CHARTING THE HIGH SEAS

Techies come together to shoot the Volvo Ocean Race in Abu Dhabi
Sony Professional Solutions MEA FZ LLC, Unit C-50, P. O. Box 502050, International Media Production Zone, Dubai, United Arab Emirates,

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Piracy seems to be giving the CEOs of the big broadcast networks in the MENA sleepless nights. The CEOs of two of the biggest regional broadcast networks shed their polite demeanour and adopted a more aggressive stance at IBC Content Everywhere MENA to let industry professionals know that they meant business and were no longer going to tolerate TV channels taking their content from under their noses and broadcasting it.

Having paid exorbitant sums to Hollywood studios for the broadcast rights to their content, these CEOs have a genuine concern. Interestingly, an alleged pirate who was broadcasting a lot of content that OSN had the rights to was also on the panel. The gentleman tried to explain that there was no proper list of suppliers to refer to and that he had all the right papers to prove that he had bought the rights to the content. OSN’s David Butorac rightly pointed out to the panelist, who pleaded ignorance, that it’s easy to know if you are buying content from a dodgy supplier based on the rates they are charging. While there is no denying that offending channels are not really as naive as they make themselves out to be, perhaps it is time to make a list of reputable suppliers to rule out such excuses in the future. The rules are different from country to country and there is no regional authority that can provide a stamp of approval for the content one has bought. Perhaps it is time to change that.

Would it help if the MENA Anti-Piracy Coalition created a list of reputable suppliers so that there’s no excuse on that front anymore? Should they campaign with the authorities for a regional entity to whom every channel will have to go for content approval? Should the coalition adopt a tougher stance with Hollywood studios, forcing them to take legal action against offenders by boycotting their content for a period of time? As the CEOs pointed out, there will be no incentive to invest in content if it is being stolen all the time and no one does anything about it. The stakeholders will come together again a day before CABSAT to discuss more anti-piracy measures. May the force be with them!

Vijaya Cherian, Editorial Director
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AV Solutions opens Cairo office

AV Solutions, a systems integrator with offices in Iraq and Dubai, has opened a new office in Cairo Smart Village, the company’s Managing Director Zaid Wattar told BroadcastPro ME. The Cairo office will handle the SI’s projects in Egypt.

“We have been working in Egypt since 2007 and now feel the need to have a permanent base there as we are working on some prestigious projects,” Wattar said.

AV Solutions recently concluded a big project in Cairo for Al Baghdadia TV. One of the region’s most advanced TV news projects, this integration includes Avid News solutions, Vizrt graphics and Harmonic servers with Pebble Beach automation. The Iraq-headquartered channel, which has studios in Baghdad and Cairo, broadcasts from its master control room in Cairo.

AV Solutions has since won three additional projects in Egypt, with the Cairo office providing after-sales and technical support for the new channels.

Among other major projects in Egypt are Al Tahrir TV, a multi-channel organisation including a news channel built on an Avid news archive and Imagine Communications’ servers, playout and core distribution.

AV Solutions also integrated the graphics for Egyptian broadcaster CBC recently. The TV conglomerate’s channels run on Vizrt master control graphics and studio graphics.

AV Solutions also recently delivered a turnkey broadcast system complete with studio integration and workflow solutions to Al Ghad Al Arabi channel.

"Post the Sisi revolution, business is moving at a quick pace in Egypt, opening more business avenues for players like us. We are focused on private channels for now. While we can build TV channels from scratch, our team of certified engineers is also adept at revamping existing channels,” commented Wattar.

Omar Hussein, who has been representing the SI in Egypt, has now been appointed Head of Engineering and Management of the new office. "The Cairo team has two main engineers now, but we are expanding and hiring more technical and support staff. We are also in the process of expanding our IT team in the company to address the growing convergence of IT and broadcast,” explained Wattar.

Newsrooms demand flexibility. The GV STRATUS unified toolset gives newsrooms the ability to share content anywhere. Across the company and between the newsroom and the field. All with seamless publishing to broadcast and digital media destinations.

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Qatar-based broadcaster Al Rayyan TV has recently ordered an OF van that will include Grass Valley’s brand new LDX HiSpeed (LDX HS) cameras, which can shoot at three times the normal speed and are primarily designed for live sports and entertainment productions. The broadcaster previously tested the cameras for camel racing events. Al Rayyan has also purchased a software licence to upgrade the LDX HS cameras to LDX Xtremespeed (LDX XS), which will enable the cameras to shoot at six times the normal speed.

“The LDX HS is the successor to the LDX 8300 cameras, which are primarily used for Ultra HD and live sports, and the company was impressed with the range of operations we had the opportunity to easily upgrade and as and when they wish,” commented Hassan Ghoul, Managing Director, Middle East at Grass Valley.

“Customers also have the option to purchase temporary licences that give them access to the upgraded mode for a certain period of time or they may buy the permanent licence. It depends on how extensively they use the 6X speed mode.”

These cameras work well in connection with the K2 Dyno replay system, which uses Grass Valley’s K2 Summit SG media server. K2 Dyno supports Grass Valley’s high-speed slow-motion HD cameras for ultra slow-motion sextuple-speed (6X) and super slow-motion triple-speed (3X) acquisition. K2 Dyno can also playback at any speed from zero to 200% delivering live sports highlights and instant replays.

“As the match is going on, the operator has the flexibility to slow the footage to the state of freezing it at any point,” explained Ghoul.

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**Du deploys ETL routers**

Du has purchased three RF matrices from ETL Systems to build its IPtv network further. Two 32 x 128 L-band Vortex Matrix systems have been installed and commissioned, with one primary unit going into operation in Dubai and a second unit installed for geo redundancy purposes in Abu Dhabi. A third 6 x 128 L-band Vulcan Matrix has already been installed and commissioned at the du Samacom teleport.

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**Cobham captures New Year fireworks at Burj Khalifa**

Cobham’s Solo HD24 HD transmitters were used by Airfilms Productions BV, a Dubai-based Dutch production house, which specialises in aerial imaging services. Contracted by Elite Films FZ LLC in conjunction with Dubai Media Inc, DMI and end-user Emaar Properties, Airfilms used Cobham’s Solo HD HD24 to send data from two highly customised broadcast drones to a pair of Cobham ProRX receive stations installed in DMI’s DB van and ground base station for mixing and recording.

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**Blackmagic Design’s new high performance mini converters switch instantly between all SD, HD and Ultra HD video formats so they’re ready for Ultra HD when you are!**
Alarab TV opts for Brightcove and Imagine

Alarab TV has chosen Brightcove to power its online video solution and help create a digital identity for the channel. Alarab TV is scheduled to launch in Feb 2015. The channel’s format includes investigative reports and analysis, financial and economic programming, and debates and discussion shows, incorporating a wide range of powerful video experiences.

“As we reach out to a new generation of viewers, we believe digital content is one of the most important aspects of news broadcasting,” said Fahad Mohammed Al Sukait, Chairman and CEO of Alarab News Channel and CEO of Rotana Group.

The news channel also announced that it has awarded a contract to Imagine Communications to supply an integrated media traffic, planning and scheduling system. Imagine Communications’ advertising management platform will be used by Alarab TV for detailed scheduling of both programme content and commercials, as well as advertising sales. The tight integration of traffic and sales information helps maximise monetisation opportunities through detailed management analytics and efficient workflows. Seamless interfacing and data exchange with third-party automation and asset management systems enables Imagine Communications’ media software applications to drive Alarab’s entire transmission operation, directing playout while simplifying content management workflows.

Quantum Corporation has announced that Patrick Morel has joined as Senior EMEA Channel Manager – Scale-out Storage. The role will see him manage and expand Quantum’s EMEA sales pipeline, developing new business opportunities.

Imagine Communications has appointed Richard Waldner to the role of Director, Channel Sales EMEA. He will be based in Munich, and will be responsible for strengthening existing relationships and developing new paths to market.

Argosy to distribute ATEN products

Argosy has signed a distribution agreement with Taiwan-based ATEN, an IT connectivity and management product manufacturer. The agreement will bring to the broadcast market a range of ATEN products, including KVM (keyboard, video, mouse), switchers and extenders. It also covers other products from the ATEN range, such as format conversion boxes and mains distribution panels (MDUs).

The new product lines are now available on the Argosy website and will be featured in future exhibition presentations of the company.

The ARRI AMIRA is a versatile documentary-style camera that combines exceptional image quality and affordable C Fast 2.0 workflows with an ergonomic design optimized for single-operator use. Easy-access controls and an intuitive menu structure make working with AMIRA simplicity itself.

The documentary-style camera

— Pro-Camera Accessories — Electronic Control System

The ENG Motor Controller EM-1 was specifically developed for use with the Gyro lens motion control, the integrated focus, iris, and zoom motors of such ENG lenses. The Controlled Lens Motor CLM-4 is a very quiet lens motor that will drive any standard lens in a smooth and pleasant manner. The modular concept separates motor unit, gear, cable and bracket to make handling and maintenance much easier.

Single Axis Unit SGU-1

A simple single-channel hand unit that can be set up to control focus, iris or zoom.
Dejero LIVE+ covers Bahrain Triathlon

Dejero LIVE+ mobile transmitters provided live video feeds for televised coverage of the Challenge Bahrain triathlon. New Zealand production company Kinetic Media transported rugged and portable LIVE+ mobile transmitters on boats and motorcycles, enabling them to transmit live video directly from the men’s and women’s swimming, running, and cycling courses.

“Traditional satellite or microwave transmission trucks aren’t practical for covering outdoor events such as triathlons that take place over a wide area. To produce an exciting show, you need to put the camera operators right down in the action,” commented Richard Sutcliffe, Producer, Kinetic Media.

“The LIVE+ mobile transmitters provided the ideal alternative, enabling us to capture broadcast-quality live video from the course with much more immediacy, and for a fraction of the cost and complexity of traditional capabilities. And I can’t say enough about the support we received from Dejero, including the on-site technician that worked with us over a three-day period to make sure everything went smoothly.”

Kinetic Media deployed LIVE+ mobile transmitters on two boats, one each for the men’s and women’s swimming course, and equipped four motorcycles with the devices for the lead and chase positions on the men’s and women’s running and cycling courses. Throughout the Challenge Bahrain triathlon, the LIVE+ transmitters used available cellular networks to transmit reliably live, high-quality video feeds back to the Kinetic Media mobile production trucks.

Imagine Communications acquires RGB Networks

Imagine Communications has signed a definitive agreement to acquire the assets of RGB Networks, Inc., a multiscreen video delivery solutions provider. The transaction, subject to customary approvals and closing conditions, will include the majority of RGB Networks’ employees.

The acquired assets will be integrated into the Imagine Communications advertising management and video infrastructure portfolio. RGB Networks provides IP cloud-based video delivery solutions that help enable media providers to streamline and monetise TV Everywhere and OTT services. RGB Networks’ products are deployed in more than 400 communication service providers worldwide. Its technology will reportedly enhance Imagine Communications’ end-to-end video playout and distribution portfolio.

beIN Sports selects Cisco Videoscape TV

beIN Sports has selected the Cisco Videoscape TV services delivery platform to deliver advanced sports video experiences across 21 countries in the Middle East and North Africa (MENA) region. Cisco provides software and hardware solutions, along with prime system integration services to beIN Sports to help support millions of new subscriptions across the MENA.

The platform uses Cisco’s VideoGuard conditional access system (CAS), Cisco MediaHighway middleware, Cisco digital video recorder (DVR) and user interface (UI) technologies to give users an exceptional experience when watching beIN SPORTS content.

beIN Sports offers a variety of high definition set-top boxes from multiple manufacturers. The entire range of beIN set-top boxes is enabled by Cisco software and security solutions.

MERA-TECH to represent Bridge Technologies in MENA

Bridge Technologies has appointed MERA-TECH as its regional business partner for the MENA region. With a new office in Dubai, MERA-TECH will carry and support the entire Bridge Technologies product range. MERA-TECH’s appointment follows Bridge Technologies’ involvement in one of the region’s largest initiatives, having been chosen to supply monitoring technology for a key player for which MERA-TECH is a system integrator.

“Bridge Technologies is establishing a stronger presence in the MENA region, and our partner MERA-TECH will be instrumental in building our profile, together with Omar Hawawy, our Strategic Business Development Manager for the region,” said Simen K. Frostad, Chairman of Bridge Technologies.
twofour54 and Etisalat partner
to spotlight local productions

Etisalat and twofour54 have partnered to showcase locally produced content on Etisalat’s VOD platform. An extensive collection of films produced by twofour54’s creative lab is available for subscribers on Etisalat’s eLife OnDemand, as well as eLife Video Packs. 40 creative lab films and music videos will be shown, some of which have previously been shown at the Abu Dhabi Film Festival, Tribeca Film Festival in New York or UK’s prestigious Encounters Short Films & Animation Festival.

Commenting on the partnership, Maryam Al Mheiri, Chief Operating Officer, twofour54, said: “twofour54’s creative lab intends to support young talent and provide them with opportunities to develop their skills and experiences through the appropriate media platforms. As a result, we have witnessed great strides in the output of quality of content delivered by our young creative talent.”

MEA broadcasters enhance content to counter OTT

The acceleration of localised content production, the significant increase in the number of over-the-top (OTT) providers and the defensive stances employed by telcos and broadcasters against premium services will all shape the coming 12 months in the Middle East and Africa’s rapidly evolving media and broadcasting industry. That’s according to International Data Corporation’s (IDC) newly released predictions for the year ahead, with the global advisory services firm also expecting the region’s media players to increasingly focus on improving the customer experience as they extend their offerings.

“As all broadcasters now know, simply pushing content to a giant screen in a living room is no longer enough,” said Tracey Grant, Programme Manager for Media and Broadcasting at IDC Middle East, Africa, and Turkey. “To this end, developing a greater understanding of the way people consume media and expect media to be offered will be crucial through 2015 and beyond.”
Oasis PPD hosts Technology Day

Dubai-based distributor Oasis PPD hosted a technology day last month to showcase its entire range of broadcast and AV products. The one-day event welcomed Oasis customers and partners to interact with the engineering staff of the company and experience the showcased products firsthand.

Among the various product displays were the entire broadcast set-up catering to the education and corporate sectors and the latest range of LED lights for stage and studio.

Speaking about the event, Basel Al Aref, GM Professional Projects at Oasis Enterprises said: “This is a small exhibition to give a holistic view of our entire product range. Through our technology day, we are letting our customers know that our remit is not limited to just one particular product line but extends from lighting and broadcast to security solutions. The objective is to offer it as a good learning experience for our customers.”

One of the attendees, Olimério Rodrigues, Business Development Director at Oasis Middle East said that the technology day was an excellent opportunity to learn about new lights as well as offered networking opportunities.

“With the acquisition of Clay Paky, Oasis is entering the entertainment market, which is a new product line for us. The event has been a good way to familiarise myself with entertainment lighting,” he said.

Emirati director wraps up shoot

Image Nation has wrapped up production on Zinzana, a psychological thriller, directed by Emirati filmmaker Majid Al Ansari. Principal photography on Zinzana was completed mid-December and post production will take place at Optix Studio in Dubai.

For the up-and-coming filmmaker, who has worked on all of Image Nation’s local feature films, including Ali Mostafa’s recently released From A to B, this is his first feature-length film for the company that helped launch his career.

SpaceToon announces international deal

SpaceToon will mark its 15th anniversary this March, coinciding with which the children’s channel has announced new international partnerships. Its latest show Masha is an entertainment 3D CGI series aimed at children in the age-group of 3-12 years. Masha is a joint-venture between SpaceToon (UAE), Lulama (Brazil), Cyber Group & Lagardere (France) and Sardine Production (Radio Canada).

Commenting on the new venture, Faye Al Sallabh, President of SpaceToon TV, said: “We are bringing two hit series - Masha and the Bear to children in the Middle East. Masha & the Bear is a 3D animated programme trending around the world with more than 10 billion views on YouTube.”

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Source: Frost & Sullivan report

50%

Number of MENA households expected to have Ultra HD smart TVs by 2020

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More than 100 broadcasters globally have been showing regular coverage of the 12th Volvo Ocean Race, giving viewers an up-close experience of the event. Vibhuti Arora joins the crew at the Abu Dhabi stopover to find out what it takes to capture the action of the race on TV.

CHARTING THE HIGH SEAS
Abu Dhabi was at the heart of sailing action in early January as six boats from the Volvo Ocean Race docked at the UAE capital’s shores. Setting sail from Alicante in Spain, the teams had their second stopover at Abu Dhabi after Cape Town in South Africa, in the world’s longest professional sporting event. Over nine months, the competing Volvo Ocean 65 boats will sail 38,739 nautical miles before finishing in Gothenburg, Sweden this June. Viewers all around the world can closely follow this journey, watching special features from the race on TV and online. In the Middle East, OSN, Abu Dhabi Sports, Nautical Channel and Fox Sports Middle East broadcast the event. In addition to broadcasting on TV channels, the event is streamed online on Volvo Ocean Race’s YouTube channel as well as through the Volvo Ocean Race app on Octoshape.

Volvo Ocean Race’s Technology Director Jordi Neves sheds light on how the event is broadcast, with a combination of onshore and offshore feeds from cameras installed on the boats and other locations on land. For TV, Neves and a team of reporters provide broadcasters with packaged videos, edited and complete with graphic interlays, ready to go on-air. The production is carried out in partnership with UK-based production house Sunset+Vine. Graphics, supplied by 3D specialist Virtual Eye, provide detailed views of the route and the harbours. “Each of the Volvo Ocean 65 boats is a mini-studio with a media desk that integrates a range of hardware and combines them with a set of software applications, all custom-made for Volvo Ocean Race by Livewire.”

“Each boat is a mini-studio with a media desk that integrates a range of hardware and combines them with a set of software applications, all custom-made for Volvo Ocean Race by Livewire”

Jordi Neves, Technology Director, Volvo Ocean Race

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desk that integrates a range of hardware and combines them with a set of software applications, all custom-made by UK-based Livewire Digital Ltd., says Neves.

The cameras on the boats are designed and manufactured by Livewire using the Sony FCB-H11 OEM block and are strategically placed in different positions to cover various aspects of the race.

Speaking about the camera positions on the boats, Tristan Wood, Managing Director of Livewire Digital Ltd., says: “There are four different camera positions on each boat. An electronically stabilised stern camera that uses the information from the onboard sensors to keep the horizon level; a PoV camera fitted to the mast to provide a shot of the foredeck; a pan, tilt, zoom and level (PTZL) camera fitted between the two hatches known as the coaming camera; and two pan, tilt & zoom (PTZ) cameras are fitted to the underside of the spreaders.”

All the cameras are 1080i day/night capable and are supported by three infrared flood lights for night time operation. The PTZ and PTZL cameras boast 0.7 wide angle lenses.

Each boat has a non-sailing reporter who handles the production while the boats are at sea. The onboard reporter (OBR) documents life on the boat, producing daily videos using waterproof handheld cameras, miniature cameras and radio-mics.

The media desk on each boat is used to control the cameras and manage connectivity to shore. The OBR can also control the deck cameras. The system also supports two HDSDI uplink points for use with handheld cameras. The OBR’s laptop or iPad mini manage these functions with their built-in workflows.

These reports are then sent in H.264 format via satellite, using the Inmarsat mobile satellite communications network, to the watch producer based in the Volvo Ocean Race headquarters in Alicante.

“The watch producer provides round-the-clock contact with the OBRs and connects broadcasters to boats for radio and TV interviews by linking the yachts live to satellite. ‘Three HDMI uplink points at various points on each boat provide the connection of the cameras with the Volvo Ocean Race headquarters in Alicante to send live interviews over satellite,’ explains Neves.

A critical part of the camera set-up is the crash recorder, which is based on delay line linked to the Stern camera, which is continuously recording video. This function is built into the media desk. In the event of a crash, the media desk uses delay line technology to record HD material with a history of up to three hours.

In case of a dramatic event, the crew can press the crash button and the system will archive the material so that there is present and post event video.

As the boats approach pit stops, the OBR establishes a connection with the temporary media desk/studio at the race village through Cobham’s RF links. The reporter selects the ‘in-port racing’ workflow, which pre-configures the media desk A/V routing and then uses the Microwave Management app to select one of a set of profiles that configure the microwave to operate optimally under different prevailing conditions.

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The Onshore Network

Each Volvo Ocean 65 racing boat, plus two chase craft and helicopters, is equipped with Cobham’s Solo H.264 transmitters to provide live HD video to the onshore race village at each stopover. Neil Tomlinson, Regional Sales Director MEA, Cobham TCS, who oversaw the Abu Dhabi Race Village connectivity, says the race village “is networked using Cobham’s TCS IP Mesh technology, employing COFDM modulation and narrowband video compression technology to transmit video over the mesh network.”

A combination of Cobham receive systems and IP Mesh networks receive transmissions from the onboard systems and remote cameras deployed around the race village, sending them to a production centre to be edited and distributed across all platforms to the public. Visitors in each race village receive live, close-up views of the action as it happens offshore. The IP Mesh systems are also used throughout the site for private IP (Ethernet) connectivity.

Up to 16 nodes can be combined into an IP Mesh network. The COFDM IP Mesh constantly readjusts itself, which means its nodes can be moved if necessary, to extend range of coverage. Also, if the signal is lost on one node, the others automatically readjust to re-establish the connection without loss of signal. At the receiving end, Cobham’s PRORX receive systems ensure that the video is recovered free from fading and multipath interference.
ADM’s role in the Volvo Ocean Race

The participating Volvo Ocean 65 boats docked for around two weeks at Abu Dhabi in December-January. The race village set up at the Abu Dhabi Corniche Breakwater hosted in-port races and several sailing events in a festival of sorts that attracted sailing enthusiasts from across the UAE. For the Abu Dhabi leg, local broadcaster Abu Dhabi Media (ADM) established a broadcast studio at the race village to carry the various in-port events. ADM’s production arm, LiVe hD, deployed an Alyah truck to capture the studio commentaries and interviews, with live feeds from the Volvo Ocean Race production team for broadcasting on Abu Dhabi Sports.

A six-camera set-up was used for studio production, explains Hamad Abdelrazaq, Head of Technology at LiVe hD. “Comprising five Grass Valley LDK cameras, the truck boasts a reporter camera, also an LDK along with a Jimmy Job. A production team of 25 along with commentators from ADM were an integral part of the broadcast team. The video feeds of all the offshore action were sent to the OB van by the Volvo Ocean Race production crew via Cobham RF links, and the interviews with sailors and commentaries were produced using the six-camera set-up.”

At the start of the race, live production using live RF links of interviews with the sailors was broadcast live on a host of TV networks. The signals from the different cameras were sent via RF links to the race village. In addition to the five cameras on each of the boats and the handheld cameras, feeds also came from Sony Cineflex helicopter cameras at the port of call. The two chase boats, equipped with Sony ENG XDCAMs, were deployed to provide live feeds to the race village studio, as were two wireless cameras.

Kit list for ADM’s studio production

The OB van deployed at the race village was kitted with:
- HD World Cam LDK – 8000,
- HD Cam 8000 Gigawave wireless,
- Kayak HD production switcher 2.5 M/E HD / SD switcher including 48 inputs and 24 mappable outputs,
- 2 chroma keyers per system and 1 DPM Kayak HD RAM recorder
- Studer Vista 5 with 30 motorised faders + 32 analogue inputs & outputs, 24 x digital AES in & 24 out, 22x8 ch HD/SDI de-embedded, in addition to other equipment.
Uniting the leaders of telcos, broadcasters, facilities and media power houses in the Middle East and North Africa, IBC Content Everywhere MENA 2015 was an opportunity to bring technology, service and business proposition to the attention of this dynamic market.

This three-day event combined a high calibre free conference and free exhibition with a networking environment, delivering high profile international exposure for brands. The exhibitors benefitted from real and virtual networking with attendees during, and after the show with Touch & Connect technology. Each day covered new topics about the changes and development within the broadcast industry offering a mix of panel discussions, conferences and presentations. On the first day, the conference examined all the issues that the new models of content production, management and delivery are creating.

Stephen Nuttall, Senior Director, YouTube EMEA presented international keynote, explaining what lies behind YouTube’s

IBC Content Everywhere MENA featured panel discussions that touched upon the most pressing topics that impact the industry.

IBC Content Everywhere MENA featured panel discussions that touched upon the most pressing topics that impact the industry.

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A huge success in the region and how YouTube works with video creators to generate revenues here, and around the world.

With contributions from the thought-leaders at the forefront of the very latest developments and networking opportunities, the discussions examined the emergent broadcast ecology in the region, assessed the threat from new global players such as Netflix and Amazon, and provided the strategic knowledge delegates needed to maximise their business' potential over the next years of change.

The first panel discussion of the event featured Amira Rashad, Ingo Lalla, Luke Gaydon and Steve Reynolds who discussed how the technological convergence and increasing consumer take-up of IP-distributed content is fuelling new players offering new business models, content formats and viewing experiences. The session charted potential winners and losers as the industry moves towards an IP model. The speakers examined the strategies of the new players in media distribution - many of them global giants looking to exploit regional revenues - and the business models that are underpinning their expansion, be they CDNs or OTT video providers. Two homegrown MCNs, UTURN Entertainment, Saudi Arabia, and Qsoft, Egypt explained the secrets behind their success – in particular, how they have managed to give audiences what they are looking for while remaining culturally sensitive.

Day two of the event looked at some leading organisations’ experiences with their new technologies and business practices. The discussions centred around second screen drivers and new levels of audience engagement. In focus was the main challenge of content everywhere, which is providing increased amount of synched content that viewers demand on multiple screens. Some of the questions asked included how social media and TV viewing are driving new engagement opportunities, what are the new tools and techniques allowing the granular measurement of cross platform viewing and what are the challenges inherent in a market where the incumbents are threatened by a widening range of new players, from telcos to the...
specialist OTT video providers? The other highlight of day two was John Honeycutt’s keynote address. Honeycutt is CTO of Discovery Communications and addressed the issue of how to transition growth to a global footing without losing view of the local market in the session ‘Strategies for Global Growth’ now available on VOI.

Christopher O’Hearn, General Manager, Emirates Media Measurement Company was one of the speakers at the ‘Enabling cross-platform audience measurement’ session. How can the latest advances in audience measurement be exploited for ROI, and what are the implications of a future where real-time reliable data complements, and potentially replaces, panel-based metrics?

Day three looked at how content everywhere can be managed by using technology. The sessions looked at the growing role of the cloud and its impact on mobile technologies. Also addressed were the technical challenges of ultra HD and how businesses can be protected and grown over the next period of change.

Sam Barnett, CEO of MBC, headlined two sessions on day two of the conference, generating much debate over content trends and piracy in the MENA region. Stephan Heimbecher, Head of Innovations & Standards, Products & Operations at Sky Deutschland presented a case study ‘Ultra HD Content – does more pixels mean better pixels?’

The IBC Content Everywhere Hub hosted a programme of free-to-attend sessions and product demonstrations that explored the diverse implications and opportunities arising out of pioneering new services and technologies throughout the region. To complement the sessions, a series of short demonstrations from a cross-section of relevant exhibitors provided visitors with opportunities to learn about the latest products and services shaping the development of ‘Content Everywhere’.

In addition to the Theatre conferences was the Hub programme that hosted panel discussions and company presentations. SpaceToon, Vimond, Tata communications, Selevision, Akamai and ContentWise were some of the companies that participated in the Hub programmes.

IBC Content Everywhere MENA combined a high-calibre free conference and exhibition programme with a networking environment.

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Mocha has become the industry standard for motion tracking and rotoscoping but does the new version live up to its reputation, investigates Alistair Rankine

“It may seem strange to use Mocha when many of the same results are achievable in Nuke. From my experience, it is easier and faster to do the work in Mocha and then send the data over to Nuke. It allows for less complicated node trees and simplifies workflow”

Alistair Rankine, Editor/VFX Specialist

Mocha Pro started life as three different products – Mocha, Mokey and Monet – all of which were finally brought together into a comprehensive package. Initially, Mocha was mainly used by visual effects artists working on complicated tracking and rotoscoping, but now editors, motion graphics artists and colourists benefit from it too, and the industry expects everyone to be multi-skilled.

So what can Mocha Pro do?
Mocha can handle the most complicated of tracking scenarios by use of its planar tracker. This basically analyses anything in a scene, in the form of a planar surface. Draw your spline, analyse, and Mocha will do the rest. If there’s anything in the way of the object you’re tracking, draw a spline around it to exclude it from the track. From my experience, there is nothing that Mocha can’t handle when it comes to tracking. It copes perfectly with motion blur, lens distortion and objects going off-screen. Unlike most point trackers, Mocha tracks images using pixel patterns.

Rotoscoping
I am not a huge fan of sitting for hours on end rotoscoping; it is something I have to do out of necessity. Rotoscoping in Mocha is considerably faster, as I generally don’t need to adjust my mask keyframe by keyframe. Mocha is by far the most accurate and user-friendly rotoscoping tool available, by way of the bezier and X-spline tools. When rotoscoping a shot, it is possible to combine your roto work with the tracking data. The shape which you are rotoscoping uses all the information from the planar tracker to allow for change in perspective and motion. Mocha Pro also handles motion blur extremely well, not only when tracking but also when rotoscoping. Individual points can be selected along splines in order to add feathering and softness. This helps to achieve cleaner and more realistic results. It is by no means an automatic process, but Mocha fills in a lot of the gaps without too much effort.

Object Removal
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Object Removal
One of my favourite things in Mocha is the Remove Module.
This tool can save hours of time in creating clean plates for compositing. It works a little like Content Aware in Photoshop: a spline is drawn around the items that need to be removed from the scene, and the spline is tracked using the planar tracker. The remove tool is then applied, automatically detecting pixels from the area surrounding the object that needs to be removed. The object is then filled with information from surrounding frames. Obviously, the result depends on the complexity of the shot and the object being removed, but even with complex shots this can save a great deal of time.

I work on Autodesk Flame and find it very useful to combine this with my Flame toolset. I can carry out the initial removal in Mocha, which handles the majority of the work. I can then take the shot into Flame and use the Flame toolset to finish.

3D Camera Solver
The 3D Camera Solver in Mocha works very differently from other 3D camera tracker applications – with these, the tracking is usually an automatic process with user-defined parameters, creating a point cloud in 3D space. Once again, Mocha takes advantage of its planar tracking capabilities. The user defines a set of planes within the image, and Mocha uses this information to analyse the shot and create 3D camera solving data. This process is extremely accurate and also much easier to achieve than by using 3D camera tracking software. Once tracked, the information can be exported in a variety of formats to After Effects, Nuke, Flame, Smoke, Maya and Cinema 4D, to name a few.

Another extremely useful tool is the lens module. Lens distortion can occur through the use of

Verdict
Good: Everything in Mocha Pro 4 and Mocha Plus 4 is beyond good. Mocha is by far the most advanced, effective and efficient planar tracking software. It has been in a class of its own for some time now, and just gets better and better.

Bad: There is nothing bad about this software. Even the pricing is spot-on.

Wish List: Perhaps one day, Imagineer will design a piece of complete finishing or compositing software. If they do, I imagine it will be outstanding.
different lenses when filming. The lens distortion tool allows you to remove or match the distortion. This info can then be exported to After Effects, Flame, Smoke, Nuke or Fusion. It is also possible to render the fixed shot directly from Mocha.

One of the most important things before compositing any problematic shot is to stabilise it to get rid of any jitter. Mocha handles this seamlessly, automatically scaling the stabilised shot to fit the frame size. Again, this information can be exported for use in any other compositing software.

Another of my favourite tools in Mocha is the insert tool. This is excellent for beauty work. You can take a non-flat surface and apply the grid warp to the item you’re inserting into the scene, warp it with the grid warp tool, and then track it. The motion and perspective from the non-flat surface is then applied to the inserted image. This allows for quick and easy compositing of what can be very tricky and time-consuming in other software.

I would love to see Imagineer build on the idea of compositing directly inside Mocha Pro. With their insight and expertise, I imagine they could most likely beat a lot of compositing software at its own game.

Mocha Pro 4 is available either as a standalone product or as part of Adobe After Effects. The After Effects version has the option of upgrading to Mocha Plus 4.

What’s New
Mocha has become more streamlined with the new release. There are fewer buttons on the interface, making it easier to use. As with any new release, there is increased support for different media types. New codecs are added to updates of Mocha as they come on the market.

Support for stereoscopic 3D workflow has been introduced. It is now possible to track, roto and camera solve in a stereoscopic environment, a big plus for large movie studios, which can new benefit from the Mocha toolset when creating visual effects for 3D movies. Python scripting has also been introduced, another plus for large VFX houses, who can now customise the software to fit directly into their VFX pipeline.

It is now possible to customise your keyboard and have your own set of hot keys. Nuke users also benefit from improved support for roto and tracking nodes.

It may seem strange to use Mocha when many of the same results are achievable in Nuke. From my experience, it is easier and faster to do the work in Mocha and then send the data over to Nuke. It allows for less complicated Node Trees and simplifies workflow.

A great addition is support for Premiere CC. It is now possible to cut and paste masks from Mocha Plus 4 directly in Premiere CC.

If you are a large VFX house with Flame and Nuke, then you will most certainly go for Mocha Pro 4, which is available on OSX, Windows and Linux. Mocha Pro also has the ability to export data of some kind to just about every other product on the market.

If you are a smaller company and work with Final Cut, Hitfilm and Adobe products, and don’t necessarily need the added extras or the ability to output to high-end software, then Mocha Plus 4 is probably for you. Mocha Plus 4 is available on OSX and Windows.

As standalone planar tracking software, Mocha Pro 4 doesn’t really have any competition, though I will be interested to see how the new inbuilt planar tracker in Flame 2015 Ext 2 compares. I am still on Ext 1, so I can’t comment on that just yet. I’m sure I will have room for both in my future workflow.

Alistair Rankine is an editor/VFX specialist and workflow consultant with more than 25 years post production and broadcast experience. He is based in Dubai.
PROVIRTUALISATION

Leap of Faith

Replacing SDI with IP offers significant benefits, not only in cost but also in the flexibility of design that IP supports. It’s high time we made the leap into IP-based content delivery, says Alec Stichbury.

Content delivery has entered a new landscape and is virtually unrecognisable compared to a decade ago. Multi-platform distribution is evolving to match the viewing habits of today’s audiences, who expect content on demand to be delivered to whichever device they choose. In this multi-platform environment the need for flexibility, quality playout and cost-effectiveness is driving a technological change in content delivery methods. More and more broadcasters and content owners are moving away from their dependence on traditional, proprietary hardware solutions.

A new software-centric approach is being adopted to meet the functionality and innovation needed to support the changing appetites of consumers. Since the inception of television, broadcasting has been the domain of the broadcast engineer and has relied on traditional hardware manufacturers to support the changing requirements of the market. This rate of change, however, has been too slow and has often meant that the broadcast function has been superseded in terms of technology and process innovation by online and non-linear strategies.

The high-cost barriers to entry that the traditional hardware, high proprietary broadcast platforms dictate are slowly starting to erode, leading to a new cloud philosophy in broadcasting. More agile and scalable offerings are now in place, freeing broadcasters and content owners from the constraints of their inflexible, difficult-to-scale hardware platforms.

The payout of cloud playout

In organisations generally, the wider benefits of migrating services to the cloud have been well documented—from significant savings in capital expenditure, to the ability to be highly flexible and scalable and cater to varying business demands. This is no different in the broadcast content playout arena, as an IP-centric, cloud-based playout model provides substantial benefits to broadcasters and media companies in the broadcast chain.

Broadcast companies in the Middle East and across the globe are facing growing pressure to economically launch new channels while protecting and extending their long-established brands, and the new generation of automated cloud-based playout can play a critical role in meeting these strategic objectives.

Playout in the cloud provides the agility companies need to compete in a changing marketplace. In simple terms, it allows broadcasters to ingest, transform and transport content free of geographic boundaries, to extend and expand their brands, and to forge productive new relationships between content providers, broadcasters and affiliates.

Cloud is particularly appealing to new entrants to the broadcast market, since the barriers to entry are significantly lower as no investment is needed for playbook infrastructure. Traditionally, the barriers to entry into the broadcasting and media business were very high, limiting the number of players; now software virtualisation is bringing far more competitive opportunities for aspiring broadcasters. However, the use of cloud also has significant benefits.

“Broadcast companies in the Middle East and across the globe are facing growing pressure to economically launch new channels while protecting and extending their long-established brands, and the new generation of automated cloud-based playout can play a critical role in meeting these strategic objectives”

Alec Stichbury, Technology Director, Deluxe LeapCloud

Cloud-based playout relies on software-oriented systems and leverages massively from Internet Protocol (IP) as a transport protocol, which is where one of the barriers to cloud adoption lies. In the current broadcast arena, five operators use IP as the main mechanism for transporting live video around their facilities. Playout systems still rely on proprietary hardware and other traditional mechanisms and are very much focused on the use of legacy video serial digital interface (SDI). SDI creates a one-to-one relationship between one device and can be flexed to meet demand on a tactical or strategic basis. It enables channels to be launched in a traditionally unrealistic timescale and can also be used if an existing channel needs to be distributed to a new territory without the traditional long lead time and high cost of uplink and space-segment, and with more certainty around quality of service.

Cloud generally also provides broadcasters with increased visibility of and access to assets and channel outputs across the workflow. With this visibility and ability to manage the workflow of making an asset broadcast-ready, errors that can cause on-air outages are eliminated. Adopting cloud can also reduce operating costs in terms of staff required and distribution contracts.

Another major benefit is redundancy. Cloud infrastructure is typically hosted within a secure data centre, which provides better resilience of the platform and improved opportunities for disaster recovery. Moving the playout platform into a software-oriented environment ensures that there is no single point of failure within the chain, as the solution is replicated as part of a disaster recovery solution. Even more resilience is offered if the infrastructure is hosted in multiple data centres connected through dual and diverse network links.

Adoption of IP

Cloud-based playout relies on software-oriented systems and leverages massively from Internet Protocol (IP) as a transport protocol

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and another; it is fixed and cannot scale. Baseband video is by design a point to point medium. The introduction of IP into the broadcast environment means it will ultimately — though slowly — replace SDI. Replacing SDI with IP offers significant benefits, both in cost and in the flexibility of design that IP supports. IP is intrinsically a point to multi-point protocol, which therefore enables a simplified design philosophy. Furthermore, the design is delivered over non-proprietary network devices, reducing cost and enabling greater scaling capabilities.

Typically, broadcast environments already feature IP networks. As a result, adopting IP as a standard method of transport will not require significant further capital investment or operational investment, as many of the existing networking skillsets apply. Careful design is required to ensure network separation of business and management traffic from that of broadcast IP traffic. This is further complicated for multi-tenanted scale-out facilities where traffic has to have absolute separation.

For organisations looking to make a step change in technology, for example, broadcasters seeking to replace legacy systems that are approaching end of life, adopting an IP-based approach is extremely beneficial. It reduces the complexity of the hardware build and supports the push towards non-proprietary IT services. One of the knock-on effects is the ability to deliver the flexibility required to meet current audience demands.

The combined challenge of an ever-changing multi-channel world and the need to operate more cost-effectively is seeing the broadcast industry slowly starting to embrace the potential of cloud delivery platforms and the supporting IT infrastructures. The rate of adoption looks set to rise, with IP being used across more aspects of the workflow, and the latest software-oriented platforms provide the necessary resilience, agility and reliability to service the transition for broadcasters.
An exclusive children’s radio station, launched in the UAE late last year, focuses on tailor-made programming for toddlers and pre-teens. BroadcastPro ME goes behind the scenes to find out what it takes to build a radio station for children called Lulu and will present a fair amount of speech in Arabic. Built around the Clyde radio infrastructure as the backbone, the radio project was put together in three months. The objective was to build a simple and easy-to-use studio that could be handled by young children. As for the equipment and workflows, the project required simple systems, according to Janez Zigon, General Manager of MGI, who was in charge of the integration of the station.

“As this is a children’s radio station, easy operation was the key word in this installation, so the equipment had to be as uncomplicated and child-friendly as possible,” he explains. The main equipment in the studio is built around Clyde Broadcast Synergy Master Control systems. These are complemented by RCS playout systems, microphones from Clyde Broadcast, Shure and Beyerdynamic, Sonifex delay units, and a range of production and control software from RCS.

“Rather than selecting individual hardware and software studio components and then going through the difficult process of making them work together, Synergy combines the

Snapshot

• Objective: To build an easy-to-operate radio channel for young users and listeners
• End users: Pearl FM
• SI: Media Group International
• Location: Dubai, UAE
• Key vendors: Clyde, Shure, Beyerdynamic, Sonifex, RCS

The FM band in the UAE may seem crowded, but newcomer Pearl FM has been quick to find a niche. Launched in October 2014, the radio station caters to children from toddlers to 12-year-olds. There are already online children’s radio stations run by Disney and Nickelodeon, but Pearl FM is about giving a voice to the kids and supporting them, according to the station’s co-founder Jeff Price. The station claims to be the first radio station dedicated to children in the Middle East. Price, who has been associated with Channel 4 FM and Dubai’s Virgin Radio, set up Pearl FM with Nick Watson, a regular guest on his radio shows. The station broadcasts on 102FM and is headquartered in Al Mulla Cultural Centre in Dubai. The channel was integrated and kitted out by Dubai-based systems integrator MGI (Media Group International). Along with the four studios, a back-up studio was also built. The fifth studio doubles as a production facility when not in use for live broadcasts.

The station broadcasts in English but will launch Arabic programming this year as well. The Arabic channel will be
Studios 1 and 2 are identical and feature self-operated on-air facilities. Studio 1 has a monitor feed from the service 1 off-air receiver. Studio 1 has headphone monitoring in addition to the playout and mixing equipment. Studio 2, on the other hand, will broadcast programmes associated with service 2 or the Arabic programming, and also has a monitor feed from the service 2 off-air receiver.

The feed to each transmission chain comes from two Clyde TSM2 studio switcher/monitor units, located in the central technical area equipment rack. The TSM2 is a 1U rack-mounting unit that combines the functionality of a transmission switcher and monitoring unit. Each TSM2 incorporates distribution amplifiers; a programme fail detector and auto start switching for an external standby audio source; a tone generator; and visual and audio monitoring.

From left: Janez Zigon, GM, MGI; Jeff Price on air from the newly built Pearl FM studio.

“Hardware functionality of a state-of-the-art mixer with a complete suite of integrated broadcasting applications, which is why we chose these solutions,” says Zigon.

RCS’ GSelector offers a multi-station scheduling system with a single point of entry and flexible configuration. Aquira provides real-time access to sales and inventory data, and a vast range of scheduling, billing and reporting options. It also helps manage clients, prospects and sales team call activity.

The digital radio automation system deployed at the facility is from Zetta, which integrates with the music scheduler GSelector4, RCSnews and traffic system from Aquira.

The studios

Pearl FM has five studios that transmit two separate programme outputs. Although the Arabic channel is not launched yet, the station is provisioned to carry two parallel feeds simultaneously. Studio 1 carries the English programming and Studio 2 will be dedicated to Arabic programming as and when Lulu FM (the Arabic channel) launches.

“As this is a children’s radio station, easy operation was the key word in this installation, so the entire equipment had to be as uncomplicated and child-friendly as possible”

Janez Zigon, General Manager, MGI

Designed primarily for use with two-studio radio stations, the TSM2 incorporates distribution amplifiers, a programme fail detector and auto start switching for an external standby audio source; a tone generator; and visual and audio monitoring.

The feeds are controlled either from hard-wired studio buttons and indicators or through remote diagnostics via the internet.

Studio 4 is also equipped similarly to Studios 1 and 2, with the exception that there are two fixed phone lines and no profanity delay. Due to space limitations, this studio has only three microphones. Studio 4 can serve as a back-up on-air studio, allowing for routine maintenance in either of the English or Arabic studios, or if either of these studios don’t function properly.

The TSM2 switcher receives two main inputs of programme feeds from Studio 1 and outputs it through Studio 4. While the TSM2 associated with the second programme feed has two main inputs in Studio 2 and outputs through Studio 4. In addition to the studio outputs, each TSM2 has a standby audio player.
which is automatically switched to the transmission feed if a studio source fails while the studio is unattended or using broadcast automation. Each TSM2 also has an input from an off-air receiver, which is distributed to the appropriate studio and to a logger (part of the main server).

Each service shares a scheduling workstation, which runs the RCS GSelector, RCS Aquira software and GLinker software. The workstations are tier 1 PCs connected via the broadcast network to the content server and a dedicated traffic server. The facility can easily be scaled, with the option to add more studios as the station grows. The server rooms can store live broadcast material for up to 60 days.

The studios boast a back-up for on-air, and production control room core equipment based on Clyde Synergy Silver, featuring the Synergy master control surface. The Fader control surface is suited for more than eight sources and provides the studio with eight-channel strips, which are also freely assignable, using Synergy PC with 1Tb+1Tb mirrored HDD and CD player Tascam 500. Studio 5 acts primarily as a production facility and works in conjunction with two microphones in an adjoining voice booth. The highlight of Studio 5 is its Adobe audition record and editing facilities.

All four main studios (1, 2, 4 and 5) have access to a shared content server via the broadcast network. Studio 3 is fitted with furniture but is not used for broadcasting yet.

Challenges
While working against a tight deadline was a challenge, the SI was also working on a site that was still under construction.

“We had to work against a very tight budget for the project, but all involved appreciated the importance of the facility and the work the foundation was doing, so we accommodated everything within the financial goals,” says MGI’s Zigon.

Outlook for 2015
The response to Pearl 102FM has been very positive, with an estimated 300,000 listeners tuning in to the station per week—and that number is growing very fast, claims Price.

“These are not audited figures, as we are still very new, but are based on feedback from children, schools, parenting groups and people who are recommending Pearl to friends. It is also based on our social media organic engagement, which has been very good,” Price explains.

Pearl FM’s morning show Chris Birks in the Morning is now famous for its School of the Week programme every weekday and Pearl’s mid-morning programme, Jeff Price and Friends, a chat show with music, has featured more than 150 interviews since the launch. Special guests including parents, medical practitioners, healthcare professionals, teachers and environmental specialists, are part of the show.

“2015 is going to be a very busy year at Pearl FM and the Children’s Media Network with new programmes and partnerships. We will work closely with Dubai Healthcare City, more schools and toy companies this year,” reveals Price.
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THE NEW AGE OF TV

Producers have to find new ways to win audiences, and at the same time, control production costs to be able to deliver more within their existing budgets. Pierre Mestrez looks at what’s in store as broadcasters enter a new era in TV production.

Today’s crowded television market is forcing changes to the way programmes are made. More channels mean more choice, which in turn leads to a diluted audience. Greater choice of content is leading to higher expectations in content and in production values.

Competition for audience attention comes not only from other television channels but from online services and social media. One approach is to develop programming that harnesses social media and can use second screens constructively.

Live event shows like The X Factor and Dancing with the Stars are inherently compelling, and have great audience retention because they are live: viewers want to know what happens next. They also have great potential for second screen and smart television apps, giving you behind-the-scenes information, alternative commentaries and more. These competitive live shows are also great drivers of social media.

Consumers naturally want to share their views with their friends and with the wider community. In turn, this changes the architecture of the broadcast technology.

No longer does a live programme mean a line from the studio to air time. Those creating the added value online content have access to more material and faster production. PRO technology, attached to the studio or as part of a shared resource, multiple cameras are recorded in isolation, as well as cutting output from the switcher. Replay operators, familiar with sports broadcasting, monitor the action and tag key moments, ready to replay, as and when necessary.

Edit workstations are connected directly into the server network. Rendered sequences and highlights are put together during the programme and played out directly from the server.

Similarly, pre-prepared packages and video strings are also stored on the same server, ready to be called up and played instantly. The result is a programme with very high production values, compelling from beginning to end.

The production teams are free to be as creative as they wish. Most importantly, the underlying technology is proven and widely understood. Production servers, controllers and storage networks are in extensive use in outside broadcasts, and are readily adaptable for relatively more comfortable environment of the studio.

If this new recording and replay infrastructure was only suitable for event television, there would be questions about return on investment. The same infrastructure, though, can bring huge benefits to all studio production genres, raising on-screen quality and reducing costs.

Simple game shows and quizzes can be improved by recording the master shot and a number of ISO cameras. It means, for instance, that you always have the right reaction shot, making the programme more engaging.

Such shows usually need editing to tighten up their flow and to get them on time. Cutting in reaction shots from one of the ISO cameras is simple, particularly as they are already synchronised and ready on the production server.

Having a production and post-production server network means that no time is lost in transferring, transcoding or preparing material. Editing can start as soon as the first recording rolls. The result is that overall production times—from camera to programme delivery—are compressed. Reducing the time from recording to air is another boost to productivity and profitability.

To suggest another example, studio dramas—like daily dramas or soaps or situation comedies—are often shot on two or three cameras, simultaneously. Traditionally, they were recorded individually, then in the edit suite, the editor referred to production notes and reassembled each scene.

Today, it makes sense to record each camera independently on a server, but also have the director make a live cut through a production switcher. The live cut is recorded, but so too are the triggers from the production switcher.

When the scene gets to the edit suite, the live cut is reconstructed from the individual camera recordings and the metadata from the switcher. This can be done automatically, so as soon as the editor opens the scene there is a good first pass at a complete cut on the timeline. All the editor need do then is adjut time as necessary, and the edit is complete.

This slashes post-production time for this sort of drama project and also ensures that the editor and other finishing operators are concentrating on the creative part of the job, making the story-telling as good as it can be. There is no time lost on dull or repetitive jobs. So costs are reduced, staff is better motivated and the audience sees a better quality result.

The key to success in this new approach to studio programme-making is to build the architecture around a scalable, flexible technology platform. The server network has to be able to support a broad range of creative requirements.

Shows that use behind-the-scenes footage, for example, are likely to require this in a variety of formats and devices. The server network has to be able to ingest these quickly and seamlessly, transcoding them to the internal format and making them instantly available.

For fast turnaround applications, the server must support editing in share, so that packages can be cut without the need for material to be transferred to and from the edit workstation. The finished package is compiled on the server, often in real time at the moment when it is played into the programme.

Where there is time, it makes sense for the production server to exchange content with a separate network supporting the post-production devices. This takes pressure off the production servers allowing it to provide uninterrupted high availability support for future recordings.

A drama or quiz production, for example, would see the production server delivering multiple files, with associated metadata, to the post servers at high speed. This allows post-production to be planned around priorities and staff availability.

The investment in server infrastructure is more than repaid through improved productivity. Directors and producers see greater creative opportunities open up. Audiences appreciate the high production values of every show.

Broadcast executives see cost reductions through a faster studio to air time. Those creating the added value online content have access to more material and faster production.

Pierre Mestrez is Market Solution Manager at EVS

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PROtech
In an exclusive interview with BroadcastPro ME, Dr. Raed Khusheim, CEO of Selevision, speaks about the current media landscape in the MENA region and how new technology and ideas are transforming it.

What is your view of the MENA TV industry, and what does Selevision bring to the region?

We have thousands of channels in the Middle East and North Africa (MENA), but only a handful of quality ones. In this region, we have one of the lowest ratios of SD to HD television channels, which needs to change. Technology is a great enabler of change and it is incumbent on players like us to bring about this change. There is a lot of potential in this region waiting to be explored.

Selevision has built a robust subscriber base since we launched our entertainment services in 2014 and the outlook for the coming years is bright. By the end of this year, we expect the number of our subscribers to reach one million. We have also secured agreements with major Hollywood content owners, developers and distributors such as Disney Media Distribution, Paramount Pictures, NBC Universal, Twentieth Century Fox, Sony Pictures, Warner Bros and Turner International. The key broadcasters in the region, such as MBC and Rotana, have also partnered with us. We have recently introduced the HbbTV service for the first time in the MENA region in partnership with Arabsat.

How has Selevision evolved in the past two years?

We have moved away from being just a set-top unit manufacturer. Selevision has reinvented itself as an entertainment service provider. Our entertainment services will be available on different set-top units such as Humax, Altech AUC and any other unit that is able to receive our content.

We are growing strong on the over-the-top (OTT) level, thanks to our partnerships with content delivery networks (CDNs) to provide an uninterrupted user experience. We recently signed up with du to use its services hosted at Datamena. Du’s broadcasting services division will provide CDN services from Akamai as well as IP transit service to Selevision, thereby ensuring consistent quality of experience for our subscribers in the region.

What is the role of technology in shaping the media landscape in the region? There are a lot of discussions centred on HEVC – do we really need it? How will it change the TV industry?

HEVC, as we all know, is a compression standard. In order to deliver larger media files, compression is a must. As content moves towards higher definitions, with talks around 4K or even 8K becoming more commonplace, service providers need to find ways to deliver the content in pristine quality to the end users. HEVC gives us that power.

We believe HEVC can revolutionise the way media is viewed in the region. By introducing HEVC compression for HD, we can deliver HD quality at half the price of SD and give the audience a better viewing experience. HEVC enables satellite companies to add many more channels for the same capacity, thereby increasing their
reach. Delivery of OTT can also improve with HEVC as it can cut the size and bandwidth dramatically, which is a boon for areas that don’t have good broadband, which is the case in many MENA countries. At Selevision, we are developing our own algorithm to compress to H.265. A file whose original size is 280MB reduces to 36MB using HEVC, and I reiterate that the reception is not compromised. I won’t recommend it for live sport, but it works perfectly well for films and TV programmes. Better compression will drop the cost of streaming from the consumer perspective and cut down on broadband usage. For instance, one can watch HD channels with just 4MB if the files use HEVC standard. This standard has immense unlocked potential and will lead to new business models and more cost efficiency in the future.

How do you see set-top boxes evolving in the future? With connected devices and internet so widespread, does that augur the end of the set-top box?

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Dr. Raed Khusheim, CEO, Selevision

Recent reports have reaffirmed that linear TV is still going strong, which means set-top boxes are not going anywhere. In Saudi Arabia, a new regulation will enforce pay-TV operators to make their service available on multiple set-top boxes, thereby moving away from proprietary boxes. This will enable viewers to watch content from several pay-TV operators without having to stack up too many boxes. The content will be available through virtual keys and viewers will have the option to pay per view. It’s similar to watching the same channels on different TV sets or using the same mobile handset for different services.

With OTT going strong, what is the future of satellite TV, given that satellite is so strong in the region. Satellite is still going strong in the MENA region and the way forward is to bring the two together by bridging satellite and OTT for value-added services. We have introduced social TV integration in our HbbTV service to make it interactive. Content owners are enabling users to interact with other users on the same platform. The Selevision app is going to be launched in a few weeks. At launch, the service will offer a core programming package with video-on-demand entertainment, live, restart and catch-up TV. The service will require no commitment, contract, credit check or hardware installation. Consumers will be able to tailor their experience with add-on packs for access to additional programming and features on their devices at home and on-the-go. Powering OTT services via wired, Wi-Fi or mobile broadband connection is available, the service will be delivered over supported internet-connected.
devices including select smart TVs, iOS, Android, Mac and PC.

What will Selevision’s HbbTV service offer? We have recently announced our strategic partnership with Arabsat, bringing the Hybrid Broadcast Broadband TV (HbbTV) service to the MENA region. The service will finally be accessible on major broadcasting channels in the region, starting February 2015, to viewers on all HbbTV compatible set-top boxes in the market. The service will be complemented by Selevision’s OTT platform and content library to provide a different viewers experience for the 26 degree Arabsat hotspot. Broadcasters will have access to different standardised applications in addition to the wide possibilities of customised applications, through HbbTV.

Having established a foothold in the Saudi market, are you reaching out to other territories now? We have been strong in Saudi Arabia for the last 15 years, being a wholly owned operating subsidiary of Khusheim Holdings. The natural progression is to reach out to other territories starting with the GCC, especially in the UAE, where our new development and sales offices are located, then across the MENA.

Are you also looking at original production? Production is not our focus area right now. However, we support original ideas and will extend equipment support to up-and-coming filmmakers. We want to encourage Arabic production and will offer production and post-production support for young filmmakers. If someone wants to make short films and put them up on YouTube or create a channel for themselves, we can help them do that. We take it as our obligation to encourage local and regional production. We are looking at interactive, youth-oriented projects that are made by youngsters for youngsters. These initiatives are major influencers in society and have the potential to bring about change. These kinds of shows are useful and entertaining as they give the audience what it wants. U-TURN is one such Saudi initiative that has been hugely successful, we’d like to see more such success stories and extend our help to them.
A SMALL SECTION OF THE WORLD

Award-winning filmmaker Lesley Chilcott was in Dubai recently to present her latest documentary, A Small Section of the World, which will premiere on OSN’s Sundance Channel in February 2015. BroadcastPro ME brings you an exclusive interview with the film’s director.

When asked what makes a film an Oscar winner, Lesley Chilcott says no one knows for sure. Chilcott, who co-produced the 2006 Academy Award-winning documentary An Inconvenient Truth, insists there is no secret formula to winning an Oscar.

“It’s a mystery to me. There are so many good documentaries but we can never tell what makes one a winner. It’s a surprise every year at the Oscars. Everything from craftmanship to storytelling counts, but no one knows for sure what clicks.”

The filmmaker was in Dubai recently to promote her latest documentary, A Small Section of the World. The film is about the coffee farmers in Costa Rica who started the first women-run micro mill in the country. It follows the impact of their perseverance and shows how these women overcame adversity to change the culture within their small section of the world. This film is about women’s empowerment, the risky business of harvesting coffee beans, and how a cup of coffee can transform lives.

Chilcott directs both documentaries and commercial projects and conducted a documentary master class in Dubai during her visit. She has produced longer form documentaries and started directing shorts in 2012. Last year, she directed the short film CodeStars for code.org. It garnered more than 20m views online and was the number one video on YouTube for two days. The film resulted in four million children taking coding lessons.

“A Small Section of the World also began as a short documentary, but the stories of the coffee farmers were so compelling that we made it into a 60-minute film,” she explains.

Chilcott wrote the treatment of the documentary, which revolves around the lives of four lead characters who talk about the coffee revolution in Costa Rica and go back in time to talk about its history and culture. The rest of the interviews are based on their stories, and the viewer learns about the world of coffee farmers through their eyes.

Shot on an ARRI Alexa, the film focuses on a village of female coffee producers in the Talamanca mountains in...
Costa Rica, documenting their lives as they start the first women-run micro mill in their country.

“There are so many good documentaries but we can never tell what makes one a winner. It’s a surprise every year at the Oscars”

Lesley Chilcott, Director, A Small Section of the World

“My DP [director of photography] Logan Schneider and I made a pact in the beginning of the shoot that for interviews we would allow zoom lenses, but for everything else we would use prime lenses, which is very unusual in a documentary.”

Lesley Chilcott, Director, A Small Section of the World

“We are so out of touch with our food. I wanted the opening sequence of the film to be a metaphor for the journey of the coffee bean from the farm to the coffee-drinker’s cup. We wanted to film the whole coffee-making process.”

Lesley Chilcott, Director, A Small Section of the World

“At times, you find something more interesting and there’s no way you cannot include that in the film. As they say, it never happens as planned, but every bit of this journey was worthwhile,” she says.

In all, she conducted 15 interviews, though not all of the women are in the final version, in order to keep the documentary within its time limit.

Chilcott points out that in a documentary, you don’t necessarily want to introduce your audience to a lot of people at the beginning. “The story should gradually build up. Although it was hard not to include all the interviews, the director had to take a call, and the repetitive ones were removed to give way to the most interesting stories.”

Chilcott is now taking Spanish lessons, and the Costa Rican coffee millers are learning to speak English. Not being a coffee-drinker, Chilcott had to do a lot of research on the history of coffee and people’s obsession with it. She flew down for the last of the coffee harvests in November 2013 and ended up making the film in under a year. Interviews being the backbone of the documentary, Chilcott made sure the sound was recorded well.

“We did not use the camera’s recorder but recorded the interviews using a separate digital four-track deck, the Sony DCP50. I shot some additional days. We only had a budget to shoot for a certain number of days, but a lot of times my DP and I would sneak out number of days, but a lot of times additional days. We only had a budget to shoot for a certain number of days, but a lot of times my DP and I would sneak out.

The entire documentary was filmed on a single camera – except for one scene when one of the daughters of a founding member of the coffee mill goes to a conference in Italy, a second camera was deployed for a more cinematic look.

Chilcott says that she followed a roadmap to give the film a structure and keep track of the budget, but there were several detours.

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Andrew Pert, Exhibitions Director at DWTC, shares information on new exhibitors at CABSAT and some important features of the show.

Who are some of the new companies that have come on board this year for broadcast?

Well, we have quite a long list but some of our big first-time exhibitors are Lemo, GatesAir, Digi Robotics, Nexus Focus, Dexel from Argentina, Riz – the first-ever Croatian company to come to CABSAT – and Silver Brain. We also have some companies like Playbox and Studer that have come back to CABSAT with separate stands this year. In previous years, they have partnered with their distributors.

There are also some that have been missing from the action, like Yamaha, who have now returned to the show. Likewise, Panasonic has returned after a two-year absence.

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absence with a big stand.

Across the broadcast halls in general at CABSAT, the big focus is on how people are delivering and monetising content outside of the linear mainstream element. From du to Etisalat to the satellite providers, this is what we can see.

On the satellite side, I am pleased to mention that we have KT Sat, Korea’s leading satellite player. Then, there’s ITC Global, which has a huge presence in North America and is now looking to enter this market. TMC and BHS Telecom are also entering this market for the first time. BHS Telecom is a reseller of bandwidth over Africa from Dubai.

On the content delivery side, we have some interesting players including Perception TV, Endavo, Tulix Systems, ContentWise, Dune HD, Xstream, Alor42 and Amino. Xstream is a major European player that has executed projects for Discovery, Canal Plus, Tele2m, etc. All these companies are coming with new propositions for the region, which again supports the need of streaming video platforms, OTT and IPTV solutions.

We also have major international players for content delivery, including Pixel, Siemens, Gracenote, Civolution, Pace and Deutsche Telekom.

CABSAT, as you can see, is attracting new entrants globally and regionally to the Content Delivery Hub, which has also grown from being just a feature on the show floor to a dedicated hall with a dedicated seminar programme.

Are there any new features at this year’s show?

The Content Market Place is a big one this year, and it’s being headed up and supported by MBC Group. This is where we are looking at different exchange partnerships and monetisation opportunities. Stargate Studios will be doing a demo in this area to showcase some of their Arabic content. Al Muhret Productions, a documentary-focused producer, will be part of this section. We are also expecting to announce some more big names in broadcast, closer to the show, as part of this area.

We also have Stargate Studios doing a provisualisation studio to support Arabic produced content.

If you had to name the top five companies that have returned to CABSAT this year, who would they be?

Within broadcast, I would say Panasonic, ARRI, Yamaha, Inmarsat and Verimatrix.

Du and Etisalat are also taking larger stands to showcase their multi-screen offerings and solutions. MediaCast, Harmonic, Quantel, Imagine Communications, AV Solutions, Aranti and Interlaced are some of the others that have taken much larger stands at this year’s show.

I see you have a special focus on post production this year.

Yes indeed. The Middle East Post Production Training Conference

More than 900 exhibitors from 60 countries are expected to attend CABSAT this year.
The CARBSAT-NAB Conference – we have put a lot more focus on the conference this year. We have several regional and international speakers who will share their own experiences and discuss the management, distribution and monetisation of content across multiple platforms. This conference will also showcase how international entities are making money and on-the-ground companies can make money.

The post-production conference will attract more technical and engineering professionals and we are championing that.

Our satellite hub – We have a three-day dedicated free-to-attend conference on the show floor. In previous years, it used to be a two-day inits-only event.

The Global Meetings programme is being expanded and it is being linked to our mobile app, which is a first for CARBSAT.

CARBSAT Connect is a networking event that is hosted on the first evening of CARBSAT. We have director-level and above representation there and hosted just under 500 attendees last year. It is the largest gathering of industry professionals across the broadcast, satellite and digital media space.

The SME zone has been especially created for the small players. Dubai Film has taken a 300sqm stand this year. They have all of the latest filming equipment and production kit, which they rent out on a much reduced price or a much lower investment than you would have to pay normally. It is the Dubai Film and TV’s resource arm and champions the production of local content.

We are also pleased to announce that the MENA Anti-Piracy Coalition will hold their directors’ meeting on the first evening of CARBSAT. They will have a dedicated session within the CARBSAT-NAB Conference to speak about the region’s strategy on anti-piracy.

If you were asked for the top ten reasons to visit CARBSAT, what would those be? Our Content Marketplace – this is the new feature we are developing. Content, Delivery – this is happening on a much bigger scale this year.

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The way we consume video is changing. The latest research from IDC suggests that the market for smartphones will grow to 1.4 billion worldwide in 2015. Other research from ABI suggests that almost half of those – 676 million – will be equipped to use the latest and fastest 4G/LTE networks.

Increasingly, these units are coming from emerging manufacturers in China, resulting in falling prices. The global average selling price of a smartphone was $297 in 2014 and is forecast to drop to $241 in 2018. But the rich Western markets, with their reliance on big brand names, mask an even bigger price erosion. In India, for instance, where low-cost vendors dominate, the average selling price for a smartphone is already as low as $135, and could be down to $102 by 2018. These figures are from an IDC report published in December 2014.

Consumers want video content on smartphones. They also expect to view television on tablets and computers, as well as standard definition and HD television sets. What they do not want is to think about the complexity of serving all those different resolutions (not to mention codecs, wrappers and streaming formats). This is an IT problem. It is practical to set up a process whereby all of these digital variants can be created from a common master file – on the condition that the content exists in a file in the first place. It is the only driver for handling all content as files. So that is the first driver for handling all content as files: it is the only practical solution to multi-platform delivery.

We are, of course, already used to handling content as files in a relatively long-established part of the broadcast environment. The video server is just a big computer data store which provides random access to pieces of content, serving multiple simultaneous users. Video servers are an accepted – probably essential – part of any installation.

Until now, though, we have tended to treat the rest of the infrastructure the way we did in analogue days. Signals are carried on coaxial cables, switches are broadcast.
There are a number of initiatives to make IP circuits like Ethernet work the way we want them to, to deliver the signals in a very tightly defined timescale. The IEEE came up with AVB, which has a precision time component (you may hear people talking about IEEE1588). SMPTE 2022 is another standard in the same field.

For now, the details of the technology are not important. The key message is that we have come up with clever ways of sending real-time video over standard IT hardware, switched from the likes of Juniper and Cisco. At the same time we have developed software which runs standard broadcast processes on standard computers. The result is that we face a future where practically everything we want to do in production, post production and delivery can be accomplished with software running on standard IT platforms, and we can move signals – in real time or at any other speed – using standard IT connectivity.

If we can run on standard platforms, then we benefit from the massive scale in the IT industry. The most recent IABM study sets the value of broadcast products at around $20 billion a year. Apple invests around $6 billion in research and development a year, and Cisco spends about the same. Intel’s R&D budget is more than $10 billion. So those three companies – not the whole of the IT industry, just those three players – spend more between them on innovation than the total turnover of the whole of the broadcast industry. We would be foolish not to take advantage.

In the future, most broadcast processes will run in specialised software on an inexpensive standard platform. Rather than a box per function, we will have software running on blade servers, providing virtual machines, reducing still further the amount of hardware we need. A box could be automatically creating trailers and graphics sequences until there is a spike in demand for transcoding, when smart software will reassign the priorities.

Workflows will be defined as software, not by stringing pieces of equipment together. The workflow management software will control the hardware and select the resources. It will also report back to business systems how much each process costs, and where investment is needed to ease bottlenecks. This reliance on IT does not mean the need for broadcast engineers.

The television industry has unique requirements. There is the technology of delivering flawless audio and video, the security implications of protecting the content from piracy, the complex and dynamic challenges of integration for playout, the need to maintain quality across a broad range of devices, and so on. With traditional technology, broadcast engineers entered the industry and stayed there because their skills were not readily transferable. The broadcast engineer of the future is going to be equally valuable and vital to the smooth running of the industry, but the skills they are going to be more portable, and staff could move from, say, Al Jazeera to Aman to MBC to Microsoft. Senior managers need to recognise these three things. First, that the transition to IP-centric operations is inevitable, and they should develop plans for their transition. Cabsat 2015 will see presentations on this from a number of market leaders, and if you are not already having this conversation, Cabsat will be the place to start. Second, broadcast engineering in the future will be a much more portable skill. You need to have a strategy to provide continuing personal development for your engineering staff to meet the new challenges and to keep them on your team. Third, the broader industry need is for everyone – manufacturer and broadcaster – to find ways to connect with the young people who will be the engineers of the future. Engage them at school, through workshops, internee schemes and visits, and they will make the right subject choices to become a broadcaster. To keep them on your team.

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MENA MEDIA IN THE SPOTLIGHT

With greater focus on the growth of the MENA broadcast technology sector, CABSAT returns with a host of new features and enhanced offerings this year. We bring you a sneak preview.

The MENA broadcast and satellite industries will be in the spotlight at CABSAT 2015, where leading players will examine how global media and entertainment organisations are driving innovation into their businesses and content offerings amid the convergence of international broadcast, film, production, internet, telecom and consumer electronics sectors.

The show, which runs from 10-12 March at Dubai World Trade Centre (DWTC), will present three days of disruptive trends delivering transformational change to the region via a roster of new and enhanced features. These include specialist conferences and training sessions, satellite talks, the all-new Content Market Place, featuring MBC Group and Stargate Studios, and an enlarged Content Delivery Hub—a key attraction for exhibitors specialising in anywhere and everywhere connected content platforms.

CABSAT 2015 is due to welcome more than 900 exhibitors from 60 countries, and boasts an expanded conference format featuring the second annual CABSAT & NAB Show Collaborative Conference and the inaugural Middle East Post-Production Training Conference.

Broadpeak’s Nano CDN
Stand B4-31

At CABSAT 2015, Broadpeak will demonstrate how the CDN can be extended to the base station by deploying nanoCDN technology onto a mobile edge computing platform. This is one example of how Broadpeak’s strategic approach to a “nanoCDN on the go” can leverage base stations in a mobile network.

Special Feature
CABSAT Connect

CABSAT Connect will return with more than 500 senior executives meeting industry peers and recognising top industry players at the dedicated evening networking event, while the CABSAT Global Meetings Programme will offer an enhanced one-to-one networking platform for all senior-level executives on the show floor. The launch of a new mobile app will allow executives more capacity to search and schedule meetings with the most relevant global and regional companies before the show.

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What’s New

The Middle East Post-Production Training Conference

The inaugural Middle East Post-Production Training Conference will boast two full days of world-class training presented in partnership with Future Media Concepts, Dubai Studio City and the Dubai Film & TV Commission. Delivered by certified instructors for Apple, Adobe and Avid amongst others, these sessions include tutorials on timelapse photography, video compression, LLC and RAW video, green screen production and web video production strategies, as well as technical guidance on software programmes such as DaVinci Resolve, Blackmagic Design cameras, GoPro cameras, Apple Final Cut Pro X, Premiere Pro, Sync Sound Workflow, Adobe Photoshop for broadcast graphics and video and Avid Media Composer.

The presenters at the Post-Production Workshops will take the attendees through the production and post-production chain. Richard Harrington, PMP, President and Founder, Rhed Pixel will speak about timelapse photography, GoPro filming and web video production, among other topics. Robbie Carman, Vice President & CTO, Amigo Media LLC, will address DaVinci Resolve and introduce Blackmagic Design cameras. The third speaker, Jeff Greenberg, President at J Greenberg Consulting, will talk about video compression, Avid Media Composer and finishing techniques for broadcast. He will also host a class on Apple Final Cut Pro and Adobe Premiere Pro.

Exhibitor

The Tedial Exchange Stand C3-60

CABSAT 2015 will see the Middle East launch of Tedial Media Exchange Platform (MEP). Employing Tedial’s new Media Exchange Platform, content producers, broadcasters, pay-TV operators, service providers and telcos can work collaboratively on media. Whether it’s upstreaming during news, sports or co-production or downstream during multi-platform packaging and distribution, Tedial has directly integrated multi-tenant media exchange into its core media workflows, managing multi-format content exchanges centrally.

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The CABSAT NAB Show Conference

Corey Bridges, one of the original directors who launched Netflix in the USA, the founder of Multiverse, CEO of Lifemap Solutions, and a member of the Producers Guild of America, will headline the CABSAT & NAB Show Collaborative Conference. Bridges will highlight his experiences building disruptive and innovative content companies such as Netflix and James Cameron’s 3D technology company, as well as exploring how the business and production of multi-platform content is moving beyond delivering interactive content and towards fully-immersive, trans-media experiences.

Caroline Frost, Media & Entertainment, Editor, Huffington Post, UK will address the critical issues and dynamic competitive forces which are disrupting conventional business models in the broadcast world, together with the effects on entertainment and news.

Martyn Suker, ITV’s Director of Production Innovation, will highlight how the UK broadcaster delivers the financial and creative results to drive content innovation for its broadcast and OTT channels, including ITV player.

Mariano Bosaz, Group Digital Director, Eurasia Africa, The Coca-Cola Company, will host a master class in creating engaging content for all brands, by one of the biggest brands in the world. The presentation will cover Coca-Cola’s strategy across digital, video, FM studios, mobile and even innovative augmented reality product labels – to truly deliver a Coca-Cola

Colin Morrison, VP Ericsson TV & Media Business, will conduct the Ericsson Mediaroom master class. He will present how Ericsson is working with the most advanced TV service providers in the world including AT&T, Deutsche Telekom AG, Portugal Telecom, TELUS and Swisscom to anticipate the future and deliver innovations that help realise the greatest advantage in a highly dynamic environment.

Vidchecker arrives

Stand D3-45

Vidchecker will exhibit for the first time at CABSAT 2015 with the latest versions of the company’s Vidchecker and ‘Vidfixer’ products, which provide automatic quality control (AQC) and correction of file-based media in broadcast workflows.

Vidchecker is a second-generation auto QC product. Running on standard PC servers, each Vidchecker can process four files in parallel, and can be scaled from single- to multiple-licence usage. It is integrated with several workflow management systems for a fully automated workflow.

4 new satellite launches promise to serve the other three billion

EIAST’s Super Resolution Tool

PicTURE PeRFecT

Teleports must cooperate for greater success in broadcast

Collaboration is Key

TECHNOLOGY INTELLIGENCE FOR THE SATCOM MARKET
“Gathering metadata is a critical part of the metadata management process, to be sure, but it’s only half the process. What people tend to ignore is the other piece of metadata management – ensuring that the metadata is secure and archived.”

Metadata Management

Media content consists of both essence (the content itself) and its associated metadata. Everybody acknowledges that the metadata is important for classifying and locating content, so media companies tend to put a lot of thought into collecting and managing metadata. The idea is to ensure consistent, thorough metadata collection so that users can find and remonetise specific pieces of content.

Gathering metadata is a critical part of the metadata management process, to be sure, but it’s only half the process. What people tend to ignore is the other piece of metadata management – ensuring that the metadata is secure and archived.

Media companies tend to focus so much on securing the actual content that they put little, if any thought, into securing the associated metadata, which is often stored in another database, separate from the content itself. If you lose the metadata, it is nearly impossible to find the right video in a timely manner, let alone a specific subclip or frame of video, rendering a timely manner, let alone a specific subclip or frame of video, rendering a timely manner, let alone a specific subclip or frame of video, rendering the content library practically useless.

Even so, most people don’t often think beyond protecting the content.

A best practice for protecting your metadata is to ensure that, while you’re backing up your content, you’re also backing up and archiving your metadata database. Most production workflow asset tools, whether a media asset manager or production asset manager, can tie the metadata back to the content, but only if the metadata is securely maintained. If the metadata is lost, the search capability is essentially lost with it.

Therefore, when designing a storage infrastructure for a file-based media operation, it’s a good idea to consult with your media asset management (MAM) provider to define a standard for backing up and archiving your metadata. Your MAM provider will work with you to build schemas that define how the metadata will be collected, stored and managed, and how it will relate back to the actual content, so it makes sense to add metadata security to the list.

Securing the metadata should start when capturing the content and continue through every stage in the lifecycle of that content, with an increasing amount of metadata being captured at each stage of production. For example, in the acquisition stage, if you acquire the content electronically, you can design the acquisition schema to test any content that comes in to ensure that the associated metadata is embedded in the file. Then you can supplement the incoming metadata with your own additions to complete the schema.

The media asset manager might strip that embedded metadata from the file, read it and then re-embed it. At that point, the metadata should be backed up for safekeeping. Similar redundant copies of metadata should be a requirement, just as it is to archive content on ingest. As metadata is added during editing, audio sweetening and colour correction, finishing and delivery, it should be secured and backed up during the process.

In most systems, the metadata resides on one set of disks – essentially in a single workspace – while the content resides on another. The locations are separate simply because, based on the file sizes, the access patterns are different.

Once you and your MAM vendor have determined your schemas and archiving protocols for every stage in the workflow, then it’s a matter of filling in the metadata from there. The metadata should be continually backed up while the work is in progress. In the end, when it’s time to archive the content, you also want to archive the metadata along with it, for remonetisation purposes.

Securing metadata means losing the link between the media asset manager and the content. The best way to maintain that link and ensure content continues to be discoverable and monetisable is through an aggressive policy of metadata backup, starting in the earliest stage of the workflow, and then archiving the metadata at the end, just as you do the final content.

Securing metadata is something that you might not think about, but it’s every bit as important a part of the infrastructure as storing and securing the content itself.

Alex Grossman, Vice President, Media and Entertainment at Quantum.

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