Selevision rewrites rules of compression to make HD and 4K widely available in the MENA region.
IP, IP and more IP greeted us as we went from stand to stand at IBC. Many vendors were keen to talk about their IP-based solutions, although some did say there were significant gaps to fill. Nevertheless, it is clear that many end users are mulling the move to IP solutions but are probably waiting for things to settle down. This seems to be a wait-and-watch period.

Manufacturers didn’t exactly paint a rosy picture at IBC, with several having axed jobs across the globe just prior to the show. Some commented that with many end users stalling the deployment of traditional systems and considering moving to IP-based solutions, business was not as good as they would have liked it to be. Others said that the demand for new technologies has created the need for a new set of skills, which has made older hands outdated. This transitional period has created some trepidation in the market.

In the meantime, in the region, rumours of big budget cuts at Al Jazeera Network have sent shock waves through the market. But I have also heard a bird whisper that another channel is coming up in the country. On the other hand, we have also seen promos for a new movie channel on beIN Sports, which has caused a stir in the region. What would beIN’s expansion into the entertainment genre spell, not just for the existing pay TV network, OSN, but also for the likes of MBC? Will beIN Movies be part of a subscription model or be available free-to-air? If beIN does choose a cost-effective subscription route, it could significantly change the dynamics of the TV landscape for both FTA and pay TV providers.

Again, we’ll have to wait and watch. In the meantime, BroadcastPro ME is hosting another roundtable in October, along with Snell Advanced Media (SAM), to gauge where the regional broadcasters stand in terms of IP-based solutions. We also have only a month to go before our annual ASBU BroadcastPro Selevision Summit and Awards. Attendance is free but limited. Please register to attend. If you have a project to nominate for the awards, the time to do it is now.
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October 2015
Dubai-based distributor MediaCast has opened a new office in Turkey, its first outside the UAE. Peyman Dadpanah, Business Director of MediaCast, in an exclusive interview with BroadcastPro ME, said that it was an exciting opportunity to set up base in Turkey. MediaCast’s branch office will be based in the Sisli area of Istanbul.

“Turkey is a very vibrant market flush with creative talents and productions, offering huge growth opportunities. We were presented with the wonderful opportunity to represent Blackmagic Design in Turkey, and that’s how the idea of an office took root. Blackmagic Design’s growing range of cameras and post-production products. We believe it will be an excellent offering to the growing number of world-class films, TV productions and documentaries coming out of the country. We are equally enthusiastic about the opportunities in broadcast and live productions, which are capturing the imagination of not only the Turkish audience, but also viewers internationally."

Al Jazeera to cut hundreds of jobs
Qatari broadcaster Al Jazeera is expected to cut hundreds of jobs worldwide. The cost-cutting move comes in the wake of falling oil prices that might have an impact on Qatar’s investment strategy in the TV network.

Inside sources have stated that 800-1,000 staff may be asked to leave. While the decision will affect broadcasters, journalists, technicians and other support staff working in both English- and Arabic-language channels, Al Jazeera America is expected to be protected from the cuts. Most of Al Jazeera’s 4,700 employees work in its Arabic-language division.

Insiders say Arabic-language Doha-based journalists are particularly at risk, as Al Jazeera’s stance on several of the Middle East’s most troubled areas of conflict could cause problems if they are forced to return home. Rumours about the impending job cuts at Al Jazeera have been doing the rounds in Arab news organisations for several weeks now. At the time of going to press, sources confirmed to BroadcastPro ME that cost-cutting was a priority for the broadcaster.

News Flash: Naresh Subherwal is expected to head Snell Advanced Media in the Middle East again.
Saudi state broadcaster upgrades NETIA solution

Saudi Broadcasting Corporation (SBC) has upgraded the NETIA Radio-Assist radio automation state used by the kingdom’s national audio archives. SBC worked with NETIA’s area partner, First Gulf Company, to upgrade its existing systems to Radio-Assist 8.2 and to leverage the solution’s full capacity which will facilitate the smooth exchange of content between the national archives facility and SBC’s radio stations.

The broadcaster began working with NETIA in 2008, when it worked with First Gulf Company to install Radio-Assist at Radio Riyadh and Radio Jedhah, as well as at the national archives. The installation supported the migration of archived tapes to digital and, in turn, facilitated the restoration, preservation and repurposing of historical assets that might otherwise have been lost.

Now, with the upgrade to Radio-Assist 8.2, SBC has integrated the NETIA software with a new HSM system and management interface to centralise audio and video assets and make them available to users working at the national archives.

CANAL+ Overseas chooses Ensys for Africa

CANAL+ Overseas has selected Ensys as a key technology partner for the roll-out of the broadcaster’s DTT platform in Africa. TNT Africa, a multi-country sub-Saharan Africa project, is designed to work alongside its existing DTH service Les Bouquets Canal+.

SBC worked with NETIA in 2008, during the installation of its key content insertion and regionalisation technology in the form of its T2-Gateway product at the Paris headquarters and then T2-Edge systems at the main transmitter sites in each country. All the content will be supplied via the Paris headend, over satellite, to each transmitter site. This includes country-specific services and even services for sub-regions in some countries.

Adding the world’s first live production switcher with 12G-SDI for high frame rate production up to 2160p60.

The ATEM 2 M/E Broadcast Studio 4K is a live, multi-camera production switcher that features 12G-SDI so you can now work in high frame rate Ultra HD which is perfect for live events such as sports, music concerts, theater and more! The advanced 12G-SDI based design featuring 20 12G-SDI inputs with full re-sync lets ATEM 2 M/E Broadcast Studio 4K work in all HD and Ultra HD formats—all the way up to 2160p60! You also get advanced broadcast features such as chroma key, transitions, keyers, multi view and much more!

High Frame Rate Ultra HD

The many 12G-SDI design lets you use the same high frame rate workflow in Ultra HD for fast action sports that you use in HD! 12G-SDI is 4 times faster than 3G-SDI so an easily handled Ultra HD in frame rates up to 60 fps. Because 12G-SDI switches speeds, you can instantly switch to operate in regular HD whenever you need!

Creative Transitions

You get a huge range of real time high quality transitions in all resolutions and frame rates! Live mixes, dips, wipes and animated string transitions for eye catching live broadcasts! Every transition is instantly available and via macros so you get full control of transition type, pattern, length and other attributes. Create your own ‘on air’ looks with ATEM’s amazing transitions!

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ACQUISITIONS

Amazon Web Services acquired Elemental

Amazon Web Services (AWS), an Amazon company, has reached an agreement to acquire Elemental Technologies. The acquisition brings together Elemental’s video solutions with the AWS cloud platform to provide media and entertainment companies with a range of integrated solutions to efficiently and economically scale video infrastructures, as the media industry increasingly moves to internet-delivered video.

Elemental makes it easy for media and entertainment companies to take live and on-demand video delivered for traditional networks like cable, satellite or over-the-air broadcast and reformat this content for distribution to PCs, smartphones, tablets and TVs. Elemental buys encoding firm Envio

Elemental has bought encoding firm Envio for $125m. The acquisition will strengthen Elemental’s video compression position, combining its position in broadcast and contribution with Envio’s multiscreen cable and telecom offerings. Envio’s cloud-centric and software-based video capabilities will be a key addition to Elemental’s extensive portfolio of media enrichment, processing, publishing, delivery and multi-channel platforms.

Ericsson buys encoding firm Envio

Ericsson has bought encoding firm Envio for $125m. The acquisition will strengthen Ericsson’s video compression position, combining its position in broadcast and contribution with Envio’s multiscreen cable and telecom offerings. Envio’s cloud-centric and software-based video capabilities will be a key addition to Ericsson’s extensive portfolio of media enrichment, processing, publishing, delivery and multi-channel platforms.

The media memory is big enough for 64 Ultra HD still graphics from Adobe Photoshop to the switcher with the included plug-in. The 4 built-in media players are designed for high frame rate HD and Ultra HD! ATEM can store full motion video and full re-sync lets ATEM 2 M/E Broadcast Studio 4K work in all HD and Ultra HD formats—all the way up to 2160p60! You also get advanced broadcast features such as chroma key, transitions, keyers, multi view and much more!

Creative Transitions

You get a huge range of real time high quality transitions in all resolutions and frame rates! Live mixes, dips, wipes and animated string transitions for eye catching live broadcasts! Every transition is instantly available and via macros so you get full control of transition type, pattern, length and other attributes. Create your own ‘on air’ looks with ATEM’s amazing transitions!

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Multi View Monitoring in Ultra HD

ATEM 2 M/E Broadcast Studio 4K features two Ultra HD multi views so you can see your program, preview and sources with custom layouts and labels! For the ultimate in image quality you can use Ultra HD displays or you can use regular HD displays and the multi view will down convert to HD!

Media Players

The 4 built-in media players are designed for high frame rate HD and Ultra HD! ATEM can store full motion video and full resolution RGBA stills with key and fill, or you can direct export from Adobe Photoshop to the switcher with the included plug-in. The media memory is big enough for 64 Ultra HD still graphics plus 380 frames of Ultra HD video or 1440 frames of regular 1080 HD video!

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Teranex Express 12G Converter

US$4,995*

Teranex Mini 12G Converters

US$4,995*
Arabsat to host customer forum event in Morocco

Arabsat Broadcasting Customer Forum will be hosted October 19-21, 2015 in Marrakech in Morocco. The event, initiated 10 years ago for the media industry with the idea of bringing together Arabsat customers, has been revamped and redesigned this year under the new name of Atheer. The event will bring together more than 120 guests to be a part of debates and discussions around topics concerning the satellite industry. Satellite providers, operators and customers from across the MENA region will gather to explore the future of the market and how to make the most of the opportunities available to them while also keeping commercial goals in mind. On day one, experts will put their heads together to discuss TV’s orbital neighbourhood and piracy issues that affect broadcasters. Day two’s events will touch upon a host of topics around satellite broadcast.

Fibersat signs deal with Arabsat for capacity

Fibersat S.A. has signed a framework agreement with Arabsat for the acquisition of an HTS hosted payload in Ka-band on the upcoming Arabsat satellites, with extensive coverage over the African markets. The company will commence operations in 2018. At launch, Fibersat will be able to provide affordable internet access services to remote locations.

Arabsat, EMC to launch triple-play service

Arabsat and Emerging Markets Communications (EMC) will jointly launch a triple-play broadcast and communications service across the MENA. The new Trio platform is built on EMC’s SATLink technology and will be delivered through the Arabsat Badr-7 satellite.

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Dubai cuts processing time for permits

Dubai Film and TV Commission (DFTC) has announced that the processing time for filming permits in the emirate has been reduced to a minimum of three working days, effective 14 September, 2015. This is a major step towards easing the filming process in Dubai, and further enhances the emirate’s position as a leading production destination.

StarTimes and Conax tie for Africa operations

Conax has entered a contract with StarTimes to co-develop a media gateway solution for its Africa operations. The operator has five million DTH and DTT subscribers and operations across 16 countries in the region.

In their expanded cooperation, Conax will provide StarTimes with security client Conax Trusted Link, security expertise and the technical blueprint for designing and deploying a complete, secure multi-room service. The new Whole Home solution will provide an advanced TV and PVR service for African households.

Kit Digital ex-chefs charged with fraud

Kit Digital’s former Chairman and CEO and its former CFO have been arrested and charged with accounting fraud. Both are being held pending extradition to the US, and face up to 20 years in jail if convicted on the most serious charge.

Prosecutors in New York claim ex-Chairman and CEO Kaleil Iliaza Turman, 43, and former CFO Robin Smyth, 61, conspired to mislead investors and regulators about the company’s financial health.

Kit Digital filed for bankruptcy in 2013 and is now known as Piksel Inc.

Vubiquity to acquire DETE

Vubiquity has signed a deal to acquire Digital End-To-End (DETE), a managed content technology service, from Warner Bros. Technical Operations. The deal will enable Vubiquity to expand its content services and distribution capabilities and service all its clients, made up of video content and service providers including Warner Bros., with content management.

VER acquires Aurora Lighting Hire Ltd

VER, a production equipment and engineering support company, has acquired Aurora Lighting Hire Ltd, a lighting rental house. The acquisition represents the latest step in VER’s strategic plans to expand its lighting capabilities and equipment inventory throughout Europe.

Dubai Film and TV Commission (DFTC) has announced that the processing time for filming permits in the emirate has been reduced to a minimum of three working days, effective 14 September, 2015. This is a major step towards easing the filming process in Dubai, and further enhances the emirate’s position as a leading production destination.

Details were announced during DFTC’s Industry Insider Session for business partners, filmmakers and producers. The networking event was hosted by DFTC to provide an opportunity for the production community to discuss industry-related issues, voice concerns and open more business opportunities within the media production industry.
Emirati film *Zinzana* in international partnerships

Image Nation Abu Dhabi’s recent Emirati feature film, *Battle the Cage (Zinzana)*, is attracting considerable attention from both festivals and partners. Prolific independent studio IM Global has come on board to handle international sales rights (excluding the Middle East) via its foreign language label IM Global Anthem, and Cinetica Media will oversee U.S. sales rights. *Battle the Cage (Zinzana)* is the second project that IM Global and Image Nation have teamed up on. IM Global is handling international sales and U.S. rights are being jointly represented by UTA Independent Film Group and CAA. The film will be presented by Image Nation Abu Dhabi in association with Parkes MacDonald Productions. In addition, *Battle the Cage (Zinzana)* Director Majid Al Ansari has signed with United Talent Agency for representation.

**Image Nation to Launch Quest Arabiya with Ericsson**

Ericsson has signed an exclusive multi-year broadcast and media services contract with Image Nation Abu Dhabi, to handle play-out, media preparation, media management and archive services for the new Arabic-language TV channel, Quest Arabiya. The channel is slated to launch in Q4 of 2015. The free-to-air service, which will broadcast 24 hours a day across the MENA region, is a partnership between Image Nation and Discovery Communications. Quest Arabiya will air a combination of regionally-produced original content along with factual and reality programmes from Discovery’s vast library of non-fiction shows, localised for the Arab market.

**Jordan Media City deploys ViBE VS7000**

Jordan Media City (JMC) has chosen the ViBE VS7000 multiscreen encoding/transcoding platform to drive its new OTT service offering. Based in the Jordanian capital of Amman, JMC provides broadcasting and play-out services to regional and international media organisations. JMC began streaming 33 new OTT channels on YouTube at the end of July, with encoding provided by the ViBE VS7000.

Commenting on the service, Eng Raul Alkhau, CEO, JMC, said: “Since we already have a full complement of Thomson Video Networks compression solutions in our operation, we can expect top-notch service in addition to state-of-the-art compression technology.” In addition to the new ViBE VS7000, JMC operates several headends consisting of Thomson Video Networks compression solutions.

**Ikegami to expand presence in the Middle East**

Camera manufacturer Ikegami, which recently opened a regional office in Dubai, is planning to grow its Dubai staff. The company had seen consistent business from the region which led to the decision to have a regional base in the Middle East, said Masanori Kondo President – Ikegami Electronics (Europe). “We were managing the Middle East region from Tokyo before setting up an office in Dubai. Abdul Ghani was recruited to lead the sales team in the region and we also have a technical support person. We plan to have a bigger presence in the region and will be expanding our team there,” he added.
Animate Dubai to debut in December

The first animation film festival in the Gulf will take place in Dubai this December, featuring indoor and outdoor animation screenings, including shorts, films, TV series and commissioned works. Also included in the programme are workshops and panel discussions.

Festival Director Lina Younes, the brain behind Animate Dubai, commented: "The workshops are targeted at those who want to learn about animation and scripting. The panels are directed at professionals and those starting out in the industry. We have two panels, one about financing and the other one about education. The idea behind the festival is to highlight the talent which is already there." The three-day festival will take place from December 3 to 5, 2015 at Dubai Design District, where aspiring animators will be educated on how to conceptualise and move forward to produce a film. "I did some animation workshops abroad and became a juror at Beirut Animated in Lebanon, and that’s when I thought of starting a festival for the Gulf region. The Director of Beirut Animated is helping us and the initiative is supported by Dubai Studio City and Dubai Design District.

"There will be no entry fee to be a part of the festival. The participating films should be made in 2013 or later. We have so far received more than 1,500 entries from across the world, with a mix of old and new. In addition to screenings, we also have competitions which will be judged by an in-house jury," Younes added. 200-250 films from the Gulf and across the globe will be screened at the festival. The Arab shorts and students categories have received 200 films from across the region, and the education panel will include people from twofour54, Cartoon Network Academy, Zayed University and other institutes. "It was about time we noticed the talent in the region and created things together with people from the region and abroad. The technique is not all, there has to be a soul to animation or cultural movement for creativity to thrive. Another message that we want to send across is that cartoons are not just for kids," Younes said.

The festival will be an informal way to meet, brainstorm and discuss to give a common platform for various entities and players in the animation arena. Broadcasters, including MBC, CNC, twofour54, Cartoon Network and DMI will be present.

Move to 4K with the Push of a Button

Moving to 4K is never an instant change. Legacy signals and archival material need to be integrated into the 4K environment. FS3 seamlessly takes SD and HD signals and up-converts them to 4K so they’re ready for use anywhere in your workflow. Starting with the industry-proven features of AJA frame synchronization such as RGB color correction, Region of Interest scaling, extensive audio controls and routing, web UI control and GPI triggers, FS3 adds powerful up, down and cross-conversion enabling not just 4K up-conversion, but SD and HD conversions as well for maximum flexibility in a single unit.

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Move to 4K with the Push of a Button

Brazzaville’s first 4K studio chosen

One of three studios that will be used for the first 4K production in the French-speaking community of Africa is being built in Brazzaville, the capital city of the Republic of the Congo. The two 4K and one 3G-SDI studio is being built by Rextel. The studio will be used for the production of programmes for the public service broadcaster, RTCab.Televis. The studio will be used for production by IBA, a French-speaking channel. The studio is expected to be on air in early 2016.

Iftah Ya Simsims returns to Middle East TV screens

The Arabic version of Sesame Street, Iftah Ya Simsimm , is all set to be back to the screens after 25 years. Produced in the UAE by Bidaya Media, the Arab Bureau of Education for the Gulf States (ABEGS), the GCC Joint Programme Production Institute (JSSI) and Abu Dhabi’s Media Production Zone twofour54, the series targets children aged four to six. The 28 new episodes include popular Muppet characters Noman, Shams, Melsoon and Sargur. The series has new and original songs, rhymes and animated segments with a strong focus on Arabic words and concepts.

Find out more at www.aja.com
The paucity of broadband has been a major deterrent to the widespread adoption of HD and 4K channels in the MENA region. While it may take years to deploy a robust broadband infrastructure across the geographically diverse MENA, a Saudi Arabian company has created a technology that enables viewers to see HD-quality videos at a much lower bandwidth. At IBC this year, Dr Raed Khusheim, CEO of Selevision unveiled a technology that would speed up HD and 4K uptake in the region by compressing video files without impacting the quality at the viewer’s end.

As a technology and content provider, we are constantly innovating behind the scenes to develop products and services that improve access to content,” says Dr Khusheim.

The result is Nukodec, a new codec, to compress the size of files to a more manageable size to carry over bandwidth as low as 1Mbps. Selevision is joining broadcast innovators worldwide with its very own innovation, which the company claims has rewritten the rules of compression. Developed by an in-house team of innovators, Nukodec is being looked at as an innovation set to revolutionise the way TV is viewed in the MENA.

“The idea is to offer the same level of picture quality, but with better compression, so there’s less data to deal with,” he explains.

Selevision started its journey with OTT with core packages of VOD, live TV, restart TV and catch-up TV services. Dr Khusheim says that despite offering a state-of-the-art service, the limitations of broadband in the region challenged the user experience.

“In the initial years, we faced several challenges. As we all know, broadband in the region is not the best and can be improved vastly. We felt there was a need for something that required less bandwidth. This was a need, and then followed innovation. We began to develop our own compression codec in order to save bandwidth without compromising quality. That’s how the concept of Nukodec came about. The codec is a smart way to deliver quality within the limited resources available.”

The algorithms for shrinking video content into an ever smaller package mean you can deliver higher quality content without using as much bandwidth. Good compression is the key to delivering quality ultra HD via internet or satellite. Smarter compression, rather than more compression, is the key to quality video.

Nukodec, demonstrated on satellite has been demonstrated for OTT channels before, but this was the first time it was used successfully to carry HD and 4K channels via satellite, using just 1Mbps and 4Mbps respectively.

The HD files are brought down from 10Mbps to a mere 1Mbps, while 4K ultra HD files are reduced to 4Mbps down from 25Mbps. A stable 25Mbps broadband connection is...
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“...needed to run a single 4K (ultra HD 3840 x 2160 resolution) quality internet video stream via a streaming platform, and this is significantly brought down using compression.

“Having trialed the HD and 4K channels successfully using Nukodec, we are now ready to launch them with our partners in the MENA region. This IBC, we tested the high speed links using Nukodec and carried them over Arabsat. The attendees could view the quality and resolution, which was as good as the uncompressed channel quality. These are not just any full HD or ultra HD/4K channels, but full HD and 4K channels running respectively on 1Mbps and 4Mbps, which is a first worldwide, considering that the international HEVC standards have only managed to compress up to 5.6Mbps,” Dr Khusheim adds.

“Designed to replace the H.264 and H.265/HEVC (High Efficiency Video Coding) codecs currently in use by the industry, Nukodec will be made available to industry players across the globe, allowing them to migrate to an advanced HEVC algorithm engineered by Selevision.”

Dr Raed Khusheim, CEO, Selevision

“...We have written our own algorithm, which involves a slight tweaking of the HEVC codec with dramatic reduction in the file size. Many companies do transcoding but are stuck with the standard HEVC, and this is like HEVC with some tweaking based on H.265.

“The algorithm took about 14 months to develop but is constantly being improved. Our engineers are working on it to enhance it further for better motion compensation and spatial prediction and to deliver even better performance using less processing power,” he explains.

Selevision’s trial channels are already in place both in the OTT space and on satellite.

“The next step is to develop a business model. We are also looking at licensing our technology to transcoding and encoding companies. Talks are underway..."
with a number of companies that have shown interest in our technology. It’s still early days to name anyone though.”

Selevision and Batelco’s longstanding partnership enables Selevision entertainment services to be delivered to Batelco group users, with 14 markets in the MENA and beyond. Since Selevision is offering its entertainment platform via IP to telcos and end users, the content – video on demand – being pushed must be re-encoded by Selevision with Nukodec, while the live TV channels running in full HD can be re-encoded in real time going through the Nukodec server. Content will be played on a receiver that supports HEVC, such as Andredo, Selevision’s hybrid Android-based set-top box. This offers great savings for content owners and service providers. Better compression means lower bandwidth, which in turn means more people can get HD. Dr Khusheim reiterates that SD needs to go and to make HD available to a majority, good compression is the way forward.

SD in broadcast should be cut off. Many consumers have HD and 4K TV monitors, but a majority of MENA channels are still SD and offer SD content on MPEG-2. Nukodec potentially has the capacity to transform that. If you pay per megabyte, mobile or at home, lower bit rates mean cheaper HD viewing as well.

“We began to develop our own compression codec in order to save bandwidth without compromising quality. That’s how the concept of Nukodec came about. The codec is a smart way to deliver quality within the limited resources available”

Dr Raed Khusheim, CEO, Selevision

Nukodec at a glance

Selevision has announced the first full HD test channel on satellite, running on only 1 Mbps using Nukodec, the HEVC-based codec developed by the company is playable on any HEVC compliant player. Another successful test brought ultra HD (4K) channels to life on satellite, transcoded using only 4 Mbps instead of 24 Mbps. Earlier this year, Nukodec succeeded in bringing full HD on tablets and phones using only 1 Mbps bandwidth instead of 10 Mbps.

The company invites satellite operators, telcos and service providers to look into new business models and strategies using Nukodec, as a way to make HD and 4K mainstream. The project has now been commercially launched on IP, deployed on Seven’s Batelco Bahar platform with full HD running on 1 Mbps for live as well as VOD. More than 100 TV channels are now available on this platform.

Targeted advertising

Another algorithm Selevision can offer to the broadcast industry is for targeted advertising dynamic channel delivery as well as time delivery, frequency delivery, broadcast delivery and interactive delivery.

Nukodec is an HEVC-based codec playable on any HEVC player compliant device. HEVC is more processor-intensive and needs a high-spec hardware device to be decoded – a firmware upgrade may not be enough. Nukodec’s hardware can be purchased by any independent party willing to re-encode its original content, with no need to go through Selevision or use Selevision’s entertainment platform.

In order to deploy Nukodec, no changes are required of telcos, confirms Dr Khusheim. Selevision provides the content re-encoded, either off-line or in real time. The same applies to satellite operators. Using Nukodec to re-encode content, whether off-line or in real time, means more full HD and 4K channels can be accommodated on satellite, which in turn is expected to give rise to new business models. DVB operators have a chance to increase their number of full HD channels eight- to ten-fold, and telcos and online operators will benefit by saving on streaming and storage costs.

“We believe HEVC will soon become the new industry standard, and envisage satellite operators, telcos and service providers to adopt new business models in the near future, thanks to the new technology at hand. Nukodec offers broadcasters the opportunity to increase the number of channels per satellite transponder, and while doing so, simultaneously enables them to improve the viewing experience of end users using internet, with

Introducing 4K to the Unicam series. The ultimate 2/3” true 24 megapixel camera system mastering all challenges.
the highest quality content available at the lowest bandwidth possible,” says Dr Khusheim.

“We have our testing phase now complete, broadcasters can now put Nukodec to use for both offline and with real-time encoding. The impact of this is potentially huge, especially in consideration of those with limited access to high-speed broadband.”

Selevision is running tests on Arabsat’s BADR5 with content which is transcoded in HEVC in full HD 1Mbps, and 4K content transcoded in 4Mbps. In addition to that, a Rotana channel with HbbTV applications and the Selevision Promo channel are broadcast on the same transponder. Arabsat turns full transponder capacity on BADR4, which covers part of Western Europe as well.

AFN (American Forces Network) uses Nukodec at bases throughout the world.

Future enhancements to the codec will make it more dynamic and enhance its features. More compression is on the cards, to make content delivery even faster. Selevision is also testing a few chipsets where hardware encoding can be applied.

All new phones in the market now support HEVC technology, which means Nukodec will be able to deliver mobile content as well.

The challenges
The main challenge in deploying the codec is that many set-top box manufacturers don’t support HEVC yet – but “this is the technology of the future”, emphasises Dr Khusheim.

“In five years, it will be difficult to find non-HEVC-supported devices. Revenue sharing with content providers is a lucrative proposition.”

According to Dr Khusheim, MENA broadcasters need to focus more on local content.

“We have written our own algorithm, which involves a slight tweaking of the HEVC codec with dramatic reduction in the file size. Many companies do transcoding but are stuck with standard HEVC”

Dr Raed Khusheim, CEO, Selevision

A starting point might be new business models that bring content producers in direct touch with consumers. Selevision claims the new codec will cut costs dramatically.

“We are devising a way to eliminate the middlemen. We are creating a platform where the content from the producer will reach directly to the user, something like a YouTube of satellite. There is no dearth of talent in the region, but it’s the lack of proper business models that holds many back. Quality content has to be a good money churner and provide monetising opportunities to the content creators. Many of our young filmmakers are limited to hosting their content on YouTube. We are looking at creating more platforms for content over set-top boxes.”

The minimum requirement for content producers will be to produce in full HD. Seevi is a video-on-demand platform where independent producers can host content. It’s an ad-based platform, with revenue shared between the service provider and the content owners.

“We want the market forces to decide what needs to stay and what leaves. Pay TV networks too have an option to host their content on our platform. Seelevision will provide a number of models, including pay per view or subscription service for monetising that content. We are not eliminating the role of anyone, but giving an additional option. This works to the advantage of customers who get a host of channels to choose from,” he says.

Selevision is in talks with major broadcasters to host content on Seevi and offer new ways to monetise it. Most importantly, the platform potentially offers HD content to a wider viewership. Also in the pipeline are partnerships with telcos in the UAE, Egypt, Qatar and Kuwait, to offer their IPTV services on the Nukodec-based platform.

Selevision’s test channels are presently running for offline content, but the company has the capability to re-encode real-time content as well. On the consumer side, an HEVC-enabled receiver is required.

“We are being supported by our partners and regional telcos to deploy the new codec. We will be utilising the strength of many.”

As for the team that developed the codec, Dr Khusheim says that over the past 18 months, while the team was writing and testing the algorithm, they have had many failures before experiencing success.

Dr Raed Khusheim spoke about HEVC at IBC2015.
Bahrain’s Information Affairs Authority (IAA), which operates the state’s media outlets including the radio, TV and news agencies in the kingdom, recently upgraded Bahrain TV’s news channel and news studio. The revamped news studio now boasts a state-of-the-art 3G/HD/SD infrastructure at the broadcaster’s headquarters in Manama.

INC System Integrations, a Dubai-based SI, was awarded the turnkey project, which entailed the commission, supply, delivery and installation of equipment, as well as training IAA personnel.

The project involved one site with five technical rooms: the studio gallery, studio rack room, Avid newsroom, Avid systems rack room, and an NLE and graphics room.

Eng. Abdulla Al Balooshi, General Director of Technical and Technology Affairs at IAA, explains that the key deployments are a 3G/HD studio with an Avid newsroom and a Vizrt graphics system.

“Our key requirements were to deploy the latest production technologies available, while continuing to broadcast throughout. ‘We wanted to upgrade the legacy system to HD and to make our workflow more efficient. We now have remote web-based ingest and editing to improve the quality of production. We also needed to minimise downtime and remain on air during the transition,’ he says.

While the studio was completely revamped, the newsroom was an extension of the previous facility and was supplemented with additional equipment.

“We now have a sophisticated end-to-end tapeless HD workflow that is easy to use and provides the remote access we need. With built-in redundancy, we have the peace of mind that we can operate a quick news turnaround and offer a high-quality production, without worrying about on-air delays or system failures,” adds Al Balooshi.

Avid Everywhere is the backbone of the new HD workflow in the newsroom. IAA installed an Interplay PAM with MediaCentral, with upgraded solutions from Avid Media, Avid Artist and Avid storage suites. MediaCentral UX provides the remote working required, with real-time access to production assets, metadata and iNEWS stories.

Adeeb Abed, General Manager, INC System Integrations, says that his company undertook the project to provide the end user with a turnkey solution. INC has extensive experience in working on similar projects across the GCC.

“It’s a prestigious project for us and we had absolutely no room for error. The project was meticulously planned and implemented in phases. The newsroom is operational now and fully functional,” says Abed.

The upgraded Avid Media Central in the newsroom computer system (NRCS) makes it easy for journalists to work on various resources, such as news from video feeds and wires, along with craft edited files and voiceovers, on a single GUI (graphical user interface).

The channel has various sources of gathering news in different formats from agencies. The news feeds are transcoded to the in-house format via the Telestream Vantage application and sent to the Avid centralised storage, which is then available to the journalists and editors that are meant to access it. All the files are in HDCAM 50 format.

Amro Elbouhy, Territory Account Manager at Avid, says the broadcaster has embraced Avid Everywhere as the
We have built a solid relationship with IAA over the years, and they have put their trust in us to provide a reliable yet streamlined HD news workflow that has future-proofed its workflow.

He explains that the ISIS 7000 shared storage solution delivers SD, HD and 4K performance and collaboration capabilities. The AirSpeed multistream multichannel video server accelerates media workflows. Editing is handled by Media Composer | Software with a Media Composer | NewsCutter Option. iNEWS and iNEWS Command give total control over every aspect of news content creation, automation and playout. After the final edit, files are ingested into the playout server to go on air.

The project includes archiving, which is being done by Masstech. Masstech for News allows journalists at Bahrain TV to automatically archive, access, share and use archived content directly from within iNEWS newsroom. Featuring Video-Follows-Text, Masstech for News enables stories and media to be moved between users, systems and sites with a single drag-and-drop action, arriving automatically in the correct format. All elements of a story, including video, text and metadata, are transferred seamlessly as a single package between locations, production servers, archives and even different newsroom systems. The solution works directly within iNEWS, eliminating the need to learn new interfaces, thereby saving time in training.

Eng. Abdulla Al Balooshi, General Director of Technical and Technology Affairs, IAA

“We wanted to upgrade the legacy system to HD and to make our workflow more efficient. We now have remote web-based ingest and editing to improve the quality of production. We also needed to minimise downtime and remain on air during the transition”
The Information Affairs Authority is the executive body for the media sector in the Kingdom of Bahrain. It operates the state’s media outlets including radio, television and news agencies. It is the official entity that sets policies and legislation and oversees the media sector and its activities. The IAA also represents the media sector before the cabinet and the legislative authority.

The IAA launched its first MW radio station in 1955 and TV station in 1973. The authority today has more than a thousand members of staff, seven high-definition TV studios and 15 radio studios. The broadcasting arm of the authority, Bahrain TV, operates seven satellite channels under its umbrella, all of which have been upgraded to HD. The channels cover a variety of genres including drama, sport, news, and religious and cultural events.

Seven satellite channels
- BTV 4
- BTV 55
- BTV INTERNATIONAL
- BTV SPORT 1
- BTV SPORT 2
- BTV QUARAN
- BTV HD

Seven satellite radio channels
- BAHRAIN RADIOD
- BAHRAIN FM
- RADID BAHRAIN
- ARAB CLASSICAL MUSIC
- ARABIAN GULF
- HOLY QUARAN
- TRADITIONAL MUSIC

After the final editing and playback on air, the files need to be transcoded to the required format to be available on both systems. "Telestream Vantage provides the answer to this by offering a flexible configuration and integration solution. With the help of Vantage, different rules can be created in the configuration that automatically transcodes the files to the desired format," explains Abed.

It took around six months to deliver the project involving the newsroom solutions and graphics. Al Balosshi says that while the Avid and Vizrt news systems are already live, the redesigned and redecorated studio will go live at the end of December 2015.

"The project is almost complete with all concerned obligations. The equipment has already been set up, configured and is being used for daily workflow operations. The respective training for all products has also been completed, and the staff is now familiar with the latest upgraded design workflows.

"The upgrade to Avid Central and Vizrt, along with news vendor products for the studio gallery, are complete. These went smoothly for the acceptance test as well. The in-house graphics department, however, needs more training and practice for designing, especially with the video wall and touchscreen setup for Vizrt products," he adds.

Bahrain TV has been a Vizrt customer since 2007, when the broadcaster first installed the Viz Newsroom Graphics solution based on the Viz Content Pilot template graphics platform and the Viz Ticker3D, a real-time 3D ticker solution.

The current project has several dimensions, explains RV Krishnan, Regional Manager at Vizrt Middle East. It entailed adding a new news studio with a complete set of graphics, upgrading to HD across the entire Viz graphics platform and upgrading the workflow with the latest version of Viz World Maps Graphics system.

"One of the significant workflow enhancements achieved in this project was implementing the real-time World Maps solution, which is crucial for a news channel. Now, journalists have full access and control to a wide variety of maps, including satellite imagery, right from their desktops, making it faster to generate maps on the fly – an essential in the case of breaking news."

"Our team comprised network engineers with very good knowledge of broadcast IT applications and workflows, including a thorough knowledge of all the products involved"

Adeeb Abed, General Manager, INC System Integrations

The moment your creativity is freed of limitations.
The new Milvus lenses from Zeiss

Redefine the limits of your creativity – with the new ZEISS Milvus lens family. It will initially consist of the following six focal lengths with ZE- or ZF-mounts compatible with SLR cameras from Canon and Nikon: ZEISS Milvus 2.8/21, ZEISS Milvus 2/35, ZEISS Milvus 1.4/50, ZEISS Milvus 1.4/85, as well as the macro lenses ZEISS Milvus 2/50M and ZEISS Milvus 2/100M.

The ZEISS Milvus lens family with precise manual focus offers high and consistent image performance across all focal lengths. They are ideal for current DSLR cameras and also for mirrorless system cameras of the Sony a7 series via an adapter solution.
The video wall solution allows journalists to manage video wall contents in tandem with the storyline, to ensure consistency and relevance for effective storytelling. The project rounds off with extensive training for designers, engineers and operators on the design and use of the system. "The Vizrt solutions are modular and scalable, which allowed the upgrades to be performed with ease without disrupting existing on-air operations. We are proud to have IAA as one of our premier customers in the region. This project will enhance the workflow in the broadcast facility and build on the current infrastructure to easily and efficiently migrate to advanced workflows and formats in the future," says Krishnan.

The road ahead
The news studio has been integrated with a post-production infrastructure to cater to future needs. The facility is equipped to handle a nine-camera setup, using just five for now. There is a fully loaded router for I/O that can handle any future expansion requirements to add more equipment or resources. "From an engineering point of view it was quite difficult, because the project has various components which need to integrate with each other. The Avid NRCS, Vizrt and Telestream had to be based on a robust network. Our team comprised network engineers with very good knowledge of broadcast IT applications and workflows, including thorough knowledge of all the products involved, right from Miranda (Grass Valley), Snell, Studer, Trilogy, Sony cameras and so on. We got excellent support from the IAA engineering team as well as from the support team of each of the vendors," says Abed.

The switch to the new studio was smooth. A standby studio was built to carry out the programming while the project was underway. The switch to the new facility was made overnight, without interrupting channel operations. The IAA now plans to upgrade the radio sector and prepare new sets for all of its seven studios, to be used for different programmes.

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Amr Elbouhy, Territory Account Manager, Avid

Kit list
- Cameras - Sony HDC-2500
- Video router - Grass Valley NVision 8100 router
- Multiviewer - Grass Valley Kaleido-X
- Video server - Imagine Communications’NEXIO VOLT GEN 2
- Vision mixer: Snell 3.5ME Kahuna 3x6
- Audio mixer: Studer Vista 1
- Graphics - ViZRT
- Avid PAM - Avid ISIS 7000 storage, AirSpeed server and Avid interplay system
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- File-based transcoder: TeleStream Vantage Transcode Pro
- Lighting system - Vitec SOLA 6 Lite Panel
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Viacom18 and IndiaCast are expanding in the MENA region with the launch of a new channel, Rishtey Asia. Anuj Gandhi, Group CEO of IndiaCast, talks about the channel.

Ask-i-Memnu is one of the biggest Turkish drama series and will be shown for the first time in Hindi. This will resonate with local audiences." While the channel has been launched in various territories across the world, Gandhi sees the MENA as the biggest market for Rishtey Asia, both from an audience and revenue point of view. The channel offers content from various parts of the globe, with special focus on the MENA region.

"Even though we were one of the last entrants in the South Asian television space in the region, our existing channels have quickly climbed up the charts and have emerged as leaders in their respective genres," Gandhi says. With Rishtey Asia, we are very optimistic that our differentiated content will be appreciated by the audiences, as we have handpicked each content genre and show keeping the MENA viewer’s sentiment and expectations in mind," he adds.

Moving forward, Gandhi says that the MENA will be an integral part of localised content, promotional campaigns, contests, events and digital engagement from Rishtey Asia. "We are closely watching the content space in the MENA region and feel there is a lot of potential to customise some of the content being produced here for South Asian audiences," he adds.

Commenting on the highlights of the channel, he says: "We have carefully put together content across various genres, ranging from drama, lifestyle and kids to youth and blockbuster Hindi movies. The highlights of the channel would be some of the popular drama series from Turkey, Pakistan and India. Apart from content produced by our parent company Viacom18, we have also acquired content from some of the biggest production houses and broadcasters in India and abroad, to bring together a wide variety of entertainment to cater to the needs of an evolving audience."

"The content team also plans to locally produce shows catering to local interests and aspirations of its South Asian viewers with the support of its partners based here. These will indicative be around lifestyle, fashion, food, social/community and youth."

"The premise of Rishtey Asia is to offer the best available content to our audiences, and we will be repurposing content via customised editing/dubbing to match the expectations of local audiences," he explains.

International content will be customised to the needs of Middle East viewers by dubbing them in Hindi and other Indian languages. The content for the channel will be repurposed in India with most of the dubbing work done in studios in Mumbai.

The new channel’s content research and planning teams are based in Mumbai, and its regional sales and marketing teams operate internationally across Dubai, Singapore, London and New Jersey. Rishtey Asia is an encrypted MPEG24, DVBS2 SD channel available on Intelsat20 (wide beam) that covers the Middle East, APAC and Africa. The channel will be uplinked from Encompass Singapore into the Intelsat 20 satellite. While the channel is available on some of the biggest linear and OTT platforms in the Middle East, it caters to the Indian diaspora across the globe with Mauritius Telecom in Africa, Digital System of Nepal Pvt Ltd in Nepal, and Scan International Company Ltd in Thailand. In Australia and New Zealand, Rishtey Asia is available on Vision Asia (NZ) Limited, Yup TV USA Inc. and Lebara Media Services Limited. Uplinked from the international uplink centre Encompass Singapore, the channel is beamed into the MENA region from Intelsat20 satellite. "Rishtey Asia is now being beamed to households across more than 35 countries in the region, including UAE, Kenya, Tanzania, Uganda, Mauritius, Singapore, Australia and New Zealand."

"Over time, we will look to develop revenue streams across subscription and advertising sales, which will keep evolving as per local market dynamics," Gandhi points out.

IndiaCast aggregates and distributes more than 40 channels spanning genres including entertainment and news.

Internationally, IndiaCast has a portfolio of 10 channels, such as Colors, MTV India International, Rishtey, News 18 India, 5 Colors regional services and ETV Tri lung, that are viewed in more than 80 countries as linear services. With a content library of 15,000 hours across genres, the group also syndicates content in over 100 countries in 20+ languages such as Russian, Serbian, Bosnian, Albanian, Macedonian, Croatian, Azertik, Swahili and English.

"The Rishtey Asia team comprises more than 50 people, which includes programming, marketing, distribution, advertising sales and back-end support staff. “Just like the shows on the channel, we have handpicked some of the best talent in the media industry to make sure that Rishtey continues to be an innovative product that is always in tune with the expectations of viewers and trade partners,” clarifies Gandhi.

The newly launched Indian TV channel Rishtey Asia is entertainment network Viacom 18’s latest offering to viewers in the MENA region. The channel stands out for its repurposed Turkish and Arabic content in addition to Indian dramas. Indian dramas and entertainment programmes have a wide viewership in the region not just among the Indian diaspora but also among the Arabic-speaking population. Repurposed and dubbed Indian content has been traditionally carried on Arabic-language channels. However, not many channels offer Arabic content dubbed in Indian languages and have emerged as leaders in their respective genres. With Rishtey Asia, we are very optimistic that our differentiated content will be appreciated by the audiences, as we have handpicked each content genre and show keeping the MENA viewer’s sentiment and expectations in mind,” he adds. Moving forward, Gandhi says that the MENA will be an integral part of localised content, promotional campaigns, contests, events and digital engagement from Rishtey Asia. “We are closely watching the content space in the MENA region and feel there is a lot of potential to customise some of the content being produced here for South Asian audiences,” he adds.
Doug Lowther, CEO of Irdeto, talks to BroadcastPro ME about how the rise of broadband has made piracy a global challenge, and how new research and data is helping broadcasters revisit business models.

How has piracy evolved over the years?
In the past, there have been piracy hotspots, where piracy has been more prevalent than in other countries. However, we now see this has become a global problem that needs to be countered with global solutions. The technical nature of piracy, for instance, has changed because of the rise of broadband, and therefore, we see more piracy today in the form of redistribution of content on the internet than through traditional methods.

Also, the economic effects of piracy are happening much more quickly on a worldwide basis. For instance, we undertake some monitoring activities whenever a new series of, say, Game of Thrones is released. We have some activities to track how rapidly that content shows up on BitTorrent sites and who is downloading it and so on. We are doing this partly to raise awareness and sensitivity to how fundamentally this whole business is changing, and in this instance, what we did at the beginning of the season was look at how much redistribution was occurring and to which countries and how quickly after the launch. We saw that within days of the release of the season, there were large numbers of redistribution activities happening across the world. For instance, with Season 4 of Game of Thrones, piracy through redistribution on the internet had tripled compared to the previous year.

What does this mean for a solution provider like you?
It means we have to make changes to the technology. For example, forensic watermarking, where we insert a piece of code into the broadcast stream, enables you to find where a specific piece of content was pirated and where it came from. This then enables us to work with the authorities in that country to address the problem.

In another instance, we have built a global service operations centre in the Netherlands which manages our anti-piracy efforts worldwide, and we complement that with technical resources and investigators in the field in many places, including the Middle East. We have an office location in Dubai and a technical anti-piracy person who works in the region. There has to be a number of simultaneous and ongoing efforts, like investigating piracy and also putting in place technical measures to ensure we can track the pirated content and work with authorities to address it.

How has the industry evolved to tackle this new form of piracy?
The issue is global, and, therefore, it requires a lot of collaborative effort. The other fundamental change is that...
anti-piracy is quite an end-to-end activity. It is not about a single operator having a secure pipe from the uplink to the downlink to the set-top box. It is, to use the phrase, ‘from glass to glass’ – from the time of the production to the time it is viewed on any screen, big or small. And so, increasingly, we are working with the content owners and the originators of the content, whether they be operators, studios or sports rights holders. We work directly with the English Premier League, for instance, on anti-piracy rights from the content creation and the production to the time it hits the screen. We work with content originators and Hollywood studios like Twenty-First Century Fox and Disney, and use forensic techniques to insert unique information into their broadcast content and help them to detect what is happening with their content. What are the implications of this kind of research for broadcasters? There is a lot of big data implications and lots of potential value in this sort of information, because if you know which countries, which geographies and demographics are interested in a given piece of content, it helps the broadcaster to target those demographics with a legal service. In a lot of cases, someone is watching pirated content not because they want to be a pirate, but because that content is not available yet on a legal service in the country they reside in, or it appears in another time window. This information changes the business of broadcasters and makes release windows happen more quickly.

With content redistribution across the internet, have the piracy hotspots changed? Indeed. A lot of places where you might not expect traditional pay TV piracy 10 years ago are now becoming major hubs for this industry. Places that are highly connected and have very high quality broadband services like South Korea and the Netherlands now tend to show a lot of activity with regards to redistribution of content, so we are working with the authorities in those areas to address this.

What’s your take on the Middle East? Is there a piracy hub here? We are very active with the anti-piracy coalition in the Middle East. I don’t think there is a specific country that acts as a hub. The type of piracy you see varies from place to place depending on broadband connectivity. In Dubai, where there is a greater broadband infrastructure, you are likely to see more internet piracy, while in Egypt, where broadband connectivity might be relatively lower, you might see more traditional forms of piracy.

Piracy is a challenge across the Middle East, including Egypt. You only need a $2M connection these days for a good viewing experience on a pirated IP box, and if your screen is smaller, you require correspondingly less data for a good viewing experience. You mentioned investigators? There are two main forms of investigation we do – some are technical in nature, while others are legal and regulatory in nature. When I say the former, people think of detectives, but a lot of this is more working with local regulators and local government officials to, for example, block the import of potential pirate devices.

“In a lot of cases, someone is watching pirated content not because they want to be a pirate, but because that content is not available yet on a legal service in the country they reside in, or it appears in another time window”

Doug Lowther, CEO, Irdeto

Chart 1: The top countries for download activity for Q1 and Q2 2015 in MENA for all titles
Where an operator has a good anti-piracy team, we are able to cooperate well with them. This has been the case with operators in the Middle East like beIN and OSN. We have had good cooperation with them on anti-piracy. However, because this is more of a global game and piracy in one territory can affect another, we work with our teams in the Middle East as well as in South Africa, Turkey, Africa, Sub-Saharan Africa, Greece – essentially any country that shares the same satellite and where one can impact the other.

We hosted a piracy lounge at IBC for visitors to see how it is almost impossible to distinguish today between a legitimate platform and a pirate platform, because in many cases, the latter are also professionally packaged and marketed. The consumer could, therefore, be subscribing to a package that they think is perfectly legitimate. The other hallmark is that the anti-piracy team is often facing a pirate service that combines the legitimate services of many pay TV operators together into one signal. We will see, for instance, that one service offers 800 channels of pay TV content while the pay TV operator itself may not have that many channels to offer.

What is the biggest challenge for you with the redistribution of content? The internet is global in nature and has very low barriers between countries, time zones and geographies, and yet, operators have tended to operate on a national or regional basis, and so in a sense, they are competing. They are actually competing with players who have fewer restrictions in how they do business, and so we have to adapt as an industry, and adapt regulation and release windows and be in a better position to compete with these alternative services.

Irondo released global piracy figures for Game of Thrones in the final weeks leading up to its season premiere on April 12. The findings indicated a 65% increase in piracy worldwide from 2016, with episodes of Game of Thrones (seasons 1-4) illegally downloaded more than 7 million times between February 5 and April 6, 2015. The same period saw 6.9 million downloads in 2016. The 2015 data shows an average of 116,000 illegal downloads per day of Game of Thrones episodes, which is an increase of 36,000 more downloads per day compared to 2016.

Irondo found that previous episodes of the series were pirated almost 37,000 times during the first week of April in the US this year, prior to HBO Now launching on April 7. Currently, HBO Now is only available in the US on Apple devices and PC/Mac browsers.

Despite the popularity of The Walking Dead and now shown like Vikings, Game of Thrones is still the most pirated show worldwide. Compared to Game of Thrones, The Walking Dead had over 5.7 million downloads, followed by Breaking Bad (3.8 million), Vikings (3.4 million) and House of Cards (3.7 million).

When tracking country-specific piracy rates, Irondo noticed a decline in illegal downloads for Game of Thrones in the Russian Federation (-27%), but increased in other areas, such as India (155%).

The percentage change by country is mostly dependent on the popularity of the TV show. However, it is expected that in the future, developing countries will increasingly contribute to the rise in piracy due to general improvement in broadband penetration and quality. When it comes to more developed countries, the US saw an increase of nearly 10% in piracy, while the UK saw an increase of over 30%.

Irondo tracked illegal download data for previous Game of Thrones seasons in the US, UK and over 200 countries worldwide between 5 February and 6 April in both 2014 and 2015 through its automated crawlers, which use proprietary tracking software to identify users and files on the BitTorrent network.

A download represents a unique IP address pirating a unique file on the BitTorrent peer-to-peer network.

The report covered the most popular TV shows from pure OTT operators (Amazon Prime, Crackle, Hulu, Netfli) versus premium broadcasters (HBO, Showtime, Starz) and broadcasters with syndication deals with the pure OTT operators (AMC, FX). The findings were to help uncover insights that can help operators understand the interest in content by region and capitalize on that demand, while also offering key intelligence for future multivariate and hybrid television strategies.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Downloads</th>
<th>YoY Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brazil</td>
<td>935,990</td>
<td>47%</td>
</tr>
<tr>
<td>2</td>
<td>France</td>
<td>772,721</td>
<td>47%</td>
</tr>
<tr>
<td>3</td>
<td>USA</td>
<td>444,402</td>
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<tr>
<td>4</td>
<td>Canada</td>
<td>304,738</td>
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</tr>
<tr>
<td>5</td>
<td>United Kingdom</td>
<td>275,055</td>
<td>31%</td>
</tr>
<tr>
<td>6</td>
<td>Russian Federation</td>
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<tr>
<td>7</td>
<td>Australia</td>
<td>250,841</td>
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<td>Italy</td>
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<tr>
<td>9</td>
<td>China</td>
<td>205,436</td>
<td>56%</td>
</tr>
<tr>
<td>10</td>
<td>India</td>
<td>200,023</td>
<td>155%</td>
</tr>
</tbody>
</table>

Chart 2: Top 10 countries for Game of Thrones illegal downloads (Feb-Apr 2015)
General conversation around the digital TV transition often gives off the aura that it was all in a day’s work. While every TV delivery platform had its unique challenges and timelines, the transition was a multi-stage process with many moving parts. The effects of this challenging transition are still felt around the industry to this day – and will be for some time.

The over-the-air TV broadcaster and the MVPD (multi-video programming distributor) have both been challenged with high-density monitoring environments. Taught with an ever-expanding universe of signals and data points to monitor, the MVPD landscape is moving more commonly spans across satellite, cable, IPTV and OTT platforms. Signals have many more degrees of freedom, as they are created, combined, modified and distributed over many paths and over a wide variety of distances. From monitoring on-demand subscriber connections to live, linear local broadcast feeds, to satellite connections and contributed IP streams, there is content coming and going in all directions.

Over-the-air delivery has similarly evolved. It is more capable and thus more complex than ever, with more programme streams and channels occupying the same UHF and VHF spectrum. Along with higher-density multi-channel programme delivery, broadcasters have a highly intricate air chain to monitor through a complex architecture including encoders, multiplexers, gateways and studio-to-transmitter links. Along with the transmitter itself, these all play critical roles in the overall signal quality that reaches the viewer.

In addition to understanding the health and status of each signal, stream and data point – not to mention troubleshooting problem areas that affect signal quality and delivery – there is a need to analyse and understand how all of this activity correlates to the viewing experience. Simply put, there is no easier and more cost-efficient means of achieving this goal than the cloud, whether working in terrestrial or multiplatform systems.

Change in motion

Signal monitoring has never been easier, but the complexity has grown tenfold since the digital transition. In the MVPD world, linear analogue streams entered and exited the cable plant over legacy RF and satellite connections, with little to no variations in bandwidth. Analogue quality of service monitoring leveraged fixed components to manage ghosting and other signal degradations rife with artifacts. Over-the-air broadcasters, meanwhile, dealt mainly with singular programme streams of fixed bandwidth coming in and out of the RF plant.

The introduction of digital signals gave birth to a highly dynamic contribution and distribution environment. Terms like jitter, latency and macroblocking quietly became part of the TV lexicon. In the case of macroblocking, MVPDs and broadcasters quickly had to adjust to monitoring for both compression as well as delivery-related root causes. This became a common problem of the digital age – how many bits can you fit into a pipe and ensure they come out correctly at the other end? (3)

Technicians are no longer monitoring deterministic TV signals; they are dealing with highly dynamic data streams that are ever fluctuating. It is nearly impossible to simply lock down a static monitoring system when dealing with network congestion, buffer overloads or multiplexed architectures moving bits between many encoded streams – not to mention understanding how these issues effect each other and ultimately affect the viewing audience. There is no longer a simple one-to-one correlation.

Shifting universe

The shift away from fixed monitoring – a chain of standalone hardware systems dedicated to specific applications and departments – and toward software-defined, platform-based monitoring is synonymous with the digital transition. There is no way to justify the expense of separate, dedicated legacy systems for the ever-expanding universe of digital signal monitoring responsibilities, which today crosses into areas like social media activity that simply did not exist just a few years ago.

Software-defined monitoring systems centralise these responsibilities and can be deployed in the cloud, which enables the offload of monitoring responsibilities to an outside managed services layer. This follows the trends and strategies that many IT departments are moving toward today.

Both options bring exceptional value to users in terms of better understanding the health and status of their ecosystem and troubleshooting problem areas that affect signal quality. The richer streaming universe on the market goes far deeper, helping operators better analyse and understand how all of this activity correlates to the viewing experience and, ultimately, viewer satisfaction.

The ROI of working in the cloud for the MVPD or the over-the-air network operator quickly accelerates upon surveying the overall contribution and distribution landscape. In today’s multi-distribution model environment, the typical structure spreads monitoring across a series of concentric rings, from the central studio onto regional headends and local sub-headends. Data points to monitor can quickly scale from the tens of thousands, we slowly get into the distribution chain – and through the last mile, potentially hundreds of millions.

Too often, the segmentation of monitoring responsibilities by department or facility prevents useful information from easily carrying over to the next step in the chain. One example is the traction between how a digital file or stream enters a facility to the point where it is re-encoded for various distribution streams. It is not uncommon to re-encode an incoming stream into 10 variants, all of which require a pre-distribution quality check.

Downstream, those 10 variants are multiplexed with specific metadata into a multi-programme transport stream en route to the next facility – typically a regional headend or local channel headend. The software-defined cloud monitors these critical points, helping to ensure the signals are highly dynamic data streams that are ever fluctuating. It is nearly impossible to simply lock down a static monitoring system when dealing with network congestion, buffer overloads or multiplexed architectures moving bits between many encoded streams – not to mention understanding how these issues effect each other and ultimately affect the viewing audience. There is no longer a simple one-to-one correlation.
sub-header, where streams are further manipulated to accommodate local ad insertions. When something went wrong in the past, it was typically related to an equipment issue; today, the root cause analysis can be tied to a combination of multiple performance issues. A heavy compression job from an encoding bank’s IP packet loss due to high-jitter? A high-bandwidth multiplexed stream combined with a low RF signal in the same pipe? A faulty transmitter module or power supply?
The real problem isn’t any one single issue; it’s the appearance and disappearance of all of these problems over a specific time period. Operators wind up chasing ghosts as problems come and go, and evidence is wiped away. The end result is a frustrated staff, dissatisfied advertisers and an agitated viewing audience.
The cloud is the most effective platform to help users profile what is happening across all these issues, and correlating thousands of data points with performance. Some pertinent examples include:
- Bitrate levels across multiple streams, with data pinpointing when signals fluctuate with noticeable effect
- Notations on when signals go through any kind of transformation, such as encoding, multiplexing or physical layer boundary
- Intermittent signal drops due to overbuffering or packet loss in the IP domain

Working in the cloud provides added power through performance trends over time. With detailed trending, operators can understand the true root cause and related effect, and make the necessary adjustments to encoder compression, multi-stream bitrates and more. For terrestrial operations, the ability to analyse multiple IP, AIS and other streams ahead of the transmitter concurrently with the IP and decoded audio/video streams coming out allows users to quickly identify and

"One of the biggest benefits of monitoring in the cloud is its economy of scale across large network, eliminating the silos of responsibility often found with on-premise strategies”

Ted Korte, COO, Qligent

address the source of the problem, ensuring unprecedented accuracy across root cause analysis, impact valuation and corrective actions.

In a multi-stream universe, it is no longer possible to magically look at system components independently. It is a complete ecosystem akin to a musical orchestra, comprehending how the various instruments work together in sync to form a cohesive result.

End point analysis
Perhaps the most effective use of a cloud system is better correlating the millions of data points collected over the last mile. The closer we get to the end point, the better we can understand how long a signal issue endured, and how many viewers tuned out.

Using a software-defined cloud platform offers the ability to look across the path and the layers of a stream to collect clues necessary for root cause analysis and determinative action. This not only delivers the operational efficiency and equipment savings of the cloud, but can help reduce transmitter downtime for broadcasters, protecting TV operations from loss in the IP domain. When signals fluctuate through any kind of transformation, the possibilities of cloud monitoring, particularly when deployed as MaaS (monitoring as a service) are endless. Cloud deployment also enables outsourcing the day-to-day monitoring and firefighting, as well as rapid access to subject matter and vendor equipment experts. This reduces the time-consuming process of evaluating and addressing signal quality issues that are becoming more and more intermittent. As MVPDs and over-the-air networks grow, working on the cloud makes scaling simple — especially if the vendor in question relies on commercial-off-the-shelf equipment for most of the infrastructure.

Ultimately, the continued escalation of and reliance on big data will help users better understand how a performance issue affected viewers, providing a rich set of details to prevent similar issues in the future, and ensure audience and customer retention over the long term. The cloud will not only save money on deployment and in operations, it will also help MVPDs, broadcasters and TV network operators generate new revenue opportunities through those efficiencies with the import of ratings data, social media activity, subscriber data and advanced OTT and mobile services. With the cloud, there is no longer a reason to address these many tasks in bits and pieces.

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IBC2015 welcomed 55,128 visitors as more than 1,800 vendors showcased their latest offerings, from cameras to codecs, workflows to wearables and virtualisation to virtual reality. The conferences were well attended too, with more than 250 speakers handpicked from around the world to discuss the future of electronic media.

The IBC hackfest and drone zone buzzed with activity as innovation took centre stage at this year’s show. The future of media in an age of disruption was in the spotlight at the panel discussions.

The opening IBC Forum session revealed how four top broadcasters are solving the challenges they face: competing in the intense international news business, taking specialist lifestyle channels around Europe and fighting off rivals in the highly competitive Middle East pay television market.

Speaking in the opening conference session, David Butorac of Dubai-based pay-TV network OSN asserted: “We have to adapt, we have to recognize that the consumer is now in charge, but the future is bright for broadcasters.”

Fran Unsworth, Director of BBC World Service, added: “The future is digital and we need to expand it – but not at the expense of television and radio.”

This confidence that top-quality content aimed at a broadcast audience can exist alongside YouTube and TV Everywhere was also reflected on the show floor.

“The media industry today is radically different from where we were five years ago,” said Michael Crimp, CEO of IBC.

“We have gone from an industry that was defined by technology to one where we demand new functionality from our vendors; from an industry where broadcasters told us what we were going to watch to one where consumers call for content wherever and whenever they want. All that inevitably brings seismic shifts on every level.

“IBC provides the independent forum for the conversation. We have worked hard to bring everyone together – the telcos, the social media and the innovators, and everyone from the CEOs who attend our Leaders’ Summit to the engineers and creative artists who walk the show floor and learn in the conference. This is where the real debates take place.”

Publisher and broadcaster Andrew Neil asked industry leaders how well are broadcasters, platforms and content owners embracing the big issues of content rights as the EU looks towards a Digital Single Market.

Creator of the Netflix show, House of Cards, Lord Michael Dobbs, spoke about how breaking down the old rules of broadcasting has forced up the quality of programmes and broken down barriers around the globe.

He explained why when he was approached by the little known service, he took the risk rather than seeking out a traditional broadcaster to make it. He also shared his experiences of working with the Netflix team.

Sling TV’s CEO Roger Lynch gave a keynote on Over the Top Comes of Age to discuss how Sling TV (part of DISH) is pioneering the next-generation TV service.

The digital cinema conference sessions at IBC were dominated by discussions on High Dynamic Range (HDR), a means of augmenting the picture quality of content shown theatrically and in the home.

“The HDR revolution has shaken a lot of folk in the industry to be aware of the fidelity of their image,” said Dominic Glynn, Senior Scientist, Pixar.

“It’s a wake up call for those skating a fine line of efficiencies and short cuts to better protect their imagery throughout the pipeline if they want to leverage HDR into distribution.”

While it has long been possible to record the full dynamic range from light onto film stock, and more recently on digital image sensors, what has not been possible is a way of preserving that information through to final display.

IBC2015 had a large footfall, with more than 55,000 visitors. The conference included key topics impacting the broadcast industry, ranging from ultra HD and the adoption of IP to the popularity of online and social media. A report
The IBC Big Screen Experience hosted demonstrations, conference sessions and two more screenings. The Big Screen was also host to the IBC2015 Awards Ceremony. This year’s International Honour for Excellence went to embedded processor pioneer ARM, with the Judges’ Prize going to the International Olympic Committee for its work on preserving its archive, going back more than 100 years.

The IBC Innovation Awards celebrate the partnership between a broadcaster or production company and technology suppliers that push for and deliver the quality, creativity and accessibility of content to the audience. BroadcastPro ME Editor Vijaya Cherian gave away the IBC Innovation Award for Content Management to EISPIN Digital Center 2, and certificates of appreciation to the other shortlisted candidates in the same category.

Taking place for the 5th year, the IBC Leaders’ Summit was a behind-closed-doors day for senior executives from media companies around the world to talk strategically about the real issues facing them. This year close to 150 invited delegates debated the theme “Leading through a Changing Media Ecosystem”.

At the other end of the career path, IBC hosted Rising Stars, another well-established programme which brings together over 200 young professionals entering the industry, in a programme of specially tailored conference sessions, networking opportunities with senior figures and a legendary party. On the show floor, the added value of debates and demonstrations in dedicated theatres was all SDI, but expanded, with a new Technology in Action Theatre alongside the IBC Content Everywhere Hub.

The Future Zone saw a very popular virtual reality area where visitors could try out the latest in headsets. Also featured was the latest in display technology.

We asked exhibitors on the show floor some pertinent questions about TV and radio. Here’s what they had to say:

Is IP the way forward for broadcasters?

Peter Alexander, Senior Vice President and Chief Marketing Officer, Harmonic

Video over IP is more real now. Within the production environment, it has traditionally been all SDI, but now that transition to IP is in place. The main challenge to transitioning to IP is the fact that at the start of the chain, the output of the camera is still baseband SDI, as is most of the switching and routing in the production environment. Virtualised playouts are increasingly being deployed now, but whether they are going to be hosted on a public cloud is a question. Broadcasters are virtualising their systems on their premises, but the leap to the cloud has not happened just yet.

There is a gradual transition to virtualised systems for ingest, playout, graphics, branding, decoding and so on, but that’s all in a private cloud for now. For public clouds, the user interface and menus tend to be very cloud-oriented, very simple and intuitive, as opposed to expert interfaces in private clouds. The broadcast industry is moving in that direction.

Content from a studio production facility and into the cloud and back, may eat up a lot of bandwidth. You cannot use the cloud where the bandwidth costs are high but for other non-time critical functions such as offline processes, to ease off peak load and for backup, broadcasters may want to offload in the public cloud.

Olivier Sour, Marketing Director, Nevion

All the things you hear about broadcast today used to be the topics of discussion in telecom 15 years ago. Broadcast will eventually adopt IP, but when, is the question.

We have been involved in IP for a long time in terms of contribution, however, with regards to IP in the studio, there are still lots of questions around that. Broadcasters are often concerned if it is fast enough, can I switch rapidly, is it resilient? Broadcasters are also uncomfortable with the idea of a cloud.

The cloud tends to work well for storage and processing capabilities. Something that you need a service to offload in the public cloud.

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Upload the footage to a cloud, edit it and uploads it back – but that doesn’t work for live shows. However, the future is headed towards that. This year, we have had a lot of proof-of-concept for IP solutions. A number of vendors came together to create an IP studio. It’s not a big money spinner yet, but mature enough to try for broadcasters. I believe the switch to IP will be incremental, unlike what we have been doing in the past. The move to a new technology comes with scrapping of everything old, but that won’t be the case for IP adoption. Broadcasters will still keep their baseband cameras and expensive baseband equipment and gradually make the move over a period of time. Networks can be a good starting point, with the core of the network being the standard IP routers, which are compatible with baseband as well. The IP network will run parallel with your baseband network. A mix of baseband and IP is the way forward.

Radio trends

Timothy B Anderson, CPBE, Manager, Radio Market and Product Development, GatesAir

What we are seeing is how different technologies are working together. More and more smaller broadcasters are interested in digital radio, and the radio world in general is now focused on digital radio. Customers are interested in the solutions that are available in the market. Digital radio has a number of solutions, and all of them have a place. We support all the broadcast standards such as DRM, DAB, and others from across the globe. Each has its own niche; some are mutually exclusive, but most of them can work together. HD radio and DRM can cover large areas. Some countries have announced analogue switch-off; however, FM is not going anywhere for many more years. Whether you are a public broadcaster or a private entity, your decisions will be based on the switch. Barbara Petersen, Sales Marketing and PR, Zowcom Systems

With bandwidth getting cheaper, a lot of broadcasters have decided to contribute audio from studio to studio or to transmitters via IP. For bandwidth and quality of signal, all broadcasters have a dedicated line. We are sending two similar audio streams; when there is a packet of information missing in one stream, the receiver takes it from the other one, which works as a back-up. The result is good-quality audio. In Europe, there is a mandate to shut down FM transmission. In Norway, together with Nokring, we created and implemented DIB+ via satellite. They will shut down FM next year, and will rely on DAB+ via satellite. In the future, radio will move to IP completely. You cannot reach the
whole country via IP, so satellite
will continue to play a key role.

Ken Fremmert,
General Manager, Enco Systems

Visual Radio
integration is a growing trend, as radio stations do not want to change their workflow. Visual radio is starting to become more popular now. Web TV is another interesting avenue for channels to monetise. Radio stations are adding video for more streaming content alongside their audio programming, giving the audience the ability to watch music videos and commercial content.

Audio over IP has been around for years now, and it is quite successful.

Radio in the next couple of years will have more virtualised workflows and virtualised environments. Stations are already starting to get rid of the hardware and cables. Modular equipment is gaining traction, as is the move to the cloud. It’s already in the works. We have stations deploying virtualised workflows, and in the cloud, as bandwidth improves and connectivity gets better, the trend is only going to catch on further.

There are radio stations today that have been fully deployed on IP and have live content all the time. The transfer of content, therefore, has to be quick. That’s where we come in as we help our customers to create and transfer content quickly.

Today, newsgathering is a very competitive market, and in order to differentiate ourselves, we focus on the networking part of the workflow. We have our own H.264 codec for compression and live broadcasting – you connect your laptop to the camera and do the encoding and the transmission through any internet connection, satellite, 3G or 4G.

We offer laptop-based software running on Windows and MAC. Reuters has several hundred laptops with our software on them.

We use content into the studio using IP. There are still concerns about data synchronisation and potential packet loss around networks. Some of our customers are transitioning from SDI to IP for greater flexibility. A new set of challenges now is how you plan your throughput, which is also being addressed with suitable solutions.

Live videos in news

Richard Aylmer-Hall, Business Development and Product Manager, Livewire Digital

There is more focus on live content these days, and with content going on various platforms, keeping it fresh and relevant is the key. Content creators are producing more and more live products. Broadcast and online content distributors want to

connections to deliver optimal picture quality. Adaptive bitrate encoding is built in, so the stream automatically adjusts according to the total available bandwidth. The transmission devices and live feeds are managed centrally in the cloud.

Cloud management in the middle point with multipoint distribution that allows one signal to multiple locations. We build virtual servers in a public cloud for big events. We can capture and transmit HD footage, so all of our systems are now ready for H.265.

Personalisation of TV

Miguel Silva, EVP Sales and Marketing, Vimond

Viewers these days look for unique experiences. They look at what is a news service directly to consumers. News is old-fashioned. Personalisation in the OTT space is the new trend. Social is starting to be important in the online world.

Broadcasters are now worried about the cord-nevers, not the cord-cutters. Using OTT is a very personalised experience and we are creating social products that match the habits of the viewers.

There is a lot of potential in curation and metadata handling. In fact, I feel curation of content is more important than recommendations. The biggest trend is curation – not using technology, but by humans. Customers are creating curated playlists to appeal to their viewers. Social media is very big in the Middle East, with Saudi Arabia among the top three countries in Twitter and YouTube usage. We made a solution with Facebook with new video APIs for broadcasters that allow them to take live feeds, make clips and publish them immediately on social media.

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No tracks for Ross

Ross Video has launched Trackless Studio – a new virtual set software that works without camera tracking.

Built on top of the XPression Real-Time Motion Graphics System, it brings virtual environments to a whole new set of customers.

Trackless Studio allows users to perform dramatic camera moves (crane or jib), utilise multiple cameras, perform transitions, add live inputs, trigger real-time 3D graphics, recall clips or still images and create macros for complex events. It also uses stationary physical cameras, instead of encoded camera heads or optical tracking systems, with all movement handled by virtual cameras inside of the XPression scene.

Trackless Studio works well with Ross switchers and DashBoard control software.

TSL’s new addition to MPA family

TSL Products presented the newly redesigned MPA (Monitor Plus Audio) family. Rebuilt from the ground up, the new audio monitoring range offers solutions for established I/O while also embracing the industry’s move to audio over IP workflows with Dante and Ravenna support.

The new products are available in two models. Solo offers the ability to listen to any channel, while Mix enables the user to create a simple monitoring mix. The shallow unit depth of 100mm makes them both suitable for the broadcast OB environment. The built-in web server enables all units to be configured, monitored and controlled remotely via an intuitive web-interface.

“In redesigning the MPA family, we have really focused on intuitive and easy use, in order to make the range efficient, precise and able to create workflow-specific solutions,” said Matt Colman, Audio product manager, TSL Products.

TVU Networks makes the switch to IP

TVU Networks demonstrated TVU Grid version 3.0 for the first time in Europe.

With the new features, TVU Grid can now deliver sub-second latency performance when switching, routing and distributing live video. In addition to a new updated user interface, TVU Grid also works with TVU’s new web-based Booking Service, which adds automated booking and scheduling of video sources.

TVU Grid is claimed to be the first IP-based video switching, routing and distribution solution designed to give broadcasters the ability to seamlessly switch live IP video content and share live video streams between multiple remote locations.

Lukup’s hybrid TV platform

Lukup Technologies showcased its hybrid services that deliver a combination of television, internet access, on-demand content, home automation and interactive services across televisions and a variety of connected devices in homes for customers of broadcast TV.

Lukup’s hybrid TV service is based on a new hardware device called the Lukup Player that can tune into satellite, cable and terrestrial broadcasts as well as receive content and services over IP networks.

The Lukup Player features new middleware and applications that are designed for multiple screen and connected devices. Gaming, streaming music, home security, interactive advertising and cloud media storage are some of the applications. These services are being offered to operators and broadcasters interested in adding OTT content delivery capabilities, offering bundled broadcast and data services, and IP-based value added services.

The hosted back-end support systems are designed to support network PVR, time shifting and catch-up TV, adaptive bit streaming, just-in-time packaging and encryption of content, and custom application stores to deliver new applications to their subscribers.

Lukup has partnered with Tata Communications to create solutions and deliver content for customers of hybrid TV services who have opted for hosted subscriber management, content management, service delivery and digital rights.

www.lukup.com
The decision to offer a free FilmLight edition is in response to the growing interest in BLG as the BLG reader is in response to the non-Baselight facilities. Increasingly, productions are rendered – grades passed near-set, and final grading performed on- or with LUTs applied and initial using a collaborative workflow, as the editor and compositors allow seamless transition between the two technologies, unified over an end-to-end solution architecture. Cardless security guarantees a fast and cost-effective launch of services for operators to manage their subscriber base flexibly and dynamically, while allowing seamless transition to card-based technologies in order to expand services and security. The cardless solution benefits from the latest generation of Viaccess-Orca’s smart cards. By providing operators with a secure, flexible and cost-effective security solution pre-integrated with other ecosystem components, Adaptive Sentinel enables operators to_time to market for pay-TV services. Adaptive Sentinel supports a wide range of business models, including subscription TV, a la carte and prepaid, to enable revenue growth. The CAS is pre-integrated with set-top box (STB) middleware and CAM modules, ensuring fast time to market. The ecosystem was built with renowned partners such as Neonol and Jiuzhou. A major component of Adaptive Sentinel is Viaccess-Orca’s new-generation smart card PCI, released earlier this year. The PCI smart card strengthens security against advanced smart card and STB threats.

Forscene goes virtual

Forscene’s new TIDE is a high-performance multi-codec, multi-format, modular processing platform for the contribution and distribution of live video. Developed for network service providers, news organisations, programme distributors and broadcast providers, the new TIDE series provides contribution and live streaming using whatever medium is available. Offering an extensive modular range, it can process live broadcast quality signals, perform HD and SD video encoding and decoding (IMPEU and H264), conditional access and BISS scrambling and descrambling and transport stream (re)multiplexing for a wide range of applications, from contribution to channel back-up – over satellite, microwave, 3G/4G/5G mobile networks, managed IP networks and the open internet. With a range of 15 modules, TIDE provides all the functionality required to set up a connection in any situation.

PROPRODUCTS

Forscene goes virtual
Forbidden Technologies has developed and released the first end-to-end virtualised workflow for the post-production and distribution of video content. The hardware-independent solution is enabled by Forscene’s integration with the Microsoft Azure cloud computing platform. The workflow sees the Forscene ingest server running as a virtual machine on the Microsoft Azure platform to transcode and ingest live broadcast streams into Forscene accounts just seconds behind the live feed. Video editors can then create subclips or full highlights packages.

A New Premiere
An event focused on buying, selling and exchange of all filmed entertainment and audio content for the MEASA region.

Viaccess-Orca reinvents content security
Viaccess-Orca has announced Adaptive Sentinel, a new converged card and cardless conditional access system (CAS) that offers the best of both worlds and ease of transition between the two technologies, unified over an end-to-end solution architecture. Cardless security guarantees a fast and cost-effective launch of services for operators to manage their subscriber base flexibly and dynamically, while allowing seamless transition to card-based technologies in order to expand services and security. The cardless solution benefits from the latest generation of Viaccess-Orca’s smart cards. By providing operators with a secure, flexible and cost-effective security solution pre-integrated with other ecosystem components, Adaptive Sentinel enables operators to_time to market for pay-TV services. Adaptive Sentinel supports a wide range of business models, including subscription TV, a la carte and prepaid, to enable revenue growth. The CAS is pre-integrated with set-top box (STB) middleware and CAM modules, ensuring fast time to market. The ecosystem was built with renowned partners such as Neonol and Jiuzhou. A major component of Adaptive Sentinel is Viaccess-Orca’s new-generation smart card PCI, released earlier this year. The PCI smart card strengthens security against advanced smart card and STB threats.

www.forscene.com

www.axon.tv

www.filmlight.ltd.uk

www.viaccess-orca.com

www.forscene.com

www.axon.tv

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A MAM should be the core of any audiovisual company, and it must be flexible enough to work with third-party systems, in order to have everything under one roof.

Demystifying MAM

The world of TV and broadcasting has changed dramatically in the last five years. The main cause of this revolution has been the eruption of second screens, internet-connected television and the use of social media to access and share multimedia content. The public no longer has a passive relationship with TV, but a proactive one, demanding access from any device, place and time to their favourite series, movies and TV programmes, on their terms.

These enormous changes have altered the traditional workflow of editing, managing, distributing, archiving and broadcasting. The relationship with the audience is not the same anymore, and adequately monetising content is the key to adapting and surviving. An advanced Media Asset Management (MAM) system is the best ally for that.

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