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Sky News Arabia puts new spin on broadcasting with groundbreaking technology

INNOVATORS

BLACK BEAUTY
Exclusive review of the Blackmagic 4K camera

CASE STUDIES
• Al Mada launches in Iraq
• DVB installation in Qatar
• HD/3G upgrade in Dubai

CABSAT celebrates its 20th anniversary this year and what better way to participate in this celebration than with exclusive stories of disruptive innovation from the region or from Arab entrepreneurs.

Our cover story this month is about a visionary CTO who suggested a budget of USD 250,000 to enhance an existing facility to meet the objective of ensuring that journalists at its breaking news channel could create content anytime, from anywhere.

When they later discovered that the facility wouldn’t be ideal for the job, he stuck by the original budget and went on to design and engineer a groundbreaking solution from scratch that is likely to leave you speechless, primarily because most other broadcasters - both locally and regionally - undertaken similar projects with much higher budgets.

I also had the pleasure of interviewing a US-based Arab, Mohammad Shihadah, who has been involved in developing human language technology for the last 24 years. He says that technology today enables broadcasters to provide content not just anytime and anywhere but “in any language”. It’s interesting to hear what he has to say about the power of media monitoring, audio fingerprinting and how machine translation can contribute to creating rich metadata.

We also bring you stories from various corners of the Middle East this month as well as interviews with several key figures in production and broadcast.

The icing on the cake, however, is an exclusive review of the Blackmagic 4K Production Camera that we managed to receive from two Dubai-based filmmakers just before going to press, and this is our gift to you this CABSAT.

While you’re at the show, don’t forget to drop by our stand - D7-41, and pick up a copy of the Pro50 book, our guide to the top 50 companies in the region.

We look forward to seeing you at CABSAT!
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www.master-media.tv
Ooredoo implements global media network for beIN SPORTS

Ooredoo has implemented a new sports contribution network for beIN SPORTS, which will enhance the quality of HD video shared between Paris and Doha and broadcast across the station’s diverse range of channels. Ooredoo partnered with European Broadcasting Union (EBU) to integrate and deploy the contribution network. Using the new international network, beIN SPORTS will transmit HD coverage of the major European leagues that it has the exclusive rights to direct from studios in Paris. This will include Spanish La Liga, the French Ligue 1 and the Italian Serie A.

MediaGuru opens office in Dubai

Global media services provider MediaGuru is set to open an office in Dubai Media City to cater to its growing customer base in the Middle East and Africa. BroadcastPro ME can reveal. The 1000 sqft office will initially be operational under a Dubai-based CEO and four additional staff including sales and support staff.

Sanjay Salil, CEO of MediaGuru said: “We are delighted to announce the opening of our new office in Dubai. We will provide consultancy in strategy, implementation, training and all aspects of broadcast to our customers. Knowledge of delivery, however, will continue to be sourced from India.”

The Indian company has plans to expand its footprint in the region and the new office is a step forward in that direction.

“We are presently hiring for our Dubai office. We have secured significant projects in Libya, Qatar and Bahrain and a local presence will bring us closer to our customers,” added Salil.

CMS secures Kalba deal from Sharjah TV

CMS (Creative Media Solutions) has recently signed a contract with Sharjah TV to provide staff for its newly operational Al Sharqiya TV from Kalba. CMS is well-known for training people and placing them in specific roles in various TV stations and broadcast facilities.

CMS has offices in Baghdad, Beirut, Syria, Cairo and Dubai Media City and operations throughout the Middle East and North Africa. CMS is well-known for training people and placing them in specific roles in various TV stations and broadcast facilities.

Commenting on the project, Ghassan Alasad, Managing Partner at CMS commented: “We provided 33 odd staff for this project. We offer consultancy services to broadcast projects and undertake commissioning for TV stations. We have successfully undertaken similar projects in Al Rayyan TV, Libya; Al Ahram and several other facilities in the Gulf and North Africa.”
ETL Systems to open Dubai office, Mather Ali to head ME operations

Mather Al-Ali has been appointed as International Sales Manager for ETL Systems to support existing and future projects in the Middle East. ETL will be opening a Middle East office based out of Dubai to support the regional business development plans.

Al Ali will be responsible for developing sales opportunities in the Middle East and North Africa and will now be the main contact for these regions. He has brought with him more than 18 years of sales management experience targeting the Middle East and African broadcast and surveillance markets. Mather’s past work includes regional sales for companies such as Vislink, Avid and Sony Broadcast & Professional. Mather also brings with him satcomm RF expertise to further support ETL’s regional clients.

Arabsat, MICT sign capacity agreement for Africa

Arabsat and Morgan Company for Information and Communications Technology (MICT) have signed a capacity contract at 20 degrees East. Under the agreement, Arabsat will provide Morgan with satellite capacity on the Arabsat 5-C satellite, providing full coverage of the African continent in addition to Arabsat’s coverage of the Middle East and large parts of Asia and Europe. According to MICT, the first stage of this contract will see the building of two ground stations in Africa, with plans for expansion in the coming years.

Du upgrades TV and VOD

Dubai telecommunications company du has upgraded its IPTV and video on-demand (VOD) service interface to provide subscribers with a better browsing experience. The upgraded VOD service interface will include a free of charge and offers a new storefront, an additional ‘Favourites’ section, subtitles, and a new viewing options menu and channel search.

UBM builds new service centre

Dubai-based distributor United Broadcast and Media Solutions (UBMS) is building a new service centre to service its clients better.

Construction of the new centre, which will be located in Gharehoud on Airport Road in Dubai, close to the UBMS headquarters, has already begun. Built over an area of 1,450 sq. ft, the new centre will not only offer larger space but will also be more customer-oriented, according to Peter Kyriakos, Head of Marketing at UBMS.

“We are trying to provide our customers with a comfortable environment in which they can address their service needs,” explained Kyriakos.

“The new service centre is tentatively scheduled to open in April 2014.

Belden to acquire Grass Valley for USD 220m

Signal transmission solutions provider Belden Inc. will purchase Grass Valley for USD 220m and combine it with Miranda to give customers access to a complete end-to-end solution. The transaction is expected to close by March 31, 2014. Grass Valley’s present head Tim Thorstenson will step down and Miranda’s President Marco Lopez will head the combined businesses, which will come under the name of Grass Valley.

An FAQ published on the Grass Valley web site stated: “By combining intellectual property, engineering talent, market access and manufacturing capacity, customers will have access to the most complete, innovative product offering available. Belden believes that the ability to purchase an end-to-end solution from the combined businesses will reduce complexity and increase functionality, ease-of-setup, and maintenance and operability. In addition, you will have access to the most comprehensive, innovative products in the broadcast infrastructure industry through one organisation.”

Brightcove launches office in Dubai

Video service provider, Brightcove, will expand its operations in the Middle East, with an office in Dubai. The office will serve as the central hub for Brightcove’s business development and marketing efforts in the MENA region. The new office will be headed by Brahim Laraiki, Regional Director, MEA, who has previously held positions with Orange, Lenovo and Microsoft.

The Dubai office will service Brightcove’s existing clients and also introduce new services to the region. The company has installation at Al Jazeera for VOD and live streaming content in English and Arabic. ADM uses the Brightcove platform for online content delivery. It is also presently working on a project with The National newspaper and CNBC Arabia, among other regional entities.

DIFF announces dates for 2014

Dubai International Film Festival (DIFF) has announced that the 11th edition of the festival will run from December 10-17, 2014. Over the past 10 years, each area of the festival has demonstrated robust growth with the decennial edition being the most successful to date. DIFF claims that attendance to its 2013 edition was almost 150% more that its inaugural edition in 2004.

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Exterity has announced the launch of a joint offering with Hambisana, a technology and service provider with particular focus on DVB over IP, to offer Sub-Saharan companies flexible IPTV systems. The joint offering launched by Exterity and Hambisana includes IntuiTV, an IPTV and VOD architecture; and DigiLant, a DVB monitoring suite. This configurable software-based solution comprises Mosaic, DVB monitoring, TR 101-290, advertising monitoring, EPG and loudness.

"The Exterity products will fit in nicely with Hambisana’s IntuiTV suite. The combination of our technology and Hambisana’s local knowledge and expertise enables us to provide the leading IPTV solution delivery throughout the Sub-Saharan region,” said Colin Farquhar, CEO, Exterity.

Chris Anning, who previously served as Acting Director of Broadcast at Al Jazeera Network, has joined specialist consultancy Master Media as Senior Projects Manager. Anning’s first assignment at Master Media will be to project manage the technology implementation of Al-Arab News Channel in Bahrain, where he will coordinate the complex work streams of various vendors, contractors, and service providers.

Master Media has been providing consultancy and launch support services to Al-Arab News Channel since 2012. Commenting on Master Media’s services in the region and the new appointment, Hasan R. Sayed Hasan, Founder and Managing Director of Master Media said: “Our client portfolio has been rapidly growing and diversifying over the last couple of years and our team has been enriched with additional expertise and skills. I’m very delighted to have Chris on board with his valuable experience working both with broadcasters and systems integrators. This appointment will strengthen Master Media’s offering, where we work with our clients, especially new broadcasters and media entities, to help them deliver their projects professionally and more efficiently”.

Anning has more than 30 years of experience in the broadcast industry, of which several years have been spent in the Middle East.

Prior to working at Al Jazeera Network, Anning served as Head of Systems Integration and Senior Project Manager at Sony Professional Solutions Middle East and oversaw Oman TV’s HD migration project.

John Aslett joins MGI as MD

John Aslett has been appointed MD of Media Group International (MGI) to oversee the company’s operations across the region. Based in Dubai, Aslett will also take over the role of outgoing Sales Director, Paul Walls. Aslett was previously heading Avid Middle East.
Abu Dhabi Media (ADM) has installed its fifth Calrec Omega digital audio console. The console was first used in August 2012 in ADM's London studio during the 2012 London Games and has since been moved to its Abu Dhabi studios for mixing audio during live sports news and sports programmes.

“The mixer is designed for live TV broadcasting and is one of the most reliable desks on the market with one of the fastest cold-start times available, which was an important requirement for us,” said Abdul Faid, Kabani, Head of TV Engineering and Maintenance at ADM.

“We used to have an analogue audio mixer, so for audio embedded in SDI, we needed to use an external de-embedder. The Omega provides that functionality as well as the ability to create multiple projects and load them instantaneously. The console is extremely reliable, with multiple backups as standard in critical areas like control and DSP.”

The Omega console gives ADM the reliability and ease of operation it lacked with its old analogue console, along with the ability to de-embed SDI embedded audio. It also met ADM’s key criteria for a modular, expandable system that easily connects to ADM’s other Omega desks via the facility’s existing Calrec Hydra audio-routing network.

Kabani, Head of TV Engineering and Maintenance at ADM.

**PRO NEWS**

**ABU DHABI MEDIA INSTALLS OMEGA**

Gerd Leonhard to speak at Capacity Middle East

95% of future growth in internet will come from so-called developing countries, according to media futurist Gerd Leonhard. The futurist will be speaking at Capacity Middle East, which takes place alongside Smart Media Middle East in Dubai from March 3-6, 2014.

Leonhard said: “We are in the final throes of the complete convergence of telecommunications and media.

He calls this “telemedia”, and it has profound implications for telecoms.

“Companies competing through ever faster data and higher performing infrastructure will be competing towards zero”.

According to Leonhard, new business models will be required to generate revenue, incorporating services like education, payment and entertainment content, especially video.

Cisco estimates that within five years, 80% of internet data will be videos, primarily from OTT players like Netflix and Facebook. Companies like Facebook are already sitting on top of the telco’s, using ever more data but with no responsibility for the infrastructure. Such business models will require much improved IP connectivity.

Kuwait TV chooses Harris Broadcast for DVB-T2 project

State broadcaster Kuwait TV has selected Harris Broadcast’s distribution and over-the-air transmission technology as part of the country’s first end-to-end DVB-T2 implementation. Kuwait TV has embarked on the transition from analogue to digital transmission in a bid to attract more of its population to watch local television over the air.

“We are proud of this regional first – leading our customers in the Gulf state toward a digital broadcasting future that reinvigorates the medium,” said Mathias Eckert, Vice President, Europe, Middle East and Africa for Harris Broadcast.

“Kuwait TV selected the Harris Broadcast solution as they wanted a single vendor they could trust, and together with our local dealer Satellite Communications Company, we proposed a solution that was simple and robust. The integrated Harris Broadcast technology enabled Kuwait TV to rapidly address the market demands for top quality, high-definition channels from its viewers. Kuwait will be covered using Harris Broadcast Maxvix UXL solid-state transmitters – ranging in power from 1kW to 2kW – in a single frequency network configuration. The Maxvix UXL UHF liquid-cooled, solid-state transmitter provides today’s over-the-air multimedia broadcaster with one software defined transmitter platform capable of multiple modulation schemes. Using a single frequency network configuration, Kuwait TV can use the spectrum available, thereby maximising the number of high definition television channels the national broadcaster can transmit.”

“DVB-T2 is a key component in rolling out high capacity over-the-air television in national markets such as Kuwait. What we bring to the market is not only highly stable and power-efficient transmitters, but also a complete Digital Terrestrial TV (DTT) solution using the Selenio media convergence platform as the encoder and multiplexer. The modular Selenio platform allows us to create a solution that is tailored precisely to the needs of the customer, then deliver a transport stream to any number of transmitters in an efficient single frequency network. We are sure that other broadcasters will follow Kuwait’s lead as they look to roll out high quality, high capacity DTT networks in the region,” Eckert added.

The network is fed from a single Selenio M3CP platform at the headend. Fitted with 12 HD encoders and two multiplexers, the Selenio platform generates the DVB-T2 transport stream at the headend. This is fed to the three synchronised transmitters.

TiVo to acquire Digitalsmiths

TiVo Inc. will acquire Digitalsmiths, which offers personalized video search, recommendations and browsing, social trending, and mood-based discovery, which can be used to instantly connect consumers to the most relevant movies, TV shows and live events available, at any time, on any screen including set-top boxes, tablets, smart phones, computers and gaming consoles. Digitalsmiths presently works with 46 broadcast US and international service providers including some of the top 10 pay TV operators in the US, content providers and consumer electronics manufacturers.

Al Aan TV switches to 16:9

Al Aan TV recently shifted to a 16:9 widescreen format. Speaking about the shift, Raed Haddad, Head of Technical at Al Aan TV, said: “There are many benefits that favour 16:9 widescreen broadcasting, which include the artistic and picture-making possibilities; ability to move an important feature in the picture away from the centre to create more overview or the possibility of improved alignment of fore and background elements.”

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A major Egyptian free-to-air satellite broadcaster has ordered desks and monitor display supports from Custom Consoles for its Cairo headquarters. The order includes a Module-R production control desk with a media wall monitorscape, a Module-R sound control desk and three SystemTwo height adjustable edit-suite desks. These form part of a recent completed upgrade to the network’s engineering infrastructure.

A 6.7 m wide by 1.2 m front-to-back structure, the production control desk faces a centrally located 4.85 m wide Custom Consoles media wall. The Custom Consoles media wall supports 46-inch flat-panel display screens mounted as a panorama, along with Genelec loudspeakers. Additional display screens are attached directly to the production control desk via Ergotron adjustable monitor support arms.

**Turkey selects Litepanels**

Turkish Radio and Television Corporation (TRT) has selected a range of fixtures from LED lighting pioneer Litepanels, for its new studios in the company’s Ankara headquarters. Litepanels’ regional partner in Turkey, Asimetrik Sound Lighting and Visual Systems, managed the TRT installation.

The two studios, home to the network’s rolling and hourly news programmes, have been installed with 82 of Litepanels’ renowned 1x1 Mono daylight fixtures, together with a range of 2x1 manual yokes, which mount two 1x1 fixtures side-by-side. TRT has been operating out of its Ankara base for more than forty years, and transmits a wide array of international and domestic programmes, from news and live sports, to popular music and magazine programmes. The Litepanels’ equipment was selected as part of the organisation’s bid to improve efficiencies in both costs and energy savings across its multiple studios.

**Sennheiser fine tunes RedFest**

Sennheiser audio equipment was used at the recently concluded RedFest music festival in Dubai. The primary microphones used by the performers were a combination of Sennheiser SKM 5200-II transmitters with MD 5235 capsules, and Evolution G3 500 series with e935 capsule, some of which included aesthetic customisations requested by the performers. Sennheiser EM 3732-II receivers and an ASA 3000 active wideband antenna splitter were also deployed and monitoring was enabled via Sennheiser 2000 series.

Rental company Delta Sound’s seven-person team managed the entire audio system setup in just one day and successfully completed all tuning and testing before the arrival of the performers.

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**Etisalat and Star collaborate**

E-vision, the TV arm of Etisalat, has partnered with Star TV to offer 17 new channels as part of its eLife TV Choice Asian Basic package.

The channels feature programmes in six languages, with content ranging from top-rated television shows to Bollywood entertainment and breaking news.

Speaking about the deal, Humaid Rashid Sahoo, CEO of E-vision, said: “This is a big step forward for the UAE TV industry and should excite all eLife TV subscribers as we continue to offer more channels, greater choice and flexibility. We have endeavoured to bring the market’s favourite Star channels that will provide greater value to our offerings with legitimate access to such content in the UAE.”

Sumo Dutta, Country Head – Middle East, Africa & Pakistan, STIR, added: “This is a landmark initiative in our quest to reach out and make the top watched and favourite Star channels available to the widest set of viewers.”

**Signiant makes key appointments**

Signiant has increased its sales and support staff following the recent appointment of Greg Hoskin as Managing Director. Hoskin looks after Europe, Middle East and Africa as well as the Asia Pacific markets.

Recent additions to the global team include Jonathan Lunness, James Mansfield, Jamie Lakin, and Steve Gibson, all based in the UK.

Prior to Signiant, Lunness – Regional Sales Director – most recently was a consultant to broadcasters on all aspects of file based workflow, automation, DAM, and server based operations.

**EXTREME PRODUCTIONS adds TEMPEST TO INVENTORY**

Clear-Com distributor Nicolas Kryemmitis Electronics Enterprises has supplied Tempest 2.4GHz wireless intercom system and the Encore Partyline system to Jordanian AV rental company Extreme Productions LLC, which recently set up a branch in Dubai Investment Park.

The Tempest system includes a single 2.4GHz CM-244 master station, 10 CP-242 4 channel belt packs and an CCT-RF antenna.

The Encore partyline includes a single PS-704 power supply, a TWC-701, eight RS-703 wired partyline beltpacks and 19 CC-300 single ear headsets.

“One of the reasons we chose the Tempest system is that it works on the 2.4 GHz frequency range,” commented Vincenzo Testa, Technical Director at Extreme Productions. “It provides us with the benefit of utilising the system over the Middle East without having to worry about licensing or frequency spectrums from country to country,” he added.

**BroadcastAsia2014 to showcase latest broadcast trends**

Social media, big data analytics, OTT, multi-platform screening and CYOD (choose your own device) have been cited in various industry reports as some of the key trends to watch in 2014. These trends are fuelled by a steep increase in consumption of data and entertainment on mobile devices, with mobile data traffic in Asia Pacific expected to exceed the rest of the world by 2017.

End users now seek reliable and seamless services on the go; and the industry is responding with a proliferation of cutting-edge solutions including connected devices, multi-screen broadcasting, satellite mobility applications and ultra HD, across CommunicAsia, EnterpriseIT and BroadcastAsia will enable companies to explore sustainable business models to remain competitive and current,” Victor Wong, Project Director of Communication Events at Singapore Exhibition Services commented.

The application of these technologies will be intertwined throughout the three exhibitions and conferences. Visitors will not only get to experience the convergence of technologies, they will also get to unlock new business pathways with access to networking with major global industry players.

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A six-month audit of view’s performance includes key recommendations on how to ensure the UAE’s TV audience measurement is on par with global industry standards. Chris O’Hearn takes us through the recommendations.

**In most countries, the census determines the shape of the panel but we don’t have accurate data here [in the MENA region], so the Establishment Survey takes that role as well...**

used a random street intercept method. This was partly also because the length of the survey, at around 40 minutes, traditionally requires face-to-face contact.

There’s another regional issue at play here, which is the lack of census data. In most countries, the census determines the shape of the panel but we don’t have accurate data here, so the Establishment Survey takes that role as well, adding to the importance.

CENSIS thinks a random phone dialing method would be more acceptable but it is important to be clear that they are not saying the current panel is unrepresentative or should be scrapped.

The current methodology isn’t wrong, they simply believe that a phone-based method would be more probabilistic.

Even that is not without issues, such as gender bias – women are less likely to answer – or how to account for multiple phone ownership, which increases the chances of wealthier people being contacted. These have to be accounted for, just as the questionnaire has to be condensed, and we will pilot this method and review the results with CENSIS in the coming weeks.

**Compliance**

The second, and more important issue, was compliance. People meters rely on the individuals watching TV at home to register their viewing using a small device like a TV remote.

If they don’t comply, then the household viewing is recorded, but we don’t know how many individuals were watching or their demographics, losing a key feature of people meter data.

The worst group are UAE nationals, which is even more unfortunate given that they are the smallest sample. Arab expats were also poor at compliance, together hovering around 50%. It doesn’t mean the data is wrong, just that it is more volatile and less robust than we would like. 

An alternative proposition is that this was an Asian audience measurement system we would have fewer problems solving this is not easy. International standards are for 90% compliance and, personally, I doubt we will ever reach this, though we will try.

For example, we offer incentives to panelists. But how can we incentivize a well-off Emirati family in a six-bedroom villa, in the same way as a Keralite-lahouare in a bachelor household with six people? In any case, the evidence is that incentives have only a short-term effect.

Motivation is a key driver, but again the diversity of our population makes this difficult. Emiratis may be moved by the fact that this initiative is supported by the Federal Cabinet, but others may find the hint of government involvement somewhat alarming.

This is an area, which will require many different, targeted approaches and a lot of trial and error.

**Privacy**

Finally the other area for improvement is the number of unmonitored screens arising from strong resistance to placing people meters or TVs in the bedroom. Often we are told, there is no screen there, and our technicians can’t really go around opening doors.

This is perhaps a regional cultural issue based on privacy sensitivities. On one level it is easy to say that anyone unwilling to have a meter in the bedroom should simply be excluded from the panel. But let’s assume those are more conservative people, then one has to wonder if the viewing is properly representative if the panel is made up of more liberal families.

And it isn’t as easy as just saying we should use another technology. For example, recent trials in audience measurement have been around smartphones, and while promising it has also been noted that phones are regarded as a very personal device by their users and may face even more resistance to being monitored.

**Standards...the broadcast engineering world is full of them, with good reason. They ensure that 1080i is the same, whether you’re in Dubai or Dublin, that XM data is readable in Berlin or Beirut. It avoids the possibility of human error and interpretation. But when we are dealing with humans, as in the case of audience measurement, standards become more difficult as we are seeing from the results of a full external audit of EMMC’s tview people meter system. Regardless of results, the audit itself is a positive step, commissioned jointly by the EMMC shareholders and by the CHROC Group on behalf of MBC and DMI.

The most basic step in setting up this system was fully transparent to the protects of data collection and processing that arise from regional characteristics. In the UAE, management and data processing were implemented well. Fieldwork, staff, panel and equipment used were also poor at compliance, together, increasing the chances of wealthier people being contacted. These have to be accounted for, just as the questionnaire has to be condensed, and we will pilot this method and review the results with CENSIS in the coming weeks.

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Building a broadcasting solution with a multi-million dollar budget, a systems integrator and tried-and-tested technology is easy. What happens when you have none of the above? In an exclusive interview with Vijaya Cherian, Sky News Arabia’s CTO Dominic Baillie and his team talk about how they designed and engineered a solution that has never been attempted before.

Sky News Arabia (SNA) embarked on a cutting-edge project last year that was finally completed last month and will be rolled out to its bureaux this quarter. The project was undertaken with the intention of truly empowering its journalists to provide content anytime, from anywhere to the channel’s viewers.

To enable this, the technical team at SNA, headed by CTO Dominic Baillie, engineered a futuristic system in-house that serves several objectives, one of which is to provide its journalists with the ability to access feeds over a public internet or private network and mix a live show from any part of the world remotely with the help of a laptop, a broadband connection and a USB key embedded with software, designed by the team.

SNA is still mulling a name to encapsulate the power and potential of this solution that few may have been able to fathom and fewer still may have been able to design within the meagre budget that Baillie and his team utilised. For now, the broadcaster is looking at a working title such as The Content Hub (TCH) or SkyNet – the project codename.

Significantly, this system was designed on the grounds of SNA at its Abu Dhabi facility by its own team with no external support from systems integrators. “As part of our efforts to be closer to where the news was happening, we have been doing a lot of external studio shows and OBs and needed to access different types of live feeds within certain bureaux that were only available at our headquarters,” explains Baillie.

“The obvious answer was to select one or two sites and enhance their capabilities within the existing infrastructure.”

With this in mind, an initial budget of USD 250,000 was set for this project. It turned out, however, that the SNA team was unable to maximise its technical and operational objectives with these existing facilities and would instead have to devise a system from scratch. Although the basic premise of the project had now changed, Baillie, who has a reputation in the local market for thinking out of the box, decided to take a fresh look at the concept and set his team the challenge of designing and building a system in-house with the same investment. The task did not just demand engineering skills; it required extensive research into alternative technologies to replace more traditional and expensive ones, and called for a software-based approach to the normal method of relying on expensive and limiting equipment. The end result immediately puts both SNA
Dominic Baillie demonstrates how TCH operates on his laptop.

**Snapshot**

- **Client:** Sky News Arabia
- **Location:** Abu Dhabi
- **Objective:** To build a cost-effective solution that would provide SNA’s bureaux across the world with the same functionality as its headquarters without duplicating infrastructure across various sites at associated investment
- **Budget:** USD 250,000
- **Vendors:** Blackmagic, Viz, Zix, Nevion, Haivision

and Abu Dhabi on the map for being the place, where such a solution has been conceived and brought to fruition.

“TCH is an innovative solution to a problem SNA had with ensuring our news content was available wherever and whenever we needed it,” explains Baillie, as he switches on his laptop to demonstrate the power of the app he and his team have engineered.

“SNA has its broadcast headquarters in Abu Dhabi (AUH), which houses our main studios and the infrastructure that supports the HQ and its vast newsgathering infrastructure. All the content from the field, be it packages or live feeds come into the AUH site, where it is edited, packaged and used in our 24/7 breaking news channel. In addition, we have more than 17 bureaux around the Middle East and the wider market. These bureaux vary in their technical capabilities and connectivity from basic live positions to very capable studios. We wanted all of these bureaux to have the ability to access the same vast array of news sources as AUH. The solution was TCH,” he says, and goes on to demonstrate what it can do.

He inserts a key into the laptop, connects to his VPN and we instantly have access to the different feeds that are coming into SNA’s network. He then switches between the different feeds and in five minutes, we manage to simulate a show between live feeds and the studio, add a ticker, the CG and bingo, we were ready to go on air.

“Everything you need to broadcast our channel is in TCH and everything you need to access it is on this key,” explains Baillie.

“Of course, we have built in various levels of security before you can gain control of the system. You need an internet connection, either wired in the office/bureau or you can carry a 4G key with you. You can use any laptop; everything you require in terms of software and documentation is on this key and essentially, if you have the permissions, this allows you to sit anywhere and craft...
“We have built so much redundancy into the system that we can survive multiple failures and still broadcast”

Dominic Baillie, CTO, Sky News Arabia

We have made the user interface really simple and to avoid anyone having to carry around extra hardware, we have made every possible solution using only software,” he explains.

The TCH itself isn’t clever, according to Baillie.

“Anyone can design or build a system that takes signals in, routes them and spits them out again. The clever part is the resilience and the flexibility, making it simple, and channelling this flexibility by developing the control software and making it possible to operate it remotely, over the internet from anywhere in the world. The biggest challenge here was the streaming part. We had to find a way of streaming multiple feeds, both over our private network and public internet in high enough quality but in real-time. If we used standard web encoders, we’d be looking at a delay of multiple seconds, which would make it impossible to vision mix in real-time. Professional encoders would still be over a second encode and decode. We had to find encoders that could encode an HD stream within a few frames. We then had to find a way to decode it quickly. We have deployed hardware decoders in key locations but we wanted to be able to receive these streams anywhere by anyone so we had to find a way using a software decoder.

“We had to find a compromise between latency, ease of use and reliability. Streaming real-time HD video over the internet is not easy; it breaks up constantly due to dropped packets. We found a company called Zixi, which adds a management layer to transcend these unreliable networks. Testing this took a lot of R&D, but TCH has acted as a test bed and incubator for a lot of new technologies. We have since implemented what we learnt in Islamabad and Ramallah, instead of MPLS to deliver real-time high-res HD video (over 20mbps), we use public internet. The latency is equal if not better than MPLS (Multiprotocol Label Switching) and the quality is comparable. TCH is effectively an internet-connected studio. To make it work, we had to make it react superfast and that too, over the internet – not a LAN or WAN. That is the clever bit,” he explains.

“Device control is managed locally within TCH to avoid any risk of packet loss or timeouts. We wrote the software as client server and even wrote our own control protocol to work over the internet to remote clients,” he added.

TCH itself consists of four main functions; acquisition, playout, production and transmission. Project Manager Dave Mace, who headed the team that delivered this project, explains that they started with “the concept of a pool of resources that could be dynamically allocated over SNAs MPLS network to any bureau.”

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THE ABOVE IMAGE SHOWS THE WORKFLOW DESIGNED BY BAILLIE. THE TECHNICAL TEAM WORKED HARD TO ENSURE THAT THE USER INTERFACE (RIGHT) WAS EASY TO USE.

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“We have built so much redundancy into the system that we can survive multiple failures and still broadcast”

Dominic Baillie, CTO, Sky News Arabia
These resources included the equipment needed to receive and process feeds from satellites, MPLS/internet-connected bureaux, cellular bonding equipment, 4G equipment and other internet sources. We then needed the ability to remotely switch any of these resources. For instance, a bureau may only have enough bandwidth to have three HD streams at any one time but during the course of a show, its studio may need access to more,” he explains.

“Using TCH, the operator – who can be either in HQ, a bureau or even in the field – can set up all of the feeds they will need for the duration of the show or segment and view all available feeds on a remote multi-viewer. Bandwidth is allocated by default within the system; we have known paths to different places and the operator would just have to select a path and a source. They can then switch the feeds they need at the right time,” he points out.

The team then added the ability to record and play out the content. “We can use this for store and forward; we can also record a feed, clip it and send it either as a video stream or file to any of our bureaux for playout or editing. Again, the whole process can be monitored and controlled remotely so for a bureau which does not have a video server, the operator can use the one in TCH to play out content that they need for their show.”

Once the original objective was undertaken, the team decided to push the boundaries even further and wanted to add in the capability to remotely produce a show.

“It’s the next logical step,” chips in Baillie. “We had all of that content and capability already in TCH. All we needed to do was add a vision mixer and CG with the ability to monitor and control them remotely. This actually gives us a really powerful asset. Not only can we create a full studio show from a bureau that only has cameras, we can utilise this in the field. We can effectively produce a show in real-time anywhere in the world. All we need is relatively good internet connectivity and some cameras and lights. We are already testing the ability to stream directly from cameras to TCH over the internet,” he explains.

The final component to complete TCH was transmission. Here, the team built in the capability to deliver content wherever it was needed, be it file-based over the internet or SNA’s MPLS network, or delivery via satellite.

“In essence, there are lots of ways to get the video out — over our private network, the internet or as files delivered to wherever it is required,” adds Mace. Of course, all of this can be done but never at the price at which Baillie and his team achieved it. In fact, that was perhaps the biggest challenge.

“We negotiated very hard with our partners and chose our components carefully. Of course, we had to keep TCH in line with the technologies already utilised at the AUH site so some of the choices were already made. Here, we pushed really hard to get the right deal. Some vendors weren’t interested but there were others, who were keen to be part of a revolutionary project and bent over backwards to help.

“There was a clear distinction between those who wanted to work as partners and those that merely wanted to serve as suppliers. We borrowed and tested a lot of equipment before placing orders. Peyman Dadpanah at Medicast deserves special mention for supporting us extensively as we tested various Blackmagic routers and vision mixers. Nevion and Haivision also supported our R&D efforts. Viz and Zixi were also amazing. Where we had choices, we went for the best combination of cost and fit. We also borrowed whatever we could from existing systems.”

Furthermore, SNA built this at Du’s datamena facility in Dubai because of the locality, and the.

“In-house software development is the future of our designs; it allows us to fully recognise the flexibility of the system.”

Dominic Baillie, CTO, Sky News Arabia
accessibility to connectivity. “We receive RF (satellite) feeds from their dish farm; we can send SDI for uplink, we also have access to the internet and our private network. All the TCH functionality works because of this level of connectivity. Again, if we had to build out every bureau, it would mean building a dish farm for each.”

Inherent to the TCH design was redundancy as a breaking news channel needs a reliable solution for its live broadcasts. The CTO says the team “completely over engineered it” to ensure this objective was met. “One of the unseen benefits of using cost-effective components is that you can buy more than you need. We have built so much redundancy into the system that we can survive multiple failures and still broadcast. We have mirrored the main and monitoring routers (two of each), mirrored vision mixers and mirrored presentation switchers (for graphics). We also have redundant networks and redundant links (MPLS, Internet and SDI). We built the system in two halves that are effectively mirrored so we will always have a set of resources of each type available. We can lose a router, both vision mixers and half of the sources and still package and deliver a show without the operator noticing,” Baillie proudly points out.

Creating a simple interface for the operators that did not demand a steep learning curve meant that the tech team also had to develop a fairly complicated design on the backend, explains Baillie. “By definition, flexibility and redundancy bring complexity to a system. The goal was for the operator to use familiar interfaces or one that is so intuitive that they could operate them without training. Our software development team helped to build our own software to set up and control the TCH. By designing it ourselves, we were able to tailor it to the requirements we knew were relevant,” Baillie explains.

The CTO adds that the team had to design the whole workflow, develop apps and integrate all of the elements in-house because SNA’s requirements were very unique.

“TCH serves as a prototype to prove the technology and the concept. We will now refine this down to a software-only system; of course, carefully selecting our partners”

Dominic Baillie, CTO, Sky News Arabia

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This whole thing is bespoke and primarily software driven. If we bought this, it would blow the budget many times over and done a small portion of what we have planned. In-house software development is the future of our designs; it allows us to fully recognise the flexibility of the system. We have built into it different modes which we will add over time. For example, it is possible for us to use half the system as a ‘virtual’ studio for broadcasting in the field and simultaneously, use the other half to provide sources to another of our bureaux.

“There is so much flexibility and redundancy built into the system. I can configure it to be redundant or I can use components separately to double my capability I can feed up to 16 individual streams to end users – whoever or wherever they are. I can also use the mirrored VMs separately to do two separate shows at once. In fact, I can do four if I wanted to because I can control 4 MEs separately. I can even make one big VM with 8MEs. Such is the beauty of the software. I don’t think even Blackmagic envisaged how much we could get out of their products through software.” Their SDK (Software Development Kit) was a major selling point for us.”

This project was ridden with challenges. Perhaps one of the biggest, other than budget, was helping both technical and non-technical staff understand what the tech team were trying to put in place, what it would entail in terms of technologies and also, the possibilities it would open up for the channel.

“We drew what we wanted and then tried to find the pieces that fit it for the money. A lot of people didn’t get it at all, nobody else thought of doing it this way and a lot of people really didn’t understand or believe it until they saw it. Even we were unsure of whether we could make it work as we wanted it to when we set out. We had to find the pieces to realise the full potential of the vision,” Baillie says.

There were other challenges. Making it intuitive took a lot of brainstorming and there were instances, where flexibility had to be sacrificed for usability. There were also other concerns to address such as latency and monitoring.

“We had to keep latency in mind during the design and development process. Making it was key to the success of the project. We needed to ensure that the delay incurred in TCH to receive process and transmit feeds was tolerable for live interviews. We set the benchmark as better than satellite with the target of better than MPLS. “We also had to ensure that the control and monitoring aspect of TCH was usable. We needed to get as close to real-time as technically possible but there is a fine line between usable and too latent. It’s that pause between pushing a button and seeing it take effect on a monitor. You need it to be fast enough for the operator not to question whether it worked. We added some fast acting tallys to help with this perception. We think we’ve managed to build something that’s acceptable although I’m challenging the team to further reduce latency, which is currently between half and one second depending on where you are in the world and the kind of decoder you use. A hardware decoder, of course, can be even better than this.”

One of the instances where SNA realised how cost-effective such a solution could have been was at a recent event that needed to be covered in Europe. The SNA team carried around 200kg of excess baggage and had to rent a lot of equipment. If TCH was available at the time, the team would have only required local internet access, a few laptops and some cameras.

“It would have been quick, easy and cheap. Think of it as an extremely well equipped OB truck with very long cables to the cameras and control/monitoring positions that can be instantly available anywhere in the world and even in several places at once,” explains Baillie.

The project, however, is far from over. The team is continuously refining the solution.

“The next step for us is to remove all of the baseband video from the system and just process streams in the IP domain. We’ve already started work on this. This is especially important since most of the signals are IP anyway, but imagine if we do everything in software. I can bring up TCH in any datacentre close to where I’m working for the period I need it and pay only operational expenditure. This would be a location close by to help with latency.”

Simple as it sounds, this project took a good year to get to this stage and involved a lot of learning within the engineering team.

“When some elements were missing or things were not quite right, we went back to the drawing board, reworked our designs, got the developers to address some of the code to ensure that the firewall would be simpler to use. Baillie says: “TCH serves as a prototype to prove the technology and the concept.”

“We will now refine this down to a software-only system; of course, carefully selecting our partners.”

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Dave Mace, Project Manager, Sky News Arabia

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PROMIPTV will be dedicated to a single platform’s strongest line-up of new online video content. The key creative executives/talent behind the productions will be invited by the platform to present during the session, helping to grow their business exposure to the international television industry.

You mentioned recently that there was greater interest in dramas than films last year. Can you elaborate a bit on some of the buying trends among broadcasters and the interests you see at MIPTV?

Ted Baracos, Director of Market Development, MIPTV

“Between 2012 and 2013, the average daily viewing time in the Middle East grew the most (+4h:55) while the UK decreased by nine minutes to 3h:52”

Ted Baracos, Director of Market Development, MIPTV
“100 million Arabs will be online by 2015, yet only 1% of websites are Arabic – a great opportunity for growth”

Ted Baracos, Director of Market Development, MIPTV

Where do you see content creation headed?

Story telling has been around as long as there have been people on the earth, but how the story is told is always evolving. Content creation is a reflection of the societies we live in and thus will continue to change as our values and perception of the world evolves. In recent years, we have seen huge leaps in production value – special effects, computer-generated imagery, and resolution – which means greater visual quality for audience. The advent of 4K ultra-high definition television is an example of how technology is affecting content creation – a trend which will be highlighted at MIPTV through a series of 4K conferences and screenings. Scripted television is also continually being changed by new forms of narrative structure, and character casting. The result is exciting new programmes, which are so different from what was being produced even just a few years ago.

Can you share some statistics with us that indicate the current TV trends?

Television is still growing with the average daily viewing time now at 3 hours 17 minutes per individual (increase of 21 minutes over the last 10 years). Between 2012 and 2013, the average daily viewing time in the Middle East grew the most (+4h:55) while the UK decreased by 9 minutes to 3h:52.

Are the boundaries between creativity and technology blurring just as we see in films with new platforms and technologies?

One of the reasons MIPTV is launching the MIP Digital Fronts is to showcase the new creativity, which is now being produced in the form of online video, often made with much lower budgets than traditional TV. Youth audiences are particularly attracted to online video series which can become viral in a very short time. YouTube, which accounts for nearly half the series which are extremely popular among audiences and thus with advertisers (a case in point is the popularity of Turkish drama series in the Middle East).

100 million Arabs will be online by 2015, yet only 1% of websites are Arabic – a great opportunity for growth

Ted Baracos, Director of Market Development, MIPTV

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**Middle East update**

- **This year, at MIPTV, we have something special from the Kingdom of Saudi Arabia. Saudi Broadcasting Corporation and Gulf Radio and TV Organisation are sharing a pavilion, where they will allow other independent producers from KSA to participate at very encouraging rates.”**
- In addition, Rotana Channels also has a stand for the first time and will bring along some special highlights from the region in which they operate.
- We have three main exhibitors from the UAE including MBC/03 Productions, Ascend54 and Dubai International Film Festival (DIFF). We will repeat our partnership with DIFF whereby some of the chosen films from DIFF 2013 will be showcased at a dedicated stand for this purpose.
- From Qatar, we have Al Jazeera Media Network and Al Jazeera Children’s Channel holding two large stands alongside each other.
- From the independent market, we have Cedars Art Production from Lebanon participating with a stand for the first time to showcase, promote and potentially sell their Arabic Drama production to other international markets.

**Could you name some key topics at MIPTV that would be of interest to filmmakers and broadcasters?**

Online video, but also sessions dedicated to co-production, branded entertainment, as well as an entire conference track called MIPTVTube that is dedicated to digital innovation and new forms of audience engagement.

**What level of interest do you receive from the Middle East every year?**

There will be well over 200 delegates from the Middle East attending MIPTV, many of whom, we believe will be interested to understand the growing success of online video. 100 million Arabs will be online by 2015, yet only 1% of web rates are Arabic – a great opportunity for growth!

**I see you have a session on 4K. What do you see as the main driver for 4K adoption?**

4K ultra-high-definition television is happening, although like any new technology introduction, it will take a multi-year cycle to become as ubiquitous as standard HD is today.

**Sky Deutschland and Sky Perfect as part of drama or murder mystery.**

4K content screening at MIPTV will show just how spectacular the experience can be. A four-day conference track called MIPCube that is dedicated to digital innovation and new forms of audience engagement.

**What’s the next best thing on TV after reality shows?**

Reality TV may well be another unscripted TV franchise. The top 50 European formats generated a value of $2 billion last year – and well over $800 million was generated a value of $2 billion last year and well over $800 million was produced by just five UK originated properties: Come Dine with Me, The Money Drop, Who wants to be a Millionaire, Dancing with the Stars, and Got Talent. The Got Talent franchise has become the world’s most successful format hit – now being produced in more than 75 countries.

**Consumers today have the choice of viewing content on various platforms. How should content owners and producers reposition themselves to make the most of this opportunity?**

One set of initiatives undertaken by content providers to stay relevant to changing audience requirements is to develop applications for “second screen” devices. With broadcasters increasingly looking to companion applications to retain the attention of the consumer and drive content engagement, TV producers will need to include a second-screen proposition for any new programme commissions.

**Mobile devices and tablets are also contributing to the social conversation or what is commonly called “Social TV,” which allows for interactivity and chats during the transmission of a TV show. How does this benefit the broadcaster?**

Broadcasters will likely seek to maintain control of the second screen during air time and its monetisation, but will increasingly look to content providers to create the ideas for interactivity as part of drama or murder mystery.

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Qatar sets DVB goal

As Qatar prepares to host the 2022 FIFA World Cup, the country’s state broadcaster, Qatar Media Corporation, has started modernising its broadcast infrastructure in order to give the best viewing experience to football fans across the world. We look at one of the recent DVB installations in the country.

Qatar Media Corporation (QMC) has started upgrading its broadcast network in the run-up to the 2022 soccer World Cup using Rohde & Schwarz’s DVB-T2 technology. The total estimated cost of the project is USD 14m.

According to Reem Al Lanjawi, Project Engineer at QMC: “Hosting the FIFA World Cup 2022 gives Qatar a fantastic opportunity to showcase the best of the Arab region and, as the country’s state broadcaster, we have a pivotal role to play in this success. We are investing heavily in our technical infrastructure to ensure that we deliver an unforgettable experience to spectators.”

The objective of the project was to enable the end user, QMC, to have countrywide coverage for fixed outdoor reception for the DVB-T2 system. The end user required two multiplexes — one for channel 23 and another for channel 25. Both the multiplexes have been designed for five HD programmes.

In addition, a new transmitter site for FM and DAB transmissions was to be built.

Qatar-based systems integrator Media Group International (MGI) was awarded the project in Q3 2013. MGI is implementing the project in partnership with Rohde & Schwarz.

Al Lanjawi comments: “Our decision to award the contract for upgrading QMC’s transmission infrastructure to MGI that offered Rohde & Schwarz equipment, was based on two main factors – the company’s reputation for delivering excellent technical results within budget and within a tight timeframe, and its ability to offer technical after sales support.”

In order to build the two DVB-T2 multiplexes, Rohde & Schwarz delivered new, fully redundant IP-based R&S AVHE100 headends. The upgrade of the transmitters and building of a new transmission station has already begun.

The project is being executed in three parts: the first part comprises DVB-T2 upgrade of the existing UHF transmitters from analogue to digital TV transmission. It will also support the latest monitoring standards from Rohde & Schwarz.

Part two of the project involves optical fibre transport network equipment to transport and monitor various types of signals to and from Doha, using optical fibre connectivity from QTEL (Qatar’s telco operator). The required optical fibre network equipment will transport the ASI transport streams for DVB-T2, L&R analogue stereo for FM transmission and DAB+ ensemble ETI stream for DAB+ transmission.

The final part of the project involves the installation and commissioning of a new mast, designed as per international standards. The guyed mast can withstand 160 km/h in order to install the FM antenna system. UHF DVB-T2 transmitters and DAB+ antenna system with all the related equipment.

Rohde & Schwarz’s fully redundant IP-based AVHE100 headends allow QMC’s existing transmitters to support DVB-T2. By providing new FM and DAB transmitters for QMC’s radio stations and by integrating all transmitter technology and monitoring systems, it is ensured that QMC achieves optimum quality throughout its entire broadcast chain. This is Rohde & Schwarz’s first headend installation in the Middle East.

The company will also integrate the associated transmitter technology and monitoring systems at all sites. Add to this a fibre-optic backbone, which will link the radio and TV broadcasting centres to the different transmitter sites. A monitoring solution from Rohde & Schwarz is already installed and operational.

Commenting on the partnership with QMC, El Shaikh says: “MGI’s status as a neutral systems integrator meant that we were not tied to any one manufacturer’s products and could, advise QMC on the most appropriate equipment for this project.”

The end user required five HD programmes. The TSE 800 to upgrade DVB-T2 is already completed and the transmitter is on air. The FO rack is also operational here, although its link capacity so far is only 8 Mbps.

The PI and the monitoring rack are up and running, although the monitoring equipment comprising a 50” screen and some cabling are still in testing mode.

The work on this phase, which involves a completely new installation, will begin as soon as the preliminary designs are approved. These include the mast, foundation and antenna design.

The multi-million dollar project is important not only for its scale but also for revolutionising the way content is transmitted and transmitted.

Muneer El Shaikh, MGI’s Business Development Manager, Qatar, says: “The FIFA World Cup in 2022 will make Qatar the focus of the entire world and it is imperative, therefore, that the country’s state broadcaster offers football fans the best possible television and radio coverage.”

The TSE 800, while the DVB-T2 have been installed and configured. The headend is already operational and so are the FO rack, monitoring equipment and PI. A new transmitter TMU9 system has been commissioned and is already on air.

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Commenting on the partnership with QMC, El Shaikh says: “MGI’s status as an independent systems integrator meant that we were not tied to any one manufacturer’s products and could, advise QMC on the most appropriate technology for this project.”

The project is due to be completed in 2014 with the DVB-T2 network to go on air before the end of the year.

Close-up from top: QMC tower; QMC’s headend room; and Muneer El Shaikh, Business Development Manager, MGI, Qatar.
PROPIRACY

“This is not downloading or peer sharing but stealing the movies and playing them out on satellites. Satellite piracy covers everyone. It is a criminal activity – stealing in blatant disregard to international laws”

Nab the thieves

MBC and OSN have managed to garner support to fight the illegitimate distribution of content on TV as well as online platforms. Vibhuti Arora finds out how legitimate players are waging a war against rogue channels.
against their database. It also checks for the movies that feature on the broadcaster’s database for the next five years, in other words, if they are future exclusive. Once the defaulting channels are identified, the broadcaster approaches studios to get the requisite documentation in order to prove it has the rights for those movies. That’s when the satellite companies are approached and informed about the content playing illegally using their bandwidth. The broadcaster started looking at the movies first because the rights are relatively easy to define. “We do that for each movie. We were forced to undertake this exercise, which is expensive but critical, owing to the losses involved,” explains Barnett.

Every time a movie is stolen, the team reports the breach to the rights owner. Carlie Goode, Acquisitions Manager at MBC2, MBA MAX, MBA4, explains, “When a movie is stolen, the team reports it to the rights owner. The anti-piracy team at MBC monitors the movies playing on the various FTA channels constantly and compares them against their database. It also checks for the movies that feature on the broadcaster’s database for the next five years, in other words, if they are future exclusive. Once the defaulting channels are identified, the broadcaster approaches studios to get the requisite documentation in order to prove it has the rights for those movies. That’s when the satellite companies are approached and informed about the content playing illegally using their bandwidth. Once the defaulting channels are identified, the broadcaster approaches studios to get the requisite documentation in order to prove it has the rights for those movies. That’s when the satellite companies are approached and informed about the content playing illegally using their bandwidth. The broadcaster started looking at the movies first because the rights are relatively easy to define. ‘We do that for each movie. We were forced to undertake this exercise, which is expensive but critical, owing to the losses involved,’ explains Barnett.

With a strong bouquet of movie channels, MBC Group is, perhaps, one of the most hurt by this type of piracy in the region. Almost two years ago, MBC Group appointed an anti-piracy team with full-time staff to monitor the ‘rogue’ channels. Over the past several months, the team has successfully brought down at least five to six pirate channels. The anti-piracy team at MBC monitors the movies playing on the various FTA channels constantly and compares them with their database. It also checks for the movies that feature on the broadcaster’s database for the next five years, in other words, if they are future exclusive. Once the defaulting channels are identified, the broadcaster approaches studios to get the requisite documentation in order to prove it has the rights for those movies. That’s when the satellite companies are approached and informed about the content playing illegally using their bandwidth. The broadcaster started looking at the movies first because the rights are relatively easy to define. ‘We do that for each movie. We were forced to undertake this exercise, which is expensive but critical, owing to the losses involved,’ explains Barnett.

Nahla Bakhrari, Anti-Piracy Executive, says that despite these relentless efforts by the broadcasters, the pirates are not giving in. “The number of pirate channels is still on the rise. Many a time, before we...
even license the content, it is shown on the pirated platforms, which breaches our first-run rights and exclusivity. And this doesn’t impact only the FTA window but also pay-TV,” she says.

Content theft is proving to be detrimental to the perception of those channels which have been associated with showcasing exclusive content before anybody else.

“The pirates even damage the theatrical broadcast of the movies by distributing earlier versions. When we have a movie premiere, we see some of our viewers reporting on social networks that they have already seen the movie before,” she laments.

Some of the satellite players and IP players have extended full support to the efforts of the broadcasters by terminating the contracts of illegal operators or not renewing them.

In some ways the solution is very simple. “Certain satellite operators can stop selling bandwidth to thieves.”

Legal framework

There must be a legal framework to nab the perpetrators, one would think. But it appears that the perpetrators have exploited regulatory weaknesses in certain countries.

“That’s not all, as some legitimate channels are even receiving advertising support. Satellite providers and the legitimate part of the industry continue to sell bandwidth to unscrupulous operators, which needs to be addressed.”

“We have the broadcast rights but we do not own the content. So we depend on the studios to pursue the legal battle,” adds Barnett.

“Egypt, for instance, has a strong tradition of intellectual property as it has been the home of the Middle East film industry. It does have regulatory laws in place but executing those laws can take a long time. Will the American studios come to post-revolution Egypt and launch legal cases against a murky mafia? They appear reluctant to do what has to be done.”

Istikana

Samer Abdin, Founder and CEO of Istikana

It is quite common for people to record TV and place the copies online, either through illegal sites, or on YouTube. Yet another way is when content owners share their content by placing it online (mainly YouTube), without regard to monetisation, thinking that views equate money, somehow.

Monitoring online is a tough job. Avenues such as YouTube make it much easier for content owners to monitor what is going on. But more broadly, we know the pirate sites and keep an eye on them, but new ones do pop up on a regular basis.

Ultimately, it boils down to the consumer being offered a great deal that is more convenient than pirated options. However, an important element is also through revenue restriction, as well as legislation (though this one is much harder). Revenue restriction could happen if the main providers of advertising inventory, such as Google - would be much stricter about video sites and require proof that this content is legally allowed to be monetized through them.

Combating online piracy needs a two-pronged approach. First then there should be a provision of legal services - as if there is no other option, consumers will pirate by default.

Istikana has been at the forefront of providing video services to the region, and so we are helping in that. The other element is to have advertising networks help the market by not funding illegal sites, and thirdly government legislation would also help. Lastly establishing an IP law in MENA, which seems far fetched because MENA is not one country and so to have a unified front is very hard. Such laws are almost non-existent in the region and the governments and lawmakers need to work on that front. The more mature markets like the US and Europe have such laws in place to nab illegal operators who operate online.
so and these channels are exploiting that reluctance,” explains Barnett. MBC is also looking at a solution to deploy a software that identifies the movies and compares it to movies in their database using audio signals. “Conceptually, it sounds clever and an easier way to identify the problem but that doesn’t solve the issue. It enables us to go more quickly to the satellite operators and ask them to stop selling bandwidth to the pirates. That doesn’t mean they will always agree,” adds Barnett.

Anti-piracy consortium
“Across many sectors now there is a legal obligation to know your client. If this could apply to the satellite industry as well, it would go a long way to nip the problem in the bud,” says Barnett.

David Butorac, CEO, OSN
Protection of intellectual rights is the most under-addressed issue today, because people tend to think that it’s a victimless crime, according to David Butorac, CEO of OSN. The truth, is far from it. Theft of content has far reaching effects that potentially damage the dynamics of the broadcast industry.

The broadcasters stand to lose millions of dollars in revenue, which are siphoned off to illegal players instead of being channeled into driving local production.

“The Gulf countries are very eager to develop the local industry. Piracy is hurting economies in the long run by hampering the development of local production with revenue being siphoned off to illegitimate platforms,” says Butorac.

While encroachment on FTA territory is rampant in the region, it is pay-TV that has faced the brunt of it — losing hundreds of millions of dollars in legitimate platforms which redistribute premium content without permission. These legitimate platforms are paying on FTA for ad shares and eating into the subscription of pay-TV.

“We pay millions of dollars to buy premium content and it impacts us negatively when it is transmitted by players that have no rights to do so. Channels such as Majestic and Top Movies are infringing on movie rights by transmitting films they do not have rights to, over satellite or IP to millions, in complete breach of law,” comments Butorac.

“What’s more, these channels are pulling in advertising money, thereby damaging the dynamics of the industry. More often than not, the users who are at the end of the chain are oblivious to the detrimental effects of piracy. The idea of receiving free content is widely acceptable in the region. Dish TV is yet another form of piracy, causing the local pay-TV industry millions of dollars. “When we buy rights to transmit in a region like the MENA region we do that only here and don’t go beyond the MENA region. Similarly, Indian broadcasters need to be mindful of that. Dish TV has the rights to transmit in India and it should be limited to that,” explains Butorac.

“We are trying to mobilise support from various quarters including broadcasters, lawmakers, satellite and IP operators to fight unscrupulous elements,” he adds. Piracy is causing a major impediment to developing a thriving production base in the region by eating into legitimate broadcasters’ legitimate share of the market. “Clamping down on piracy will expand our investment in local content creation,” he adds. Intellectual crimes are tried in civil courts in Malaysia, other regions need to adopt that too, according to Butorac. “We are looking at what the more mature markets like the US and UK are doing and trying to implement that here. Satellites and IP players are supporting the cause but they can do much more,” he adds.

OSN fights back
David Butorac, CEO, OSN

“Channels such as Majestic and Top Movies are infringing on movie rights by transmitting films they do not have rights to over satellite or IP to millions, in complete breach of law”

PROPRIACY

It looks like the region’s broadcasters are determined to keep their content and are proactively lobbying for the cause. Leading the way are MBC and OSN who are bringing on board some satellite operators to support the cause.

Regional broadcasters, satellite operators and enforcement agencies are joining hands to form a consortium to lobby against unscrupulous players in the industry. The consortium intends to involve as many legal players as possible including the local broadcasters, satellite players, and studio owners.

Others will emerge as the consortium and the code of conduct takes shape and MPAA (Motion Picture Association of America) has been invited too. Legitimate players in the industry are very clear of what their rights are and where the infringement is taking place.

David Butorac, CEO, OSN

“Channels such as Majestic and Top Movies are infringing on movie rights” by transmitting films they do not have rights to over satellite or IP to millions, in complete breach of law”
Cloud-based services offer big advantages

Media companies are embracing cloud-based CSM systems as a way to incorporate advanced CSM into their workflows without capital expense or maintenance and overhead costs. Hosted CSM allows media companies to account for changing technologies without having to invest in their own resources, because technological evolution is automatically incorporated and immediately available. It takes advantage of the cloud’s inherent ability to expand and contract to meet the business needs of the moment, so broadcasters pay only for what they need, when they need it — flexibility that enables organizations to deploy their required IT infrastructure on demand with minimal capital investment. With pay-as-you-go CSM as a Service (CSMaaS), broadcasters are using the cloud to centralize data and streamline processes and workflows in a stable, secure, robust, scalable infrastructure. The cloud represents an opportunity for organizations to deploy their required IT infrastructure on demand with minimal capital investment.

Cloud to the rescue

Embracing a cloud-based CSM system can provide a media company with the benefits of content storage management while sparing them the headache of operational costs, says Rino Petricola.

Media assets are the lifeblood of a broadcast operation, and protecting them is akin to protecting the business itself. Broadcasters can’t afford to be cut off from their asset libraries, yet many factors make that an all-too-real possibility. Natural disasters, political instability, cyber attacks and power failure are just a few of the potential situations that could stop a media operation in its tracks. It is impossible to overstate the importance of disaster recovery, especially in regions that are subject to unrest. Media companies that run their main operations from a digital video archive are at serious risk without a well-planned disaster recovery strategy and platform. Having an advanced content storage management (CSM) system is a good place to start. Advanced CSM systems are critical to a media company’s ability to unlock the full revenue potential held within its own content, but just as important, they also contain crucial data protection and recovery capabilities. CSM systems were developed to help content owners cope with what would otherwise be an overwhelming volume of content, to address the video-specific complexity of that content, and to prevent content loss. In terms of asset backup, CSM systems can automatically replicate valuable file-based assets, creating duplicate copies on multiple (and portable) datatape media very rapidly and without any user intervention while sharing the same management and storage infrastructure. Those copies can remain within the system to provide online resiliency or be easily transported to offline storage facilities for very efficient and cost-effective content protection.
cloud service providers today provide stringent service level agreements that cover both system updates as well as security. Choosing a service provider that is meticulous about security and data integrity is critical. Media-centric cloud service providers should require a private cloud, private network links, and UDP file transfer protocol. They should also ensure physically partitioned user space, integrate genuine checksum throughout every step of the workflow, enable continuous content health checks, and know exactly where a given company’s assets are being stored within the cloud. Strong encryption, with keys that are locally managed off-cloud by customers, should be the bedrock of the provider’s security policy.

Even though hosted disaster recovery is inherently secure when properly implemented, the truth is that any file stored online is vulnerable to attack if proper security measures are not in place. This vulnerability should be a guiding concern when examining the viability of cloud services. It’s up to the provider to ensure assets are secure in both the cyber and physical domains, and so broadcasters should engage only trusted providers with a proven track record.

Overall, implementing cloud-based CSM and disaster recovery can greatly reduce the total cost of ownership for broadcast facilities. When considering all the variables related to the cost of owning a disaster recovery solution — including costs for hardware and software; support and maintenance (normally 10 percent of hardware and software cost); datacenter space, power, and coolant; technology refresh and content migration; capacity management; operational expenses; and the impact on the environment — moving to the cloud becomes a clear-cut financial decision. Disaster recovery as a service is a pay-as-you-go proposition; someone else covers the overhead.

Many organisations are sitting on decades’ worth of content that they can’t afford to lose, and hosted disaster recovery is an easy, cost-effective way to make sure they never do.

Is it secure?
Obviously, having a backup copy of content stored in a remote cloud location makes a lot of sense for broadcast facilities, and hosted disaster recovery is an efficient, affordable way to do it. But is it secure?
Security has become the number one concern for companies when dealing with data, so that means security strategies must be reinforced. Media-centric cloud service providers today provide stringent service level agreements that cover both system updates as well as security. Choosing a service provider that is meticulous about security and data integrity is critical. Media-centric cloud service providers should require a private cloud, private network links, and UDP file transfer protocol. They should also ensure physically partitioned user space, integrate genuine checksum throughout every step of the workflow, enable continuous content health checks, and know exactly where a given company’s assets are being stored within the cloud. Strong encryption, with keys that are locally managed off-cloud by customers, should be the bedrock of the provider’s security policy.

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Many organisations are sitting on decades’ worth of content that they can’t afford to lose, and hosted disaster recovery is an easy, cost-effective way to make sure they never do.
In an exclusive interview with BroadcastPro ME, Ben Kinealy, CEO of Intigral talks about his strategy, vision and the roadmap he has chalked out for the company.

"Considering the hold of satellite TV in the region, the best way forward would be to combine satellite and IP for a hybrid experience" Ben Kinealy, CEO, Intigral

At the helm

What’s the Intigral story so far?

Intigral was formed in 2009 as a joint venture between STC (Saudi Telecom Company) and Astro, partially to help develop STC’s first IPTV service. Intigral’s mandate was to add value to STC’s STB via excellent products and content services in order to differentiate their core offering from that of their competitors. Intigral was seen as faster, fresher and freer of way of doing that within STC, or if you like we were set up to do what STC couldn’t. The idea was to mainly develop content services for IPTV to drive fibre pickup, though now the services offered by us include mobile VAS (traditional SMS), carrier billing, apps, websites and other market-led innovations.

What does your new role in the company as CEO now entail?

As CEO, I will be tackling our products and services across IPTV/OTT, mobile and web, reviewing the existing businesses, and bringing new capabilities to the team, with the objective of adding value to STC and the digital ecosystem as a whole.

I was headhunted from Telstra, the major incumbent telco in Australia, and joined Intigral in 2012 as Vice President of OTT and IPTV. At Telstra, we introduced the T-Box, which sold about 610,000 boxes in the first three years. It was the first hybrid set-top-box to be bundled by a telco in the world with a DVB-T, OTT and DVR service that offered something similar to Apple TV and TiVo blended together.

What strategies have you introduced since stepping up to CEO?

We will be changing the whole look-and-feel experience. One key focus is to make the service and a range of apps and games. Our new offering, an update on the existing Invision box, is a plug-and-play set-top-box with a range of companion apps and a host of capabilities such as PVR and rewind for FTA and pay-TV, a fantastic on-demand movie and TV service and a range of apps and games. STC’s Invision offers the biggest IPTV experience.

With satellite being so widespread in the region, what are the challenges ahead for you? PTA is our biggest competition, which can be countered by offering a very good interactive product and strong marketing. Considering the hold of satellite TV in the region, the best way forward would be to combine satellite and IP for a hybrid experience.

Our new offering, an update on the existing Invision box, is a plug-and-play set-top-box with a range of companion apps, and a host of capabilities such as PVR and rewind for FTA and pay-TV, a fantastic on-demand movie and TV service and a range of apps and games. STC’s Invision offers the biggest IPTV experience in the Kingdom with potential to grow further as it targets KSA’s 25 million people.

Gradually, we will expand to other territories such as Kuwait, Bahrain and, maybe others. We plan to introduce a brand new customer experience with this STB and future STB, which will be interactive and intuitive and, therefore, fun to use.

What’s your view of the present TV and OTT scenario in the region? The region offers endless opportunities for the growth of fixed as well as mobile video services. But so far, none of the players

"ADSL2 and ADSL2Plus, as is the case with STC, have got a range of limitations – it has physical and technical limitations. As a result, STC and Mobily are aggressively rolling out fibre throughout KSA.”

Ben Kinealy, CEO, Intigral

Supply content, undertake content preparation, content acquisition and content services that we deliver on to STC’s network. But we haven’t been managing the product, how it’s bundled, marketed or sold and installed. As we move forward, we will take these into account to change the whole customer experience. One key focus is to make the best IPTV/OTT product in the market.

ADSL2 and ADSL2Plus, as is the case with STC, have got a range of limitations – it has physical and technical limitations. As a result, STC and Mobily are aggressively rolling out fibre throughout KSA.

As we move forward this year, our efforts will be to expand the reach of the service using OTT technologies, while still delivering a reliable quality experience. Although we are using this method to reach a wider audience, we will still look to fibre to drive the premium IPTV experience.

Gradually, we will expand to other territories such as Kuwait, Bahrain and, maybe others. We plan to introduce a brand new customer experience with this STB and future STB, which will be interactive and intuitive and, therefore, fun to use.
We are trying to encapsulate all of these services into our IPTV offering. Do you have plans to develop your VAS (value-added service) products?

We want to review all of the VAS products that we are currently running to streamline and focus on the ones that are financially viable. We are looking at expanding VAS to other territories beyond the Gulf. We have Arabic content for KSA and a team that prepares and acquires that content but we have the services behind them that takes care of the delivery, reporting, billing and so on. We will take these services to other territories such as Kuwait, Bahrain, Africa and Iraq. The VAS business still holds potential and we intend to develop more services to tap into that market.

Could you shed some light on your Dawri Plus app?

Dawri Plus is a sports app, which we use to deliver live Saudi league over IP. It's predominantly an app but has a website also. We have exclusive rights to the Saudi Football League to deliver it over OTT. The PROINTERVIEW have been able to tap into that. OSN is excellent but maybe too expensive for the mass market, beIN Sport is going through a number of evolutions and is about to offer its own IP box in the future but there is a need to fill the vast gap between these two and that's where Invision comes in. We are in the process of developing a product set that can fill that gap, improving the content and the value to the consumption.

In the GCC, there are more than 850 channels delivered over satellite – it’s not financially viable to transcode all of those and carry them over IP. So we will combine the best of the channels, with rewind and EPG capabilities over IPTV and get the rest via the internal DVB-S receiver, so as to offer the full line up of channels to the customer.

Network PVR has not been introduced in the region yet but the technology is available, so once we have the rights we can see that being added to the service. Catch-up is a funny term. In the GCC, catchup is understood as rewind. Catchup, in other territories, is VOD of distinct programmes that they have the rights to serve after the broadcast period. We are trying to encapsulate all of these services into our IPTV offering.

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service has been received very well with more than 400,000 customers a month. The application sees up to 100,000 concurrent customers at peak time. A live stream delivered reliably over the internet allows you to see it live on your device and go backwards on a timeline anytime, anywhere in the game. The application also boasts interactive capabilities and we will add more capability to this application, face it more into broadcast and expand it beyond the territory. We may also buy the rights to other leagues and develop more sports-oriented content.

Creating this app has a two-pronged approach; it not only offers quality sporting action but also helps the Saudi league to step up.

In terms of content, what new offerings can we hope to see?

Sports is a huge driver of technology and needless to say, it is a fantastic vehicle for us. Once we fine tune Dawri Plus, we will take it to other leagues across the region. Dramas are huge in KSA with a strong female following. With sport, we target students within the country and abroad, while dramas attract the vast majority of women and movies go between the two. We are offering an impressive line-up of movies on our VOD platform. We have deals with major studios and local distributors to release the movie on the same day as the DVD release. We are expanding the library around that with more focus on HD content.

In fact, we will be moving into premium movies on demand, to buy rights to release VOD, or PVOD on the same day as the cinema release in Bahrain and Dubai. This is an exciting proposition and we are gingerly moving in that direction starting with a couple of distributors who have Western, Arabic and Bollywood content, and then expanding.

What are the main roadblocks you face as a company?

The two biggest threats to us are FTA and piracy in the region. Piracy, unfortunately, is seen as acceptable in KSA because there are no cinemas there. We intend to offer a great PVOD service to give the people of KSA a legal high-quality way to see this content.

There are limited promotions of feature films in KSA. Saudi Arabians are unaware of many films until they hit the TV screens, which takes months, or even, years. Theft is rampant during that period.

Our pitch to the studios is that we can help you capture that money and reduce theft. We can offer a legitimate, legal and secure platform to distribute their content in line with other territories. VOD is great and so is pay-TV but there is a huge potential that movies can offer and we hope to be a major player in this field.

What's next for Intigral?

We are looking at a range of services – mobile advertising, e-health and e-learning – while focusing on improving STC’s mobile VAS services. Mobile is definitely larger than fixed and that’s where the money is, so we will be directing at least half our efforts towards that. In essence, we want to add value at every stage of the digital value chain, but how? By acting as a bridge between content and service providers and telecom operators through product integration, inception and go-to-market solutions across multiple channels and platforms.
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Fax: +971 4 3390922
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www.amaranthine.ae
Baghdad-based Al Mada Foundation for Culture and Arts recently unveiled an Arabic-language high-definition (HD) entertainment TV channel with special focus on news. Although Al Mada Group is an established name in print and radio, the group made its first foray into television with the launch of Al Mada TV. The group’s footprint is especially strong in Baghdad and Kurdistan.

The channel went live in Q4 2013 – less than a year since work began on integrating the systems and kitting out two studios.

The channel’s programming is in line with the group’s core philosophy that centres around art and culture. While it offers a host of entertainment programmes, political news and analysis are its main focus at present, according to Bayan Salaheddine Jalal, General Manager of Al Mada TV.

“Our main focus is news; we wanted HD quality videos to be delivered to our viewers in the best and quickest way possible. To us, the speed of data transmission was the main criterion and, of course, it had to be in high quality. Based on these, we started looking for suitable broadcast solutions,” says Jalal.

As of now, the channel broadcasts only recorded programmes but it will also broadcast live shows in the near future.

### News-focused programming

Al Mada wanted a solution that catered to the news-based programming of the channel. As a result, the end user chose Avid as the mainstay of the news system and built the multi-million dollar TV channel’s workflow around Avid’s solutions.

“At the heart of the system is a complete Avid workflow. Avid was selected because it was able to deliver a system that caters to our operational needs. It also offers excellent support with a local team in Dubai, which helped us with the design, delivery and training,” says Jalal.

Since the channel had to be built from scratch, the team at Al Mada started with a complete workflow for new automation on a medium scale, considering the system will allow for future expansion and scalability. The project was carried out in phases with the first phase being the installation of an Avid news system.

The second phase involved the deployment of an Avid MAM solution and remote news editing. The project began with the installation of the Avid news workflow last year and the entire project was completed by the end of the year.

The solutions were integrated in-house by the Al Mada team with help from Avid’s distributor in Baghdad and systems integrator AV Solutions.

For security reasons, the channel was assembled in Sulaymania in the north of Iraq, which is a relatively safer area. It was later transported to Al Mada TV’s site in Abu Nuwas Street in Baghdad.

Commenting on the execution of the project in a politically volatile territory, Ammar Fawzy, Territory Account Manager of Avid Middle East says: “In a region like Iraq, being aligned with the right local partner, is key. Our partnership with AV Solutions has been a great alliance and we are looking forward to working with you again.”
forward to our expansion in the region.” Security in Baghdad poses a major challenge for Al Mada because of which some of the producers cannot live in Baghdad. As a result, the entire news operation is carried out remotely.

Al Mada has a newsroom in Baghdad but the producers work in Erbil, meaning they are not physically connected to the channel’s headquarters. Their only access to the Al Mada newsroom is through the internet. Avid Interplay Central plays a key role here as a tool that gives remote access to journalists and producers to send media to the central location.

Key kit

The central apparatus room (CAR) of the TV station features Evertz servers, Avid AirSpeed 5000, ISIS 5000 and Cisco Ethernet switches, Lookup server and Media indexer, while the newsroom features Avid solutions such as NewsCutter, iNews, and Interplay Assist and Interplay Access. The iNews Command works from the studio control rooms and Access is located in the ingest room. The final picture is produced through For-A vision mixer using news graphics.

“When we started operations, we installed Avid’s news system, and had other systems for graphics and programme transmission. At present, we are expanding our workflow to include Avid MAM, which will help us automate and restore material from both news and transmission,” explains Jalal.

Avid Interplay Central will be integrated eventually to allow remote journalists to have access to the central system in Baghdad. The three AirSpeeds – one with four channels for ingest and two AirSpeeds for playout are managed by two iNews command PCs, which, in turn, are connected to the command automation server. Command workstations are located in different MCRs. In addition, there are devices like the Lookup Server and Media Indexer, which support the content to be integrated.

Two news servers are connected to eight iNews client PCs and three NewsCutter PCs. There are two iNews servers that are redundant for complete
safety on air. In addition, there are four Assist PCs and two Access PCs connected to the Avid Interplay engine.

The workflow
The media from Al Mada’s news gathering team or agencies is ingested into Avid AirSpeed 5000 in XDCAM50 format from where it goes to a central storage in the ISIS 5000. At the same time, journalists compile their stories on Avid iNews and use tools to access the video on the central storage. The news directors then compile the news stories and videos using iNews command in one rundown.

There are two types of ingested media—text and videos. The videos are ingested into AirSpeed while the text is entered through iNews. The videos go directly to ISIS 5000 through AirSpeed. ISIS 5000 gives the editors immediate access to the material so they can start working on it with NewsCutter or Media Composer depending on the content. The NewsCutter handles the news while Media Composer has been deployed for documentaries, and other programmes. The sequence is then sent to play back on AirSpeed.

Evertz Mediator manages the content traffic at a component level throughout its lifecycle. Mediator tracks the video, audio and graphics and enables scheduling of content. Avid Interplay is the Production Asset Management (PAM) system that tracks all the media assets on central storage.

As soon as the content is ingested, it can be accessed on NewsCutter or Media Composer for editing and finishing. The editors cut the content with help from Assist or Access.

iNews makes it ready for newscast. The data is archived to tape on Avid Interplay MAM.

With two parallel workflows, one on transmission and another one for news, Al Mada looked at several MAM solutions before choosing Avid.

“The Al Mada installation is Avid’s first MAM in Iraq”, claims Fawzy. “The MAM system was required to handle both transmission and Avid news. The solution that they finally adopted is a unified MAM in Avid Interplay MAM that handles archiving across the whole chain,” explains Fawzy.

“The MAM takes care of both Avid and Evertz workflows – archives and restores from both and allows them to share media. The data can easily be restored to transmission or news. The editors can then edit the ingested material and schedule it simultaneously. The on-air graphics are handled by Vizrt software and so are the CIs and tickers.”

The studios
The studio channel has two studios, which were built to cater to the various programming needs of the channel. While one studio is dedicated to news and political programmes, the second one is used for sports and art and cultural programmes. Both the studios are kitted out with three Sony HD cameras and each one boasts a Chroma screen.

The training
As part of the complete Avid workflow delivery, Avid offered Al Mada a comprehensive training plan to cover all its operational needs.
Ampegon is a new brand established in 2012 to merge the former Thomson Broadcast activities of Turgi (Switzerland), Schifferstadt (Germany) and Beijing (China) into one powerful and market leading group. In October 2013 Puls-Plasmatechnik (PPT) GmbH joined Ampegon under the same ownership. The group is serving the global radio transmission markets including antenna systems, scientific applications and green technologies with an extensive product range tailored to all needs of the customers in these strategic fields. The company’s products and services stand for innovation, advanced technology and premium quality systems.

As a leading designer, manufacturer and system integrator of AM/DRM radio transmission systems, Ampegon offers complete solutions comprising transmitters, antennas and a wide range of auxiliary equipment. In addition, the group is developing world-class technology and fully integrated solutions to serve scientific institutions with best overall performance: High power RF amplifiers, regulated high voltage modulators and power supplies (HVPS). A clear focus lies on green technologies for the benefit of our environment, offering photovoltaic power plants based on the company’s extensive turnkey experience and system approach.
EVERTZ

Evertz’ solutions offer a new eco-system for content delivery and addresses the ever-growing challenges broadcasters face as facilities become larger, more complex and distributed.

Evertz offers a comprehensive range of products for handling SD/HD/3G/Ultra HD within a broadcast facility. At the core, Evertz’ EQX routing matrix is the industry leader for large enterprise-class routers that can scale from 288x288 up to 2304x2304. For large monitoring wall solutions, Evertz’ VIP/X integrates the EQX with its multi-viewers (VIP/MVP) without compromising the capacity of the EQX router.

For advanced video and audio processing, the 7812 series is a versatile product that provides features that include: frame synchronisation, audio embedding/deembedding, and up/down/cross conversion. To transport signals within or between facilities, Evertz FacilityLINK range of fibre transport is unmatched. Any type of signal (video, audio, and data) can be transported using Evertz fibre products.

Evertz’ MAGNUM Unified Control System addresses the ever-growing challenges broadcasters face as facilities become larger, more complex and distributed. MAGNUM bridges all of the major components within the broadcast path under a single point of control, enabling broadcasters to simplify facility workflow and gain efficiency while reducing operational costs.

VUE is a user customisable graphical application that visually unifies the MAGNUM control experience. VUE provides flexible and reliable control across all areas of broadcast operations from one user-friendly, touchscreen interface. It also improves productivity and cost efficiency by enabling a single operator to manage an entire broadcasting infrastructure and operation, from content creation to distribution.

FUJIFILM

FUJIFILM offers superior optical technology that has stood the test of time. Its decade-long partnership with First Gulf Company has led to many successful projects in Saudi Arabia that make them a preferred choice of both public and private entities.

FUJIFILM and First Gulf Company have been partners for almost ten years and are now looking forward to the next decade of cooperation. First Gulf Company is a unique systems integrator, which has rightfully earned its reputation as an industry leader. FGC’s integrity and professionalism are the key to a long-standing relationship with manufacturers.

FGC has enabled Fujifilm to enter into the unique Saudi Arabian market, in turn, establishing a great working relationship with the Saudi MOI and MOIC. FUJIFILM offers superior optical technology and the Saudi Government is known to only acquire the best products and services from the best sources.

First Gulf Company and Fujifilm are fortunate to meet those criteria and high standards. Engaged in the development and production of optical technology for more than 40 years, Fujifilm and its Optical Device Division Fujinon have enabled quality TV Broadcast & Cinematic productions throughout the world with its advanced and unique optical technology. Fujinon constantly expands the boundaries of optical technology in order to provide the highest quality that can be achieved within the laws of physics. That said, the lens is the first element that captures and bundles the light, this also makes it the most important piece of equipment in the production chain.
As a member of the Gorilla Technology Group of companies, ISSCore Technology USA is a provider of leading video big data and analytics technology, which support a wide range of video-centric applications for broadcast media and entertainment, education, enterprise unified communication, business intelligence, and security.

In conjunction with FGC and leading hardware vendors, ISSCore has built a solid track record within Saudi Arabia for delivering innovative and competitive solutions for managing media assets and enabling new media delivery. ISSCore’s content management and archiving platform assists the Saudi Ministry of Information and Culture to manage more than 14 petabytes of audio-video content. With FGC as a key regional partner, ISSCore is extending the benefits of its video big data and analytics platform to fields such as intelligent video surveillance and unified communication.

ISSCore offers scalable on-site products and solutions, as well as cloud-based platforms, covering a wide spectrum of converged infrastructure solutions facilitating video intelligence, video management, video delivery and network intelligence applications for specific industry sectors and the broader enterprise market.
Studer is a leading manufacturer of professional audio systems, synonymous with broadcasting excellence. Studer products are designed and engineered in Regensdorf, Switzerland and manufactured in Potters Bar, near London, UK. The product range includes digital audio mixers, processors and router systems for TV and radio, live broadcast and production studios.

Studer will be displaying at CABSAT, (Hall 4 stand 422), the new ground-breaking Studer Infinity series, a new generation of mixing consoles and high capacity processing cores for broadcast applications featuring groundbreaking Infinity DSP Technology.

Thanks to its Infinity core, the Vista X control surface delivers an unprecedented 800+ audio channels with superb sonic quality and aviation-standard system redundancy. Studer’s new D23 A-Link fibre interfaces provide more than 5,000 inputs and 5,000 outputs, with direct connection to Riedel MediorNet.

Snell is a leading innovator in digital media technology, providing broadcasters and global media companies with a comprehensive range of solutions for creating, managing and streamlining the distribution of content for today’s multi-screen world.

Specialising in TV Everywhere and Live TV applications, Snell provides the necessary tools to transition seamlessly and cost-effectively to 4K UHD, file-based, and 3Gbps operations, while enabling broadcasters to monetise and deliver their media assets across multiple distribution platforms.

Snell’s products include market-leading solutions for routing, modular infrastructure, conversion and restoration, production switching, automation and media management and control and monitoring.

Kahuna 360 is the world’s most powerful and flexible production switcher, it supports any format in, any format out, on any input or output including 1080p (single link) and 4K as a standard feature for a smooth and cost-effective migration. The switcher’s unique Make M/E technology also delivers unmatched flexibility when sharing resources with multiple consoles.

Kahuna 360’s brand new control surface Maverik provides unprecedented freedom in panel design, allowing total customization of the panel to suit every type of production.

Snell is a world leader in providing the media and broadcast industry with a comprehensive range of solutions for today’s multi-screen world.

Pioneering the future of the audio industry, Studer offers a range of top-notch solutions made to achieve broadcasting excellence.
First Gulf Company has built solid relationships with global companies in many industries through consistent support, and has proved itself in providing innovative systems and best quality products. Their carefully selected partnership with world-renowned companies has given FGC a definitive advantage in delivering the best-in-breed solutions to customers.

As a leading provider of broadcast and transmission systems, FGC offers turnkey solutions from consulting to installation. Working in close association with its select partners, each one a global leader, FGC provides the most comprehensive line of high-performance broadcasting and transmission systems. It has established a stronghold in the broadcast systems sector with expertise in HDTV production and post-production facilities and studios.
The local production market has eagerly awaited the arrival of the Blackmagic Production Camera 4K, which at the humble price of USD 3,000, comes with high specs and the promise of making 4K shooting affordable. Dubai-based filmmakers Andrew Clemson and Acen Razvi, who were one of the first people to test the camera, provided BroadcastPro ME with an exclusive review just in time for the CABSAT show issue.

I've shot on Blackmagic cameras in one of their iterations on many different occasions. I bought the Blackmagic Pocket Cinema Camera primarily for its size, but also for the 16mm aesthetic it manages to squeeze out of such a tiny compact chassis, which I use to replace GoPros in all, but the most risky situations. I've also used the pocket camera's larger sibling, the Blackmagic Cinema Camera (BMCC), for the occasional event or corporate job when the client wanted something “more” than a DSLR, but less expensive than an Alexa or an Epic. Dubai-based Director Acen Razvi was asked to shoot a pretty intensive interview-led corporate film over six days and as he owned the BMCC and I had the Pocket Camera, he pitched the cameras as a two-angle setup. The BMCC and BMPCU have a very similar look, and it is very easy to match them in an edit.

The initial setup we had planned was to shoot using the Metabones Speed Boosters...
The Blackmagic Production Camera 4K boasts a Super35 sensor, a big improvement over the Cinema Camera’s sensor, which sits somewhere between the Super 16 and Micro Four Thirds (MFT) at 15.81mm x 8.88mm. This means you have less of the issues you did on the Cinema Camera in terms of crop factor. Your S35 lenses act as they should (although full frame lenses such as the Canon L series will still be affected by the full frame to APS-C crop of 1.6X).

While the Cinema Camera is offered in a choice of Canon EF or MFT mounts, the Production Camera is currently only offered in EF mount. To be honest, this seems an odd choice for two reasons. Firstly, the Production Camera is presented as a cinema tool, so it seems odd that there isn’t a PL mount option for it. High-end jobs don’t tend to be shot with SLR lenses as they aren’t designed for intensive use; they breathe more, and aren’t designed to be used in conjunction with gear such as follow focuses or matte boxes.

Secondly, there is no MFT mount option. The MFT is popular on the Cinema Camera, because one can use cheaper lightweight MFT lenses, and also because it is infinitely more adaptable to other mount formats. For my Pocket camera, I have adapters to use PL mount, Nikon F mount and Canon EF mount lenses. It seems to me that the MFT mount would have been a far more sensible option for the Production Camera.

The Production Camera’s most marketable feature compared to the Cinema Camera is written right on the box. It shoots 4K video in the same flavours as the Cinema Camera – RAW and ProRes. Presently, the firmware on the camera only shoots 4K in ProRes, but the 4K RAW will be implemented in future firmware builds. The camera also has a display option limited to HD, but the Blackmagic website suggests there will be an option to output UHD resolution over 6GSDI, which I presume will also be implemented in a future build.

For our shoot, we only needed HD footage, so for the bulk of the shoot (interviews and so on), we kept the Production Camera set to 1920X1080 to match the other two cameras.

“I was worried the 4K would seem oversharp and ‘digital’ and the images straight out clearly have been sharpened internally unlike competing cameras but I don’t think the camera suffers because of it. It looks sharp, but natural”

Andrew Clemson, DoP

Conrad Camera & Broadcast, Singapore
We had no major need for 4K on this project, and 4K ProRes will eat up a 240GB SSD in about 30 minutes so HD saved a lot of space. We did use 4K for a few of the outdoor architectural shots, and the footage does not disappoint. The 4K is as sharp and clear as one would hope, especially when rendered to 1080P. It did a very good job of rendering the exteriors. I was worried the 4K would seem oversharpen and “digital” and the images straight out clearly have been sharpened internally unlike competing cameras but I don’t think the camera suffers because of it. It looks sharp, but natural.

Resolution aside, the images out of the Production Camera were somewhat different to the Cinema Camera. In many ways, the two are almost aesthetically identical. Colours and skin tones appear matched, despite specs stating the Production Camera actually has one less stop of DR than the Cinema Camera at 12 rather than 13. However, in the footage from the Production Camera – at least to my eyes – harsh highlights seemed to roll off a lot softer than those on the Cinema Camera. Overall, I found it very easy to convince myself that I was looking at an Alexa image. I think as well as being an idiot-proof partner to a Cinema Camera or a Pocket Camera, in many shooting situations, the footage from Production Camera could easily fool 99% of the people into thinking it was shot on an Alexa, although the Blackmagic comes at a fraction of the price. Even if you added up all the accessories you would need to buy to make it work in a production environment, the Blackmagic is still more affordable.

The other major improvement the Production Camera has over the Cinema Camera, (and indeed most other cameras on the market) is that it ships with a global shutter rather than a rolling one. This eliminates skew and “jello” vision, enabling fast shutter pans and making handheld so much easier. We shot a great deal of this project handheld and on monopods in run-and-gun setups and the pictures came out looking great. Once again, the Production Camera suffers from a lack of removable batteries, with an internal rechargeable “backup” battery that must be supplemented by external power, be it mains, V locks, or, in our case, Canon camcorder batteries. The good news is that all of the available externals will run the camera for hours at a time, so you don’t need to carry a case full of batteries with you. We found one Sescom powerbase would last for pretty much a whole day of shooting.

My biggest, and the only real problem with the Production Camera is unfortunately true of all the Blackmagic cameras. The screen is terrible. In daylight, you cannot see anything, as it is reflective and dim, and indoors, the viewing angle means an external monitor or EVF is essential. Otherwise, you find yourself standing on apple boxes or chairs to be able to judge exposure or focus. But if you can find a way around that one, the Production Camera is an amazing piece of kit. Unlike its predecessors, it has shipped with no firmware teething problems (such as black suns or blooming highlights) that I noticed, and also has less of the “workaround” problems such as heavy crop factors.

For the price bracket, I don’t think there is a better image available in a production-ready camera out there. I am not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today. I’m not saying this is the best camera on the market but the best camera available today.
I have been using Final Cut Pro for most of my edits for the past 11 years. I’ve dabbled a bit in Avid MC/Symphony but it never really grew on me because of the clutter. Lately, I’ve been using a lot of different tools in my workflow including FCPX, DaVinci Resolve and Smoke 2013. I still have Symphony installed somewhere, just in case, but rarely ever use it.

Traditionally, when cutting a film, I have favoured FCP7 – even when FCPX was first out, I still used FCP7 for drama and long documentaries. For my latest short film Central Market, a co-production between Bahrain’s Ministry of Culture and Enjaaz (a post-production and production funding support programme of Dubai Film Market) and my company Elements Cine Productions, I wanted to try something different before going into feature film editing and my own debut feature.

I had heard about Lightworks Pro, which was supposed to be released for the Mac. Until then, I had thought that this was a new NLE (non-linear editing) that was trying to make its mark on the cutting scene and capitalise on the FCPX premature launch along with Premiere (FCP8). I learnt, however, that this solution was designed with film editors in mind. Upon further reading, I learnt that it was used to edit several feature films over the past 20 years – making it almost the same age as Avid!

It was released in 1989 and was sold to Tektronix and went through a few owners until it was bought by Editshare in 2009. Originally available as a full editing solution along with hardware – Editshare re-developed the software to support cross platforms with an optional keyboard and keeping the control console.

The latest notable film that was edited on Lightworks, was Martin Scorsese’s The Wolf of Wallstreet with Thelma.

Let there be light

Bahrain-based filmmaker Saleh Nass explores the capabilities of the Lightworks Pro while editing his latest short film, Central Market. He shares his experience with BroadcastPro ME.

**Snapshot**
- **Product:** Lightworks Pro
- **Price:** USD 269
- **Reviewed by:** Saleh Nass, Director and Editor.

On location for the filming of Central Market.
Schoolmaker at the helm. The King’s Speech, Hugo, Braveheart and Pulp Fiction were all edited on Lightworks – enough for me to make a decision to try using it for my short film – after all, short films are where you experiment.

I initially wanted to use the Mac version of the software, as I could use it to cut Central Market. It was still under development so I decided to use it on Windows 7 through bootcamp on my MacBook Pro. Learning how to use the software through online tutorials was quite simple. In fact, accustoming to the Windows interface took a little bit longer than using a new software.

There are two versions of Lightworks – a free edition, which supports basic formats and the Pro edition, which, of course, is the one you want because of the code limitations on the free version. The Pro edition is available at $60 with one year’s licence (you can buy the software outright for $170 slightly less than FCPX).

Central Market was filmed in a verité run-and-gun style with available lighting in the market using real traders on a Red Epic with cinema zoom lenses. – we had to keep the crew extremely small and mobile. Because of the amount of improvisation I did and the footage that we shot, I needed a solution that could handle the organisation process before I edited it.

When Lightworks Pro is started up, you’re met with a project pane and login (like Resolve or Smoke) where you can access or create new projects and set the project settings like frame rates. Once the project is created, you are greeted with a clean interface that, at first, looked alarmingly amatuarish, but that was because I was using a retina screen and my display settings were all wrong. When that was fixed, I was a little more reassured that I was using the right software to edit the film.

The toolbar on the right hand side of the screen is basically the whole editing process – settings, import (if you’re using files), record (if you’re using tape-based media), new edit, search (a powerful search feature that helps you find anything in your edit, we just got that with FCPX new bin, new rack, export to tape, export and preferences). Using these options was straight forward to import my Red footage in the project.

Since I was using my laptop to edit for portability and I only had a Red Rocket at the studio, I converted everything into ProRes422 Proxy which imported fine apart from a slight hiccup, which prevented sound from playing back properly but this has since been fixed.

You can have an unlimited number of bins in Lightworks Pro, and it has a neat feature where you can “storyboard” your shots in order in the bin and with a click of a button insert the clips in the timeline. I created a bin for each scene in my film to organise my thoughts. All the bins then went into a rack and there are a number of ways, in which you can order your clips according to how you think or edit. There is an additional organisational tool “Rooms” (essentially, a layout). This will appeal to editors who like different layouts for different tasks – for example, Room 1 can be for the edit and Room 2 to re-arrange the layout to just organise footage and bins.

What is different about Lightworks Pro is that such thumbnail or clip is a viewer and timeline rolled into one; there are two viewers like the traditional FCP. The interface is simple with most commands implemented using drag-and-drop. Instead of setting in and out points for the edit, Lightworks has a feature called “Mark & Park”, where you set the in-point and the out-point is where the playhead lands. I like the colourful timeline, which makes it easy to differentiate between shots in your edit or tell if they came from the same clip in the bin.

The clips snap together on the timeline magnetically, which I liked and previous editing was much stronger than what I was used to in an NLE. No Ctrl+S in Lightworks because it saves automatically – a habit that I’ve stopped ever since using FCPX, and I was glad that this was the same. The number of projects I’ve lost on Resolve because I forget to save are unbelievable! A lot of decisions also had to be made on the timeline and it was very easy to make a compilations of shots, hit a from the timeline, save it into a bin to try out at a different part of the edit (or abandon it all together which is so often the case). I guess you can do this with compound clips or versions in FCPX but in Lightworks, it’s simpler, just mark and park and drag it to the bin.

I could have done with the Lightworks keyboard when editing as a lot of shortcuts would have come in handy. I would definitely like to try Lightworks Pro’s dedicated console ($2,800) which...
In Brief
Pros
- Clutter free, easy to pick up interface
- Amazing features for the price point
- Excellent support and industry tested
Cons
- Windows interface
- Profiles 422 export options, a bit limited at this point

supposedly makes editing faster and is like editing films on a Steinbeck – not to mention that it would make the edit suite look cooler. I would really like to try the Mac version when out, and preferably on the Mac Pro.

When it was time to export the locked picture for grading and the sound edit, Lightworks can export to almost anything you want it to: EDL, OMF, AAF, AVI and MOV – I did feel the Profile 422 options were a bit limited and sometimes, didn’t work at all when going back to a Mac environment. I wonder if that was because I was doing something wrong or this is a limitation due to the software running on Windows.

For new Lightworks editors like me, I don’t think I’ve ever experienced user forums that were nearly as helpful. I was pleasantly surprised at how helpful their forums were and the level of involvement of the Lightworks’ team members, which will appeal to editors like me, who need that support.

My overall experience was that Lightworks Pro is an undiscovered gem at a very decent price-point. Although I would still use it to edit drama, Lightworks Pro is a great tool to add to the post-production arsenal. It is worth considering especially for feature-length drama or documentary work, which needs a good organisational facility and reduced clutter. I will definitely be looking forward to using it again on my next film as my NLE of choice.

OPTIMOD-FM 5500

Competitive Five-Band OPTIMOD sound in a compact package at the most affordable price ever. Ideal for network operations because audio processor and stand-alone stereo encoder modes can be swapped on-air without glitches.

OPTIMOD-FM 8600

Orban’s new flagship FM processor offers greater transient impact, decreases audio distortion, and 2 to 3 dB more high frequency energy than its predecessor, the 8500. The 8600 is truly a new generation of audio processing.
In an increasingly mobile world, newsroom production systems are being asked to do more than ever before. Besides the traditional broadcast television, newsrooms now supply content for mobile applications, web browsers, and video-on-demand (VOD) services. The industry is seeing a clear shift in live production as multiple feeds are being delivered to a range of devices. These new destinations require new tools for content creation and management — ones that enable multiplatform distribution, provide operational efficiency at a lower cost of ownership, and provide the capabilities for content distribution in higher resolutions and higher frame rates.

With the rapid uptake of mobile devices, broadcast professionals must have a reliable multiplatform content delivery solution that provides a cost-efficient workflow and greater flexibility than ever before. At the same time, the number of sources of news content is growing rapidly. Not only does the proliferation of broadcast codecs and file wrappers continue, but non-broadcast image capture devices are increasingly at the forefront of news coverage with many newsrooms going so far as to solicit user-generated content on their webpages. But with the right tools, broadcasters can build their brand relevance, increase their audiences, and grow their revenue.

Efficiently creating new tools and effectively integrating new sources into the workflow has proven challenging. Many production systems maintain legacy software technology based on large, monolithic, and standalone executable files. But having a system that is built entirely upon a modular and scalable Service Oriented Architecture (SOA) provides new opportunities for broadcasters in the newsroom. With such architecture, new tools can be implemented as network level services, with only lightweight software controls being necessary in the user application.

Newsrooms can leverage these new workflows first by utilizing a powerful engine for automatically managing import and export of content and metadata based on any combination of file type,
“Newsrooms can leverage” these new workflows first, by utilising a powerful engine for automatically managing [the] import and export of content and metadata based on any combination of file type, file location, and metadata entries. This rule and workflow engine would allow for all the technical parameters (such as transcoding, type of closed-captioning format, destination resolution, etc.) to be pre-defined and applied in the background, thus freeing editorial and creative personnel to put their energy toward adding value to the content, all simultaneously and dramatically reducing the potential for error.

Ed Casaccia, Senior Director of News
Product Line, Grass Valley

Here’s an example of this workflow in action:

1. An audience member who has captured valuable news footage on a personal recording device goes to the station’s website. A dialogue on the website instructs the viewer on how to upload the video and also presents a simple questionnaire in which the essential 5Ws of journalism (who, what, where, when, and why) can be entered as text. Under the covers at home, the audience member is actually creating an XML file.

2. Configured rules engine then monitor storage location used by the website for audience member uploads. This way, systems can detect when new content has arrived, match the criteria, and work with a variety of third-party transcoding engines to convert and ingest the audio and video into an editable format. Systems will also automatically associate the metadata created by the audience member with the new asset.

3. Configured rules engine then monitor storage location used by the website for audience member uploads. This way, systems can detect when new content has arrived, match the criteria, and work with a variety of third-party transcoding engines to convert and ingest the audio and video into an editable format. Systems will also automatically associate the metadata created by the audience member with the new asset.

4. A journalist, editor, or administrator can direct any and all finished product, using the imported content, to any and all destinations simply by clicking on-screen checkboxes.

5. Configure more rules within the production system to react to the checkboxes, and then route the content through transcoders, and, if needed, also extracting metadata and closed-captioning data to send along with the audio/video file.

This workflow can be made possible by the strict adherence to IT principles. Many companies use the term “IT centric,” in which they have modified standard technology to, in effect, make it proprietary. However, to make production systems complete information technologies, they will need to be totally accessible for external interfaces. The other way to leverage these new workflows is by using a family of functionality that brings remote sites and even individual employees working remotely into a production environment indistinguishable from the newsroom. This type of resource sharing and workforce flexibility is an increasing requirement for newsrooms to meet the financial challenges of delivering more content on stable or even shrinking budgets.

Using standard HTTP streaming to deliver proxy content to users — whether that user is in the newsroom, at a branch or sister station, or working remotely on a laptop computer, is another way to alleviate the challenges faced by today’s broadcasters. By using only one technology, no matter where the employee is, not only guarantees that the experience is the same every time, but it also means that only a single infrastructure needs to be created. Furthermore, there is no difference between the capabilities of the user between a full resolution connection and a proxy connection.

Implementing cloud technology is another way for newsrooms to overcome some of today’s challenges. Using cloud technology as a totally transparent fashion means users need not worry about or even know how their software tools are gaining access to content. This workflow can be combined with rules workflows, as described earlier in this article. This means that if newsroom management wishes, the field employee could set the metadata tags to automate delivery of the finished content to any and all output destinations.

Innovation such as this is essential for professional newsrooms to maintain their status as the preferred source of timely, accurate, and well considered information — especially in an age when the internet and the proliferation of image capture devices allows virtually anyone to post what would appear to be news content, but that is inaccurate, misleading, or worse. With the continuing evolution of various technologies, it is inevitable that higher resolutions and higher frame rates are necessary — ones that will facilitate production and publishing of higher resolution content as well as provide the infrastructure to make short or medium term investments compatible with changing business needs. By presenting media on the right platform, in the right configuration and at the right time, the opportunities to monetise content will soar. 

Ed Casaccia is Senior Director of News Product Line at Grass Valley.
DMI’s higher vision

Dubai Media Inc. recently upgraded to an HD facility with a brand new unified transmission room and a revamped newsroom. BroadcastPro ME looks at what the upgrade entailed.

State broadcaster Dubai Media Inc. (DMI) recently completed the large-scale migration of its newsroom and transmission facilities to an HD/3G infrastructure as part of the network’s larger vision to create a fully integrated, file-based TV facility by the end of 2015.

DMI, which until recently operated as a tape-based SD facility, designed a blueprint in 2012 under the leadership of CTO Saleh Lootah to overhaul its operations both, at its Maktoum bridge headquarters as well as its newer facility at Dubai Media City (DMC).

Late last year, the team successfully completed the consolidation of DMI’s 12 TV channels under one umbrella, while also migrating its newsrooms, studios, playout and transmission to a full HD and 3G environment. Alongside this, the media entity has also undertaken the Herculean task of deploying a digital archive solution.

The upgrade of the transmission area to 3G/HD was initiated in late 2012 and went live in Q4 2013 with all of the current DMI TV channels being played out from the new transmission chain. This also includes the newly launched Dubai TV HD channel.

DMI’s CTO Lootah calls the file-based transmission and everything that it has entailed in terms of equipment installation, workflow changes within the organisation as well as the need to change the mindset of the workforce “a huge step forward”.

“Technical development is inevitable, we live in a world that is rapidly developing and when it comes to technology, the pace is even faster. Keeping pace, however, is governed by many factors and to me, the most challenging factor is the manpower capability to adapt to the new development. There is also the challenge of migrating from the old setup to a new setup within a live environment; all precautions were taken to ensure service continuity.

“It is a challenging equation to balance. At one end, you have a group of people who are willing to move forward and at the other end, there are those who are reluctant to adapt as they fear leaving their comfort zone,” he explains.

The solution, according to Lootah, “lies in creating a smooth transition phase and managing the resistance.”

Group shots: The transmission team (above) and the News Centre team (below). Also shown here are the new news studio, news gallery CAR, and the 21ft video wall in the studio.
The transmission room (left) at DMI was designed and built by DMI's engineering team. Mohamad Khawaldeh (right above), Chief Engineer (DMI News Centre) and Omar Alzoubi (right below), Senior Manager of Engineering Systems, DMI.

It also included an HD file-based workflow. The existing Vtti graphics solution was also expanded with an immersive graphics solution (Hologram) from the vendor. The XOGiH upgrade at the News Centre includes a 15-camera and a four-camera studio setup in Dubai Media City as well as the MCR.

19 Sony HDC-2400 series HD camera kit were installed at the DMI facility. Two Sony MVS 7000X 3G vision mixers are installed in each production control room (PCR) and one Sony MVS 300 at the DMI studio as well. With this upgrade, DMI also boasts a 21m x 2m video wall from Christie at the news centre, which it claims is one of the largest video walls to be installed at a regional broadcast facility.

The Christie wall replaces the previous 7m wall. A new lighting grid along with new lights and control system was also added.

The newsroom, the galleries, the MCR, the Ardi NCRs and the Vtti system as well as the Christie wall and the digital archive solution are fully integrated to produce file-based HD content.

“We added 30 HD ENG Sony cameras to build the capabilities of the newsroom. In addition to that, we have introduced two (one pedestal and one crane) to track the virtual graphics and to give life to the hologram. We are the first to deploy these hologram immersive graphics system in the Middle East," explains Afzal Lakdawala, Head of Technology Planning and Projects, DMI.

“We have chosen each of these solutions with the utmost care. Vu Weather was purchased to create top-quality weather reports while Vu’s Video Wall ER solution enables distributed processing of graphic and video content across multiple Vu Islands. As a phased manner by moving island by island to the latest systems. Our edit suites are fully upgraded along with two of our studios that are now completely file-based.

We will migrate two more studios in 2014 to a fully file-based 3G environment. Our feeds recording project, which has also now been completed, will allow the content to be ingested automatically into our servers, and schedule it in our infrastructure.”

“The new transmission setup is now ready and we have successfully moved all of our channels to the unified transmission room. We are tackling the transition in a phased manner by moving island by island to the latest systems. Our edit suites are fully upgraded along with two of our studios that are now completely file-based.

“Once 70% of our infrastructure is file-based, we will have a centralized operations centre, from where our engineers can monitor the systems. Our news centre is already fully file-based all the way from acquisition to deep archiving and is fully placed within a 3G/HD environment and we are working hard to achieve the same at DMI’s headquarters,” Lootah explains.

Two major chunks of the workflow included the migration of DMI’s News Centre and its transmission operations.

The News Centre was first launched in 2005 and has since been upgraded to a state-of-the-art HD facility. The first phase of the upgrade involved renewing the Ardi system to HD and installing a digital archiving solution. This phase was completed in 2012 and integrated Ardi with the gallery. The second phase involved the complete 3G HD upgrade of the studio cameras, gallery equipment, ENG cameras, MCR, expansion of the Ardi solution and its digital archive.

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DMI and the News Centre gallery at Dubai Media City.

Engineer at DMI; Basil Al Shehi, Transmission Manager at

A number of journalists can access the

With all of the content available online, the speed of moving content between locations is greatly improved and no additional ingest is required. Content can simply be moved across the network. The Avid system is also connected with the digital archive, which means we can archive the media on digital format on LT05 drives rather than storing them on analogue tapes,” explains Lakdawala.

In addition to this, the availability of greater storage capacity enables DMI to hold more content online in HD quality.

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Key kit

Transmission
- Harmonic Omneon played servers
- Pebble Beach Systems’ automation
- Snell 850 router
- Vizrt on-air CG graphics
- Evertz presentation mixer, multi viewer system, magnum control system
- Oracle digital archive
- Front Porch Digital active management
- Evertz and Snell glue
- Tektronix Series Wave Form Monitors

Engineering Systems at DMI says that by creating “an end-to-end file-based solution, DMI has not only been able to streamlining the production workflow but also achieve the long-term objective of reducing costs associated with tape, VTR purchases, maintenance and repair.”

Content is first ingested into the Harmonic Omneon Spectrum servers, which encodes incoming video into standard XDCAM HD 50-Mbps format and wraps it in a low-latency MXF OP1a wrapper to facilitate the low-latency transfer of a growing clip from Spectrum to the Omneon MediaGrid system. During ingest, the incoming material is also transcoded by IP to a lower bit-rate and resolution for browsing. The browse copies are immediately available for viewing.

“The workflow has been designed to use DMI’s house format and avoid any transcoding, which complicates the workflow and introduces losses and delays in the process,” adds Alzoubi.

The multiple channels and the multi-format baseband transmission chains are designed to work on simulcast mode, if needed. Presently, the end-to-end solution spans content acquisition, production, post-production, archiving and transmission playout.

“The transmission chain as well as the entire infrastructure is designed to the highest standard with flexibility to offer HD and SD outputs, simultaneously. Besides, the design of the transmission facility is so flexible that it enables us to choose the transmission format be it SDI, HD or SD,” claims Alzoubi.

Shail Al Kheili, Transmission Manager agrees that “the new system is more efficient & more secure. We were using old servers, which used to crash often. Since we had three kinds of servers, we couldn’t move people around to work on all of them. Now, with the unified server and automation, everyone is trained to handle most aspects of the job. This has ensured optimal use of our system and our manpower.”

Lakhdawala reiterates that the entire chain of transmission equipment was chosen to match 3G/HD/SD standards including the main router (Obern 850), standby router and multi-viewer system (Evertz EQX), the transmission mixer (Evertz EMC series), Evertz and Snell glue equipment, Omneon servers (HD/SD) and audio equipment.

“The complete infrastructure for the project as well as the cabing and the patch panels have been designed and built to HD/SD specifications,” he explains.

The entire monitoring equipment of the transmission chain operates on 3G/HD standard signals.

“Other key kit include Orban’s automatic loudness controller to address loudness issues and Tektronix’s test and measurement solutions. The project also provides a comprehensive SNMP-based signal and network monitoring system, to ensure error-free on-air transmission.”

Abdul Hakim M. Jomaa, Senior Engineer, Broadcast Systems, Dubai Media Inc. (DMI) says that “the new system is more efficient & more secure. We were using old servers, which used to crash often. Since we had three kinds of servers, we couldn’t move people around to work on all of them. Now, with the unified server and automation, everyone is trained to handle most aspects of the job. This has ensured optimal use of our system and our manpower.”

No doubt, a significant chunk of the job was undertaken in 2014. Tenders have already been issued for the upgrade of one studio to HD, another two studios to 3G/HD and a file-based workflow for the Creative Department to support DMI’s 4K production.

Some of the projects that DMI intends to undertake in 2014 are a new HD OB van, a new HD ENG van, and the expansion and upgrade of its post-production systems.
OTT opens up new opportunities and revenue streams for television channels, but comes with its own set of challenges, says Safia Rana.

The Middle East has witnessed an explosion in the number of smart devices in recent years. Research recently released by Cisco’s Middle East branch revealed that smartphones represent 40% of the total impressions in the Middle East, a figure that is higher than the global average by 45%. This increased device penetration, combined with better connectivity and internet access has fueled the demand for over-the-top delivery of television content. This new trend in content delivery opens up new opportunities and new revenue channels for television channels. But it is not without its fair set of challenges.

While there is no doubt that subscriber demands will continue to drive interest in the field, channels need to first gain a clear understanding of the regional nuances that will most likely determine their success or failure, before they jump on to the OTT bandwagon.

Beating the bandwidth challenge

The first major hurdle for OTT in the region is bandwidth, or rather the lack of it. There remain a number of countries wherein data rates and the cost of high-speed internet are still an encumbrance to customers. Streaming content to mobile devices requires data packages which still come at a high cost and are restricted by data caps that, at best, would be in the 1-5 Gigabyte range. An HD stream running at 2Mbps for an hour on one device alone would amount to 0.84 Gigabytes of data! Even accessing such content through a WiFi network would take its toll.

What broadcasters in the region, therefore, need is a solution that adopts adaptive, real-time bit-rate streaming. They also need to ensure that they are providing their customer with the option of higher/lower quality streaming. This would enable them to deliver reliable OTT streaming services even to customers whose internet connections are not up to the mark.

New content – keeping viewers content

OTT, in addition to being a new model for content delivery, also challenges broadcasters to rethink the content they are putting out. Taking a leaf out of the book of satellite broadcasting, channels would do well to encourage

“What broadcasters in the region, therefore, need is a solution that adapts adaptive, real-time bit-rate streaming. They also need to ensure that they are providing their customer with the option of higher/lower quality streaming” - Safia Rana, Head of Sales and Marketing, ViewSat

Safia Rana, Head of Sales and Marketing, ViewSat
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Mohammad Shihadah is the founder of AppTek, a US-based firm that has been developing human language technologies for the last 24 years. In an exclusive interview with Vijaya Cherian, Shihadah talks about how this technology will add value to the television business and why Middle East broadcasters will benefit from it.

We don’t see many solutions around human language technology such as speech recognition and audio fingerprinting in this market. Could you shed some light on this topic?

Sure. Human language is a vast and complex subject and the technologies that are being researched and developed to understand it better are just as complicated and constantly being evolved. We have been working on this technology for the last 24 years. But to simplify it, one of the areas within this is speech recognition, which is used in multiple vertical markets such as healthcare and government projects. Then there are embedded speech recognition apps like Siri, where you talk to your car, radio and so on. Within broadcast, what you are primarily looking at is machine translation (MT) for TV, where you recognise the language in which the programme is broadcast and translate the audio on air and also convert it to text.

How does machine translation work?

MT is primarily about translating from the source language to the target language. Historically, experts have followed the lexical approach for translations, where the technology analyses the language based on semantics, syntax, lexicons, morphology and translates it. In the late 1990s, we started using the statistical approach, where we fed the source and target languages into the computer and trained it to translate intelligently. Google uses this method but it’s not fool-proof.

We now have a patent for a hybrid method of machine translation, which uses both the rule-based system as well as statistical translation. It improves the translation substantially and breaks it into categories providing more information and greater fluency. Hybrid technology offers the best of both worlds.

Where have you used your technology so far?

We have implemented this in several areas but mainly for government use. We are now looking to commercialise this for media entities. There are multiple ways in which this can be used by broadcasters.

Media monitoring is one of them. The capability to automatically ingest tens of thousands of channels and use automatic speech recognition (ASR) to generate the text in the source language and then translate that to the target language opens up huge possibilities. Once you have the source language, the translated language as well as the transcript for say, a news story or a speech, you can populate that into a search engine and it will show up. So, for instance, if you type in Obama, it will show you every programme and every channel, on which that name was uttered down to the second when it appeared on the channel, whether it was on a Chinese channel, an Arabic channel or an English channel. That kind of media monitoring can be extended across languages and multiple platforms including TV, web, social media, newspapers and magazines.

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The second way in which this technology can be used is for closed captioning or subtitling. How do you create a closed caption solution automatically as an anchor speaks or a broadcast is going on? Our technology is able to generate and type the text within five to six seconds from the speaker uttering those words. This is speaker independent. The accuracy associated with that text at the moment is more than 85%. If we have the chance to adapt the system and train it a little bit on the profile of the speaker, we will be able to reach 95% accuracy in that speech.

We did this with Al Arabiya channel, where we created automatic closed captioning, which you can also view on their website www.alarabiya.net. If you watch the Arabic programmes, you can see English subtitles that are captioning, which you can also view on their website www.alarabiya.net. If you watch the Arabic programmes, you can see English subtitles that you can search. I attended some of the Arabic TV conferences here and provide the digitisation. Our technology primarily helps identify languages, translate them intelligently into the target language and create rich metadata around it.

Another instance of this is when we do a major studio in the US. They have several tapes that have videos in different languages. The person who looks at those tapes may not be able to identify whether the video is in Czech or Spanish. The technology takes care of automatic language identification to avoid people making such errors.

Are you bringing this to CABSAT?
That's right. We are working on some second screen concepts but they also work with a major media entity called Tivvy, which is second-screen TV. That can further be extended to give you details about the actor, which in turn, can be connected with an e-commerce web site that allows you to buy the same glasses or T-shirt that a particular actor is wearing. This is the new direction the media business will take because it will help you to share clips immediately with your social media friends and participate in an immediate poll. The purpose is to create a shared TV environment and enhance the user experience.

Mohammad Shihadah, Founder and co-CEO of AppTek,
Dubai takes the lead with 4K

In an attempt to feed the growing demand for 4K content, a Dubai-based media house has decided to convert its sci-fi feature *Mantera* to 4K Ultra HD.

BroadcastPro ME brings you an exclusive report

Point in time: In the future, all GNAM productions will be produced in 4K.

Although producing content in 4K is the right way forward, NanoTech’s Senior Vice President of Product Development, Alex “LX” Rudis says “the growing demand for 4K content will not be met if we rely solely on the development of new ultra HD entertainment.”

“Fortunately, with recent technology advancements, we are no longer limited to just creating new 4K content to meet this growing demand. Content owners such as broadcasters and movie studios have vast libraries of content that can be economically converted to pristine 4K and offered to consumers while providing added ROI on their investments. The freemium versions (with embedded ads) can also be quickly turned into highly quality 4K VOD content that can be used to generate incremental income.”

4K Studios, for instance, has invested more than $750K in 4K film scanning and post-processing equipment.

“The equipment enables us to efficiently and effectively scan 16mm and 35mm film using proprietary multi-scan per frame at a variety of colour and light-levels to capture a highly optimised Wide Dynamic Range (WDR) 4K digital scan of each frame,” explains Rudis.

“We also apply a dynamic and optimised de-noise filter and colour correction process to efficiently produce a pristine 4K raw master file. As a final step, we scan through each frame of the film and manually remove scratches and any remaining artifacts. The end result is a near-perfect 4K scan which is a raw memarane master file awaiting final encoding for streaming OTT delivery.”

A two-hour film requires cleaning, scanning, optimising and encoding, which should ideally take three to four days. A damaged print with many defects would take many more man hours, according to NanoTech.

Rudis goes on to explain that the conversion process NanoTech undertakes doesn’t just involve up-scaling.

“Upscaled content is muddy and full of artifacts. It’s just not acceptable if you are expecting the true 4K resolution experience. Upscaled is just that stretching pixels. This process has gotten...

Dubai-based media content provider, Global New Age Media (GNAM), which is better known as the parent company of Spacetoon channels in the region, is undertaking a major 4K project that will see one of its multi-lingual feature film titled *Mantera* converted to 4K Ultra HD for distribution on Netflix in 2014. GNAM is one of the first companies in the region to attempt a large-scale project in 4K.

The project has been contracted to US-based 4K Studios, a subsidiary of NanoTech Entertainment, with facilities in San Francisco and Hollywood, California, which will not just convert the film but also distribute it with UltraFlex, its streaming 4K Ultra HD service.

*Mantera*, which was produced with a budget of USD 9 m, is a sci-fi thriller that tells the story of a brave young man who saves Mantera (Man Transformable Exo-Robotic Armour) from falling into the wrong hands. The Arabic, Russian and Malaysian co-production, which was originally shot in HD and combines CGI (computer-generated imagery), HD and live action, was shot in Dubai, Moscow and Kuala Lumpur.

Fayez Sabbagh, Chairman of GNAM, says the media firm considers it important to convert its content to 4K “because we want to provide a new, more exciting entertainment experience”.

“When we saw a preview of the film that was converted to 4K, the results were amazing. There’s just no comparison between OH HD and OH Ultra HD. We would have shot the film in 4K if there was a 4K camera available at that time. 4K conversion is the key for all of our HD content at this point in time. In the future, all GNAM productions will be produced in 4K.”

“Fortunately, with recent technology advancements, we are no longer limited to just creating new 4K content to meet this growing demand. Content owners such as broadcasters and movie studios have vast libraries of content that can be economically converted to pristine 4K and offered to consumers while providing added ROI on their investments. The freemium versions (with embedded ads) can also be quickly turned into very high-quality 4K VOD content that can be used to generate incremental income.”
Already, 4K seems to be the next buzzword in the industry, especially with the launch of several 4K cameras at a more cost-effective price. “The 4K trends we’re seeing are a clear significant push for 4K from the TV manufacturers; we need content for them and everyone else involved in the 4K industry,” explains Rudis. “Natively shot 4K movies and videos will find their way onto these 4K sets first, soon to be followed by the scanned and re-mastered videos from 4K Studios and other similar service providers. Also, more and more consumers will be producing their own 4K content with the advent of low-cost 4K cameras like Blackmagic, Sony and JVC; and then there will be the massively adopted 4K cameras from GoPro and forthcoming smartphones from Sony, HTC, LG and Samsung with their embedded 4K cameras,” he adds.

Of course, the challenges are many as this will call for more robust and efficient 4K editing, sharing and distribution. “More powerful PCs and GPUs along with enhanced encoding processes and "show-me-the-beef" bandwidth increases will help alleviate these challenges,” he adds.

In the meantime, GNAM has undertaken another major production with a Canadian company and a French firm. “It’s an animation called MIA. We will be producing 39 episodes of half hour each and this will again make the Arab world proud of what we do,” says Sabbagh.

“More ... consumers will be producing their own 4K content with the advent of low-cost 4K cameras like Blackmagic, Sony and JVC; and then there will be the massively adopted 4K cameras from GoPro and forthcoming smartphones from Sony, HTC, LG and Samsung with their embedded 4K cameras”
Chady Debs explains the impact of multiple devices on TV consumption and programming trends in the Arab world

One screen isn’t enough

If mobile TV was summarily dismissed because people weren’t expected to watch long-form content on a small screen, it appears the industry didn’t look far enough. TV is certainly no longer confined to the ‘small screen’ and its content is increasingly being watched on even smaller screens.

The rapid technological developments, particularly in the field of content digitisation, have created an environment where consumers are better informed and more empowered than ever before. They are actively shaping their media consumption by selecting the content they want to watch, on the screen that is the most appropriate to them, and at a time and place of their choice. This global trend has reached our shores and continues to revolutionise the TV landscape, changing the game entirely for consumers, advertisers and broadcasters alike. While traditional TV viewing still dominates viewership behaviour, the introduction of new technology has had an impact in a number of ways.

First-, second- and third-screen viewing has become the norm. Smartphones and tablets have allowed consumers to access content like never before. In the UK use their tablets to watch video clips according to a 2013 report, 51% of consumers in Saudi Arabia use them to watch videos and 58% do so daily, according to Google. The second- and third-screen phenomenon, however, has not replaced traditional TV viewing habits, but is expanding the options for consumers to view video content. The proliferation of screens has impacted more than just video consumption habits and led to a rise in media multi-tasking. With the rapid growth of social media, many viewers are connected on various platforms while watching TV. Specifically, they are using mobile apps, browsing the web, engaging with others via social networks, and/or texting with a friend or family member, all while sitting in front of the TV.

In the US, 35% of tablet owners and 23% of smartphone owners look up information on the programme they are watching using these devices, according to a Nielsen report. This phenomenon has caught on in the UK as well, with 80% of smartphone owners, 81% of tablet owners and 73% of PC owners using these devices while watching television.

Lastly, time shifting, thanks to devices, such as DVRs, or digital online services, like catch-up TV, has enabled viewers to easily watch content anytime, anywhere and in the format of their choice. They are no longer confined to the couch at specific times in order to watch their favourite shows.

As a result of these technological and behavioural developments, TV viewing today is becoming a social experience. Not only are consumers enhancing their TV experience through social and digital platforms, brands are now able to communicate directly with them over the same platforms when they watch TV.

While technology has introduced new ways to access content, studies have shown that live TV still remains the most preferred way to watch programmes. Regionally and globally, the number of hours people spend watching TV has been increasing over the past five years, albeit at different rates. In Saudi Arabia, the measure grew by 30.7% from 2009 to 2013, reaching almost seven hours. Globally, the figure increased a mere 1% to approximately four hours.
brings even more TV into their lives. If programming content and strategies were barely appropriate to attract acceptable ratings and advertising revenues, the approach has now changed. With not only airtime to fill but also a growing number of digital outlets, broadcasters have adopted a behaviour of their own.

In the past, the most significant programming investments were made during Ramadan. The Holy Month dominated the TV ratings and provided the highest advertising revenues for broadcasters, while the rest of the year would be filled with less expensive programming. This imbalance, in terms of ratings and advertising income, has led them to seek a new equilibrium, which came into being during the Holy Month. They also allowed broadcasters to even out their revenues and content investments.

Interactive reality talent shows, also known as shiny floor formats, have transformed the TV landscape globally, altering programming grids and ratings entirely. International success stories like Idol and Got Talent have been localised and proven very popular among Arab audiences. These programmes have played a major role in increasing the ‘time spent watching TV outside of Ramadan and raising the total rating points (TRPs) in Saudi Arabia.’

For the first time, non-Ramadan shows are achieving higher ratings than those aired during the Holy Month. They also allowed broadcasters to even out their revenues and content investments. Shiny floor formats are bringing stations significant income, making them less reliant on Ramadan for their commercial success. But the other outcome of this success is a new breed of viewer – one that is connected with the programme in more ways than one.

These programming formats have created higher viewer engagement levels with content. These shows are now being discussed at all hours, not just during their time slots. These formats successfully capitalise on the popularity of social media like Twitter, Facebook and YouTube. Not only do they allow broadcasters to distribute content from and about their shows through new platforms, they also enable viewers to share and discuss the developments from their favourite shows. In return, these programmes have also contributed to the usage of social media and new media devices, adding a new dimension to TV viewing. What was once a passive experience is now becoming an active one.

Technology platforms have given TV content an additional outlet, not only adding reach and longevity but also a social layer that creates further engagement with consumers. How this experience is crafted through content and the way it is delivered and commercialised will define the future of TV. Even though it disrupts broadcasters’ current revenue models, these platforms will provide additional and increasingly substantial revenue streams and content monetisation opportunities for broadcasters.

**PROTRENDS**
As CABSAT celebrates its 20th anniversary, Show Director Andrew Pert shares some exclusive details about this year’s event, its new partnership with NAB and some of the new launches at the show.

Take online video as an example. With research conducted by Bytemobile showing online video now accounts for at least 50% of all global mobile traffic, it’s easy to understand why broadcasters and content management creators, managers and deliverers view connecting with audiences through connected devices such as smartphones and tablets as an immediate strategic focus.

Additionally, global figures released by Accenture, show that 29% of tablet owners watch live video content via their tablet, 53% of connected TV owner’s stream live content and 21% enjoy live events on their mobile device or smartphone. Finally, these numbers are only increasing.

Meanwhile, big data analytics and storage – especially for video – are also becoming increasingly important for the region’s distributors of premium content, enabling regional operators to deliver immersive and disruptive approaches to audience/viewer engagement and reporting. These are global trends steering the future of international broadcasting and they’re especially relevant in this region as we see a trickle-down approach to the launch of “new” products and services already proven and adopted internationally.

Our aim in incorporating these hot industry topics in the CABSAT Conference, in partnership with NAB Show, is designed to leverage increasing global and regional demand for multichannel and connected device-streamed premium entertainment and news content right across the broadcasting industry.

Content by positioning the show and the region at large as a global destination of choice for leading TV, film and cinema production and distribution companies. We are very aware that CABSAT’s long-term success rests on the state and development of the maturing regional industry. If we want to increase exhibitors’ involvement in future editions of the show, we have to maximise the growth of the region’s broadcast and satellite industries by increasing the investment and partnership opportunities for all stakeholder communities. Delivering content, education and training programmes at CABSAT – and thereby linking best international practices with burgeoning regional potential via the new conference programme – is one avenue to achieve this.

Aside from the CABSAT Conference in partnership with NAB Show, the show’s biggest new feature this year is the Content Delivery Hub – a dedicated platform for multi-platform digital entertainment solutions, turnkey content sourcing, management and marketing of content. Solution providers in this area will be enabling regional operators to deliver immersive IPTV, video, mobile, online and OTT strategies which deliver a connected entertainment viewing experience – a process, which can only accelerate regional adoption of new media platforms. The Content Delivery Hub, via its associated exhibitors and the way in which they enable regional adoption of international technologies and OTT platforms, will also operate in synergy with our conference theme: Transforming Broadcasting in the Always Connected Digital World.

Vitally, our Content Delivery Hub exhibitors will also present solutions in a free-to-attend, open-air theatre centered within the dedicated zone. As we move things forward, CABSAT 2015 will see the Content Delivery Hub develop into a stand-alone exhibition zone over a dedicated hall at DWTC with live interactive features, content, training, competitions and educational programmes.

Elsewhere, CABSAT Connect is an exclusive, invitations-only annual...
networking event for director level or above. This year’s event will be held at the five-star Jumeirah Beach hotel on the evening of March 11, as part of the show’s 20th anniversary celebrations.

With representatives from regional and international broadcasters, conference speakers and exhibitors, tele companies, investors, media and VIP attendees, the event will provide a setting for attendees to hear from an international industry expert during the welcome address – again following our theme of Transforming Broadcasting to the Always Connected Digital World – before high-level networking with clients and potential business partners from across MEASA.

Finally, the Content and Studio Hub presented by CABSAT and Oasis Enterprises, and powered by JVC cameras, will allow live on-site interviews with CABSAT’s key exhibitors, international and global conference speakers, and attendees – all of which will be streamed throughout the show via CABSAT TV.

We hear you are organising meetings for exhibitors and visitors this year? Yes, we’ve launched the Global Meetings Programme this year. This is a new and exclusive meetings platform for our exhibitors and pre-registered visitors. The programme will provide access to an online matchmaking tool, personal assistance from CABSAT’s in-house business team and three pre-scheduled meetings with potential partners – letting clients engage directly with a targeted, senior community of MEASA’s leading content management buyers, partners and suppliers.

Where are most of your exhibitors located this year? The vast majority of our new exhibitors for Belgium, the US and Morocco, which have also yielded a crop of new exhibitors in both broadcast and satellite industries.

In addition to that, several local, regional and international exhibitors have significantly increased floor-space bookings for this year.

CABSAT Conference 2014

The CABSAT Conference, in partnership with NAB Show, will see two of the world’s biggest industry show brands in their field collaborate on a world-class content creation, management and delivery conference programme titled: Transforming Broadcasting to the Always Connected Digital World.

The 20-hour programme will feature daily keynote speeches, state-of-the-art industry reports and technical programmes, as well as panel discussions focusing on the latest trends and developments shaping global and regional markets.

In total, 16 interactive sessions will be led by global and regional experts armed with solutions and answers on how to implement and drive forward winning multi-platform, multi-screen digital entertainment and news content strategies. Attendees will learn how to best deliver and monetise immersive IPTV, video, mobile, online and OTT strategies which deliver a connected entertainment viewing experience that accelerates the adoption of new media platforms across Middle East, Africa and South East Asia.

HEADLINE TOPICS WILL INCLUDE:

■ Challenge & Opportunities with New Media
■ Taking on the 4K Challenge
■ The Convergence of Telecommunications and Entertainment
■ Impact of Multipurpose Content
■ Delivery in Live Sports Production
■ Data storage and Analytics
■ Maximising Your Viewership
■ Commercial Return with Video and ‘Shifting Revenue in a Big Data World’

Sam Nicholson, CEO of Stagiate Studios is the keynote-speaker on day two. Other speakers include: Sanjay Raina, General Manager, FOX International Channels; Carlos Salim Tré, Founder & CEO, Jeefx, Rafaelle Annecchini, Executive VP for Viacom International; Cliff Nelson, CEO, My-HD; Chris O’Hearn, General Manager, Emirates Media Measurement Company; David Rutorie, CEO, HIS, Suma Dutta, Country Head - Middle East, Africa & Pakistan, STAR Group; Jeff Youssef, Associate Partner, Oliver Wyman & Representative from ICT Think Tank; Paul Baker, Executive Director, intaj twofour54; Michele Munson, CEO of Aspera presenting on Netflix, and additional representatives from Piksel, Google, Grass Valley, CNBC and other leading regional and international broadcasters.

Paying conference delegates will also exclusively receive a ‘State of the Industry Report’ delivered by Frost & Sullivan – a document that will provide insight into the region’s burgeoning TV-Everywhere market.

Yes, we’ve launched the Global Meetings Programme this year. This is a new and exclusive meetings platform for our exhibitors in the Always Connected Digital World – before high-level networking with clients and potential business partners from across MEASA.

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The highlight of the Advanced Media Trading stand at CABSAT will be the new DJI S1000 octocopter and camera stabiliser MoVI M10 from Freefly.

The new DJI S1000 has been designed to lift heavy cameras for an average flight time of 15 minutes. With newer professional grade cameras that are larger and heavier than what has been used with the S800 before, DJI saw a need for a heavy-lifter, which was the reason for developing the S1000. The most obvious feature of the S1000 is the fact that its arms (or booms) are foldable. The S1000 has an integrated power distribution board centred on the lower frame.

MoVI M10 is a handheld 3-axis digital stabilised camera gimbal, built on Freefly’s proprietary IMU and brushless direct drive system. The gimbal is 100% custom designed in-house by Freefly’s engineering team.

EXPLORE AXON’S CEREBRUM
Axon Digital Design will demonstrate new developments within its signal processing and broadcast monitoring and control product lines. On show will be Cerebrum, which provides comprehensive tools to configure, control, monitor and maintain products from any manufacturer within and beyond the broadcasting industry. The result is that multiple operations can take total control over multiple and complex routines. With changes in live production technology rapidly evolving, Axon will showcase its new live production tool Synlive as well.

MEDIACAST GOES BIG
Spread across an area of 200 sqm, MediaCast will have one of the largest stands at CABSAT this year. The MediaCast stand will exhibit a larger Blackmagic Design section, showcasing the new Blackmagic 4K camera. Also on display will be the latest Avid products—S6 and S3L (first time in a show in the Middle East), Media 10, TriCaster series and 3Play, as well as a virtual studio section and other partner products.

For the first time, brands such as MiniCaster, TC Electronic, Matrox, Digital Rapids, and GB Labs will be showcased at the stand. There will also be a Thundertechs station.

“We plan to enrich our channel partner network further, and make sure that the products reach the end-users wherever they are in different parts of the region. For this, we will introduce new partner programmes tailored for different market segments and products. We are aiming for more growth in 2014; stated Peyman Dadpanah, Business Director of MediaCast. It was recently announced that Cache A Corporation, a manufacturer of archival appliances, has appointed MediaCast as its distributor for the UAE and wider Middle East region.

MARK SANGER HEADS TO DUBAI
Mark Sanger, BAFTA and Academy Award Nominee Editor of Hollywood film Gravity, will be speaking at CABSAT this year. Sanger, who will be hosted by Avid in Dubai, will discuss the world of editing, his experience, and the challenges he faces. He will share the stage with Avid’s VP of International Sales, Tom Cordier. They will discuss how Avid Media Composer can be integrated into post production.

Sanger will draw on the knowledge he gained from an impressive body of work, including his recent editing projects such as action adventure The Last Knights, starring Morgan Freeman and Clive Owen, and a collaboration with Alfonso Cuaron as a visual effects editor on Children of Men.

HARMONIC GOES PRO
Harmonic will highlight an end-to-end OTT multiscreen workflow with its ProMedia multiscreen preparation solution at CABSAT. The latest features for the ProMedia family of integrated software applications include support for HVEC encoding and 4K Ultra HD video format, increased synergy with the Harmonic MediaFusion shared storage system for the delivery of time-shifted TV services; and support for closed captioning, regional blackouts, and local ad insertion. Harmonic will demonstrate enhancements to its ProView integrated receiver decoder (IRD) product line. The manufacturer claims that ProView is the industry’s first IRD, scalable, multiformat IRD, transcoder, and MPEG stream processor. The feature-rich platform performs broadcast-quality SD/HD MPEG-2 and MPEG-4 AVC decoding and video transcoding, giving content providers, broadcasters, cable MSOs, and telcos the ability to easily and cost-effectively streamline their workflows and decrease operating costs. For applications in which preserving pristine video quality is paramount, this solution also supports AVC 4:2:2 10-bit decoding up to 1080p.

In addition, Harmonic’s Eclipse and Spectrum will also be on display.

NEW PERCEPTION FROM VISION247
Vision 247 will showcase Perception – a fully scalable, end-to-end multiscreen platform – to enable service providers to quickly roll out TV services to subscribers. Perception is a cloud-based live streaming and video-on-demand (VOD) platform that is designed to enable service providers, cable operators, mobile operators and content owners to deliver their own branded TV services across multiple screens. With Perception service providers can roll out TV services in as little as sixteen weeks, knowing that content ingestion, management and distribution is all handled from a single-management console.

Beautiful video everywhere
Multiscreen is not a technology, it’s an experience

Changing the way the world watches television
Amazing video quality, seamless operation, choice. Harmonic Multiscreen delivers the experience with a proven, complete solution. Compatible, tested and already in service. At scale, not in a lab. You may not see our name, but the experience will tell you that we’re behind it.

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MOSART ENHANCES NEWCAST

With the release of Mosart Newcast Automation version 3.6, now at CABSAT 2014, Mosart has enhanced newcast automation GUI to add even more flexibility at the director’s fingertips. Mosart Newcast Automation 3.6 provides access to a customisable pool of content and enables direct playout, regardless of the rundown location. Content and sources from any point of the rundown can be sent to studio walls, both directly and through preprogrammed scenes taken to air at a single click. These features improve non-linear news production by giving directors instant content access while further enhancing the Mosart automation system’s capability to perform in breaking news situations, during deviations from the NCIS rundown, and when directors are making on-the-fly decisions about which content and assets to use.

GRASS VALLEY GOES LIVE WITH NEW G9 DIRECTOR

Making its debut in the Middle East region is the G9 Director Non-linear Live Production System that integrates several features such as video switching and graphics in a single, intuitive system, and the new LDI Compact series of small footprint advanced imaging cameras. Also on display will be the K2 Summit and K2 Solo media servers, which are known for their reliability by delivering a 24/7/365 file-based infrastructure as well as demonstrations of GV Edge, Grass Valley’s playout solution.

ROHDE & SCHWARZ READIES FOR TRANSMISSION

The new Rohde & Schwarz transmitters allow the audio broadcast network operators to cut energy costs by as much as 50% as well as to reduce maintenance and rental costs over the lifetime of the transmitter. Another highlight is the R&S AME100 headend solution for encoding and multiplexing, which adds options, boosts performance and keeps small footprints.

ARGOSY BRINGS GHIelmetti AUDIO PATCH PANELS TO MENA

Argosy will debut Ghielmetti’s high performance CSF series audio patch panels in the Middle East on its stand at CABSAT. The Ghielmetti CSF audio patch panels are a high performance alternative to a traditional Balanced patch panel. CSF panels offer cross talk performance as well as normalising features together with self-clearing jacks. The CSF panel is now available with an Edac E3 interface which removes the requirement for soldering when installing the panel as all 1/4” cable are now clipped with standard tooling.

EVS ENRICHES CONTENT

EVS Nano Air is designed for studio production facilities and broadcasters for on-stage entertainment. It offers cost-effective multichannel playout capabilities with simultaneous playback of up to four HD or SD channels to multiple destinations – including studio backgrounds and stage screens.

TSL SURROUNDED BY SOUND

TSL Products is introducing the new SurroundZone2 DMX (Digital Audio Workstation) plug-in and ST450 MNI Surround Sound Microphone System at CABSAT. The SurroundZone2 plug-in unlocks the information captured by any of the SoundField microphone systems, providing unprecedented control over a wide range of microphone parameters from a single intuitive user interface. The MNI version of the popular ST450 battery-powered surround microphone delivers a new mic pre-design with improved metering functions. The new ST450 MNI has a new mic pre-design that allows for 3dB gain steps, replacing the 6dB steps of the original, giving operators the opportunity to more accurately fine tune the gain structure during capture. In addition, the overall available gain has been increased from 30dB to 42dB, delivering more system headroom.

SNEILL’S 360-DEGREE SHOWCASE

Kahuna 360, Snell’s multi-format live production switcher will be available for demos to showcase its enhanced flexibility and multi-format support. With its FormatFusion 3 technology, Kahuna 360 can now handle incoming 4K-UNHD feeds, mix them with 1080p and output them as either 4K-UNHD or 1080p, at no additional cost.

Product specialists will also be able to discuss Kahuna Maverik, Snell’s new modular-based control surface for Kahuna 360.

In addition to this, Snell will be introducing the newly extended ICE channel-in-a-box family.

From Smart Cards to Multiscreen

The unified content security head-end Conax Contego™ provides any pay-TV operator with a future-proof and flexible platform to introduce new services. Conax Contego™ is a sophisticated, modular and fully scalable content security solution that supports any business model for any TV operation and a multitude of consumer devices.

Conax Contego™ supports a wide range of consumer devices, tablets, smartphones, CAM, PC/MAC and STBS – with or without smart cards. All consumer devices are pre-integrated and easily managed in the highly intuitive user interface in Conax Contego™.

What happens when content and audience connect is an everyday magic. More than 380 digital TV operators in over 85 countries rely on us to sustain that magic by protecting their content and revenue. At Conax we work hard to innovate so that consumers can experience everyday magic; on any device, anytime, anywhere. So let the magic begin!

securing content - sustaining magic

conax.com
**OTT OFFERINGS FROM THOMSON VIDEO NETWORKS**

Thomson Video Networks will demonstrate key innovations for delivering OTT and multi-platform services with focus on HD picture quality on different platforms and devices. Featured products will include the company’s broadcast video compression systems for OTT, as well as HEVC solution for fax and file-based delivery to multi-screen and OTT services.

The company will also highlight its contribution and distribution solutions for satellite and IP based contributions. The company’s VBE C6000 premium multi-channel video contribution platform will be paired with the ROOSO contribution receiver decoder, designed for all-satellite and telecom contribution networks requiring up to 4:2:2 10-Bit. With the ability to encode or decode eight channels of video in formats from MPEG-2 SD 4:2:2 up to MPEG-4 4:4:4 10-Bit, the VBE C6000 features a DVB-S/S2/DSNG satellite modulator board, as well as multiplexing and de-multiplexing built into both its 1-RU and half-rack chassis.

Thomson Video Networks will showcase both real-time and off-line HEVC encoding on the VBE VST/00 platform for multi-screen and OTT applications, using MPEG-DASH to tablets, smartphones, and connected TVs.

**IMT GEARS UP FOR CBASAT**

Integrated Microwave Technologies (IMT) will showcase its digital microwave video systems for portable and fixed-link applications from its Nacorn and RF central boards. There will be a demonstration of Nacorn’s CPi, a compact portable transmitter (CPi-T). The Nacorn CPi-T is a compact, portable, lightweight RF video transmitter that delivers HD/SD output up to eight-watts in 2x OMT-COPP mod. Suitable for covering motorcycle and bicycle races, motorcross, triathlons and other fast-paced, high-speed ENG/OB events using such smaller on-course vehicles as cars, motorcycles and even bicycles. It supports video/audio/data/interleaved with selectable modulation bandwidths of 6, 7, and 8 MHz. In addition to its small size, the unit has very low latency and power consumption.

IMT’s Nacorn CamPac2 Plus HD/SD COPM2 microwave transmitter and Nacorn’s Newcastle DR2 will also be on display.

**FOCALPOINT SERVERS RETURN WITH WORKFLOW REVOLUTION**

FocalPoint comes at asset and workflow management from an entirely new angle. Traditional MAM logs media and then moves into projects but FocalPoint server creates projects first and simply absorbs media into them. Suitable for companies that need to manage large amounts of media in a fast-paced collaborative team, FocalPoint servers were originally created for BBC Sports during the summer of 2012.

FocalPoint needs only 5-10 minutes training per user, and will result in version, track and search all your editing projects, graphics and documents. It automatically sets up and maintains the necessary file or folder structure for major non-linear editing systems such as Final Cut Pro, Avid, Premiere and IPTV and graphic packages such as After Effects, Photoshop, Illustrator and Maya to name a few.

**VECTRACOM RECOMMENDS PRESERVATION**

VECTRACOM proposes its services to digitise all types of audiovisual content, regardless of physical media (tape, cassettes, films). The solutions are designed on a case-by-case basis to get the best possible quality out of each element. For films, the company handles the mechanical restoration, including the elimination of defects caused by breaks, damaged perforations, poor-quality splicing, dust or glue deposits. This operation produces cleaned films ready for high-quality transfers done with telescop or scanners and further enhanced with the digital restoration that the company also proposes.

VECTRACOM provided the required legacy equipment: Telescop 2” and 1” for preserving 35a-audio visual memory. It was responsible for their maintenance and for managing the digitisation process. The project was completed in 18 months.

**HITACHI ON THE MOVE WITH PORTABLE HDV CAMERA**

Hitachi Kokusai Electric Turkey will present its new Z-HD6000 portable HDV camera and EF camera for the first time in the Middle East. Introduced last September, this strategic addition is the first SMD5 sensor HDV camera in the company’s 2 series product line.

Building on Hitachi’s heritage in the broadcast camera market, the Z-HD6000 offers a combination of advanced functionality at an affordable price. This portable and durable studio and EF camera incorporates three 2/3-inch MOS 2.6 megapixel sensors with output signal format flexibility between 1080/59.94i and 1080/50i with 3150TV line resolution. The camera docks to optical fibre, triax or RF wireless adaptor, providing a powerful combination of high light sensitivity and zero vertical smear.

**CANFORD HIGHLIGHTS UK MANUFACTURING**

Canford, which has been designing and manufacturing audio, video and broadcast products in the UK for the last 37 years, will be highlighting a small selection of its 4500+ products at CBASAT. Canford is well-known in the industry for supplying products to both foreign and domestic professionals and is constantly developing and refining new and existing products and services to all these core industry customers and end-users.
**GET CONNECTED WITH SCHEDUALL**

At CABSAT, ScheduALL will showcase its connectivity solution that supports broadcasters, service providers and teleport operators across the region. ScheduALL Connector delivers greater visibility into resource utilisation within the corporate network and allows the user to allocate the right resource to the right project for the right margin.

The advanced connectivity solution enables operators to eliminate tedious emails, follow-up phone calls and spreadsheets, because their business systems can now directly collaborate across the enterprise for faster project management and a streamlined workflow.

**RIEDEL SUPPORTS STUDER**

Riedel will present the MN-ST-Al-2, the company’s new MediorNet expansion card for Studer consoles. The MN-ST-Al-2 card provides two ports, each with redundant interfaces, for connecting Studer mixing consoles via the Studer A-Link protocol. In this way, the consoles become an integrated part of the entire signal distribution infrastructure. Users can gain up to 384 channels per connection and realise significant cost savings in cabling and maintenance while benefiting from MediorNet’s flexibility and signal quality. Routing of the audio stream is handled by MediorWorks control and management software via drag-and-drop programming. The card supports all Studer Vista 5 and Vista 9 consoles, as well as OrArt 3000 consoles.

Also on display will be the MN-C-OPT-GV-2 for MediorNet Compact that allows the user to connect Grass Valley LDK and LDX cameras and their base stations directly to MediorNet. This provides a solution to route bi-directional camera signals, including all embedded audio and telemetry control data, through the MediorNet fibre infrastructure. The MediorNet Grass Valley card supports all video and sync formats supported by Grass Valley LDK and LDX cameras.

The other products on display at CABSAT include MediorNet Modular and MediorNet Compact, Performer, Artist, and Avacom communications systems, AVB Connect and AVB-enabled keypanels, RockNet 100 and 300 Fiber-Optic converters and console interfaces.

**CRYSTAL VISION KEYS IN**

Crystal Vision will be showing three different keying solutions at CABSAT. Visitors will see how to create a realistic live virtual production using Crystal Vision’s latest chroma keyer, while also on show will be two station branding products designed for adding graphics to video sources.

The Safire 3 real-time chroma keyer has gained two new processing features (Shadow Density and Key shrink) which make it even easier to generate the best possible output picture. Working with 3Gb/s, HD and SD sources, Safire 3 works with all live virtual productions from studio to sport. This 100mm x 266mm module uses an extensive range of fine-tuning tools for correcting edges, noise reduction, colour spill processing, lighting compensation and colour correction, and includes a framestore synchroniser to reduce spurious sync pulses.

Safire 3 can be operated using a choice of control options, including dedicated touch screen control panel (the Safire 3 controller) and a web browser.

**ORBAN CONTROL**

Orban Optimix TV 6685 and 6585 automatic loudness controllers for surround and stereo channels in digital television provide an internal, Orban-designed stereo-to-surround upmixer at no additional charge.

Both the upgraded TV 6685 and TV 6585 will be on display at CABSAT where visitors can listen and measure the TV loudness controllers. The upmixer automatically detects whether programming is in stereo or surround and upmixes or bypasses as appropriate. The upmix is directionally stable with a solid center channel, and avoids the “image steering pumping” introduced by consumer upmixers that have been repurposed for transmission.

**WORLDCAST BRINGS NEW ECRESO**

WorldCast Systems will bring its new Ecosso FM transmitter range with 10-year warranty to the Middle East market.

Initially launched at NAB in 2013, where it was awarded by Industry judges as one of the most innovative products at the exhibition, the Ecosso range and warranty has already been selected by several Middle East broadcasters such as Al Jazeera and NBC for deployment in their networks.

**TRILOGY SENDS THE MESSENGER**

Trilogy Communications will feature enhancements to its Messenger intercom system at CABSAT. Messenger is an entry-level, yet powerful matrix-based intercom that includes the comprehensive features and functionality typically only found in more expensive systems. Also at CABSAT, will be Genesis, Trilogy’s distributed matrix intercom and IP panel range. Trilogy will also feature improvements to its Gemini XL Master Reference Generator which provides independently timed SD and HD references with appropriate test signals to resolve specific system design challenges.

**BROADCAST AUTOMATION SYSTEMS’ EQUINOX**

Broadcast Automation Systems will showcase its newly launched EQUINOX version 5. EQUINOX is a versatile and multi-tasking solution for audio/video logging, archival, streaming and transfer. It presents a simple and consistent interface and streamlined workflow. Broadcast Automation Systems is the first company to have implemented “Cloud Based SaaS” for broadcasters’ workflow solutions.
PRO PRODUCTS

FOR A UNVEILS THE PROCESSOR

FOR A has unveiled the FA-1010 signal processor. With 10 video inputs and outputs, the new FA-1010 offers multi-channel routing between sources as well as effective video and audio signal processing for line, relay reporting, production, editing, and delivery applications.

Also known as “THE Processor,” the FA-1010 supports 1080p, 1080i, 720p, NTSC, and PAL video formats. The standard configuration includes 10 3G/HD-SDI inputs and outputs, each synchronised independently for a clean switch, even between asynchronous signals. There are 16 channels of embedded audio for 3G/HD-SDI synchronous/asynchronous input and 12 channels for each synchronous SD-SDI input.

ATEME’S TITAN AT CABSAT

TITAN Live Any-to-Any is a carrier-grade video processing solution for next TV generation headend. Based on a special design for receiving any video sources (IP, SDI), TITAN Live Any-to-Any is a real-time multi-channel format transmitter. With support for various encapsulation formats, TITAN Live Any-to-Any offers flexibility for content delivery by enabling the repurposing of content over numerous devices such as TV, smartphones, tablets, PCs or web players while maintaining pristine video quality. TITAN Live Any-to-Any answers all market requirements and is thus the suitable solution to terrestrial, satellite, cable, IPTV and OTT networks.

XYTECH ON CLOUD 9

Xytech, a provider of facility management software for the broadcast, production, media services and video transcoding, will exhibit in the UK Pavilion at CABSAT. Xytech will debut a new cloud-based solution, media order system, fuse integration platform, and SNMP-enabled transmission software at CABSAT.

Xytech will demonstrate four major new additions to the MediaPulse platform, which include SVY—a new cloud-based, platform-independent media workflow system; MediaPulse digital order—to support every step in the digital supply chain to make it operate as efficiently as possible; MediaPulse transmission features new adapters for Miranda, Avid Airspeed and Capture; and MediaPulse fuse integration platform.

GLOBECAST BRINGS OTT SERVICES TO CABSAT

Globecast’s end-to-end managed services for complete OTT content delivery will be on show at CABSAT. From content preparation to delivery, Globecast offers end-to-end solutions for OTT, including monetisation tools to help broadcasters make the most of their content. Through a managed solution, broadcasters can deliver OTT services to market rapidly without having to make a capital outlay for hardware and software, keep operating expenses under control.

The company is providing a comprehensive demonstration of its scalable playout solutions that align with broadcasters’ strategy and budget. Globecast will be co-exhibiting with NETIA, a Globecast company.

THE OBSERVER 7.1 ARRIVES

At CABSAT, version 7.1 of Vizrt’s Observer TS MPEG transport stream logging and monitoring system will be featured. Enhanced to accommodate an even broader array of inputs, the Observer line boosts support for ASI, QAM, 8-VSB, DVB-T/T2, and DVB-T MPEG TS interfaces. Available on all Observer/TS systems—including Enterprise, Pro, and Scout systems—the new interface simplifies deployment and configuration for receiving off-air channels.

LYNX FROM FRONT PORCH DIGITAL MANAGES RISK

LYNX from Front Porch Digital is the industry’s first enterprise-scale cloud implementation of content storage management (CSM). LYNX delivers adaptable, on-demand scalability; reduces capital and operational costs; and helps media organisations manage their assets. LYNX leverages the latest cloud and web technologies to provide a range of networked and distributed solutions.

Front Porch Digital will present LYNXdr and LYNXlocal at CABSAT. LYNXdr is a hosted disaster recovery service that allows global media enterprises to centralise critical assets and consolidate operations. LYNXlocal is a simple extension to LYNX that operates locally as an appliance, caching cloud content and providing integration to specialised systems if needed. LYNXlocal is billed as a service element at a low monthly rate.

TEDIAL OFFERS CONTENT MANAGEMENT SOLUTIONS

Tedial will be showcasing new and improved versions of content management, content exchange and cloud, process management, content re-purposing, legacy archiving and newsroom solutions, which have a new plug-in technology for ENPS and Avid news solutions to archive and retrieve content.

THE ADVANCEMENT OF THE BROADCAST NETWORK

Vizrt gives broadcasters a smarter workflow to create and distribute media. Graphics and video are easily managed together in a system that ensures efficient production while maintaining a high-quality product on-air, online, and on mobile devices.

To set an appointment for CABSAT 2014, email us at sales.me@vizrt.com, or call +971 4 365 4650.

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Technology will drive storytelling
The art of storytelling will become more complex and more informative. Audiences are growing more diverse and receive their information from myriad sources. If a broadcaster must survive, it must be able to adapt to new technologies that will help it get content in and out of the studio quickly, while also remaining reactive to changes as a story happens.

Broadcaster shift to mobile and online as first screens
The numbers of viewers that consume content online and on mobile devices first, instead of on-air, will only continue to grow. Broadcasters must now approach production as not just for on-air first, but also for mobile and online. Content including graphics will need to be adapted for different devices, and the needs of the audience. When broadcasters accept this reality, a ripple effect will occur for the rest of their storytelling.

A shift to social storytelling and analysis
News content is rapidly available online and content is more readily available from various sources beyond traditional on-air newscasts. Broadcasters will need to become more flexible and able to shift gears quickly to adapt the moment the story changes. With the number of social networks continuing to grow, broadcasters will need to implement a stable platform that can seamlessly adapt video and graphics content, with social media management considered as audience story changes with unfolding events.

As social media consumption and interaction increases, broadcasters and content owners will be able to use the metadata to analyse and use content in various ways. For example, being able to geo-locate people with different opinions or get a snapshot of social opinions across the world on news or events, will enable the broadcaster to engage further with their audience.

That said, relying on social network analysis alone to drive communication with your audience, will simply not be enough. Many broadcasters have already implemented second-screen experiences so they have direct control over how the audience interacts with programming and the year ahead, many more will follow. This will offer clear advantages such as the ability to create custom topics and polls to drive conversation and debate, as well as delivering targeted advertisements to specific demographics.

The evolution of the control room
Presenters are given tools that allow them to control the flow of a broadcast. Multi-touch screens and tablets add flexibility, but combined with the growing number of screens in a studio, they also add to the complexity of the production. At the same time, broadcasters are reducing the number of bodies running the newscast in the control room.

Control room automation systems allow the broadcaster to expand their capabilities using fewer staff, opening the door to handling a large number of screens and rapidly changing content. What could not be done in the past with a director or technical director team using a massive vision mixer, can now be accomplished with a simple software interface and just a keyboard.

Changing internal content distribution models
Another struggle broadcasters deal with is sharing content internally between parts of a news organisation. There is still a division between on-air news production and managing content on the broadcaster’s website. When broadcasters shift to the online and mobile first model, these lines become blurred. Using intelligent media management systems will allow the broadcaster to make the same content immediately available to all parts of a news organisation in the format they need – on any desktop. Editing graphics and video takes place quickly and easily on the desktop. On the distribution side, the live broadcast and graphics are all composited once for immediate output to the screen size and resolution needed for any platform. This not only saves the broadcaster time to air but also gives opportunities to have individual branding and sponsors across platforms without needing any additional render time.

We will definitely see some interesting changes for broadcasters over the next few years.

“Technologies that will drive the changing of story and the change in the way we manage the content,”

Petter Ole Jakobsen is CTO of Vizrt.

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