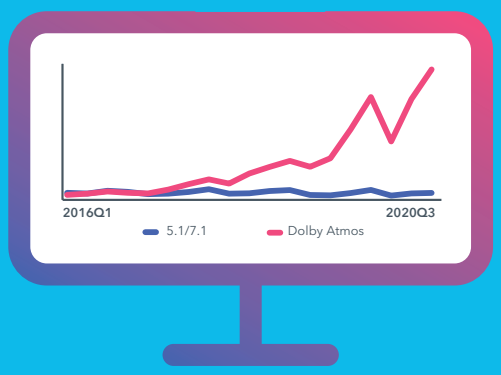
In Europe, sales of new 4K televisions enabled with Dolby Vision have increased by 400% since 2017, while sales of new 4k televisions enabled with Dolby Atmos have increased tenfold*



↑400%

Dolby Vision

In Europe, Dolby Atmos-enabled devices have seen sales increase by more than 500% since 2016 while the sales of legacy format devices has remained flat.*



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*All figures are derived from internal data as of December 31, 2020 and are approximate

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IBC2021 ACCELERATOR: 5G AND REMOTE PRODUCTION IN LIVE SPORT

The pandemic has had a pronounced concertina effect on the global sporting calendar, with the result that four of the largest events there are, the UEFA European Championship, the Summer and Winter Olympiads, and the FIFA World Cup, are all taking place within a single, 18-month window. This in turn is putting pressure on the rollouts of new technologies designed to facilitate improvements in sports coverage, with 5G proving no exception.

This IBC Accelerator examining the growing role that 5G will play in remote production and live sport, is thus accelerated itself. Featuring some of the heaviest hitters in the sports production space, the 5G and Remote Production in Live Sport Accelerator is examining how 5G technologies can have an impact on the production of sports content, the challenges of its implementation, and how it can lead to new fan experiences for those at the event itself.

The project is co-Championed by an array of leading sports broadcasters, including Al Jazeera, BBC Sport, BT Sport, beIN Sports, Olympic Broadcasting Services (OBS) and Multichoice/SuperSport, and is led by Grant Franklin Totten, head of media & emerging platforms at Al Jazeera.

"This Accelerator is really about the broadcasters driving the use cases and production scenarios and the vendors feeding into them," he says. "Often it could get flipped so that the vendors are trying to find a role for their technologies, but here we're really exploring the use cases first from the broadcaster and fan perspectives."

"The two big challenges are encoding and uplink performance. Those are the areas that 5G has to adapt to and the telcos have to address,"
Grant Franklin Totten, Al Jazeera

AREAS OF FOCUS

The project's ambition is to potentially showcase elements of a live sports production over a 5G sliced network, with glass-to-glass latencies that can match those of a traditional broadcast solution, in the region of 100-120ms, taking in other 5G capabilities that may be available to us at the time. There is, however, still plenty of work to be undertaken before those targets can be reached.

While the promise that 5G holds out for sports production is an enticing one, there remain barriers to deployment. Key elements that the Accelerator will explore include issues involving wired and wireless multi-camera synchronisation brought about by encoding/decoding latencies, leveraging 5G within a post-production environment, how to slice the network to meet broadcast standard SLAs, and assessing the latest contribution capabilities.

"The two big challenges are encoding and uplink performance," says Totten. "Those are the areas that 5G has to adapt to and the telcos have to address."

A comprehensive test program from OBS is already looking at some of these issues and feeding directly into the Accelerator. As Mario Reis, director of telecommunications at OBS recounts, recent testing on live networks has already led to some important encoder design tweaks. More tests are due to be held during the Winter Olympics in February next year, with 5G deployments planned for curling, alpine and cross-country skiing events.

Among other issues, these will assess how well millimetre wave scenarios work amid trees, and the degree of latency that the handover from cell to cell will introduce into the system via cameras mounted on a snowmobile as it moves locations.

Reis contends that there are still issues with mixing wired and 5G wireless cameras together ("The director needs to be able to select from camera a to camera z, but the latency provides some issues," he says) and suspects that limitations on uplink capabilities will limit 5G camera deployments to private networks, with even 10 HD cameras currently stretching capacity to the limit.

"If we want to use 10 UHD, or the 30 cameras we use for every soccer match in the Olympics, we will definitely need private networks. It would be impossible to put 30 cameras on a [public] 5G network currently even with millimetre wave. It doesn't always make sense either, as for some of the cameras it will always be easier to wire them. I think the business case is still TBD. This is especially true if there are 30,000 or 40,000 people using 5G in the stadium as well."

5G and Remote Production in Live Sport
Champions: Al Jazeera, BBC Sport, beIN Sports, BT Sport, BT, Olympic Broadcasting Services, Multichoice/SuperSport
Participants: Mobile Viewpoint, TVU, Microsoft, Native Waves

FAN ENGAGEMENT

That stadium usage is one of the other major work streams within the Accelerator as it also looks to examine 5G's use within stadiums to enhance fan engagement.

This part of the project is headed up by Dheshnie Naidoo, head of production operations at South Africa's SuperSport. There are several components to this, with the team looking at a number of different use cases including utilising 5G and AI-enabled cameras, even drone units, to start the fan experience early with real-time streaming coverage of team travel and arrival at the stadium; fan zones featuring user-generated content; the provision of replays; increased ad and betting opportunities, and more.

Mapping out opportunities for increased monetisation features highly as well – an important component of the overall picture given Reis' comments about the likely necessity for private networks and uncertainty over the business model regarding who pays – with more opportunities for advertising, betting, selling individual camera views under investigation and more.

EDGE COMPUTING

Also under test within the Accelerator is the assertion that bringing Edge computing closer to the action is a worthwhile expense in all use cases. Certainly, though, this will be critical when it comes to ingesting large amounts of UHD content into the cloud.

"It is still to be discovered whether putting some cloud computing capability closer to the action is worthwhile if you have a data centre just down the road," says Totten. "We believe in remote locations it makes sense, in football, for example, maybe less as you can still cable things quite easily."

"We need to solve the problem of ingest into the cloud, especially when you start to talk about uncompressed live UHD, otherwise you need to bring all your OB vans and all your directors to the venue," offers Reis. "We really need to be able to get this wireless aspect of remote production into the cloud and the origin has to be closer to close this gap."

For more information on the IBC Accelerator Media Innovation Programme, supported by Nvidia, and to watch the presentations on IBC Digital, visit digital-ibc.expoplatform.com/page/accelerator-media-innovation-programme

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IBC2021 ACCELERATOR: 5G & INNOVATION IN LIVE PRODUCTION WORKFLOWS

After 2020's successful 5G Remote Production Accelerator, a team of world-leading broadcasters are working on a new, extended project, exploring innovation across four significant areas. These are multi-access edge computing; multi-cloud deployments; private 5G networks (also known as networks in a box or non-private networks – NPNs); and low Earth orbit (LEO) satellites.

The objectives and the POC will be suitably ambitious as a result: open workflows where you can connect from anywhere and run your production processes how you want and where you want.

Project lead is Ian Wagdin, senior technology transfer manager at BBC R&D. "We wanted to incorporate some of the things we didn't quite get to last year and integrate some new and emerging technologies such as LEO and Edge, and then start thinking how to deploy these technologies on platforms that suit us as broadcasters rather than existing platforms that may suit certain manufacturers," he says.

The Accelerator effectively divides into two groups of two, with one covering processing and the cloud and the other connectivity. The work examining the cloud is particularly timely and is endeavouring to tease open the gap between expectation and reality that is currently a prominent facet of cloud innovations.

"The thing about the cloud is that every provider will tell you that it's easy to spin up a service as and when you need it. The reality is that this stuff takes a lot of planning and is not something that you can switch on in an afternoon unless you already have it set up," says Wagdin.

The Accelerator is looking at how broadcasters can become smart buyers of cloud services, as well as tackling head on some of the issues that are emerging in the space, such as the increasing trend for exclusivity deals being struck between connectivity partners and cloud producers, which it is worried could limit choice.

ON THE EDGE

It is a given, of course, that the needs of the industry do not necessarily match the pitch of the vendors, especially as broadcast collides with the leviathan that is IT and the cloud. This is particularly true when it comes to Edge computing. The sell to industry is about reducing latency, but as Wagdin says, what is more practically useful is reducing throughput and the amount of data that is required to be moved around.

"It was only by being in a conversation with other broadcasters that the penny dropped," he comments. "Edge just looked like it was going to cost us a lot of money for not much gain, but when we realised it's about processing stuff close to the Edge so you don't have to move stuff around, that's a different conversation."

Champions in the project have benefitted from a world-leading team of supporting vendors that have grown and worked collaboratively on these workstreams, throughout the project, as have the breadth and depth of discussions and inputs from all, including Evertz, Microsoft, Grass Valley, Net Insight, Zixi and Vislink/Mobile Viewpoint.

The other main strand on processing begins with a look at 5G over private networks. This is something the broadcast industry has perhaps struggled to implement effectively to date as most of the Tier 1 vendors are geared up for industrial use cases. These are fundamentally easier to service; a factory doesn't move around and it has a defined revenue stream over a fixed period, whereas the broadcast model is one of ad hoc services that can be deployed anywhere.

"The thing about the cloud is that every provider will tell you that it's easy to spin up a service as and when you need it. The reality is that this stuff takes a lot of planning,"
Ian Wagdin, BBC R&D

Making the two sides of the equation balance is an ongoing project around the world, but some interesting progress has been made under the aegis of the Accelerator with Participants the University of Strathclyde, Huawei, Juniper Networks and Nulink. The result will be a solution that is potentially both a) good and b) cheap, and that Wagdin says will surprise a lot of people when they see its capabilities.

"When you think of radio cameras in that space you're usually thinking of lots of money and lots of specialist engineering, but what we've been developing is a small piece of hardware," he says.

5G & Innovation in Live Production Workflows
Champions: Al Jazeera, BBC, BT Sport, EBU, ITV, Olympic Broadcasting Services, RTÈ, TV2, Yle, ViacomCBS, Vodafone, Fox Sports, beIN Sports, RTL
Participants: Huawei, University of Strathclyde, Nulink, Microsoft, Grass Valley, Evertz, Net Insight, Zixi, Juniper Networks, Vislink/Mobile Viewpoint

Elsewhere, the nascent role of LEO is being assessed. This is a topical subject as SpaceX's Starlink service has only recently moved out of beta and gone live. It uses constellations of relatively cheap satellites in low Earth orbit between 500km and 2000km altitude to provide broadband connectivity via an antenna. Because of the number of satellites used – currently under 2000 but with 12,000 planned by the end of the rollout period – the antenna is easy to position and coverage is already impressively widespread. Download speeds are currently in the 50Mbps region, with upload pegged at 15Mbps and latency around 50ms in most locations.

Better performance is expected, with part of the Accelerator effort being to make LEO providers aware of the potential of servicing the broadcast market with higher upload speeds and perhaps the ability to prioritise connections.

Happily, work has already been undertaken by standards body 3GPP on how satellite connectivity (and medium Earth orbit solutions are also a consideration) can enhance and enable seamless and ubiquitous low latency connectivity solutions within 5G networks. As a result we are already seeing manufacturers incorporate LEO into their bonded connectivity solutions, and their ease of deployment coupled with low shipping and connectivity costs certainly make it a technology of interest.

"The sort of things that we'll be exploring will be access to the mobile networks and or small private networks," says Purminder Gandhu, technology transfer and partnerships manager at the BBC.

"We need to examine mobility too. Currently Starlink is postcode locked. When you purchase a dish, you only get connectivity from the general area of where that dish is registered. SpaceX is telling us that that is going to go away, but when?"

With the chip shortage delaying delivery of Starlink kit worldwide, luckily the team already have one on hand that has been used for testing in recent months and will be using it in the first instance to enable access to a mobile network. Can it become a part of the dream of a genuinely open workflow on a genuinely open network? Find out, as the team will soon reveal on IBC Digital further details of the workflow architectures and look ahead to when they may be positioned to demonstrate the breakthrough POC live in the field.

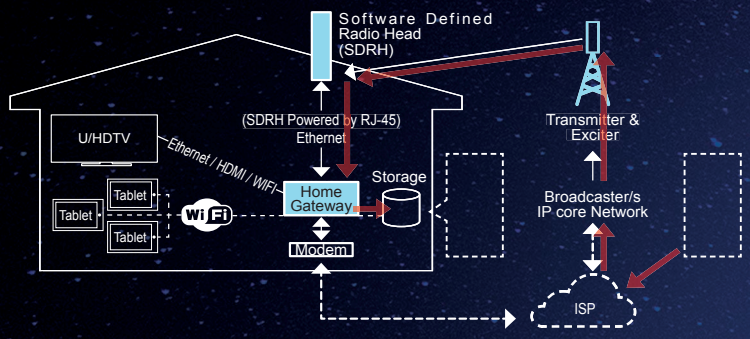
For more information on the IBC Accelerator Media Innovation Programme, supported by Nvidia, and to watch the presentations on IBC Digital, visit digital-ibc.expoplatform.com/page/accelerator-media-innovation-programme

Next Generation Broadcasting Serv

Datacasting Services

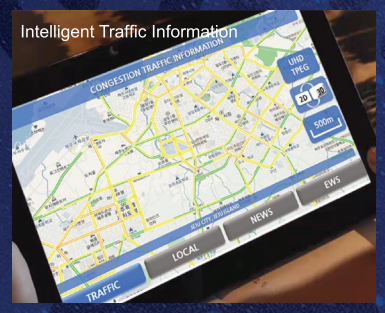
Distance Learning over Digital Terrestrial Broadcasting

HomeCaster terminates both ATSC 1.0 and 3.0 signals and pumps ATSC services to IP network via Ethernet and Wi-Fi. It supports ROUTE & MMT transmux to HLS, MPEG-DASH and MMTP. It can also work as small CDN (Content Delivery Network) inside home. For distance learning, HomeCaster caches learning materials from any learning management systems and delivers the materials to pupil's laptops.



NextGen TV Convergence Data Service

Intelligent mobile data service through terrestrial broadcasting includes traffic congestion, car-accident, construction information as well as news, weather, region and tourism for vehicles in operation. In connection with the disaster safety portal, interactive emergency warning and safety information service can be provided through various devices.



Cloud-based Services

Cloud-based ATSC3.0 System

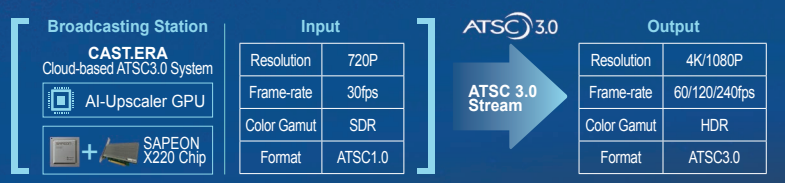
Telcom industry-proven distributed cloud-based ATSC3.0 system enables Broadcasters to quickly build a 4K HDR OTA broadcasting system by integrating the existing air-chain solution, composed of physical broadcasting equipment, into a general-purpose server-based virtualized ATSC3.0 Head-End solution with centralized operations management.

AI-Upscaler

Using artificial intelligence (AI) algorithms that continuously optimize video quality, AI-Upscaler can enhance the video resolution, and increase frame-rate and color space of HDR to provide deeper, richer video experience.

Vehicle TV with Targeted Ad Insertion

Based on the ATSC3.0 mobile capability, Vehicle TV receives the multi-channel broadcasting service from CAST.ERA's Cloud-based ATSC3.0 System. In addition, it supports the targeted advertising that meets the individual passenger's preference.



Korean Ministry of Science and ICT and Korea Radio Promotion Association(RAPA) undertake a supportive project to develop and test Next Generation Broadcasting Services related to ATSC 3.0 transmission.

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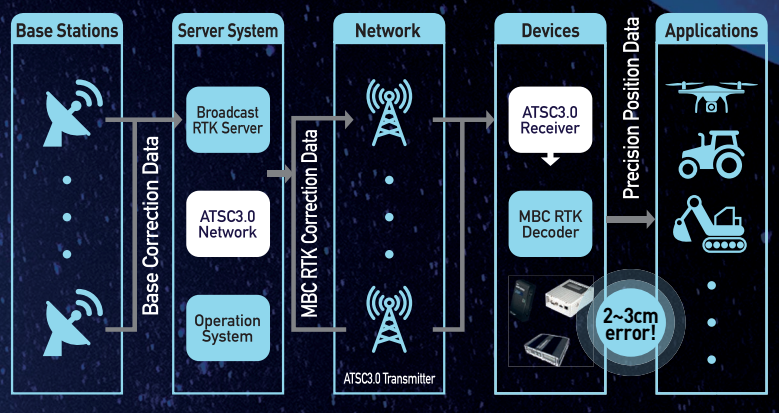

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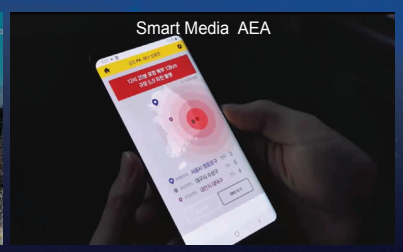
Contact : victorlee@mbc.co.kr, http://rtk.mbc.co.kr/en

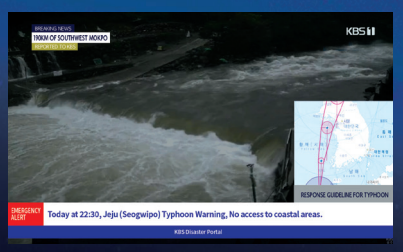
Emergency Alert Broadcast Services

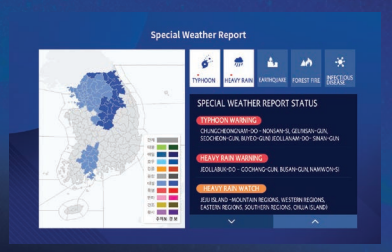
Advanced Emergency Alert Broadcast Services

The Advanced emergency alert broadcasting service by the nextgen TV broadcasting network uses IBB technology to run the broadband convergence application on smart devices as well as connected TV through the communication network in case of a disaster. In addition, disaster messages through terrestrial data are received and applied not only to next-generation broadcast TV terminals, but also to public media such as electronic billboards and bus information systems across the country.

ATSC 3.0-based emergency alert broadcasting system is a system that delivers emergency information to receiving terminals such as UHDTV and mobile and dedicated receiving terminals through various rich media services such as text, image, and video based on a broadcasting app. Advanced Emergency Alert (AEA) signaling, defined in ATSC 3.0, can provide powerful and efficient emergency alert broadcasting in the event of a disaster.
In Korea, the ATSC 3.0-based emergency alert service development and demonstration test on Jeju Island have been completed, and the service is being provided through various types of proliferation projects.







KBS ETRI AIRCODE media developers' group KIT Valley LowaSIS

Ministry of Science and ICT RAPA Korea Radio Promotion Association

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IBC2021 ACCELERATOR: AI BIAS DETECTION

As we move on from AI's initial role in the media space being primarily limited to automation, the rapidly evolving technology is spawning a plethora of new use cases. One of the most intriguing areas of current research is the subject of one of the IBC2021 Accelerators, in which a powerful range of broadcast and news organisation Champions have been investigating its potential for detecting bias in news reporting.

The AI Bias Detection Accelerator builds on the AI-enabled Content Moderation Accelerator project of 2020. Led by Al Jazeera, this year the team has been examining how AI can be used to detect, measure and flag bias in the representation and portrayal of diverse genders, cultures and ethnicities to ensure fairness and transparency in news reporting.

The Accelerator has looked at how the technology can be used to preserve and protect the fundamental notions of neutrality and balance, which is key to the reputation – and, in some cases, perhaps even survival in choppy political climates – of public broadcasters and news organisations around the world.

A TASK THAT SCALES

"As the world's biggest and oldest news organisation getting it first and getting it right – speed and accuracy – are two of the pillars on which this temple is built," says Sandy Macintyre, vice president news at The Associated Press. "But the third is being fair, balanced and impartial, and therefore avoiding both intended and unintended bias and being extremely careful in our tone."

Uniquely, AP has been working collaboratively with Reuters as well as with other world-leading news organisations and broadcasters in the project.

"There are all kinds of biases; coverage bias, selection bias, gatekeeping bias and, obviously for a POC, there's just far too much to do in a meaningful way, so we've decided to zone in on tonality or tone," explains Dr Niamh McCole, broadcast compliance specialist at RTÉ. "The starting point is the recognition that the language of news broadcasting is a powerful way of conveying very subtle meaning and is a significant means to persuade, to endorse, to contradict, or to cast out."

While acknowledging that language choices are reinforced by visual elements, whether that be human expression and gesture or choices made in an edit suite, the Accelerator has concentrated on analysing text. This is still a fearsomely complex task. Yves Bergquist is director of the Data and Analytics Project at the University of Southern California's Entertainment Technology Center and is heading up the programming of the AI.

"The words we use are very indicative of our ideology and our opinions about the events that we're describing," he says. "Whether we say the word 'regime' for example, or government, those are two different words with two different connotations."

AIs, of course, do not fundamentally understand the nuance between the two words so have to be trained. Two different methods are being used in the Accelerator. The first is supervised learning where the application is trained on massive amounts of data that has been hand-labelled by humans. It also uses sentiment analysis to detect emotional tonalities across a wide number of fields. Is the person being aggressive or happy in what they say? Is the person in a position of power or not (those that are tend to use the pronoun 'we', people who are in positions where they feel disempowered tend to use 'I', and so on).

"Using a combination of hybrid approaches and algorithms to solve a problem tends to outperform simply using one model. And that's basically what we're trying to do," Yves Bergquist, University of Southern California

AI Bias Detection
Champions: Al Jazeera, AP, BBC, Reuters, RTÈ, ETC (University of Southern California), Multichoice

The second technique is unsupervised machine learning. This is basically clustering. Text is input with no annotations, but the application will recognise clusters of words per topic and per news organisations. So it can say that News Organisation A is using 'regime' to describe the Afghan government more than News Organisation B, which is using the word 'government'.

In practice, both methods are being used for the Accelerator. "I think if the field of AI has learned anything over the past 10 or 15 years it is that what we call ensemble models tend to work a lot better," says Bergquist. "Using a combination of hybrid approaches and algorithms to solve a problem tends to outperform simply using one model. And that's basically what we're trying to do."

EXAMINING THE FALL OF KABUL

The POC is based on using AI to examine the coverage of a single event by multiple news organisations, with the fall of Kabul from 15 August onwards chosen as one example.

"We have been looking at the way in which news packages dealt with that event and its aftermath in terms of the corpus of words used, the quotes that broadcasters chose to use, and the language that's included in the selection of the editing of the interviews," says McCole.

There are two things worth pointing out here. One is that it is vital that such a tool, and definitely a productised version in the future, is open and transparent. Macintyre says that what goes into the box, the data and the algorithms that power it, need to be open, and we need to be honest about what it can't do. In that way when news organisations are accused of bias, or if they want to check their own output against reference markers, the whole process takes place in the open and can be examined for any faults or discrepancies.

The second is that this is a tricky subject with many sensitivities. "The truth is disruptive," says Bergquist. "To confirm your own cultural biases is uncomfortable and kudos to the organisations in this Accelerator for putting themselves in such an uncomfortable place because they risk being confronted with their own limitations and biases. I think it's really great to have big news organisations jumping into this deep end of the pool."

The team caution that what will be seen in the culmination of the 2021 phase of the project and outputs at year end are not going to be a finished product in any way, but it will provide important insights as to what the technology can do and point towards some key possibilities to come.

For more information on the IBC Accelerator Media Innovation Programme, supported by Nvidia, and to watch the presentations on IBC Digital, visit digital-ibc.expoplatform.com/page/accelerator-media-innovation-programme

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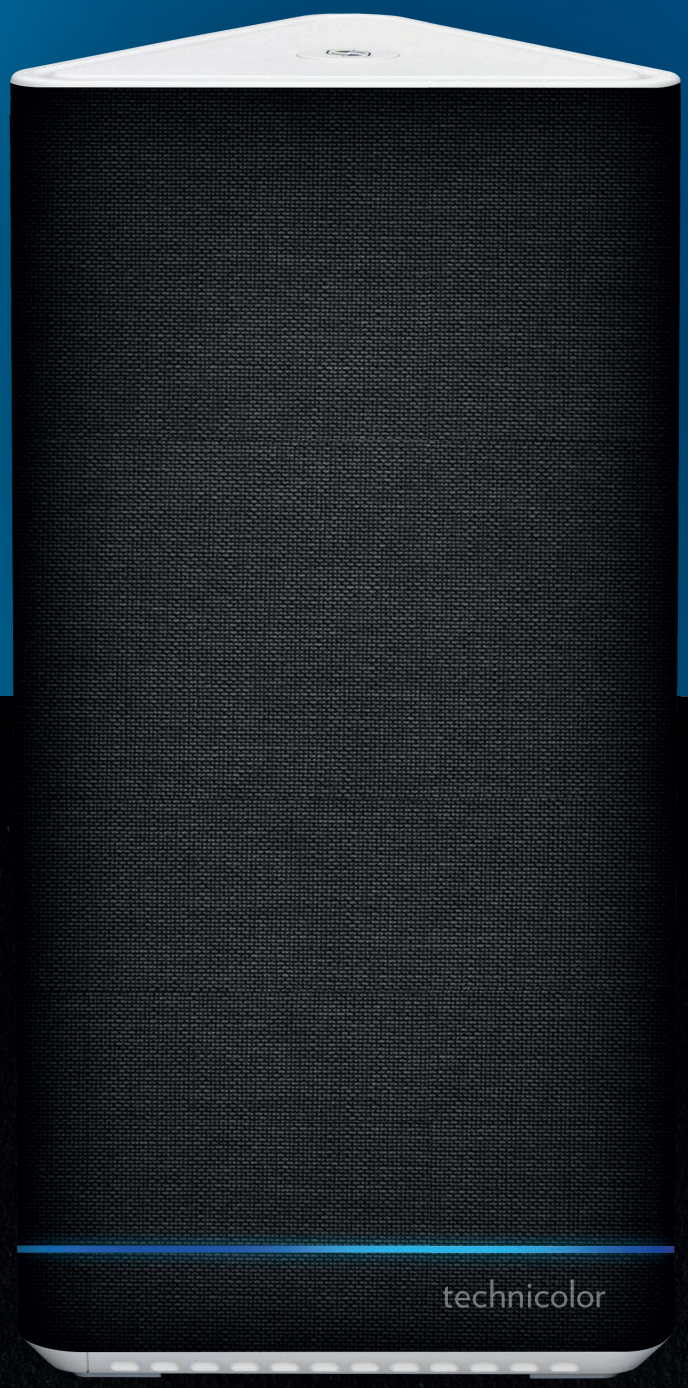

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IBC2021 ACCELERATOR: SUSTAINABILITY IN LIVE PRODUCTION

The recent COP26 conference and the urgent need to limit global temperature rises to 1.5°C above pre-industrial levels has placed renewed emphasis on this IBC Accelerator, which seeks to expand some of the work done throughout the broadcast and media industry to provide useful metrics for achieving carbon net zero live production.

As Andy Beale, chief engineer at BT Sport, puts it succinctly: "There is literally no more important topic now than sustainability. We all need to take our personal and corporate responsibility for ensuring that we are carbon net zero, to ensure the future of our planet."

The ultimate aim of the POC will be to showcase different techniques and technologies that can be used to reduce the environmental impact of a live production versus traditional OB workflows. In addition, the Champions behind it want to introduce tips and tactics that anyone can use to help serve as a blueprint that can be used across the industry.

This has already been done in detail and with great success in the UK TV and film industries by albert, whose work has helped contribute to a 10% drop in the amount of carbon one hour of TV contributes to the atmosphere. In doing so it asks a range of detailed questions regarding everything from the number of flights taken to litres of paint used on set.

Now, as part of this Accelerator, the same level of forensic detail will be applied to live production, with a particular emphasis on the new cloud workflows that are enabling more remote productions.

"We have the opportunity to really go in depth and develop an understanding of what cloud production means from a carbon footprint perspective," comments Jo Finon, manager of responsible productions at Sky.

"We don't actually know what the connectivity footprints are, it's been out of scope for albert. So it's really exciting to take them on a journey with us and to start lifting the lid on what kind of footprint we've previously had on traditional satellite uplinks, then remote production and now with cloud production."

ASSESSING CLOUD CARBON

There has already been some excellent work done in this field. Sky, for instance, has gone carbon neutral for all its UK sports OBs this year and produced its first net carbon zero football match in September, reducing its emissions by 70% and offsetting the remaining 30%.

(The distinction between the two is that achieving 'carbon neutrality' is simply a case of purchasing the equivalent amount of carbon reduction credits to balance emissions, whereas 'net zero' involves a concerted attempt to reduce emissions with any remaining balance then offset.)

The move towards cloud production, however, throws up several issues as the data on power consumption within data centres, and the way that different cloud workflows impact them, is largely unknown.

Mike Ward is head of marketing at Accelerator Participant singular.live. "One of the black holes for us is that we're a cloud platform, entirely digital cloud native, and so we make assumptions that therefore we are a more environmentally friendly platform than, say, going out buying graphics hardware and shipping it around the world. But we don't know, because we don't get any measurement from any of our cloud providers. And Sky, BBC and BT Sport were saying the same thing; we just don't get that that data back from them."

"We all need to take our personal and corporate responsibility for ensuring that we are carbon net zero, to ensure the future of our planet," Andy Beale, BT Sport

One of the powers of the Accelerators is that collective action tends to make industry sectors and individual companies take notice. Both Microsoft and AWS are now onboard and have pledged to share their data, with the aim of producing metrics that can be used to inform future decisions regarding sustainable productions.

Sustainability in Live Production
Champions: BBC Sport, BT Sport, Sky, albert, Premier League, IMG/Premier League Productions, NBCUniversal, SuperSport
Participants: AWS, Blackbird, Microsoft, Singular.live, Hitomi, Zixi

The gut feeling in the industry is that cloud production is more carbon friendly. For example, the equipment at the new breed of centralised production hubs in the industry tends to be left on 24/7 even if it is only used a few hours a day as the risks of it not booting up are unthinkable. Cloud workflows are better at utilising shared resources across different productions, but all this has yet to be quantified; as has all the other more traditional aspects of a live broadcast, from the fuel in the generators to the food that is served to the crews. This is where albert will come in.

"It was really important to us to get albert involved," says Ward. "We can make this a tool that is available for the industry so that there is a way companies can benchmark what they are doing, and they can get tips for how to implement things in their production."

The POC for IBC Digital will form the basis of a forthcoming albert report and is constructed around two English Premier League matches, taking place over a packed schedule of matches in the coming weeks on one of the Champions' channels.

"What all us broadcasters have in common is the Premier League – we are all rights holders, so we are using that high-profile coverage to investigate what the cloud footprint looks like and examine the nuances around our various productions and our add-ons," explains Finon.

"We are all taking a very similar feed and adding our own elements or using it in a different way. We do one thing, the Radio 5 Live guys another, the BBC cuts it for highlights on Match of the Day, and so on. So we're taking the coverage that we all share but looking at our individual ways of working and examining the complete workflow."

The team of Champions have been joined by the Premier League itself and by its broadcast arm IMG/Premier League Productions, as well as international EPL rights holders NBCUniversal and SuperSport in South Africa, which will be taking and customising the global feeds.

The net zero production for the POC will operate in parallel to the main production, so will not feature a full camera roster, for instance. But care is being taken to construct it in a way that ensures the data it provides is scalable up to the typical full production.

Finon hopes that it will achieve the same 70% figure as the September game "or better", while Ward hopes it will not only provide the data for an actionable report, but that the effort will ripple outwards and help encourage further vendors and suppliers to make changes towards sustainable operations.

"Our industry is generally innovative," he says. "Now the eyes of the world are on sustainability, we can put all these really smart people we have in our industry together, get focused on it, and lead by example."

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EBU: BUILDING THE FUTURE WITH THE SEAMLESS SWITCH

BY GEORGE JARRETT

Arcidiacono: "Resistance to change has been wiped out by the need to be efficient and fast"

Antonio Arcidiacono, EBU director of technology and innovation, believes that the return of the face-to-face sharing of ideas and initiatives that IBC offers will be: "Important for our return to a new age of growth. We should not hide behind the difficulties."

Asked if 5G multicast broadcasting will be the saviour of public service media, he looked first at 5G-MAG's progress since launching at IBC2018.

"I am very proud that despite the difficulties of Covid we have an organisation of almost 50 members, including Verizon, Qualcomm, LG, Huawei, Sennheiser and satellite companies, in addition to the broadcasters that dominated at the beginning," he says. "One key point at the start was that there were no chipsets available that could be used to go from broadcast to unicast to multicast in a seamless way, but from next year Qualcomm will offer a new set of chips that will embed this capability."

"Huawei will be doing the same implementation at the Winter Olympics in Beijing, with its HiSilicon, so we are now able to build the future with that seamless switch," he adds.

The potential clever spectrum management for 5G broadcast has triggered ambitions for a greener future, but how does Arcidiacono see this happening?

"The green requirement is served when you follow the laws of physics and you exploit them in the right way. The combination of a solution that is able to deliver broadcast and multicast content to very large audiences, and the use of unicast where you serve personalised content for individuals and small groups, is structurally what makes the delivery system greener," he says.

When it comes to serving territories, the multi-layer approach is the best solution for green delivery.

"When you go to 100% of the population combine this with a solution like satellite. In cars you could have a 5G gateway that will be terrestrial and satellite, and when you drive out of suburban areas this will be covered by satellite," says Arcidiacono. "So, you are covering 100% of the territory with a sustainable and guaranteed quality of service."

THE NEED FOR MORE TALENT

The media industry, bar the skill shortages, took the pandemic as a massive green light, he believes: "It has been an accelerator. The resistance to change has been wiped out by the need to be efficient and fast: this has been extremely evident on the production side."

"All of us at the EBU were working alongside our membership on deploying IP-based remote production, and although the plan was to develop this in the next 3-5 years, it happened overnight," adds Arcidiacono.

"The skills issues are a bit of both in terms of poor training options and a dire lack of talent. The reality in this transition is that the technology is evolving quicker than the people are able to evolve. Training has been accelerating recently but we need to improve it far more. The other element that is fundamental is that need for more talent. There is huge skills demand in AI, IP-based infrastructures, cloud-based services and data science, so we have to proactively help the universities to create a larger set of people able to manage these sectors.

"We should be at the crossroad between what is feasible technically with this IT system for media and what is achievable from the creative point of view."

BCE BRINGS GREEN ENERGY TO TRANSMISSION SITES

PUBLISH

BCE – Broadcasting Center Europe

BY DAVID FOX

RTL's transmission sites have gone green with 29,719 solar panels

BCE, in partnership with energy supplier Enovos and RTL Group, has opened Luxembourg's largest ground-based photovoltaic power plant on two areas of land used for RTL's transmitters.

The project has been carried out over three years and involved installing 29,719 photovoltaic panels at BCE/CLT-UFA's transmission sites in Beidweiler and Junglinster. The installation will produce about 10.5GWh electricity per year and will be able to cover the needs of more than 2,800 households, almost 11,000 people.

The site has been built so that grass can still grow underneath the solar panels (which are semi-transparent and can create energy on both sides using light reflected from the ground), and the area can be grazed by sheep. The panels have been installed on metal poles with no concrete used, so that the site can be returned to greenery with no lasting consequences in the future.

Frederic Lemaire, CEO, BCE, said: "This achievement is the result of three years of remarkable work, based on a sustainable partnership approach between Enovos and BCE, thus supporting the Luxembourg government's desire to commit to sustainable, ecological solutions, both for the concrete and immediate benefit of the populations but in compliance with the global Climate Agenda."

Green energy should also mean biodiversity, as Anouk Hilger, head of renewable energies, Enovos, said: "If the presence of underground wiring around the [broadcast] antennas does not allow any agricultural or industrial exploitation of the land, it is nevertheless particularly suitable for the installation of photovoltaic panels. To preserve the fauna and flora, we have carried out numerous studies, mounted the panels by limiting the trenches and set up a grazing system to limit as much as possible any unnatural element in the meadow."

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PRIORITISING SERVICE EXPANSION TO SUPPORT CUSTOMERS' RAPID GROWTH

Ali Al Kuwari, president & CEO, Es'hailSat

As Qatar's satellite operator of choice, Es'hailSat has been serving broadcasters, telecoms companies, enterprise and government customers for the past 11 years from our headquarters in Doha. From our perspective, the media industry has transitioned from being an entertainment service that people sat back and received to becoming an information source that people step forward and consume. Key to this has been the all-pervasive internet connectivity and content delivery via a choice of medium, whether it be satellite broadcasting or IP streaming over 4G/5G and fibre.

For our business, the priority over the next 12 months is to expand our services to support the rapid growth of Qatari customers across the board. The sky is the limit for Qatar's ambitions, and Es'hailSat wants to ensure that we are the first choice for companies in Qatar and across the region wherever there is a need for connectivity over satellite.

"Satellite, cellular and fibre telecommunications have become the backbone of the economy"

We are keeping a close watch on the latest advancements in technology, including cloud playout services, content delivery networks (CDN), mobility and telecommunication services. In addition, our fleet of two satellites, Es'hail-1 and Es'hail-2 at 25.5/26 East hotspot, is now bolstered by an expansion of services delivered from our teleport in Doha.

For our customers, including pathbreaking broadcasters such as Al Jazeera and beIN Sports, opportunities lie in delivering every possible genre of content to consumers across all touchpoints. These touchpoints include TV at home, mobile devices on the move, and internet connectivity over land, sea or air. Es'hailSat is enabling these opportunities by adopting cutting-edge technology and delivering a world-class service from our aforementioned teleport facility in Doha.

The past two years have seen the world wake up and realise the importance of healthcare after the onset of Covid-19. However, internet connectivity has also become a basic need for survival, no matter where you are. Both businesses and individuals have realised that their sustenance would not have been possible had it not been for the ability to log in to their workplaces or stay connected with family and friends via every available means of connectivity. Satellite, cellular and fibre telecommunications have become the backbone of the economy, and governments worldwide are investing in infrastructure to ensure that their populations remain connected irrespective of location.

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VITEC INVESTS IN IP STREAMING BUSINESS WITH ANEVIA ACQUISITION FROM ATEME

PUBLISH

Vitec

BY DAVID FOX

Vitec has enhanced its position in IP video streaming with the acquisition of the Flamingo hospitality and enterprise video delivery business of Anevia from Ateme. This builds on Vitec's core enterprise IPTV business and, coupled with the purchase of Exterity in April, positions Vitec as a leader in enterprise and hospitality IPTV. It means Ateme can focus on its core business of video-delivery software for broadcast, cable, DTH, IPTV and OTT, and this transaction will provide existing Flamingo users with a long-term video delivery partner for hospitality and enterprise applications.

The acquisition builds on Vitec's strong position in IPTV

Ateme only acquired Anevia in 2020, looking to grow its IPTV and OTT offerings by combining its video compression systems with Anevia's expertise in content delivery. However, when Vitec bought Exterity in April 2021, it saw an opportunity to combine the hospitality and enterprise components of the Anevia business with Vitec to expand its offering in the enterprise and hospitality markets. As Ateme and Vitec have an existing business partnership, they were able to come to a rapid agreement on integrating Flamingo into Vitec's enterprise IPTV platform.

Colin Farquhar, SVP sales, Vitec, said: "This acquisition is a statement of our commitment to expanding our reach in the enterprise and hospitality markets. Anevia is especially strong in the hospitality sector in Europe and the Middle East, and we value its experience in these regions greatly as we seek to develop our presence." He assured existing Anevia customers that they will continue to receive the same levels of service, plus new platform innovations from Vitec.

Laurent Lafarge, chairman and CEO, Anevia, said: "We are excited to integrate Flamingo and our enterprise and hospitality business with Vitec. Crucially, this will also free Ateme to focus on its priority OTT market through the combination of the compression solutions it already had and the content delivery solutions it acquired from Anevia."

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NETWORK MONITORING MAKES THE CLOUD CONNECTION

MANAGE

WorldCast Connect

BY DAVID FOX

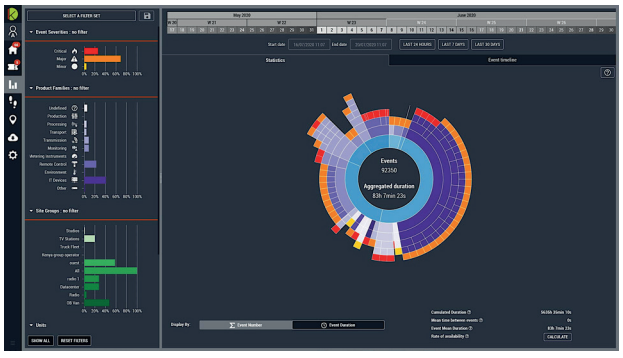
WorldCast Connect has announced a major update to the Kybio SaaS-hosted platform for unified network monitoring and control.

After a rigorous benchmark of technologies to best meet Connect's need for more scale and performance, its SaaS version of Kybio is now powered by Kubernetes, the standard container orchestrator for cloud.

Julien Libeau, Kybio product manager at WorldCast Connect, said: "Using Kubernetes technology radically changes the way our team and engineers work on the SaaS offer. It also adds value for our customers in media and broadcast, especially by speeding up the time of deployment. They can literally have Kybio up and running in less than ten minutes."

This new cloud-hosting package brings to Kybio the ability to scale on growth while ensuring high reliability for cloud deployments worldwide. Based on Kubernetes, the architecture provides the correct amount of compute power needed for each customer, depending on usage and licence size.

EdgeBots, software-only agents for Kybio's remote monitoring, played a major role in the deployment of this new cloud infrastructure. They bring the ability to combine on-premise remote monitoring with a full cloud environment. By connecting EdgeBots with their remote network, users are connected to Kybio SaaS, offering high scalability for large network infrastructures.



The analytics and reporting engine in Kybio offers advanced data visualisation

GERMANY'S WELT TAKES A SHINE TO EMERALD KVM

The Black Box Emerald Unified KVM platform supports HD and 4K

MANAGE

Black Box

BY DAVID FOX

German broadcaster Welt (formerly N24) has built a state-of-the-art studio in Berlin using the Black Box Emerald Unified KVM platform and Boxilla centralised KVM manager for its keyboard, video and mouse network.

Designed, supplied and installed by the project's master systems integrator Qvest Media, the Black Box system will enable reliable, flexible IP-based signal switching and extension for two large broadcast studios and one smaller studio, all of which rely entirely on remotely operated robotic systems.

Thorsten Prohm, chief technical officer at Welt, said: "The Emerald KVM platform is unique in supporting both virtual and physical machines, and this capability – along with anytime, anywhere access via the Remote App software receiver – has opened up a whole new way of approaching our studio infrastructure. The Black Box system's ability to support both HD and 4K likewise gives us valuable flexibility in managing signals and format types as we deliver news broadcasts with an innovative look and feel."

The broadcaster is using Emerald transmitters and receivers to connect operator workstations to computers in the facility's equipment rooms – and eventually to virtual machines – so that operators working anywhere can enjoy fast access to any sources they need to do their jobs. The Remote App securely extends access to the KVM network so that authorised users can connect to the studio or other broadcast facilities and remotely perform the same job they do when working on site.

Thanks to Emerald's API-based cross-functionality with other platforms, including the studio management system, operators can completely reconfigure all workstations' functionality with the touch of a button.

SCOOPYFLEX IN THE DOCK FOR PORTABLE OB COMMENTARY

CREATE & PRODUCE

Aeta Audio Systems

BY DAVID FOX

ScoopyFlex, a new 'ultra-portable' codec from Aeta Audio Systems, can be paired with a docking station so that it transforms into a fully-fledged commentary unit.

The modular ScoopyFlex is designed to meet broadcasters' present and future needs by offering flexibility and advanced functionalities, such as 5G capability, embedded Bluetooth and WiFi, as well as two mobile network connections.

With an autonomy of up to eight hours battery life, the unit can house three SIM cards and manages recording, editing and video tasks. It handles two stereo streams and supports HD voice.

It is suitable for multiple applications, whether for reporters on the go or spot interviews. It also lets users connect a second microphone to the unit to help ensure optimal sanitary conditions that protect both reporters and guests during interviews.

For sports commentaries or remotes from more complex infrastructures, presenters can pair ScoopyFlex with a docking station, turning it into a complete commentary unit. In this configuration it offers up to three mics, additional audio I/Os and a redundant AES67 connection on top of a second Ethernet port, battery recharge, intercom buttons, and easy access to level knobs.

Yann Vonarburg, general manager of Aeta Audio Systems, said: "With ScoopyFlex, we offer the quality and tradition of our flagship product in a new modular version allowing [users] to craft timely and compelling remote broadcasts. [Previously] station staff would have to have two units: one light device for mobile use and another one for commentary applications."

No comment necessary – but it's an option for Aeta's new ScoopyFlex

Q&A Taking a 'holistic view' of M&E industry challenges

What are the biggest challenges facing the media & entertainment (M&E) industry?

The industry has seen new competition come in to play over the past year as the popularity of online entertainment continues to grow. For traditional sports broadcasters, large social media and OTT video services are bidding and winning streaming rights to major league sports events, driving up the costs of securing rights. For non-sports OTT services, some of the film and TV show producers are starting their own OTT services and pulling back content that they have been licensing to other OTT services. This is presenting challenges in differentiating services by offering new, innovative viewing experiences to better engage and retain viewers, as well as grow their subscriber base.

How is Limelight helping customers to address these challenges?

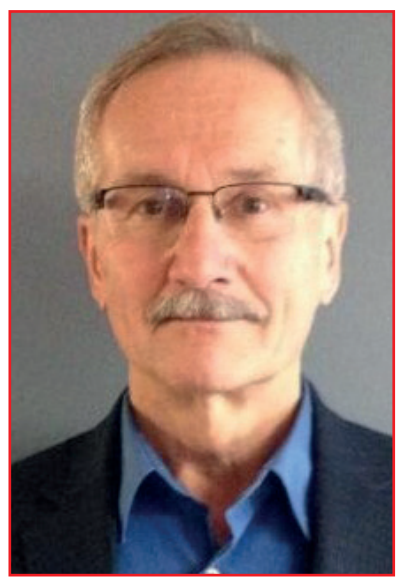
To support the continued growth of online sports and entertainment viewing, Limelight will be focusing on expanding our CDN's video delivery capacity and global reach with additional PoPs in strategic locations. This will provide the infrastructure to deliver high bitrate streams with broadcast quality. Specific to sports streaming, new low-latency streaming technology that delivers online video with the same latency as traditional broadcast will enable multi-screen viewing such as 'watch together' apps where all participants see on-field action at the same time. The low latency will also enable interactivity between stream providers and views such as live sports betting. These and other uses of this technology will enable new innovations in the viewing experience, helping to retain audiences and grow them as well.

What are the new technology trends or themes you see emerging at present?

Top trends we see include more 4K viewing options with the addition of High Dynamic Range (HDR) for improved picture quality; experimenting with augmented, virtual and mixed reality; multi-camera angle viewing options, including drone-cams; incorporation of live betting into online sports viewing; and adoption of low-latency streaming to support interactivity and multi-screen viewing.

What sets Limelight apart as a technology leader?

Limelight takes a holistic view of the challenges the [M&E] industry faces, going beyond a narrow focus on delivering video to audiences. An equally important part of the consumer experience is their interaction with the websites powering access to video content. The way to build better engagement with audiences is through better digital experiences. Fast web response times and sub-second page loads are the gold standard for performance. Limelight's recent acquisition of Layer0 [announced in September] supplies the new technologies for predictive prefetch to provide highly engaging user experiences.



Charlie Kraus, senior product marketing manager, Limelight Networks

www.limelight.com

DATA-DRIVEN DASHBOARD OFFERS CLOUD CONTENT CONTROL

PUBLISH

Easel TV

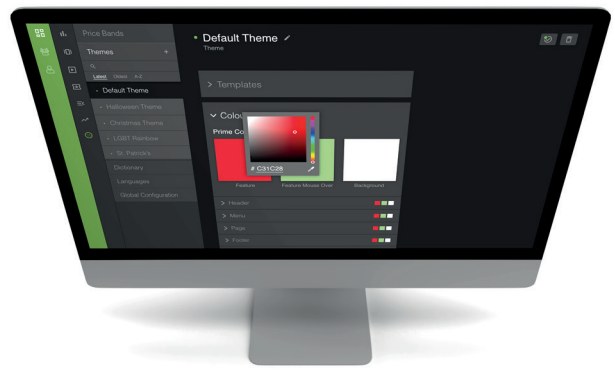
BY ANNE MORRIS

Provider of OTT services Easel TV has rolled out its latest streaming platform, complete with an intuitive dashboard that the company claims delivers rich design editorial and data-driven control.

Available as an off-the-shelf, white-labelled, direct-to-consumer streaming service for TV, media and entertainment services, the platform provides apps on Fire TV, Apple TV, Android TV, Roku, Samsung, LG, web, iOS and Android.

Joe Foster, CEO, Easel TV, said: "Our next-generation platform delivers strongly on all fronts, to provide the ultimate UX and customer journey. Built on data-driven architecture, it offers complete flexibility in terms of refreshing design and content in-life, without the need for continual manufacturer approval. Quick and responsive, this epitomises how we are streaming ahead by allowing our clients to drive offers, content, pricing, advertising, or any other aspect of their service, around user and service data."

With the streaming market turning towards more genre and thematic offerings, Easel TV claims its intuitive CMS dashboard provides a user-friendly cloud dashboard and a comprehensive platform that helps content owners achieve "true differentiation" for consumers, rather than a one-size-fits-all solution.



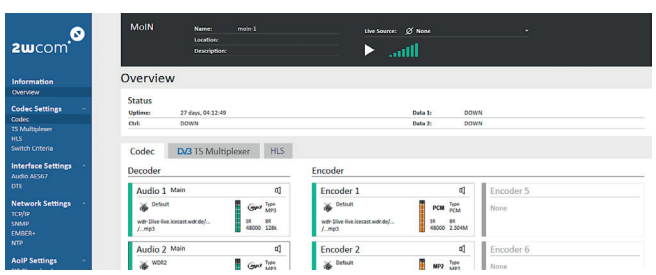
Easel TV's next-generation streaming platform comes with an intuitive dashboard

2WCOM CREATES CLUSTER OF COST-EFFECTIVE CONTAINERS

2wcom Systems

BY DAVID FOX

The Multimedia over IP Network (MoIN) server software from 2wcom can be operated on hardware, virtual machine, or using a cost-effective containerised version on major cloud platforms. It has been upgraded to meet customer requests for virtualisation, increased IT security and the need to connect remote and local sites.



Codec moment: 2wcom's MoIN web interface for controlling encodes and decodes

Now, the software can be operated on Kubernetes cluster (a set of node machines running containerised applications) to ease the management and monitoring of containers, services and workloads across multiple physical machines. Also new is its up2talk service, which connects external participants or remote productions directly into a studio network and provides audio in broadcast quality.

Users can now feed a streaming encoder or transcoding audio signals to adaptive bitrate protocols, such as HLS for further distribution via CDN.

MoIN supports a wide range of protocols, standards and codecs, including offering compatibility to third-party products. It can make web streams available for distribution over cable or satellite, and transcode signals (such as AES67) from studio networks to a format that is suitable for wide area networks. Depending on the use-case up to 1000 on-demand transcoders can be used when needed.

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- Single and dual Tx, Rx boxes and openGear Tx cards
- Low latency (17 ms), and fast computer switching (2 sec)
- Supports up to four head computers and consoles
- Rx with built-in scaler - Wall capability (up to 8 x 8)
- 4C License: Control up to four consoles from a single K&M
- Runs on inexpensive GigE networks - POE support

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- **Post production**
- **Command and Control**
- **Universities**

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- **Studio Berlin Ü10 UHD OB Van (Broadcast Solutions)**

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MEDIAKIND AND ARQIVA AIM TO AID CLOUD MIGRATION

PUBLISH

Arqiva & MediaKind

BY DAVID FOX

MediaKind and Arqiva are joining forces to help broadcasters migrate to the cloud. The new strategic partnership will deliver a cloud-native, fully managed service for the aggregation, processing and delivery of television services for any platform (broadcast and OTT) in any region, at any scale.

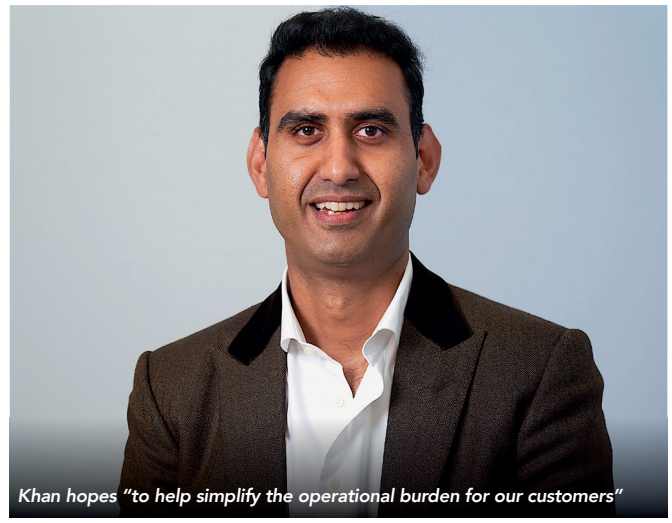
The collaboration brings together MediaKind's cloud-native encoding, multiplexing, packaging and lifecycle management with Arqiva's experience in managed service delivery spanning integration, monitoring and connectivity services.

The managed service for broadcast and OTT headend systems is underpinned by a global media network, content processing software and Tier 1 support and operations. It is designed to: improve flexibility; remove the complexity and significant upfront costs associated with delivering video processing functions; and accelerate broadcasters' and operators' adoption of cloud technology, ensuring faster time to market and supporting the transition from broadcast to OTT delivery.

The service should enable more sustainable media content delivery. The cloud-native software ensures that power and resources are only used when needed, avoiding an always-on infrastructure. It will be structured on a cloud-based, subscription-like commercial model, so users only pay for services as they need them.

Shuja Khan, chief commercial officer, Arqiva, said: "Our goal is to remove the complexities of deploying, maintaining and operating broadcast headends. The proposition will simplify cloud migration providing a truly exceptional service that offers quality, reliability, adaptability, cost-efficiency and a sustainable approach. In a media distribution world which is becoming increasingly complex, our mission is to help simplify the operational burden for our customers as they navigate technology transitions."

Boris Felts, chief product officer, MediaKind, added:



Khan hopes "to help simplify the operational burden for our customers"

"Our joint service offering will leverage our managed cloud application operational deployment model and provide a cost-effective means for media delivery, operations and cloud infrastructure, enabling all operators and broadcasters to focus on differentiating their service through high-value content, live events, VOD libraries and innovative new channels."

BB&S RELEASES COMPACT BICOLOR FRESNEL LIGHT

CREATE & PRODUCE

Brother, Brother and Sons

BY DAVID FOX

The Compact Bicolor Fresnel (CFL) from BB&S is the latest in its range of Compact Beamlight LED studio fixtures.

It is claimed to be the smallest footprint Fresnel on the market (at 14cm), draws just 38W and outputs over 2400 lumens with a Television Lighting Consistency Index rating of 96 (tuneable from 2700 to 5600K).

The CFL features a curved glass 90mm Fresnel lens that ensures even field distribution. It outputs a hard-shadow beam that fades from 100% at the centre to 50% at the edges, making it useful for mixing and overlapping with other lights while eliminating blinding glare. The 1.6kg fixture has enough output to make it usable as a key, fill or backlight from 3m to 6m.

Little Brother: The new 38W BB&S Compact Bicolor Fresnel

The CFL's zooming capability is operated via BB&S' smart ring-controlled focus system with a range of 11-52°. The fixture also offers silent operation thanks to an efficient heat dissipation rear section that doesn't need a cooling fan.

The light can be operated via the BB&S 4-way controller that can provide DMX 512/RDM to two fixtures simultaneously. The range of power options includes: 40W driver/dimmer with D-Tap cable (battery operation), 65W PSU (any voltage worldwide 110-270V) and locking AC cable.

The Fresnel is compatible with BB&S' other studio fixtures including Compact Beamlights and Pipelines (same 4-way controller), and the Area 48 range, as well as the BB&S Tracklight system. Accessories include optional rotating magnetic barndoors, magnetic top hat and a magnetic filter ring.

STREAMING AHEAD WITH JPEG XS

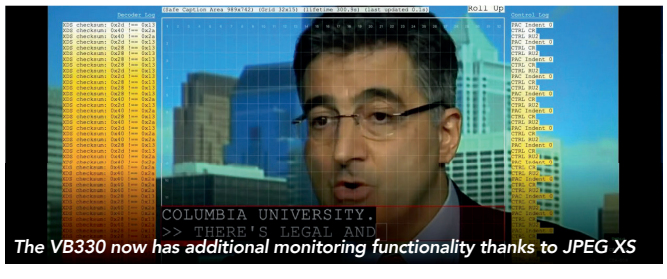
MANAGE

Bridge Technologies

BY ELLIOT HERMAN

Bridge Technologies is extending JPEG XS support to its VB330 Appliance, which can monitor thousands of streams in backbone networks and central head-ends. It already comes as standard on the VB440.

JPEG XS delivers a similar level of compression to that of the JPEG 2000 standard and can operate across both PTP and 'traditional' transport streams. The Timeline 'content' option has also been extended to cover JPEG XS streams. This allows for both thumbnails and measurement metadata to be recorded directly to the appliance for up to four days (or in the case of the software probe, extended through disk expansion). This means that data can be held and archived locally – including visualisation of thumbnails and identification of Quality of Experience issues, such as black frames, freeze frames and MOS scoring.



The VB330 now has additional monitoring functionality thanks to JPEG XS

All of the existing functionality that the VB330 provided for other formats has now been extended to the JPEG XS standard, across both appliance and software versions of the probe. This allows for monitoring of up to 2000 multicasts using the JPEG XS standard. Comprehensive deep-dive metrics of the data can be presented, including measurements of bitrate, packet drop and excess jitter, as well as continuous thumbnail decode for validation of the data.

Simen K Frostad, chairman of Bridge Technologies, said: "We are the only company which does all this in a regular web browser – a user can even access this on their cell phone if they wanted to. This means that the main device can be left where the switches are, and up to eight users can connect at once, with very low latency."

MEDIA GATEWAY TAKES IP TO THE MAX

MANAGE

Media Links

BY MICHAEL BURNS

The new MDP3020 Max is a standalone edge device with configuration support for JPEG-XS compression.

The MDP3020 Max encodes/decodes video, audio and data content for carriage over wide area IP networks. It is designed primarily for use in live remote production environments where economical, highest contribution quality IP media conversion and transport robustness is essential.

It can be configured to support four 1080p video channels using JPEG XS compression, which achieves bandwidth reduction ratios of up to 10:1 and beyond. In addition, MDP3020 Max supports JPEG2000 compression. It can be deployed at the edge of an IP WAN network where bandwidth is typically constrained, where minimal latency is necessary for live interactive broadcasts, and where the transport of uncompressed high-quality video is just not feasible.

XS load: The MDP3020 Max offers compression tuned for low-latency transport

The media over IP transport technology firm says that insatiable demand for live content is driving a need for portable, network protected, remotely configurable and cost-effective IP media gateways. The company claims the MDP3020 Max meets this demand, saying it offers visually lossless quality and sub-millisecond latency.

The MDP3020 Max is housed in a half-1RU footprint. Dual 1GbE or 10GbE trunk interfaces supporting ST2022-7 seamless protection switching as well as frame synchronisation come as standard, as do dual 'hitless' 1G/10G data ports.

TRICASTER LINE EXTENDED AND ENHANCED

CREATE & PRODUCE

Vizrt Group

BY DAVID FOX

Vizrt Group brand NewTek has launched the TriCaster 1 Pro: a streamlined live video production system that supports UHD switching, live streaming, recording, data-driven graphics, virtual sets and more. It has also upgraded its TriCaster 2 Elite to offer more powerful features as standard.

Both have tight NDI-native IP integration and enable LiveGraphics, LivePanel and Live Story Creator tools as standard offering automation, title and motion graphics, and bespoke control surfaces.

TriHarder: The TriCaster 1 Pro streamlines live video production

The TriCaster 2 Elite now features both selectable audio and video returns, as well as NDI genlock.

Nested macro capabilities within the TriCaster Pro 1 and TriCaster 2 Elite allow users to deliver complex productions. Operators can send Alpha Channel through one of the Mix outs, bringing post-production closer to live. Users can also use the keying on TriCaster to feed graphics or real-time 3D creation tools. TriCaster 1 Pro and TriCaster 2 Elite support the encoding of three channels.

Both models now offer the latest version of Live Call Connect, to integrate popular video communication applications as video inputs. The Neural Voice Isolation tool automatically detects voices and cleans the audio, while any mobile device can become a live production camera by using the NDI TriCaster Camera app.

REALITYHUB GETS UNREAL UPDATE AND WEB CONTROL

MANAGE

Zero Density

BY DAVID FOX

RealityHub 1.2 is major update to Zero Density's production software that lets broadcasters manage everything from real-time graphics to robotic cameras in one place. Users can integrate most on-set equipment, automation systems and external data sources to RealityHub straight out of the box, or leverage Zero Density's open-source SDK to develop their own custom integrations. There's also Unreal Engine Vanilla support for RealityHub's HTML5 interface.

Kuban Altan, co-founder and VP of R&D at Zero Density, said: "RealityHub was designed to help customers like The Weather Channel, Warner Media and Eurosport by bringing traditional standalone control systems into a web browser. This lets teams manage entire broadcast setups without having to worry about long installation processes."

Altan added that Unreal Engine support will make RealityHub technology "more accessible than ever before, giving Unreal Engine creatives… the power to control every element of their production from a single hub."

Altan: RealityHub can "control every element" of a production

The web-based control interface means that it can be accessed via tablet, laptop or desktop. Real-time data integration means audiences can be natively connected to data sources that will automate the display of weather, election, sports or financial information. It also offers native integration with broadcast ecosystems, such as newsroom control systems like Octopus with MOS or any proprietary protocol. Support for the REST API allows users to integrate with automation and build third-party integration.

There is also a new free Community Edition, supported by Zero Density's recent MegaGrant from Epic Games. It is feature-complete, but only accessible to one user at a time.

XEEN UNVEILS MEISTER WORK

CREATE & PRODUCE

Xeen

BY DAVID FOX

Xeen has introduced a new Meister line of fast T1.3 full-frame prime cine lenses compatible with PL, Canon EF and Sony E mount, as well as a new 2x anamorphic 50mm T2.3 lens for full-frame sensors.

The first three Meister lenses are 35mm, 50mm and 85mm primes, which are claimed to offer "outstanding resolution supporting 8K on full-frame cameras" with an image circle of 43.2mm. The bright T1.3 aperture maximises the dramatic effect of an extremely shallow depth of field, while 13 aperture blades create a natural-looking background and round bokeh.

The colour-matched lenses support Cooke's /i Technology protocol (PL mount only) for lens metadata recording, for more efficient production and post-production.

The Meister lenses have a titanium front barrel, for added durability, with a 114mm standard front diameter and unified positions of the aperture and focus gear rings making it easy to attach lens accessories such as matte box or follow focus. A 300° wide angle of rotation enables fine focus adjustment.

The anamorphic lens comes with a PL mount, has a 2x squeeze ratio which gives a 2.55:1 CinemaScope ratio from a 35mm full-frame sensor, and is suitable for cameras up to 8K. The lens barrel is made from carbon fibre to reduce weight (3.9kg) while maintaining durability. It uses a newly developed iris with 15 aperture blades, which is claimed to create a perfect oval and evenly illuminated out-of-focus highlights.

Meisterpiece theatre: Xeen's new Meister primes and 2x anamorphic lens

HD 400 PRO HEADPHONES OFFER SPACIOUS SOUNDSTAGE


The open-back design of the HD 400 Pro ensures a natural propagation of sound

CREATE & PRODUCE

Sennheiser

BY DAVID FOX

Sennheiser has launched the HD 400 Pro studio reference headphones for mixing, editing and mastering. They are the first open studio headphones in Sennheiser's Pro line.

Gunnar Dirks, Sennheiser's product manager, professional audio, said: "When editing and mixing, you need detail and honesty, and this is what the HD 400 Pro will give you. Thanks to their linear, high-resolution reproduction, these headphones are a reliable reference to create outstanding audio mixes."

The headphones offer a frequency response of 6-38,000Hz and feature new Sennheiser-developed 120-Ohm transducers with a diaphragm made from a polymer blend. Distortion is below 0.05% (measured at 1kHz, 90dB SPL). The HD 400 Pro accurately reproduces audio beyond the audible frequency range, claims Sennheiser.

The headphone transducers of the HD 400 Pro sit at a slight angle, to recreate the optimum triangular listening position users would place themselves in when listening to monitor loudspeakers in a recording studio. The open-back design also ensures a natural propagation of sound, unimpeded by the acoustic structures required in closed-back designs. Both aspects should create a wide, spacious soundstage that is neutral and transparent.

The headphones have a light frame (240g without cable) and soft velour earpads for comfort. They can be used with Dear Reality's headphone monitoring plug-ins, which create a virtual mix room with carefully designed acoustics thanks to advanced spatial audio technology. The headphones have already been integrated into the Spatial Headphone Compensation feature in dearVR Mix; dearVR Monitor integration will be released soon.

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SECURE KVM-OVER-IP: SOLVING THE ISSUES

Jochen Bauer, director sales & marketing, Guntermann & Drunck

For decades KVM systems have been fully established in the broadcasting industry and provide an optimal base for the flexible switching of computer signals. OB vans and live transmissions, studios, post-production and broadcast control rooms all benefit from KVM – from recording to playout. With KVM-over-IP systems, transmission is based on IP and runs on standard networks. Due to being extremely flexible and easy to expand, KVM-over-IP turns out to be a future-proof solution.

However, IP transmission also increases the security risk. In this case, there is an additional danger from the outside, via the internet, or even from inside where accessing a network is even easier. So how can these security issues be solved? In order to protect an application from cyberattacks, network separation and segmentation are an important tool to be used.

In KVM-over-IP systems, keyboard and mouse, as well as audio and video data, must also be encrypted to prevent unauthorised users from tapping data transmissions and thereby gaining access to internal information. In the case of system-critical applications, in particular, the use of VPN, VLANs and secure encryption is necessary to avoid unwanted access.

Even more critical than the 'reading' of broadcast content is the detection of input data, especially that from keyboard logins, passwords, etc. Secure encryption is essential here, as is a regular replacement of the security key.

G&D helps you to protect your KVM-over-IP installation from network attacks in the following ways:

- VPN tunnel and video stream with AES 128-bit encryption
- Control port for the exchange of non-static security keys
- Communication port for the transmission of keyboard and mouse data
- Trusted Computing Platform to protect access and configuration data
- UID locking to prevent the integration of unwanted end-devices
- G&D KVM end-devices do not store any information. Therefore, login data from a device that has been physically removed cannot be read out.

www.gdsys.de

SKY DEUTSCHLAND SELECTS VENICE AND SPYCERNODE FOR SPORT

PUBLISH

Rohde & Schwarz

BY DAVID FOX

Sky Deutschland has installed Venice media servers and SpycerNode intelligent storage from Rohde & Schwarz to give itself greater flexibility and scale to support ingest, transcoding and playout for coverage of sports such as the Bundesliga and Champions League.

The broadcaster has invested in six new Venice units, along with a new SpycerNode, delivering a total of 24 channels of scalable centralised and external storage capability as well as support for UHDp50.

The new workflow uses Venice for ingest and transfers files directly into SpycerNode, allowing the Sky Deutschland team to access and edit growing files, pull out clips for highlights packages and playout directly. Venice also ensures correct flagging and handling of UHD and HDR material, eliminating errors in the delivery chain without the need for external third-party systems.

Christian Barth, director of production platforms & playout, Sky Deutschland, said: "As we meet our viewers' demands for higher volumes of richer content, having a rock-solid 24/7 channel playout workflow that can meet our evolving needs is a must. With this new generation of Venice and SpycerNode we have all the scalability we need now, and in the future. This upgrade also gives us the redundancy necessary in our playout environment."

Sky Deutschland's new Venice and SpycerNode gives it greater scale and flexibility

Venice supports group ingest and playout to studio and master control, managing complex signal processing and storage requirements. It provides scheduled recording, clip transforms and playout, integrating with Rohde & Schwarz shared storage, SpycerNode and certified third-party systems. It supports UHD using either single link 12G-SDI or quad link 3G-SDI (including a 2SI option), plus SMPTE ST-2110.

SpycerNode leverages High Performance Computing file systems for high scalability and full redundancy, offering shared storage to support fast turnaround workflows.

Rohde & Schwarz Virtual Storage Access (VSA) technology is also being deployed at Sky Deutschland to provide maximum fail safety and seamless redundancy for all R&S applications for ingest and playout.

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COMPACT TRANSMITTER SHINES FOR LIVE WORK

CREATE & PRODUCE

Broadcast Wireless Systems

BY DAVID DAVIES

Broadcast Wireless Systems (BWS) has announced what it describes as its "smallest and lightest transmitter ever", the Sapphire BTX. The company also recently introduced the Onyx-IP encoder/decoder family.

Helen Brown, director at BWS, said: "We've integrated a true 4K HEVC encoder with a COFDM modulator. [Sapphire BTX] is an all-in-one compact package that's equipped with a single video input capable of 3G HD-SDI, 6G and 12G, allowing video formats to UHD."

Other key benefits include: low-latency UHD/HD resolution encoding; single input interface supporting 3G HD-SDI, 6G and 12G; interchangeable RF modules; optional bidirectional camera control modules; support for Anton Bauer and V Lock battery plates; support for UHD/HD HDR and timecode (film industry) signal insertion; ASI out for onward connectivity; and IP streaming and web browser control.

The Onyx-IP range includes the Onyx HEVC, a broadcast-quality H.265 encoder, offering what are described as "exceptional compression ratios" on video resolutions up to 4K UHD. Onyx encoders can also stream across dual networks using a variety of IP formats including SRT, at bitrates of up to 120Mbps, while ST-2022-7 technology is used (at the decoder) for glitch-free recovery from network errors or path fail-over.

Sapphire BTX is the "smallest and lightest transmitter ever" from BWS

For legacy systems and satellite modem connection, the Onyx encoder is equipped with ASI inputs and outputs. It offers built-in encryption mechanisms and a quad mode with an end-to-end latency of less than 40ms in progressive formats. The specification also means that each video input can support two stereo pairs of embedded audio. Onyx is also equipped with two stereo analogue audio inputs and return talkback audio interfaces.

THE CR-X300 – A PTZ FOR THE REMOTE OUTDOORS

CREATE & PRODUCE

Canon

BY DAVID FOX

Canon's CR-X300 is a small outdoor PTZ UHD camera. It supports various IP protocols for remote use, and its simple operation and connectivity options mean it should streamline remote production workflows, says the company.

The 7kg CR-X300 has a durable body that meets IP65 standards, weather-resistant paint and a wiper for rainy conditions. It can cope with wind speeds of 60m/s and temperatures between -15°C and 40°C.

Powered by a Digic DV6 processor, it can capture UHD at up to 30p at 4:2:2 10-bit. Combining a 1/2.3in type CMOS sensor with Canon's Hybrid Autofocus system, the CR-X300 boasts fast, precise focus on subjects even in low-light. It has a removable IR cut filter to enhance IR performance, a stabilised 20x optical zoom lens with a maximum aperture of f/1.8, plus a graduated ND filter for brighter environments.

The CR-X300 supports multiple IP protocols, including RTMP/RTMPS, NDIIHX1, RTP/RTSP Standard Communication Protocol, and Canon's newly developed XC Protocol. Other connectivity options include Power over Ethernet (PoE++), HDMI and 6G-SDI.

It has a variable-speed pan-and-tilt drive (0.3° per second to 60° per second) to smoothly follow the action. It is compatible with Canon's recently launched RC-IP100 controller and the Remote Camera Control Application via IP, as well as selected third-party controllers. It can colour match with other Canon cameras from the Cinema EOS or XF/XA ranges.

Canon's new CR-X300 is aimed at reality TV or wildlife productions

QUALIFYING SUCCESS PREDICTED FOR CLOUD-NATIVE QC SERVICE

MANAGE

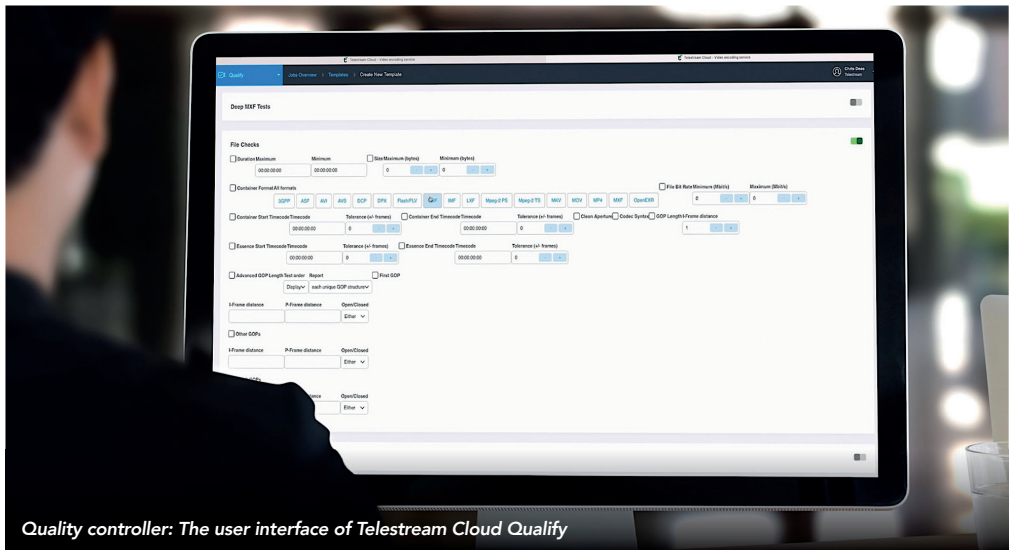
Telestream

BY DAVID FOX

Telestream Cloud Qualify is a cloud-native quality control service that combines technology from three key Telestream acquisitions (Vidchecker, Aurora and Telestream Cloud) optimised for cloud workflows.

The service is based on the Telestream Media Framework and is a file-based QC service that can run on a customer's cloud provider of choice.

Tim MacGregor, senior director, head of strategy and product development for Telestream Cloud, said: "As more media workflows move to the cloud, it's imperative to have a comprehensive QC strategy that resides where the media is being processed. Developing a QC environment from proven industry solutions that customers already know and trust gives Telestream a unique position in the market."



Quality controller: The user interface of Telestream Cloud Qualify

Built specifically for broadcast engineering and operations personnel, Cloud Qualify addresses content traversing the media pipeline in both directions. For media ingest and post production, it allows users to normalise content across all their workflows. For output and delivery, it enables content to be inspected not only for the highest visual quality but also for standards compliance.

Cloud Qualify checks content before it is sent to archive with frame-by-frame video analysis. The service offers a RESTful Open API for integration into media supply chain workflows as well as a user-friendly UI. The Qualify service also supports ABR/IMF and HDR media formats, as well as many other common video codecs and containers.

PASIFIKA TV LINKS 24 BROADCASTERS 24/7 WITH LIVEU

CREATE & PRODUCE

LiveU

BY DAVID FOX

Pasifika TV is expanding its deployment of LiveU's live streaming systems to bring 24/7 breaking news and live sports coverage to 24 broadcasters in New Zealand and across the Pacific Islands, reaching millions of viewers. LiveU's IP bonding equipment and service are being provided by LiveU's local partner, Pacific Live Media.

Originally set up as a pilot, the PacHub project based on LiveU's live production workflow is now being expanded to eight islands in the region using a combination of LU300 portable units, LU300e fixed encoders and servers. The remote production is managed out of Auckland, New Zealand, where the production team monitors and curates live and non-live content, adds graphics and handles post-production.

During the lockdown, LiveU's systems have enabled Pasifika TV to maintain communications and become a critical source of live content to and from the islands. In Samoa, for example, on the day after an historic election, the local broadcaster was able to provide live interviews with a political commentator into New Zealand Pacific current affairs show Tagata Pasifika when travel to the island for other journalists was impossible. LiveU technology has also been used to stream live sports coverage, such as rugby league, handball, volleyball and the Cook Island Games, the first major sports event in the island since the beginning of the pandemic.

Natasha Meleisea, CEO, Pasifika TV, said: "Connectivity is key; with mobility a challenge, the immediacy of creating live content has never been easy in this region. LiveU's mobile solution enables high-quality live content to be transmitted to a far wider audience than before, more cost-effectively than if we used other methods. From one-way traffic – sharing content from New Zealand to the Pacific Islands – LiveU is now enabling a two-way dialogue with live content also being transmitted from the islands back to New Zealand. All the NZ broadcasters are keen to use our service once the expansion is complete. The next stage will be sharing content island to island, allowing Pacific broadcasters to connect and learn from each other what's happening in the region."

As tourism and international sports events revive after the pandemic, Meleisea sees many opportunities for live events, most notably the 2023 Pacific Games.

The compact LiveU LU300 live streaming units proved valuable to Pasifika TV

CLASSIC LENSES GET A CONTEMPORARY MAKEOVER

CREATE & PRODUCE

Cooke Optics

BY DAVID FOX

Cooke Optics has introduced two full-frame zooms, the 30-95mm and 85-215mm Varotal/i T2.9 lenses.

They cover all full-frame sensors and are matched in resolution, colour and fall off to the Cooke S7/i range, to provide a complete suite of Cooke full-frame spherical lenses. The lenses can be fitted with either PL or LPL mounts at time of order.

Tim Pugh, CEO, Cooke Optics, said: "Fifty years after the launch of the first Varotal lenses, we are proud to bring these new Varotal zooms to our customers. They are now able to choose an entire colour-matched Cooke line, complete with the Cooke Look, for their full-frame productions."

Like all modern Cooke lenses, the Varotal/i zooms include /i Technology to record lens data, and are optimised to capture warmth, texture and beautiful skin tones. The lenses can be used handheld or with Steadicam, and are claimed to provide comfortable balance with the latest digital cinema cameras.

Cooke has also introduced a new Panchro/i Classic FF range, which offers full-frame camera users the classic Panchro Look. The focal lengths of 18mm, 21mm, 25mm, 27mm, 32mm, 40mm and 50mm have been specially redesigned to fill full-frame image circles. Additional FF scale covers are available for the 65mm Macro upwards if required to harmonise rental fleets. The optics are designed to give maximum performance at full aperture with superior control of flare, distortion and spherical aberration.

It's got the Look: The Cooke Varotal/i 30-95mm T2.9 full-frame zoom

INTRAPLEX ASCENT NOW A REAL LIVEWIRE

PUBLISH

GatesAir

BY DAVID FOX

GatesAir has added native Livewire+ IP audio networking support to its Intraplex Ascent cloud transport platform, which removes conversion stages when transporting multiple audio streams between studios.

This adds a new layer of scale and efficiency for radio broadcasters managing many digital audio channels between studios. Future support is planned for WheatNet-IP, further expanding Ascent adoption within professional broadcast studios.

GatesAir Intraplex Ascent now streams audio at scale without conversion

GatesAir introduced Intraplex Ascent as a next-generation audio-over-IP platform built to transport broadcast and media content at scale. It was built with broadcast and IT convergence in mind, leveraging common off-the-shelf hardware to reduce the costs of multichannel contribution and distribution between many locations. It started shipping last year and there are a number of systems in operation with broadcasters now, including one recent deployment with Livewire+ capability.

Keyur Parikh, vice president of engineering, GatesAir, said: "GatesAir has successfully deployed Ascent with a national radio broadcaster that is sending 32 audio channels between two major studio locations. They are directly connecting to the Livewire studios, providing encoding and reliable transport across public IP networks. Our high-density platform ensures seamless integration into Livewire networks without the need for audio converters."

The system uses GatesAir's Dynamic Stream Splicing (DSS) software to support reliable transport across redundant networks, and optimises stream integrity through protection against jitter, packet losses and network failures. Within Ascent, DSS also supports duplication of SRT streams with video and audio over separate network paths.

NXTEDITION GOES PUBLIC WITH NXT|CLOUD

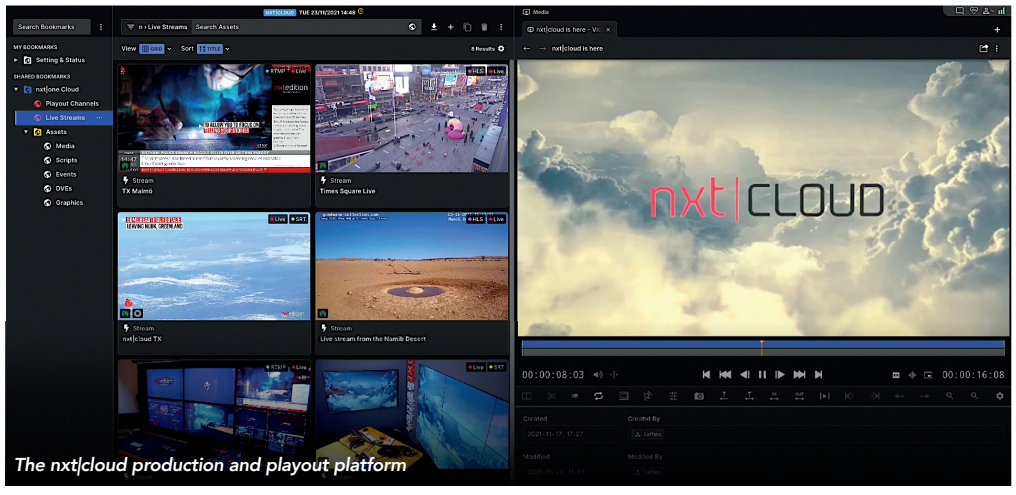
MANAGE

nxtedition

BY DAVID FOX

Broadcast microservice specialist nxtedition has enhanced its consolidated production and playout platform with nxtlcloud, a complete deployment of nxtedition in the public cloud.

Previously, playout in nxtedition utilised the switching, layering and real-time rendering power of CasparCG to achieve high production values using COTS hardware. This latest development is a fully containerised, Linux version of CasparCG, providing the same playout functionality, flexibility and quality as a scalable, elastic and secure microservice in the cloud. Entirely built in JavaScript, the platform can take advantage of all developments in web technology.



The nxt|cloud production and playout platform

The nxtedition system contains all the elements required for broadcast, from ingest and transcode through asset management and archiving to delivery to multiple platforms, automatically repackaging news stories for social media. Being fully virtualised means that systems can be built to precisely match individual workflow requirements.

Adam Leah, nxtedition's creative director, said: "With nxtlcloud we can offer an identical experience in the cloud: the same quality, the same functionality, the same user experience, the same responsiveness. That includes sophisticated added-value features like localisation: we can, for example, take in a single live sports feed over SRT and split [it into] eight identical CasparCG channels, but sending each channel a separate commentary audio and graphics feed in different languages – all driven by the timestamped metadata authoring and the layering in nxtedition."

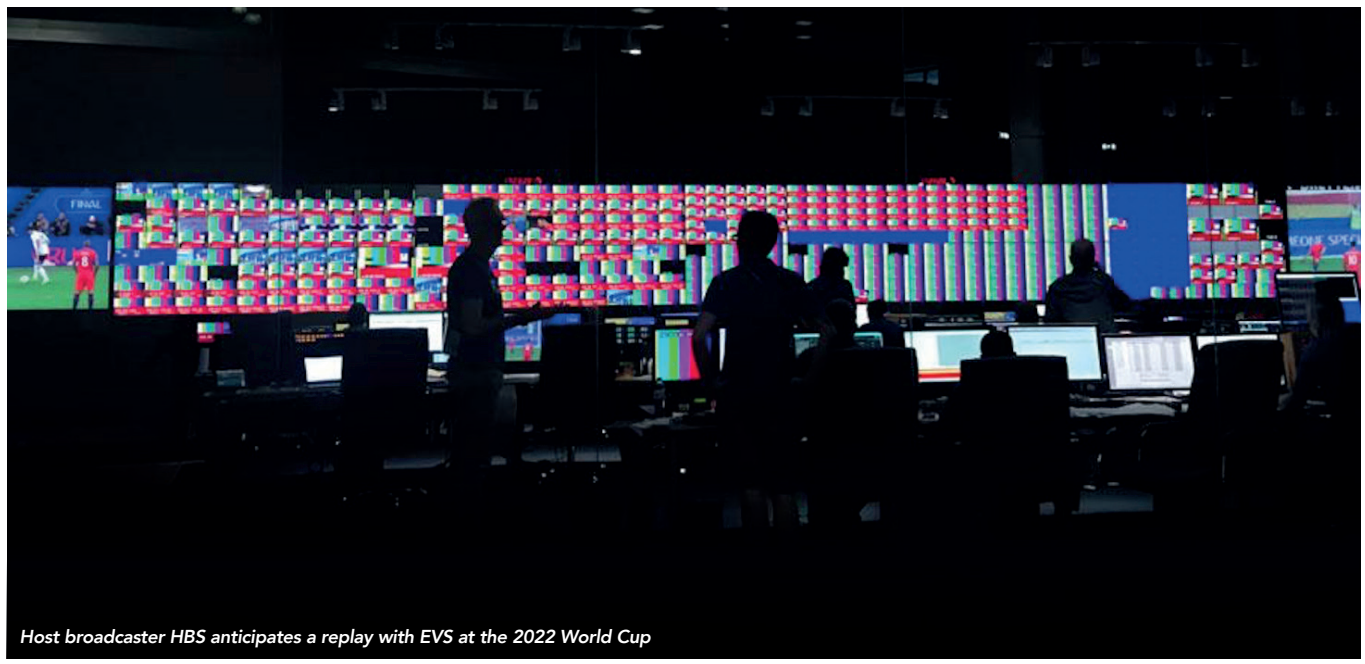
The system is also designed to provide on-prem clients with hybrid cloud backup for disaster recovery. Playout channels are mirrored, as are scripts and media. In an emergency, the entire team can switch to the cloud and continue working.

HBS SIGNS EVS FOR FIFA WORLD CUP 2022

CREATE & PRODUCE

EVS

BY DAVID FOX



Host broadcaster HBS anticipates a replay with EVS at the 2022 World Cup

HBS, the host broadcaster for the FIFA World Cup due to be held in Qatar in 2022, has signed a major contract with EVS for all replay services during the event.

EVS will deliver a turnkey system that includes all the broadcast equipment and services required to provide live replay facilities for all the venues, including the International Broadcast Center.

The equipment will include EVS' live production and replay system LiveCeption as well as its MediaCeption live production asset management solution.

LiveCeption Signature is a scalable system that supports HDR, UHD and Supermotion. It is based around the LSM-VIA IP-based replay and highlights system and EVS XT-VIA servers, providing operators with speed and efficiency. Users can access multi-angle content from any server located anywhere on the IP-based media sharing network for collaborative, remote operations.

MediaCeption allows users to access, manage and turnaround live production assets quickly and easily from just about anywhere. It can manage the ingest of multiple live feeds, import files and ENG material, log and manage content so that users can swiftly find and retrieve what they are looking for, and play out content in studios or publish it on digital platforms.

It is based on an open, modular architecture that enables tight integration with integrated and certified third-party MAM, automation, archive and post-production systems. It can also facilitate multi-site contribution for more efficient collaboration between production teams working on site and remotely.

Q&A

Fresh from introducing new SDM interfaces/cards, Apantac's priorities for the next 12 months include its KVM over IP matrices and extenders solution

What are the biggest challenges facing the media and entertainment industry?

One of the most recent challenges that the media and entertainment industry must face is the turmoil caused by the Covid pandemic and its consequences. This includes global supply chain issues resulting in lead time uncertainty and price volatility for components – and hence equipment hardware.

More than ever, key words for media companies are agility, adaptability and resilience.

How is your company helping its customer to address the challenges faced by the media and entertainment industry?

As a video hardware supplier company, Apantac is active in two areas: we provide cost-effective equipment that does not sacrifice on performance just for the sake of price; and high-end solutions that address demanding feature requirements.

In the first category, Apantac recently introduced a 1080p PTZ camera with SDI, HDMI and USB outputs, NDI-HX 5 and SRT protocol support, VISCA control and its companion Camera Joystick Panel. Another example is the OG-Mi-xx multiviewer cards for the openGear platform. They are very compact and provide most of the features needed for production and master control applications, which are usually only found with higher-end multiviewers, but at a fraction of the cost. Recent customers include ERT, SABC and Czech TV.

In the second category, one example is our range of UE series HDMI 2.0 4K multiviewers with or without built-in KVM capability that can be cascaded with compact 12G-SDI multiviewers for hybrid HDMI 2.0 and SDI environments. They are mainly used for high-end control solutions or medical applications.

What are the main areas of focus for your company?

One key focus for Apantac has been the introduction of a new range of SDM interfaces/cards. The SDM – Smart Display Module – standard was developed by Intel and adds a slot to a display, which is mainly designed for inserting computer cards into SDM-capable displays. However, this slot can be used for other purposes. [We have developed a range] of SDM interface cards that accept either 12G-SDI or NDI, SDVoE, HDMI 2.0 over HDBaseT signals, acting as a UHD format specific signal to HDMI converter, yet getting its power and control directly from the monitor. This converter does not require extra room, power distribution or HDMI cable. The SDM standard is future-proofed with its 4K and 8K resolution support.

What are your priorities for the next 12 months?

One priority is our KVM-over-IP matrices and extenders solution, which is extremely well-tailored to production applications. Recent successes include KVM matrices for the latest Ü10 UHD OB van from Studio Berlin, developed with systems integrator (SI) Broadcast Solutions in Germany, as well as several studios for SVT in Sweden, where the SI was Creative Technology (the local NEP technical arm). These market wins reinforce the fact that our KVM-over-IP solution fits the needs of these applications very well.

What sets your company apart as a technology leader?

At Apantac, we strive to put customer needs first. One example is our scaler card for the openGear platform, which we originally developed for Facebook-specific 'conference centre' needs. These cards proved to do the job well – so well that other well-known companies such as Google, Amazon, Instagram and TikTok are now using them for similar applications.

www.apantac.com

Michel Rudelle, EMEA regional manager, Apantac

CINEWARE PLUG-IN GAINS UNREAL PERFORMANCE

CREATE & PRODUCE

Maxon Computer

BY DAVID FOX

All court game: Maxon's new Cineware for Unreal plug-in is a net gain

Maxon's new Cineware for Unreal plug-in features substantial workflow improvements like dynamic import of Cinema 4D content without pre-caching, and the ability to modify C4D content and attributes directly within the Unreal Editor.

It's now said to be easier and more reliable to import C4D files, whether 3D models or animations, directly into Unreal. An updated Datasmith import uses the C4D installation already on the computer to dynamically import a complete C4D scene without the need to generate any caches. This keeps files small and enables new interactive workflows with Unreal.

The Cineware for Unreal plug-in allows users to adjust specific attributes within a Cinema 4D file directly within Unreal Engine. Adjust text and other scene settings within a panel or using the Blueprint editor, and a simple click will reimport the Cinema 4D file with any changes applied.

Support for the C4D file format is more extensive than just Cinema 4D; the plug-in can also be used to import files from other applications. Datasmith can import files from Allplan, ArchiCAD and Vectorworks, useful as a starting point for architectural walkthroughs and visualisations using Unreal Engine.

Maxon has also updated its Magic Bullet tools for colour correction, finishing and film looks to support Unreal Engine 4, enabling users to employ Magic Bullet Looks' powerful toolset as a post-process volume or viewport effect. The update also incorporates AVX support for Cosmo, Mojo, Film and Renoiser, providing four new tools, offering more creative choices and flexibility to Avid editors and colourists.

HEY, ACTIVATE IMMERSIVE SOUND

DOLBY ATMOS

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BROADCAST SOLUTIONS INVESTS $31M IN GV IP OB AND AMPP

CREATE & PRODUCE

Grass Valley/ Broadcast Solutions

BY DAVID FOX

Grass Valley has signed a deal worth $31 million over five years with Broadcast Solutions, the German OB truck manufacturing company and systems integrator.

The agreement includes the development of new Grass Valley IP-based OB vehicles known as the Streamline series, set to be rolled out next year. As part of its cloud transformation, Broadcast Solutions' Nordic team will also establish a new facility in Helsinki based on Grass Valley's cloud-based Agile Media Processing Platform (AMPP).

The new Grass Valley edition of Broadcast Solutions' Streamline IP OB trucks will support 12-24 camera set ups. The Streamline series has helped transform the manufacturing of an OB truck from a highly complex and planning-intensive project to a nearly off-the-shelf product.

Stefan Breder, CEO, Broadcast Solutions Group, said: "Our worldwide customer base will benefit greatly, both technically and economically, from the new Grass Valley IP Streamline OB vans. Utilising the expertise and knowledge in live content production, IP-based technologies and modern workflows from both companies, customers can be sure that they can rely on an OB van that fulfils and exceeds their requirements and needs."

Antti Laurila, managing director of Broadcast Solutions Nordic, said: "The enterprise agreement strengthens our partnership with Grass Valley and supports our ambition to be the leader in the media systems integration and services market in the Nordics."

Laurila hopes the deal will help customers "as they navigate a transitional period in the media and entertainment sector by bridging legacy and future technologies".

Breder: Customers "will benefit greatly from the new Grass Valley IP Streamline OBs"

INTERRA REVEALS CONSTELLATION OF ORION UPDATES

MANAGE

Interra Systems

BY DAVID FOX

Interra Systems has launched a host of updates to its end-to-end quality control and monitoring systems.

Its Orion-OTT monitoring system for live and VoD streaming now includes comprehensive ad insertion monitoring plus detailed cue information; support for Dolby Vision and HDR; intuitive visual trending for QoS and QoE metrics; CPIX-based DRM integrations, and new audio/video quality checks for detection of video dropouts and audio clipping; triggered recordings for complete error duration; support for Security Assertion Markup Language (SAML) authentication scheme; and real-time monitoring of linear channels in IP-based delivery infrastructures,

The latest version of Baton, its ML- and AI-enabled automated QC platform now offers major 4K, MJPEG enhancements; new enterprise-level support for SAML authentication; Dropbox location and improved performance of LDAP sync process; ProRes 4K and Netflix supported test plans; Dolby Vision Metadata v4.0 validation; IMF Application 2 Extended; and PSE for HDR. It also offers new quality checks, support for new formats, ITU-BS loudness measurements, 1770-4 low pass filter, availability of REST APIs and enhanced foreign language support in the Baton UI.

The Baton Captions caption creation and distribution application has new support for subtitling, standalone subtitle files for QC, exporting captions in MacCaption Closed Caption (MCC) format, and adding tags for tasks.

New features of Winnow, used for content classification and identification, include language detection of visual text present in video, enhanced accuracy for detection of explicit scenes, and more concise display of text on PDF reports.

NEP UK INSTALLS SNP FOR FLEXIBLE HDR

CREATE & PRODUCE

Imagine Communications

BY DAVID FOX

NEP UK has installed multiple Selenio Network Processor (SNP) appliances from Imagine Communications in four of its largest outside broadcast trucks to provide an automated workflow for delivering 4K/UHD as well as HD, in SDR and HDR.

The SNP is a software-defined IP and SDI signal processor. Each 1U device features four independent processing blocks, each of which can adopt personalities defined by the software. Applications are available on individual licences, so users can define the exact functionality they require and reconfigure their SNPs as tasks demand, making them particularly suited to OB work.

NEP UK has ordered a mix of licences for signal format conversion, including HD, 3G and 4K, as well as dynamic range conversion between SDR, HLG, PQ and Slog3.

Many of the sports broadcasters NEP UK provides facilities for offer UHD coverage as an option for subscribers, but they also have to maintain the highest quality HD output possible to serve the majority of viewers.

Chris Cannon, director of technical operations, NEP UK, said: "We have adopted the use of the SNP as a high-density signal conversion engine. Given the tight confines of an outside broadcast truck, we really appreciate we can get eight UHD conversion channels in just 1RU, and that includes signal format conversion, as well as SDR-HDR conversion, the latter through the built-in conversion pipeline or through customer-defined LUTs. We set and forget the SNPs: they perform well, take up little rack space, consume less power and deliver the full variety of HD, UHD, SDR and HDR outputs we need."

Part of the SNP conversion pipeline: NEP UK's Atlantic OB on location

AN ANSWER TO THE INTERRUPTIBLE FOLDBACK BLUES

CREATE & PRODUCE

Lectrosonics/IFBlue

BY DAVID FOX

IFBlue, a new value-priced IFB receiver and charger, is distributed by Lectrosonics

IFBlue is a new value-priced brand of IFB (interruptible foldback) products distributed worldwide by Lectrosonics. It includes a receiver pack and associated dock charging system. Lectrosonics hopes the new line will reach a broader range of customers in production, film, broadcast, videography, live events and houses of worship.

The IFBlue receivers are fully compatible with Lectrosonics' IFBT4 transmitters, or any Lectrosonics' Digital Hybrid Wireless transmitters operating in IFB compatibility mode, so that adding these receivers to existing IFB systems should be quick and easy.

The receiver is said to be easy to set up and use, offering ten presets, programmable from a backlit-LCD front panel. Five tuning ranges are available for the new IFBR1C receivers: the VHF version covers 174-216MHz, the A1 (470-537MHz), B1 (537-614MHz) and C1 (614-692MHz) versions cover the UHF TV frequencies for most countries, and the 941MHz band version covers the North American licence-only 941-960MHz range. Future firmware updates can be installed in the field via a USB port behind the battery door. The IFBlue receivers have an integrated, spring-loaded belt clip for light weight and easy, secure placement.

The unit can use either disposable AA or rechargeable NiMh AA batteries, with ten hours for AA alkalines, 12+ hours for NiMh rechargeables, and 20+ hours for lithium disposables.

A companion dock charging system, the CHSIFBR1C, can charge up to four receivers using NiMh rechargeable batteries. The charging dock units can be mechanically linked for easy organisation on a mounting surface.

Karl Winkler, VP of sales and marketing at Lectrosonics, explained: "Our customers have long asked for a value-priced IFB receiver, which extend to a new range of users, and we've sought out a partner that could make a high-performance product at a competitive price. The new IFBlue receivers and companion charging docks meet and exceed these requirements, while remaining compatible with our existing line of IFB products."

WHY LEDS WON'T REPLACE GREEN SCREENS

Birim Yamanlar, head of communication and digital, Zero Density

There's no denying that LED-based virtual production has become a bit of a buzzword in recent months. Shows like The Mandalorian have put the technology at the forefront of our news agenda, social media feeds and industry events. As a result, we've seen broadcasters around the globe face the dilemma of whether to replace their virtual studios with a full LED setup.

To anyone wondering whether to make the switch, at Zero Density our answer is always the same: Who says you need to make a decision at all? Our team has decades of experience helping clients like Fox Sports, Riot Games and The Weather Channel deliver photo-real, high-performance real-time graphics for their studios. Trust us: it's not about having LEDs or having green screens. It's about having the choice.

There are advantages and disadvantages to both these technologies. With LEDs you can avoid green spill, have instant lighting and help talent to present shows without the need to imagine what's on the green screen behind them. But you can also run into problems achieving close-up shots without seeing any artefacts, hiding the seams between the screens, and managing delays between moving the camera and images catching up on screen.

"The broadcasters who will have the best real-time graphics will be those who implement a hybrid workflow based on virtual production and virtual studio technology"

That's why in the future we believe the broadcasters who will have the best real-time graphics will be those who implement a hybrid workflow based on both virtual production and virtual studio technology.

Although there's a lot of pressure to think of LEDs as a replacement for green screens and AR, we simply see them as two tools that broadcasters have in their creative toolbox – like different paintbrushes that can help to create a work of art. And we can all agree that if you want to paint a lot of different paintings, it's best to have as many brush options as possible.

With a hybrid workflow, broadcasters can simply select the best technology for the job at hand, and already many of our users are proving just how powerful this can be. TF1's Le Mag, for example, used our Reality software to power its virtual studio, augmented reality elements and an LED wall to enhance its live show.

Meanwhile, for its MLB on TBS studio shows, Turner Sports also used a combination of LEDs, green screens and AR elements to create a studio look that was distinct from other sports broadcasters. There were floor decals backed with a green screen that let users insert a variety of graphics within them, and a freestanding chroma key wall plus LED video wall behind the anchor desk to showcase each individual show and team branding. The broadcast team could simply rely on whichever solution fit best for the shot, in addition to blending them together to create a full picture.

www.zerodensity.tv

DIAMOND SHINES BRIGHTLY FOR IP-NATIVE MIXING

CREATE & PRODUCE

Lawo

BY DAVID FOX

The modular Diamond can grow from little to large

Lawo's Diamond broadcast console for radio and TV applications is an IP-native mixing system, based on the open AES67/Ravenna audio-over-IP networking standards. It also complies with ST2110-30/-31 and ST2022-7.

Powered by the Lawo Power Core Engine, the modular Diamond provides expandable I/O, accommodating AES67, MADI, analogue, AES3 as well as Dante audio sources and destinations.

It is available in configurations from two to 60 physical faders, either as desktop or flush-mounted builds. Fader-adjacent colour displays give extended source information, and two fader layers allow operators to instantly switch between multiple tasks. Silent, motorised faders and precise encoders inherited from Lawo's mc² audio production consoles allow integration with automation and playout systems. Programmable, colour-coded LED button and encoder lighting highlights common control functions.

Optional Virtual Extension modules feature HD colour TFT displays for extended information and touch control. Ember+ and HTML5 integration enables control of third-party hardware and software.

Diamond is the first Lawo console for radio applications to feature Lawo's Unified Experience user interface. IP-based studio infrastructure makes it easy to control devices remotely and share information between studios.

Diamond employs smart algorithms to speed up production workflows. Assistive mixing technologies enable users to produce compelling, engaging programming. The AutoMix function automatically maintains the balance of multi-mic productions, and AutoMix Grouping allows this to be applied to multiple independent source groups. AutoGain optimises guest and host mic levels with a single button press.

DRIVING FORWARD WITH IN-CAR ENTERTAINMENT

CONSUME

3SS

BY ANNE MORRIS

Stuttgart-based UX specialist 3SS has introduced a new service called 3SS Automotive that it claims extends next-level entertainment UX beyond the living room and into the car.

The service is supported by the company's 3Ready Product Framework.

Tomasz Dzikowski, product owner automotive at 3SS, said: "We're involved in several projects, with partners who share our goal of elevating in-car entertainment UX."

Dzikowski also reveals that these partners include auto manufacturers, but their identities are still under wraps.

3SS views automotive as a natural expansion of its commitment to help operators deliver a UX across all digital devices. Dzikowski said: "We know from the new paradigms of autonomous driving, electrification and today's dynamic in-vehicle infotainment ecosystem, that soon screens in cars will be augmentations to the long-established multiscreen concept."

"Telcos and video service providers are eager to seize this opportunity to build even stronger, wider-reaching subscriber relationships," he added.

Pierre Donath, CMO, 3SS, said: "We created 3Ready to help operators deliver seamless experiences that people love, on all screens, and to enable customer-centric innovation to be ready for what's next.

The car is set to become the third living space with new entertainment services

"We want to bring the same high-quality experience consumers enjoy on the sofa at home or on their favourite mobile devices to vehicles."

3SS is currently delivering eight major projects for operators in EMEA, North America, Latin America and Asia Pacific. "In 2021 we delivered four times as many projects as in 2020, but we also saw growth in usage and subscribers of the solutions we've created, and we see this momentum continuing," commented Donath.

He added: "Our way of working is agile and collaborative; we aim to be the best partner to co-create next-level video and TV entertainment."

FRESH CONNECTOR RANGE PROMISES 'FULL SIGNAL INTEGRITY'

CREATE & PRODUCE

Argosy

BY DAVID DAVIES

Argosy has introduced a range of connectors and tooling from Simply45, geared towards Cat6, Cat6A and Cat7 cabling installations.

The Simply45 series incorporates what are said to be the only pass-through style connectors approved by HDBaseT – the global standard for the transmission of ultra-high-definition video and audio, Ethernet, controls, USB and up to 100W of power over a single, long-distance cable.

Chris Smeeton, director at Argosy, said: "By adding the Simply45 series to our portfolio, we're presenting more efficient ways for broadcasters to install connectors that are guaranteed to provide full signal integrity."

Simply45's patented Cap45 isolation cap snaps onto the front of the pass-through RJ45 plug after termination, covering the exposed wire ends and eliminating potential failure points and electrical arcing. Its Bar45 load bar precisely lines up the conductors for better signal isolation and reduces near-end (NEXT) and far-end crosstalk (FEXT). The solution also maintains wire pair twist synchronisation at termination for improved cable performance and it is colour-coded for easy plug identification.

It's a snap: Argosy is carrying a new range of connectors from Simply45

Argosy's new partnership with Simply45 means that it can now offer the pass-through style connectors and tooling to the UK and UAE broadcast markets.

Todd Cota, president of Simply45, said: "Argosy's tenure and extensive knowledge spanning over 35 years in the broadcast industry is invaluable to us. We're very excited to have them represent and validate our products in this industry."

ON CLOUD 9 WITH LIVE NEWS SYSTEM

PUBLISH

iO Media Group

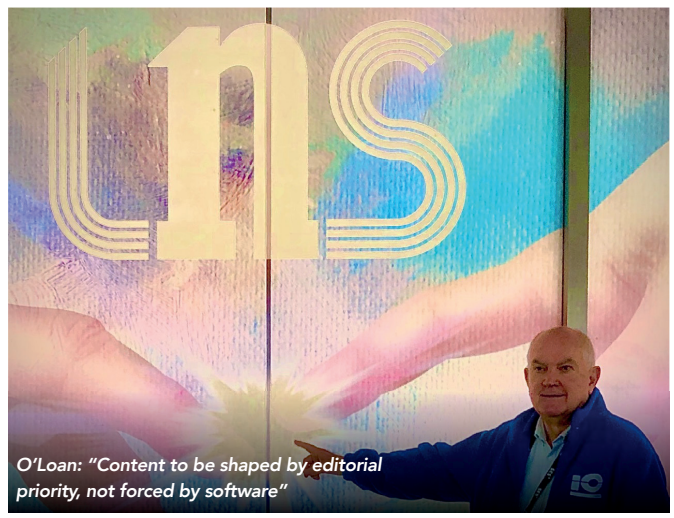
BY DAVID DAVIES

Hot on the heels of launching the Live News & Sports System (LNS) – which is geared towards helping broadcasters meet content requirements and remain competitive – the iO Media Group has launched a related cloud-based solution.

Cloud-native and custom-built for "efficient and accurate journalism", LNS Cloud 9 is said to support publishing to any available platform. It provides software and workflow tools for live news and sport planning, input, output, story-centric collaboration, OTT and digital publishing.

As with its on-premise and hybrid/SaaS systems, LNS Cloud 9's workflows have been developed by software-savvy journalists and producers who wanted something better, according to CEO John O'Loan.

"LNS works the way journalists and producers think because they designed it," said O'Loan. "Our aim is for the content to be shaped by editorial priority, not forced by the software that made it. As a result, journalists and producers find LNS intuitive, quick and easy to work with."



O'Loan: "Content to be shaped by editorial priority, not forced by software"

OPEN, DYNAMIC AND ELASTIC ADVANCED CDN

Le Mancq: "Video delivery is changing"

PUBLISH

Broadpeak

BY MICHAEL BURNS

Broadpeak is advocating CDN solutions that it claims are designed to transcend quality of experience (QoE) expectations for video streaming. According to the company, content providers and pay-TV operators can deliver a QoE on a par with Netflix and future-proof their video delivery operations.

Broadpeak's CDN solution allows the delivery of third-party content, such as HBO Max, Amazon Prime Video, Disney+ and DAZN, with service providers able to dynamically optimise traffic and QoE thanks to powerful analytics and a new centralised steering centre. The latter enables service providers to constantly adapt to the streaming context and enjoy a set of features including network-controlled ABR streaming technology (S4Streaming), multicast ABR (mABR), fast zapping and seamless fail-over.

Broadpeak's CDN also offers high elasticity for video distribution. All of the features and components are available as containers orchestrated via Kubernetes to adapt the topology to the actual consumption.

Jacques Le Mancq, CEO at Broadpeak, said: "Video delivery is changing, and Broadpeak's CDN technologies are continuously adapting to these changes."

The company's nanoCDN has been widely deployed, offering scalability and low latency to the live multiscreen video delivery environment.

Also available is an ad insertion system for monetising live, cloud DVR and VOD content. BkYou ad insertion includes fast offline ad transcoding, robust security and anti-fraud, and server-side ad insertion capabilities with detailed client-side reporting.

By bringing together the efficiency of mABR for linear distribution with the level of personalisation that ABR natively enables, Broadpeak claims its ad insertion solution enables operators to implement targeted ads on the main screen, where it matters most economically.

BOXER KNOCKS OUT COVID

MANAGE

Cartoni

BY DAVID FOX

The new UV-C LED Boxer is a portable cabinet powered by 42 medical grade UV-C LED lamps to safely sanitise film, video and audio equipment in just five minutes.

Cartoni claims the UV-C LED Boxer is ideal for use on sets, in rental houses or in studios to prevent contamination of equipment. The disinfection chamber is equipped with germicidal UV-C LED irradiating UV-C light in 275nm wavelength capable of destroying germs, bacteria, micro-organisms and viruses, including Covid-19.

Germicidal UV LED lamps are not only effective but have significant advantages, such as a very high pathogen kill rate, especially as pathogens cannot become resistant to UV like they can to antibacterial products. There's also limited chemical exposure, as no harmful chemicals are used. It is also suitable for sanitising delicate professional film and broadcast equipment as it does not affect (if used properly) optical lens coating, electronic circuits and boards, lubricants, rubber or plastic in cameras, lenses, monitors, microphones and so on.

A light clean: Cartoni's new UV-C LED Boxer cleans as it shines

Although UV-C can discolour plastic and ultimately affect the carbon boundaries of the molecule after extreme exposure of over 1,000 hours, UV-C LED will not deteriorate other components. No ozone is released during the irradiation. The effectiveness of the disinfection can be monitored by Intellego Technologies' Dosimeter, and the UV-C LED Boxer is certified by the University of Siena, Italy, and Microchem Laboratories in Texas.

Like all UV light, exposure to UV-C rays can be dangerous to humans so Cartoni designed the Boxer with two safety micro-switches to avoid accidental UV-C irradiation. If the lid to the Boxer chamber is not safely inserted, the UV-C lamps will not activate. The 25kg unit can be powered via a normal power supply or battery.

VSN EXPLORES THE CLOUDS

MANAGE

VSN

BY DAVID FOX

VSN has added cloud collaboration tools to all of its products, which are now capable of being integrated with all major remote storage providers. It is also introducing a SaaS pricing model.

In addition, the company has enhanced its core range of products, including VSNExplorer MAM, VSNExplorer Exchange and VSNCrea, most notably for media preservation, cataloguing and metadata assignment. VSN has been integrating AI functionality into its range to ease and automate complex, time-consuming and repetitive tasks. This has now been expanded and refined within VSNExplorer with the addition of DataBinder, a tool that aggregates the results provided by AI engines in a single location, allowing users to undertake cross checks, and adjust and correct metadata as required.

Other improvements include the VSNExplorer Exchange content hub, which now allows users greater control over how they access and manage assets and subscriptions. There's also Adobe Premiere integration directly into the VSNExplorer PAM (Production Asset Management) interface.

Broadcast management system VSNCrea now has expanded ad pricing features to allow price blocks to be assigned at different times of day, different ad rate types (fixed, cost per mille, cost per rating), and the direct exchange of this information with the commercial contracts on which they are based.

Ricardo Quintanilla, head of marketing, VSN, said: "After our acquisition by Valsoft, we've had greater opportunity than ever to focus on delivering additions which allow our users to leverage greater value from their assets, using a suite of tools that is joined-up, seamless and remotely accessible."

The VSNExplorer MAM is now better equipped for remote working

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UTOPIAN VISION FOR IP PARTYLINE

MANAGE

Clear-Com

BY DAVID DAVIES

Described as a scalable IP platform, the new Arcadia Central Station from Clear-Com is able to integrate wired and digital wireless partyline systems, along with third-party Dante devices in a single rack unit.

It was designed for a wide range of applications, including OB production vans, broadcast studios and wide-area campus broadcast.

In short, the company claims it's an ideal fit for customers who are looking to integrate their wired and wireless solutions into a single, seamless system.

The system scales to meet varying production needs. It offers a base-level of 32 IP ports which can be expanded to up to 96 IP ports as needed.

Clear-Com has introduced the scalable IP platform, Arcadia

TOSHIBA SPINS UP HIGHER CAPACITY DRIVES

CREATE & PRODUCE

Toshiba Electronics Europe

BY DAVID FOX

Toshiba has introduced hard disk drive (HDD) innovations, with models now running faster, and able to hold up to 18TB.

The Toshiba range includes such HDD drives as the P300 and X300 models for content storage and media archiving, the N300 NAS HDDs for direct-attached storage subsystems and network attached storage resources, and the MG Series for centralised large media storage. These have all utilised up to seven spinning platters for capacities reaching 10TB. Toshiba has now developed models with nine platters – resulting in 12TB and 14TB drives.

They utilise helium-filled designs that allow the use of thinner platters that can be more densely packed together to raise capacity levels. Other developments, such as a twin read head, have brought higher accuracy in reading and allowed the storage of greater capacities on the same magnetic surface, resulting in 16TB drives.

Recently Toshiba introduced the world's first commercial microwave assisted magnetic recording-based HDD, where the magnetic write flux has been focused by using the flux control effect – which has increased storage capacity up to 18TB.

As these advances have been achieved without major cost increases, the cost-per-capacity is still dropping.

HDD speeds are also rising.

Served on a platter: Toshiba's latest MG Series HDDs can hold up to 18TB

Toshiba has optimised the higher sequential and random speeds in its latest elevated capacity HDDs. While single HDDs supported speeds of less than 200Mbps just a few years ago, today's top models, such as the Toshiba MG09ACA18TE 18TB HDD, run as high as 281Mbps. Similarly, where the industry could only get random performance IO-operations-per-second (IOPS) rates of 250 in the past, today 400 IOPS or more are offered.

CALLME IF YOU WANT EXPANDABLE MULTICHANNEL IP AUDIO

CREATE & PRODUCE

Vortex Communications

BY DAVID FOX

The new CallMe-TXR expandable multichannel IP audio codec uses Vortex's industry-standard CallMe codec engine to provide, in a single 1U rackmount enclosure, up to 16x stereo/dual mono CallMe IP audio codecs, with AES67 and NDI integration.

The entry-level CallMe-TXR has dual CallMe-T capability with four balanced line-level audio inputs, four balanced line-level audio outputs, USB audio connectivity, plus a front panel headphone socket for local monitoring. It also provides native AES67 and NDI support as standard for integration into larger systems.

Additional CallMe-T instances can be added at any time up to a maximum of 16 two-channel CallMe-T codecs in the same 1U enclosure. Front panel control and the in-built web interface allow routing of any of the codec channels to both the front panel headphone monitoring and the analogue audio inputs/outputs. USB ports allow connection of an external sound card, USB headset, keyboard or keypad to provide quick-dial and direct-entry SIP connection capability.

In-built AES67 and NDI support for networked audio provides seamless integration with a wide range of third-party hardware and software, while Zoom compatibility lets an individual CallMe-TXR codec join a Zoom call, taking the highest-possible quality audio direct from the Zoom server. Dual-tone multi-frequency signalling (DTMF) support lets individual CallMe codecs operate as a SIP/VoIP hybrid providing compatibility with numerous audio conferencing services, such as Amazon Chime.

The new Vortex CallMe-TXR scalable IP audio codec with Zoom capability

FACILIS FACILITATES SMART ACCESS AND REMOTE WORKING

MANAGE

Facilis Technology

BY DAVID FOX

Shared storage specialist Facilis Technology has introduced several enhancements in its latest software update as well as a new remote access product.

The Facilis Shared File System is the core of the Hub Shared Storage workflow environment, and version 8.1 adds features such as Facilis Smart Access. This is a set of rules that can be applied on folders and files, to provide or deny access to certain users or groups. Unlike traditional access control lists, this enables access rules on specific file types to protect critical assets from modification.

It also has write-only features to secure data after it's written to general ingest locations, plus no-delete options for files while still allowing saves and overwrites during production.

The new update also includes delete restore that allows an administrator to replace files deleted from users back to their original location, or flush them from the system. Enhanced File System Audit is also new, where an audit on a location will track user access down to the file level, for any action taken by a logged-in user.

The new Facilis S3 Private Cloud exposes internal facility storage to any remote user with a qualified S3 client application. It removes public cloud cost, upload time and the need for synchronisation. It also offers a direct, secure path to an on-prem storage volume via S3.

Jim McKenna, CMO at Facilis Technology, said: "Facilis solutions can now be deployed in more diverse workflows than any other product on the market."

Facilis has released a major update to its Shared File System

TAKING THE RISK OUT OF LIVE AND SUSTAINABLE STREAMING

PUBLISH

Quortex

BY ANNE MORRIS

Quortex I/O is a new cloud-native platform that aims to give content owners complete control over the resources and bandwidth needed to conduct live streams and launch new online services.

Quortex claims the SaaS product lets users meet demand for content easily and quickly by delivering pop-up or 24/7 online channels that can reach millions of people globally.

The company boasts that Quortex I/O maximises the benefits of live streaming while minimising the risks associated with online event launches "to near zero". The system charges customers for the bitrates subscribers consume while watching content and can even charge by the specific user profiles being transcoded.

Marc Baillavoine, CEO, Quortex, said: "Our approach makes streaming a risk-free opportunity for engaging audiences with personalised content based on a subscriber's characteristics, with no need for an external management system. Subscribers can be analysed to understand their preferences, the type of devices they use or where they are located and more. We've designed Quortex I/O to be as simple as it should be while delivering a sustainable option for streaming content anywhere globally through the cloud."

By taking advantage of the latest cloud technologies, Quortex said I/O lets users deploy only the resources required for a live stream, and the platform can also make use of cloud providers' unused capacity.

"I/O never wastes a single kWh and makes streaming a greener option," added Baillavoine.

Baillavoine: "Our approach makes streaming a risk-free opportunity for engaging audiences with personalised content"

AUDIO RECORDER WITH APPS TO GO

CREATE & PRODUCE

Tascam/ Teac Europe

BY DAVID FOX

The Portacapture X8 is a professional audio recorder with six apps in its launcher: manual for multitrack recording of up to six channels, plus effects, such as compression and reverb; a voice app for capturing interviews, dictation and meetings; a podcast app for recording podcasts with up to four people; a music app for easily capturing instrumental and vocal performances; a field app for recording outdoors; and an ASMR app where the screen visual effect changes in response to the input sound.

It offers pre-set level settings to achieve a wide dynamic range using dual A/D converters and 192kHz 32-bit float point recording. The audio data can be edited and increased later without deteriorating the signal-to-noise ratio. An internal normalise function allows automatic level alignment of the 2-mix file after recording.

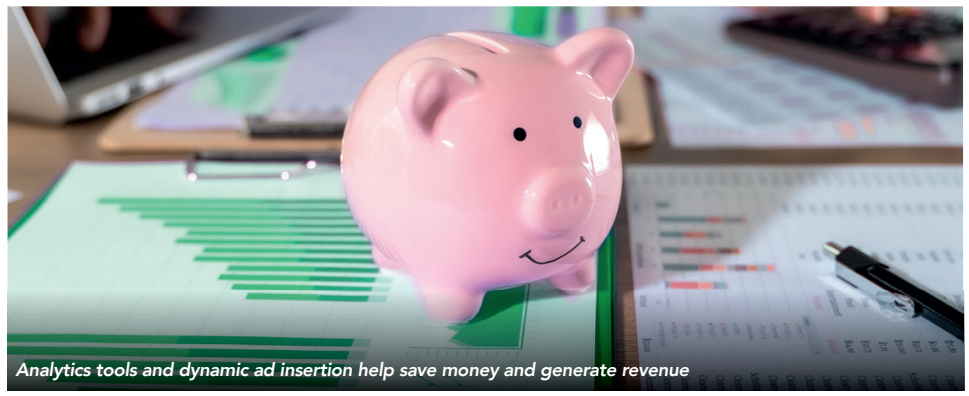
It can be used as a compact mixer with built-in microphones for live streaming, and also offers direct recording of video narration and dialogue directly to DAW and editing software. It streams up to eight tracks (six inputs and 2 mix) through USB. By supporting the USB-C Power Delivery standard, it can provide phantom power to each external mic at once with USB bus power.

It comes with two detachable 14.6mm diameter built-in microphones, the largest in Tascam's line up, and camera/ext input to allow audio recorded on a camera to be monitored.

Wireless remote control is possible via iOS and Android devices using an optional AK-BT1 Bluetooth dongle and the free Portacapture Control app.

Apps make it easier to select the best audio settings to match the recording

SMART TOOLS FOR CONTENT MONETISATION AND MANAGEMENT



Analytics tools and dynamic ad insertion help save money and generate revenue

MONETISE

SmartLabs

BY ANNE MORRIS

Video streaming specialist SmartLabs has announced its first RDK-enabled STB.

SmartLabs STB 5045 units use an architecture that conforms to the RDK open-source software standard and are due off the production line in the second quarter of 2022.

Gary Hamer, global VP for business development, SmartLabs, said: "Our RDK solutions are another facet of SmartLabs' integration and migration offerings. Like the solution we have for Linux and Android, we see RDK as another route for us to help operators future-proof legacy systems, without having to completely replace existing hardware.

The company has also recently updated its SmartCare analytics and dynamic ad insertion (DAI) systems.

SmartCare is designed to help operators and content providers better understand audience behaviour and changes in viewing habits, enabling them to reduce customer churn and offer a better customer experience. It analyses STB CPU and memory usage, along with stream quality and buffering statistics.

By collating this information and analysing it alongside channel and content offerings, the new engine can distinguish normal behaviour from abnormal, highlight spikes of activity and report on customer drop-off.

SmartLabs DAI solution enables broadcasters and operators to dynamically insert ad units into video content. With its server-side ad insertion technology, operators can add or replace ads in live, pre-recorded and xVoD video content.

Built-in VAST protocol support enables users to partner with third-parties or configure their own campaigns in SmartLabs DAI, becoming independent of external advertising services.

"We have seen some fundamental changes in the market and an increased demand for content globally," said Hamer. "This has meant dramatic growth for SmartLabs, which was already well positioned to support the industry. We have seen expansion in LatAm, further investment in European installations, and we are breaking into new territory in North America and Canada."

ADAPTING AND PROTECTING: THE FUTURE FOR BROADCASTERS

Glodina Lostanlen, chief sales officer, Imagine Communications

Traditional broadcasters are under greater pressure than ever, not least from streaming services. New entrants to the market are investing very heavily in content and are moving into the broadcaster's heartland with live events and premium sports rights.

To stay competitive and relevant to audiences, broadcasters have to deliver content to a converged TV audience. They have to adopt the digital-first streamers' personalised engagement with the audience, and their ability to dynamically place commercials, all while retaining the broadcast expectations of quality and seamless delivery.

The solution is to take a unified approach to origination and monetisation, and to aggregate content more than ever. That means a single, agile system that will plan, schedule and deliver content across the whole range of platforms – live and on demand.

It also means taking an audience-first approach to advertising sales and fulfilment. To maximise revenues, broadcasters have to regard advertising slots on broadcast and digital as a single inventory, planning campaigns across all platforms. The new approach is to sell commercials not as spots in a particular programme, but on audience reach. Advertisers buy a specific size of a targeted audience which the unified platform will deliver, combining broadcast and connected TV placements.

"Broadcasters need to be more agile than ever in their use of technology to ensure they can maximise engagement and optimise revenues"

This really is a win-win: advertisers get a proven guarantee that they are reaching the eyeballs they want, while broadcasters optimise the use of the inventory, with the potential to release slots for further revenue opportunities.

Technology is critical to this. To make it work, you need a tightly integrated platform which allows ad sales up to the very last moment. That means having advertising servers alongside the content distribution path, with seamless dynamic links to traffic and playlist scheduling. This technology exists today.

However, broadcasters have always had the 'comfort blanket' that legacy systems were so specific to television that no-one bothered to try to break in. The concern is now that the whole sales and playout chain looks like a data centre, it may be at risk of malevolent actors.

It is right to be concerned. Denial of service attacks and ransomware must be regarded as real threats today. Add to that the realisation over the past couple of years that there may be more disasters than disaster recovery plans cover – like the need to move all staff out of master control and have them work from home.

At Imagine we are regularly asked for advice on security, and a comprehensive business continuity plan should be part of every major implementation. One way to provide a ready backup should disaster strike is to use the cloud. We have a number of customers for whom we have built disaster recovery in the cloud, even providing real-time live event playout completely remotely. Again, this is today's technology.

All the research suggests that broadcasters still have a place in the media landscape, but they have to be more agile to maximise engagement and optimise revenues, drawing on new – but proven – technologies.

www.imaginecommunications.com

IT'S MOOD INDIGO FOR NATIVE ST-211 INTERFACE

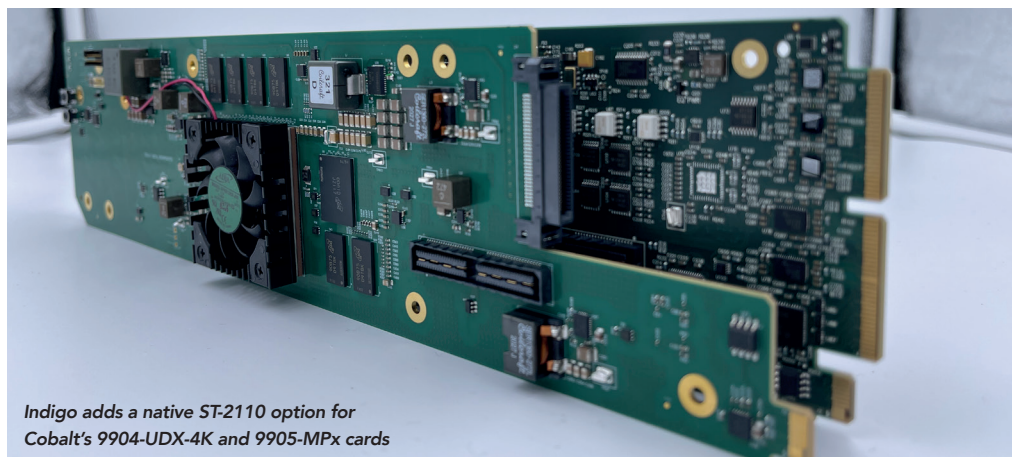
CREATE & PRODUCE

Cobalt Digital

BY DAVID DAVIES

Cobalt Digital recently launched the Indigo 2110-DC-01. It brings a native ST-2110 interface to the company's 9904-UDX-4K and 9905-MPx audio/video processor OpenGear cards.

The enhancement is claimed to bring a cost-effective and easy-to-manage way to avoid the need for multiple and expensive devices in the data path. Indigo 2110-DC-01 includes multiple 25G Ethernet interfaces to support uncompressed 4K, while support for ST-2022-7 seamless redundancy switching is incorporated for improved network reliability as well as IS-04/IS-05 NMOS for automatic discovery and configuration.



Indigo adds a native ST-2110 option for Cobalt's 9904-UDX-4K and 9905-MPx cards

This included support makes interfacing to an existing network very straightforward as the devices are auto-discovered by the network management.

The advanced audio/video processing engines of Cobalt's 9904 and 9905 cards are capable of up/down/cross conversion, audio routing, colour correction and 3D-LUT processing. Additionally, the 9904 platform has support for Advanced HDR by Technicolor. Now, with the Indigo 2110-DC-01 option, Cobalt claims "the door is open" for the advanced processing in these cards to be available with IP inputs and outputs, eliminating the need for any external gateways.

When the two cards are combined into a single package, users have a solution that is capable of natively processing HD, 3G and 4K IP streams without compromising quality.

PROLYCHT AND DEDOLIGHT UNITE TO PRODUCE LIGHT MAGIC

CREATE & PRODUCE

Dedo Weigert Film

BY DAVID FOX

Prolycht and Dedolight have announced a collaboration on cutting-edge new lighting technology that they claim will give users "previously unattainable levels of accuracy, control and performance".

The agreement will initially join Prolycht's new Hyperlight Color Engine, which uses a computer-controlled mix of six colour LED emitters to achieve an accurate and wide colour spectrum, with Dedolight's optics and opto-mechanical designs that have earned two Technical Achievement Awards from the Academy of Motion Picture Arts and Sciences.

Earlier this year, Prolycht launched the Orion 300 FS, an LED spotlight with a full colour spectrum output. By using multiple LEDs in six colours – red, green, blue, amber, cyan and lime (RGBACL) – its Hyperlight Color Engine can reproduce light sources like sodium street lighting or candlelight that have traditionally been hard to emulate. This technology is claimed to offer "best-in-class colour accuracy" by eliminating the gaps in the spectrum found in other LED fixtures.

Dr Anqing Liu, founder and CEO, Prolycht, said: "Dedo Weigert is the master of lighting. His unique understanding of film and television lighting has been representing the highest level of the industry for many years. I am full of expectations for the partnership with Dedo. When Prolycht's colours meet Dedo's optics, magical things are about to happen."

Putting a shine on colour accuracy: Dedo Weigert and Dr Anqing Liu

Dedo Weigert, Dedolight inventor and DoP, added: "We worked hard over 10 years to create mono- and bi-colour LED systems only to find that even the most perfect light sources could not reproduce clean skin tones since sensors of different cameras produce diverging skin tone interpretations. Finally we were able to match with all different cameras, skin tones of all different origins with clean reference light. But now the perfect multi-colour control of Dr Liu's Prolycht Hyperlight Color Engine opens a new world and the ability to match even mixed light and reflections. This is a dream come true for perfection and added creative potential."

Prolycht has appointed Dedo Weigert Film as exclusive distribution partner for Germany, Russia and Eastern Europe, and the two companies expect to announce joint products in 2022.

MULTI-HEADED MONITORING FOR CERBERUS TECH

MANAGE

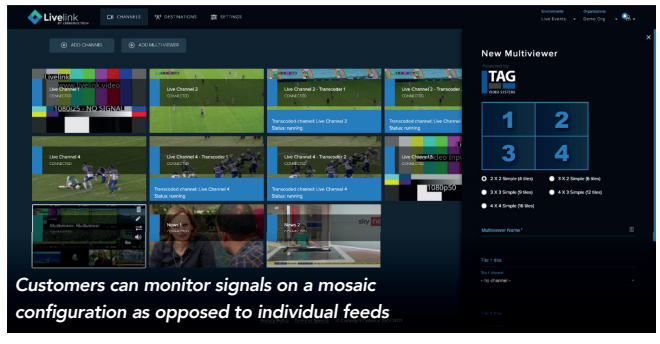
Tag Video Systems

BY MICHAEL BURNS

Tag Video Systems has partnered with Cerberus Tech to provide its customers with real-time visualisation and monitoring capabilities.

Livelink IaaS (Infrastructure as a Service) is Cerberus Tech's live IP delivery network for 24/7 channels, sports, live events and production.

Claimed to be an economical alternative to traditional satellite and fibre systems, it incorporates built-in support for Zixi, RIST, SRT and traditional OTT contribution formats including RTMP and HLS.



Customers can monitor signals on a mosaic configuration as opposed to individual feeds

Kevin Joyce, Zer0 Friction officer, Tag, said: "Our partnership with Cerberus Tech exemplifies the deep capabilities of Tag's ability to optimise a delivery experience for customers. Cerberus Tech uses the internet as a backbone for content delivery of live programming with support for numerous transport protocols. By integrating with Tag's platform, Cerberus Tech's customers can build mosaics on-demand, enabling a high number of signals in a wide range of formats to be visualised and monitored. The need to bring back individual streams is eliminated resulting in considerable cost savings."

As visualisation is in real time and full frame rate, customers can apply probing and analysis, identifying problems such as missing audio instantly.

Chris Clarke, CEO, Cerberus Tech, said: "This partnership with Tag allows us to provide an additional layer of confidence and security to customers that rely on the integrity of their live signals as a measure of their success. With Tag's visualisation and monitoring technology integrated into our Livelink IaaS platform, our customers can now view signal health in real time and quickly correct errors and issues. It's a game-changing functionality."

NEW CATTA FULL-FRAME ZOOM LENSES

CREATE & PRODUCE

Dzofilm/Shenzhen Dongzheng Optical Technology

BY DAVID FOX

Dzofilm has introduced two new lightweight full-frame zoom lenses. The Catta 35-80mm T/2.9 and 70-135mm T/2.9 cover the most widely used focal lengths and complement its existing Vespid full-frame prime lenses.

The 35-80mm weighs just 1.53kg, while the 70-135mm is under 1.6kg, partly due to the use of polycarbonate and glass fibre in the shell.

Each lens has a 16-blade iris, which is claimed to produce round, smooth bokeh with a natural transition of image, with a close focus distance of 74cm or 76cm for the 35-80mm and 70-135mm respectively. The lenses have been designed to exhibit imperceptible breathing during racking focus.

The zooms can be fitted with a 77mm detachable front filter, but also have a plug-in rear filter, useful for adding ND, UV, Streak or Mist filters. The lenses cover an image circle of 43.5mm, for use with most full-frame sensors.

Dzofilm's Catta 35-80mm and 70-135mm T/2.9 lenses for full-frame sensors

They are fitted with an E mount, but RF, L, Z and X mounts are available, with EF and PL mounts coming next year, which can be changed via a quick-release interchangeable mount.

SMART TRANSMITTER UPDATE OFFERS ENERGY SAVINGS

PUBLISH

WorldCast Systems

BY DAVID FOX

WorldCast Systems has introduced version 2.3.0 of its Ecreso FM 5/10kW transmitter. It is a fully digital transmitter for analogue FM that combines reliable performance and efficiency of up to 76%. It also offers SmartFM V2, which enables broadcasters to reduce their energy consumption by up to 40%, to reduce expenses and carbon footprint.

It has built-in 1+1 redundancy and is designed for "cost-efficiency, high audio quality and good user experience", according to Worldcast. The transmitter's features include an integrated digital modulator, five-band sound processor, RDS encoder and MPX over AES compatibility.

SmartFM V2 offers a new Extreme Savings strategy, useful for broadcasters that reduce their output power at night to lower their consumption and costs.

The transmitter also allows extensive remote control via a web server with an advanced measurement interface, as well as SNMP management, RS232 or GPIOs.

With the 2.3.0 version, users will benefit from advanced features and improvements, such as Automation – Ecreso FM is claimed to be the only transmitter to automate a configuration change or send GPIO commands in case of specific alarms. There are also RDS improvements, where management of the UTF8 is now available, as are Danish language characters. Also featured is reinforced security from remote FTP through to new access restrictions.

David Houze, product manager, WorldCast Systems, said: "[Ecreso FM 5/10kW reflects] the perfect balance between performance and cost-competitiveness. We hope the features included in 2.3.0 will benefit Ecreso users with easier maintenance, more control and more savings."

The Ecreso FM 5/10kW transmitter features energy-saving algorithm SmartFM V2

STABIL-ITY TAKEN TO THE MINIMAX

CREATE & PRODUCE

Easyrig

BY DAVID FOX

After Easyrig released its original Stabil stabilisation arm it noticed an increasing demand for something similar for its Minimax Easyrig system, which is why it has developed the new Stabil Light.

The system uses a new, improved Minimax spring that works more efficiently with the Stabil Light. It's smoother and it's more reliable, and will now be the standard for all Minimax models, according to the company. As previously, this complex spring is made by Lesjöfors in Sweden.

The Stabil Light was developed to support gimbals between 2kg and 7kg. It will help stabilise handheld shots to a certain degree while protecting the user's back. This enables users to operate the gimbal and camera for much longer periods of time.

The design is based on the original Stabil and has the ability to lock the arm so it functions as a standard Minimax Easyrig. It is also more light weight so the user can stay agile.

If existing users want to upgrade they need to purchase the Stabil Light together with the new Minimax Power Pack. It includes a spring that is said to synergise better with the Stabil Light. The new power pack is now standard for all versions of the Minimax.

"It's fantastic," said New Zealand-based DoP David Paul. "It's perfect for smaller gimbals such as the Crane 3s and Ronin Rs. So many people need this because the smaller gimbals are so popular. It works like the big Stabil G2."

"It's really simple to use, it's kind of the perfect next step for people looking to improve their gimbal work on a smaller pocket size camera," added Sam Wordsworth, a UK-based filmmaker.

The new Easyrig Stabil Light is designed to work with gimbals between 2kg and 7kg

EVO-LUTION SEES SHAREBROWSER AND SLINGSHOT UPDATED

MANAGE

Studio Network Solutions

BY DAVID FOX

SNS has unveiled major updates to its ShareBrowser media asset manager and Slingshot automation engine, both included with its Evo media servers, with new features for creative teams, especially those working from home or remotely.

The suite gains automatic ProRes transcoding and new cloud storage integrations to facilitate better on-premise, remote and multi-location collaboration. The company has also made its MAM software more convenient and user-friendly in the latest release.

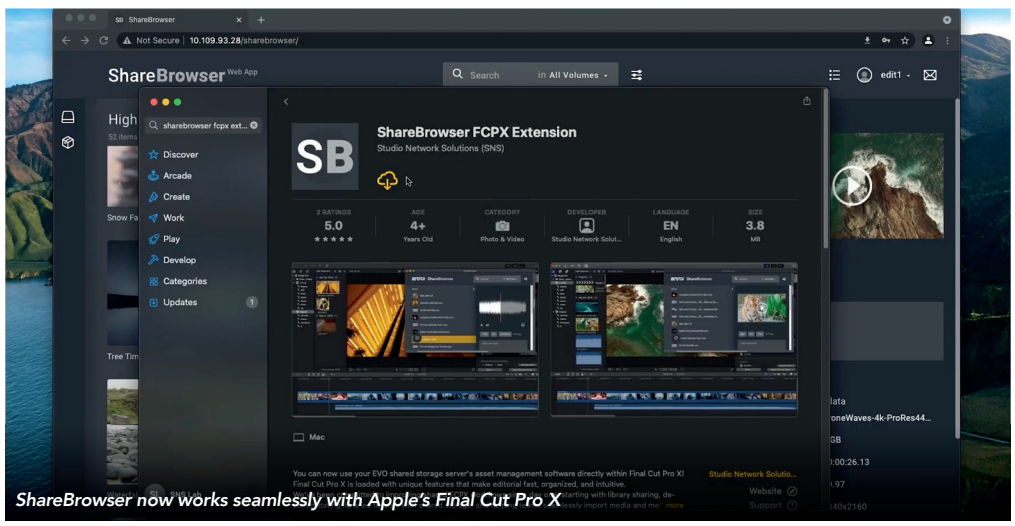
Slingshot, which simplifies task automation (indexing, transcoding or backing up media), can now automatically transcode media to ProRes format, ideal for proxy and remote editing. As it is now officially Apple-certified for ProRes, these proxies are available for remote workflows with Nomad, Evo's included editing utility, giving users a higher quality proxy file for use when editing at home or on the go.

SNS has also integrated its offering with more cloud storage services – including Wasabi, Backblaze and Google Cloud Platform – for enhanced flexibility in a hybrid cloud storage environment.

One of SNS' most requested features from ShareBrowser users was the ability to pin the volume pane so it doesn't disappear after mounting or unmounting a volume. This is now possible. Users can also mount shares by their ShareBrowser bins in the latest release, rather than selecting and mounting multiple volumes in a bin individually.

Users can also download edit-ready proxies in the ShareBrowser web app, with no software installation required.

ShareBrowser integrates directly with Final Cut Pro X, so that Evo-generated edit-ready proxies are automatically linked when importing media through the ShareBrowser extension in Final Cut Pro.



ShareBrowser now works seamlessly with Apple's Final Cut Pro X

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TRACKMEN PUTS DOWN ITS MARKERS TO CHASE GHOSTS

CREATE & PRODUCE

TrackMen

BY DAVID FOX

Cologne-based TrackMen, which produces 3D camera tracking systems and supporting services for broadcast applications, virtual studios and augmented reality applications, has announced its latest VioTrack R+ and new GhostTrack.

VioTrack R+ is a markerless camera tracking system that enables a camera to freely move on any camera rig, or for any AR or virtual studio application inside and outside the studio. The original VioTrack R works in visible light, but the new VioTrack R+ can process infrared light, making it possible to work in complete darkness.

As a markerless system, VioTrack R+ just uses natural features in the environment. The scene is analysed by the software in real time to automatically generate 3D feature points instead of using any artificial markers. This autonomous tracking technology is said to be able to accurately calculate all parameters of a camera in 3D space.

However, some virtual studios can't use that sort of markerless system, which is why TrackMen recently became the exclusive tracking partner for the GhostFrame initiative – a collaboration of AGS, Megapixel VR and Roe Visual. That has resulted in GhostTrack, a new optical camera tracking system based on GhostFrame.

In studios where LED panels make up back walls, ceiling and floor, marker-based optical camera tracking systems or traditional sensor cameras cannot be used without interference. Instead the hidden tracking information of GhostFrame turns every LED panel into a reference object for camera tracking. This allows the unique combination of TrackMen's GhostTrack and GhostFrame to work where other systems cannot.

TrackMen's new GhostTrack is ideal for shooting in an LED cave

FOCUS ON FUNCTIONALITY WITH LATEST NETWORK CONTROLLER

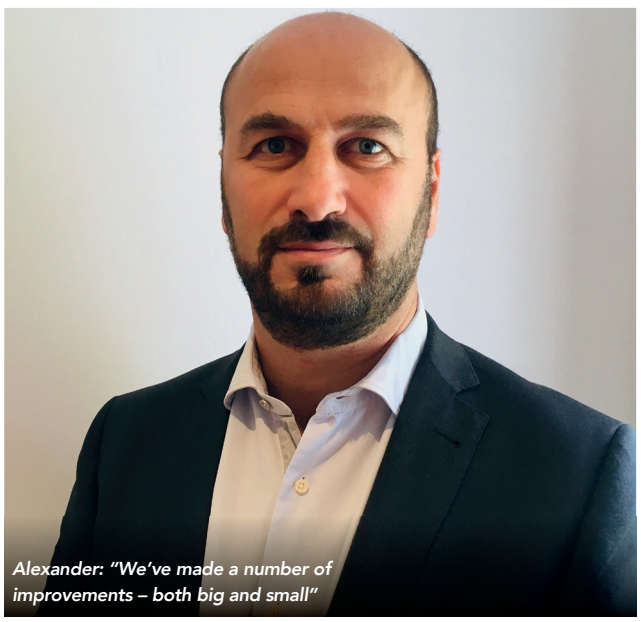
MANAGE

SDNsquare

BY DAVID DAVIES

SDNsquare has released version 1.9 of its Grid software-defined network controller, comprising an IP network orchestrator which guides data-stream paths and creates predictable, low latency flow to optimise network performance and management.

According to SDNsquare, the new release includes additional support and configuration for a range of switches, extended approaches to visualisation and monitoring, improved performance for large networks and increased API-based interoperability.


Alexander: "We've made a number of improvements – both big and small"

Grid's core function is to facilitate predictable and optimal management of a network, providing for reliable, real-time production operations which are not disrupted by data transfer issues or blockage – with intelligent management employed to deliver predictable and reliable data flow. The new additions brought to version 1.9 increase the range of applications to work with Grid, can grant users greater control and insight over their networks, and facilitate integration of third-party solutions such as broadcast controllers and monitoring/orchestration solutions.

Henry Alexander, CEO, SDNsquare, said: "In version 1.9 we've made a number of improvements – both big and small. Taken together they significantly enhance the scope, functionality and capabilities of Grid, as well as making it more user-friendly and intuitive than ever before."

2WCOM AND JUTEL PARTNER FOR MULTICHANNEL CLOUD RADIO

PUBLISH

Jutel

BY DAVID FOX

Jutel and 2wcom have announced a partnership that offers radio broadcasters a turnkey setup that they claim amounts to the industry's first complete multichannel cloud radio. The partnership will enhance the IP-audio distribution capabilities of Jutel's RadioMan with 2wcom's Multimedia over IP Network (MoIN). MoIN is software that can encode, decode and transcode multiple audio channels simultaneously.

Olli-Pekka Lukkarinen, COO, Jutel, said: "Together RadioMan and MoIN have already solved our customers' IP-audio distribution challenges and we are excited to offer these two together as a complementary service."

Werner Drews, CEO, 2wcom, added: "Radioman and MoIN complement each other perfectly and simply shake hands to manage broadcasters' produced audio content."

RadioMan has been in use since 1992, with users ranging from YLE in Finland and RTÉ in Ireland to CBS News in the US. The latest version is claimed to be the world's first complete radio-as-a-service that offers a full-range radio broadcasting solution for radio stations of all sizes.

Jingle all the way: Jutel's RadioMan IP-audio distribution system

ADVERTISING GETS PERSONAL

MONETISE

Flussonic

BY ANNE MORRIS

Flussonic's server side ad insertion (SSAI) technology is able to place ads by partial substitution of segments within the broadcast session.

Within a single segment, groups of pictures (GOPs) from the stream can be replaced just in time with GOPs from the commercial. Therefore, a segment can contain multiple broadcast GOPs and multiple GOPs with advertisements.

The URL of the segment with the ad will remain the same for all viewers of the stream. At the same time, it is possible to show different ads to different viewers from the same URL.

Available for HLS and DASH, the system allows a content provider to make unique ads targeted for each user or session without transcoding.

Flussonic claims this new way of embedding ads is the first step towards improving the entire monetisation module through advertising. In the near future, it plans to implement SCTE ad insertion markers, as well as build a system for preparing commercials for the insertion.

Flussonic shows how embedding ads can improve the monetisation model

ENDURO ENDURES

CREATE & PRODUCE

IDX Technology

BY DAVID FOX

The new Duo-CP line adds USB power delivery in/out to the Endura Duo battery range, offering up to 60W at 20v for fast low-cost charging and an ability to power a large range of equipment, such as a MacBook Pro.

Unique to IDX is the D-Tap advanced socket. It has a conventional DC out rated at 80W, but can also permit controlled charging from the IDX VL-DT1 (a small lightweight travel charger with battery protection via the third pin on the D-Tap advanced socket). There is also a second D-Tap 80W DC output.

Digital data gives an accurate level of battery capacity; externally on LEDs in steps of 10%, or (on compatible equipment) a display of remaining run time or capacity to 1% increments.

This data output can be switched to SB mode or IB mode to make it compatible with a wide range of broadcast cameras and equipment. There is also a V-Torch for finding items in the dark.

The Duo-C98P offers typically 100Wh capacity and weighs 640g; the Duo-C150P gives 150Wh capacity and weighs 900g; while the Duo-C198P has 199Wh capacity and weighs 1090g.

Duo trio: The new IDX Duo-CP range has USB power ports

LEICA-BASED DIRECTORS VIEWFINDER SYSTEM LAUNCHED

CREATE & PRODUCE

Leitz (Ernst Leitz Wetzlar)

BY DAVID FOX

The new Leitz Henri Directors Viewfinder system is based around the Leica SL2 and SL2-S full-frame cameras, plus lens mounts for PL and LPL lenses, a lightweight rod support system for accessories, and a retractable, ergonomic handle reminiscent of a Beaulieu Super 16 camera.

The Henri system can also be used for filming at resolutions up to 5K and includes a camera start/stop button on the handle, which swings away for quick mounting on a tripod or monopod.

At the heart of Henri is the Leica SL camera's full frame sensor, offering 47MP in the SL2 and 24MP in the SL2-S. This high resolution allows users to accurately evaluate lens performance and punch in for critical focus at the push of a button. The cameras' EyeRes OLED EVF is a 5.76MP display with +2/-4 diopters, which is claimed to be "one of the clearest, brightest, most colour and contrast accurate electronic viewfinders available".

Rainer Hercher, MD, Ernst Leitz Wetzlar, said: "Today's directors and cinematographers have more lens choices than ever before. The Leitz Henri and the Leica SL2 and SL2-S cameras make it easy for professionals to choose the lens that best suits their needs, regardless of format or mount. PL or LPL, full frame or Super 35, Henri will show you what the camera sees without compromise so you can make the creative choice with confidence."

The Leitz Henri system can be bundled with an SL2 or SL2-S camera, or without the camera for existing SL owners.

In view: The new Leitz Henri Directors Viewfinder system

SCP 2100 UPDATED

MANAGE

Sencore

BY MICHAEL BURNS

The latest major feature release to the SCP 2100 internet delivery encoder includes MPEG2 encoding and transcoding, as well as SCTE 104 to SCTE 35 ad insertion conversion. With the addition of these two features, Sencore claims the SCP 2100 is "an extremely versatile edge device for acquiring, compressing and backhauling content across the internet".

The SCP 2100 allows operators to have a single solution for acquiring and transporting their content over the open internet, regardless of codec, interface or streaming protocol.

Aimed at applications such as acquiring content from off-air broadcast feeds, sporting events and public service addresses, Sencore says there is support for nearly any physical input – including MPEG/IP, HDMI, SDI, ASI, QAM and 8VSB, along with support for both H.264 and MPEG2. Once the signal has been compressed, rate-shaped, transcoded or repackaged, it is transported as Zixi or SRT across the internet or as MPEG/IP with SMPTE 2022-1 forward error correction.

The SCP 2100 can both acquire and transport content over the open internet

ROBYTOWER RISES TO THE OCCASION

CREATE & PRODUCE

Movicom Group/ Robycam Global

BY DAVID FOX

Movicom has released the lightweight RobyTower motorised telescopic column and helmet-mounted Refcam.

The RobyTower made its debut during the Olympic Games in Tokyo and can be used for both studio and outdoor applications to achieve smooth panoramic shots. The system can be used upright, offering a variety of shots from 1.4m to 4.4m high, or be installed in a hanging position.

It is built of strong, narrow aluminium tubes, which make it compact and light, and it works with Movicom's line of gyro-stabilised heads such as the RobyHead L and RobyHead R3. It is also compatible with standard PTZ heads like the RobyHead D1. The system is controlled through a regular control panel or a floor pedal for height control. A flat plate is normally used as a base, but it can also be mounted on a wheeled dolly.

Movicom's Refcam includes a mini-camera, specially designed camera mount and IMT/Dragonfly wireless camera transmitter. The camera can be easily attached to and removed from any helmet, allowing referees to use personal gear they are used to. The whole kit weighs 190g and can be balanced on a helmet without wires, making it more comfortable.

While it can be mounted on most helmets, such as for hockey or horse-racing, it can also be arranged as a wearable chest or ear-cam setup. Battery charge can last up to several hours and the battery compartments allow easy replacement of the battery during game breaks. During the production, the camera is controlled from the OB by an included remote control panel.

In among the action: Movicom's Refcam on an ice hockey helmet

CORE IS JUST THE JOB FOR ARCHIVE MANAGEMENT

MANAGE

NOA Archive

BY DAVID FOX

Archiving specialist Noa has announced a new video archive management suite, jobDB Core, which includes all the Noa processors necessary for an in-house industrial digitisation facility for SD-video carriers.

The scalable package comprises the FrameLector ingest software, jobDB workflow management system, MediaButler transcoding processor, BarcodeStation custom script creation tool, UniversalDialoger scanner and the QualityChecker post-ingest digital content analyser.

The entry-level bundle, designed for small to medium-sized firms, provides users with all the features available through each individual product and is expandable to grow with the company.

Kummer: jobDB Core offers "affordable and expandable archive management"

At its core is jobDB, the workflow orchestration system that connects video capture, quality control and other client workstations, as well as server-side tools, and transforms them into an efficient industrial digitisation facility. The package enables QC and assurance on all levels and great flexibility on file formats and workflows.

It also allows the setup of processes for capturing, reshaping and analysis of media as required for archiving, transcoding or other complex business processes. It integrates automatic, semi-automatic and manual or instructive process steps in a well-defined and complex process flow. With ControlCenter, the client application of jobDB, users can manage all carriers, workflows, logs and processors.

Users can scale the system up to 32+ ingest channels to gradually ease into digitisation, while simplifying the process by investing in one package.

Jean-Christophe Kummer, managing partner, Noa, said: "We wanted to meet the requirements of smaller enterprises in need of affordable and expandable archive management solutions. With jobDB Core we also aimed to offer an accessible digitisation method that encourages institutions to safeguard their valuable heritage."

PORTAPROMPT ROLLS IN PROMPT UPDATES

CREATE & PRODUCE

Portaprompt

BY DAVID FOX

UK-based boutique prompting company Portaprompt has updated its 365 tablet prompting system and its Broadcast Premium and Quasar ranges, all of which now have IP upgrades. Also updated is the mid-budget Fusion Hi Bright prompter series, which now features SDI input as standard, and the company's Motorised Conference Poles.

Dance partners: Portaprompt prompters in use on the BBC's Strictly Come Dancing

Roll in/out stands are a recent introduction, which allow the prompter to be rigged independently from the camera system. Jon Hilton, sales and marketing, Portaprompt, says these are proving popular, "especially for streaming or Zoom-style meetings using PTZ cameras".

For up to 24in displays there is a new carbon fibre pole system to reduce weight while maintaining strength. This offers a new mounting option using a Vesa plate attachment, which Portaprompt believes gives more flexibility to the system either in direct read mode or for through the glass prompting. There is also a heavy-duty stand for 32in displays.

Also newly designed are Telescopic Rods for rigging, including an Extra Long version (315-585mm), which is often required when using the 32in Quasar prompter with a long lens. There are also Short (155-260mm) and Long (265-485mm) Telescopic Rods.

AI AUTO MIX FOR THE CLOUD CROWD

CREATE & PRODUCE

Salsa Sound

BY MICHAEL BURNS

Innovator in AI-based audio mixing Salsa Sound has launched MIXaiR 2.0, the latest iteration of its AI-based automated platform for live audio mixing, transitioning to a pure software, cloud-ready version.

MIXaiR 2.0 is designed to make life easier for the sound team and speed up audio workflows, automatically rendering to multiple formats and mixing multiple language versions or crowd flavours. Each mix is automatically made compliant to the requisite loudness standards and parameters required for social media platforms, linear broadcast, VOD, or OTT. It can be deployed onsite, as part of a remote production workflow, over IP or in the cloud.

Unlike other automated mixing systems, MIXaiR 2.0 requires no additional tracking or manual operation. Instead, the system takes audio feeds from existing broadcast microphones at a stadium, relying on its unique AI algorithms to detect, mix in and enhance the on-pitch sounds and create engaging real-time mixes.

Rob Oldfield, co-founder and CEO at Salsa Sound, said: "We designed MIXaiR 2.0 to remove time-intensive, manual processes that sound engineers are faced with; instead, we give them the freedom to craft a mix, rather than chasing it. We want amazing sound to be accessible to as many sports fans as possible for both high and lower budget games. By removing the need for additional infrastructure, we've ensured that MIXaiR 2.0 can be used by clubs of all sizes to give their fans the best experience that captures all the excitement of the on-field action and makes them feel like they are actually in the stadium with the fans."

MIXaiR 2.0 allows sound engineers to automatically create the best possible mix

MOBILE DATA SAFE IS READY TO GO

MANAGE

RNT Rausch

BY MICHAEL BURNS

Germany-based technology pioneer RNT Rausch has unveiled Hibagon Mobile Data Safe, a robust, shockproof and water-resistant storage device that transports data "across companies, cities, countries and continents irrespective of weather conditions and transportation vehicles", according to the company.

RNT points out that while data transfers play an important role in filmmaking and video production, often terabytes of raw footage material and partially enhanced videos have to cross vast distances to reach post-production teams or studio executives for further editing or review.

The company claims FTP as a transport method has substantial limitations, citing a high failure rate, file transfers being too slow and security issues, resulting in FTP often being "a banned solution at large corporations for security and performance reasons".

With the IP45-rated Hibagon Mobile Data Safe, RNT claims large amounts of data can be physically and securely transferred from A to B or from cloud to cloud. The RAID 5 device supports eight enterprise HDDs and has usable capacities ranging from 28TB (with eight 4TB HDDs) to 140TB (with eight 20TB HDDs). The stored data is encrypted (AD, LDAP, SSH and AES-XTS).

Supported protocols include File (NFS, SMB, AFP), Object (S3-API, S3-Host, Cloudsync), Block (iSCSI, Cinder, VAAI) and FTP.

The armoured storage system is not a service – by owning the physical device the owner will always stay in control of the data that is stored on Hibagon, says RNT.

Data is encrypted and secure within RNT's mobile data safe

KINOW TIES WITH DALET FLEX

MONETISE

Kinow

BY ANNE MORRIS

Managing the production and direct distribution of video content are two facets of the same workflow that require specific tools, which are often complex and expensive to integrate together. In order to automate these processes and to resolve interoperability issues, Kinow has integrated with the Dalet ecosystem via Dalet Flex.

Dalet Flex is a configurable content supply chain solution that is designed to resolve the multi-platform delivery needs of content creators and distributors. Kinow provides live streaming and on-demand OTT platform solutions to distribute and monetise content.

According to the company, the new joint offering makes it possible to automate the sending of finalised video files and associated metadata from the production environment to the distribution platform without manual intervention or technical integration, thus reducing the costs and deployment time of these tools.

Pierre Antoine, co-founder of Kinow, said: "The combined agility of Dalet Flex and Kinow solutions is a real asset and will allow us to meet the needs of our customers requiring both a powerful production tool and a scalable streaming distribution solution, deployed in record time and at competitive costs."

According to Kinow, the Dalet and Kinow tools empower companies to quickly launch new services on new platforms (VOD, live, apps, subscription and so on) and adopt new monetisation models with subscriber and billing management.

Antoine: "The combined agility of Dalet Flex and Kinow... will allow us to meet the needs of our customers"

REMOTE CALLERS GET A LOOK IN WITH LIVEGUEST

CREATE & PRODUCE

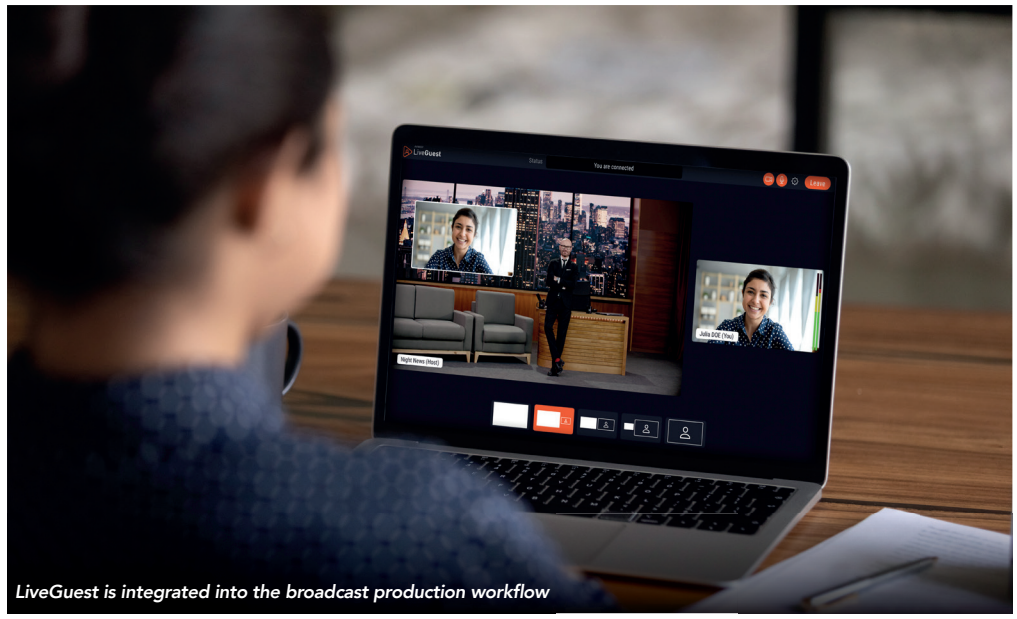
Aviwest

BY MICHAEL BURNS

Live video contribution systems developer Aviwest has unveiled LiveGuest, a new video calls solution for live production applications. LiveGuest lets professional broadcasters invite remote guests to join a live video call directly integrated with their production system. The company claims LiveGuest is easy to deploy and use, without requiring any web application or software. VIP guests, simply click on an email link via their laptop and they are on-air.

Thomas Dellerue, product manager at Aviwest, said: "Conducting live remote interviews has never been simpler than with our new LiveGuest solution. Guests don't need technical know-how or dedicated equipment to join a live broadcast – it's as easy as a click. Since our LiveGuest solution offers easy integration with any live production platform, on-premises or in the cloud, the deployment process is 100% seamless for broadcasters."

LiveGuest is intended to deliver guest interviews, remote sports commentary, virtual press conferences and public expert contributions in real time. Using the cloud-based or the on-premises solution, broadcasters can boost live content with commentary from remote guests located anywhere in the world.



LiveGuest is integrated into the broadcast production workflow

Running on any web browser, the LiveGuest solution also supports bidirectional video return, allowing guests to receive, watch and hear the content being produced in the studio. Automated echo cancellation capabilities ensure no feedback or audio echo is heard during the interview. With LiveGuest, video content is received in the studio by Aviwest's StreamHub and can then be sent over SDI, NDI, or through multiple IP outputs such as SRT, TS, or RTMP. In addition to providing broadcasters with live production platform connectivity, the LiveGuest solution streamlines content delivery to all major social media platforms, including YouTube, Twitch and Facebook.

EXPANDED R&D HUB TO ACCELERATE IP ADOPTION

CREATE & PRODUCE

Riedel Communications

BY DAVID DAVIES

Riedel Communications has expanded its R&D hub in Vienna and ramped up its capacity to drive technical innovation and accelerate its customers' path "towards the IP future".

The expansion doubles the size of Riedel's Vienna offices, which neighbour the Euro Plaza technology park, enabling further growth of the company's development team and even more robust support for customers across Central and Eastern Europe (CEE).

Riedel has grown its Vienna facilities to help drive technical innovation

Riedel's Vienna team is responsible for front- and back-end development, automated test software, FPGA programming, PCB layout and mechanical design. The R&D hub is part of a larger Riedel Austria facility that offers an additional 120sqm for the preparation of installations and managed technology projects.

In significantly expanding its Vienna facilities, Riedel claims to not only be hiring additional software developers and boosting its R&D capabilities, but also committing greater resources to the growing customer base across CEE. Thanks to concurrent restructuring and process optimisation projects, Riedel has also increased the capacity of its rental and managed technology business to take on special projects of any size or degree of complexity.

Gernot Butschek, head of development at Riedel's Vienna location, said: "The team at our Vienna R&D hub has the talent and creativity to deliver products with forward-looking functionality that has the power to transform the broadcast and event industry. As the broadcast industry undergoes major disruptive change with the transition to IP-based transport of media signals, our R&D team meets that challenge with innovation."

WILL IAM PROVE A PLUS FOR AUDIO MONITORING?

CREATE & PRODUCE

Wohler Technologies

BY DAVID FOX

Wohler has released new and improved iAM-Audio Plus monitors in 1U and 2U form factors. The new iAM-Audio-1 Plus and Audio-2 Plus units add two 3G-SDI inputs on BNC and a looped output of the selected SDI input, while retaining an SFP slot for additional SDI, 2110, or 2022 modules.

The unit depth has also been reduced by 5cm to14cm, meeting all shallow-depth requirements. A fourth rotary encoder has been added to the front panel to further allow a mix of touch controls and mechanical controls for ease of use.

While other functional aspects remain the same, including the ability to license AES, MADI, additional custom mix output routing and Dolby processing, the AoIP option card offers monitoring of either Dante or Ravenna and includes monitoring of 2110-30. Primary and secondary RJ45 Ethernet ports on the card enable hitless (redundant) 2022-7 monitoring. Also available is an analogue option card, offering a further eight balanced inputs and outputs on DB-25 connectors, as well as a Toslink (SPDIF) connector. APIs, remote GUIs and network ports remain standard on both units.

The new 1U and 2U iAM-Audio Plus monitors

Kim Templeman-Holmes, VP of sales & marketing at Wohler, said: "The evolution of our iAM-Audio products adds many of the features and benefits already available on our iVAM range and now standardises the available options across our audio and AV monitors."

Blackmagic Web Presenter

Live stream from any 12G-SDI video source direct to YouTube, Facebook, Twitter and more!

Blackmagic Web Presenter is a complete streaming solution that includes a professional hardware streaming engine for direct streaming via Ethernet to YouTube, Facebook, Twitter and more! Plus the built in USB connections work like a webcam, so you can connect to any video software, Skype or Zoom. For redundancy, you can even stream via a phone to use mobile data!

Live Stream to YouTube, Facebook and More!

The built in hardware streaming engine has been designed for live streaming at professional broadcast quality. Unlike streaming software, you get a better solution that won't drop frames. Setup is easy, as the Web Presenter Utility software lets you select the streaming platform and update the streaming key. The utility works on Mac and Windows and connects via USB or Ethernet.

Make Live Streaming Easy!

Blackmagic Web Presenter is a self contained solution that includes a powerful hardware encoder, software for connecting to streaming platforms, and network connections. Simply connect an SDI video source such as a live production switcher, then connect to the internet using the built in Ethernet connection. You can even plug in a smartphone to use mobile data!

Built-in Technical Monitoring

To help, Blackmagic Web Presenter includes a technical monitoring output. The monitoring output includes a video view, audio meters with accurate ballistics, trend graphs for codec data rates and cache fill, plus a summary of the streaming settings and detailed SDI technical information. Plus the technical monitoring output works in 1080 HD and outputs to both SDI and HDMI.

Supports 720 HD, 1080 HD and Ultra HD!

Blackmagic Web Presenter includes a 12G-SDI input with support for all HD and Ultra HD formats up to 2160p60. Blackmagic Web Presenter takes the incoming HD or Ultra HD input signal and automatically converts it to high quality, low data rate 1080p HD or high resolution 2160p60 Ultra HD depending on the model, which is then sent to the hardware H.264 encoder for streaming.

Blackmagic
Web Presenter HD ..... **439€***

Blackmagic
Web Presenter 4K ..... **609€***

www.blackmagicdesign.com/nl

*SRP is Exclusive of VAT.

Learn More!