CSI AWARDS 2016

CSI Awards Winners 2016

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edgeware

geniusdigital
actions from data

NAGRA
KUDELSKI

Newtec

CSI AWARDS 2016

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CSI Awards 2016 judging panel

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Winners' overview

Welcome to the CSI Awards 2016 winners brochure, celebrating the companies and entries that triumphed this year. Very few products/solutions/platforms and projects that come each year are of low quality, which makes the process of picking the best such a tough call, especially as the pace of innovation accelerates. But there is always a merit to industry awards such as ours, even for those who may have just missed out. And our judges always strive for the best possible results in good faith – something we think and hope has maintained the high standards the CSI Awards have been recognised for since they were established at the turn of the century.

There were 15 categories up for grabs this year, with a new one in the shape of 'Best Virtual Reality innovation'. If you've been to any technology show or conference this year you'll know it's hard to escape the buzz around VR. Because it is so new it will take probably years for the ecosystem to develop and we look forward to welcoming ever more sophisticated entries in this field. The inaugural category was won by Viaccess-Orca for its End-to-End Virtual Reality Solution, which it has trilled with various broadcasters around football among other content, especially pertinent as sports is seen as one of the more promising areas of VR programming.

The ceremony was as always held at the RAI during IBC in Amsterdam and hosting the event was the ever popular Nadine Dereza, whose sharp wit and humour was appreciated by the 150 or so people who were there in attendance.

Starting off was 'Best digital video processing technology', which was this time won by Technicolor and its Advanced HDR solution. Regular CSI readers will know that High Dynamic Range is a keenly awaited technology that promises to improve the ultra HD (and HD) viewing experience and the French company is one of its leading exponents. The combination of Technicolor HDR Intelligent Tone Management and Technicolor HDR Distribution Solution delivers networks in real-time with a mix of HDR and SDR in a single stream, no matter the content's HDR curve, while always ensuring the best end-user viewing quality on every device type.

Service providers of all shapes and sizes are making the transition to IP because of the costs benefits and flexibility it offers. 'Best cable or satellite IP solution' saw Newtec's MCX7000 Multi-Carrier Satellite Gateway Release 2.0 (R2.0) triumph, more of which on page 6.

A joint entry, SoftAtHome and Orange won for the new LiveBox, an extremely powerful high-end set-top introduced by the French telco earlier in 2016. With a whole range of advanced features under the hood, the device was a worthy winner in the 'Best customer premise technology' category.

'Best monitoring or network management solution' was won by Conviva's Precision. Built on top of the company's Intelligent Control Platform, this is a powerful offer that enables delivery of a broadcast-like viewing experience to each unique viewer despite the inherent limitations of the Internet by continuously and automatically adjusting streaming configuration for each enabled device.

Nagra's anyCAST Protect triumphed in the 'Best content protection technology', which goes beyond other cardless solutions by running fully within the widely deployed Nagra On Chip Security [NOCS3] block embedded in all major set-top box chips and brands (more details can be found on page 10).

Another dual entry - Brightcove's OTT Flow, as powered by Accedo – grabbed the top prize in the 'Best internet TV technology or service'. Created by the two companies, OTT Flow offers a platform-as-a-service (PaaS) and guarantees a premium user experience across multiple platforms without any upfront costs for companies looking to deploy live and on-demand broadband video services.

Edgeware won the next category, Best content-on-

demand solution, with its TV CDN Architecture, an innovative approach to video-geared content delivery networks, more details on which can be found on page 8.

'Best interactive TV technology or application' is always a popular category so congratulations to ADB for scooping up the prize with its graphyne2 software suite. This provides the components required to achieve a one-stop-solution of client device and backend software.

Having missed out narrowly in the CPE category to the LiveBox with the Hopper 3, EchoStar managed to scoop the winning entry to 'Best mobile TV technology or service' with the HopperGO. This product The HopperGO is a pocket-size media storage device that lets DISH customers enjoy programming on the go. Recorded content from a Hopper with Sling or Hopper 3 DVR receiver can be transferred and stored on the HopperGO and viewed later on phones and tablets without the need for an Internet connection, a true TV Anywhere service that resonates well with today's consumer.

The 'Best Ultra HD TV technology or project' winner was the VideoMark live profile from Verimatrix, no stranger to winning other categories in the past. In this case, the VideoMark live profile is specifically designed to protect valuable UHD content against real-time re-broadcasting threats and subscription fraud, offering a more secure and technologically superior approach to existing watermarking methods for live broadcasts.

It forms part of a spectrum of forensic anti-piracy capabilities within the company's Video Content Authority System (VCAS) Ultra architecture.

Orange was on a roll with its new TV Clipping service, which won not one but two categories back-to-back, including 'Best TV everywhere/multi-screen video' as well as 'Best social TV technology, service or application', an achieve only accomplished a couple of times in the award's history. It allows users inside the Orange TV app to essentially take a scene from the big TV screen onto their personal smartphone, and then share it on social media such as Facebook, Twitter or Instagram. Exclusive in Europe, TV Clipping really does deliver a breakthrough social TV and multi-screen experience to TV viewers.

If at first you don't succeed, try and try again. It certainly worked for Genius Digital, who won the 'Best data & analytics innovation' at the third time of asking for its Multiscreen Insights Service. Through this, the London-based company gives TV, Cable, Satellite and OTT service providers a deeper understanding of real-time audience activity across all platforms and devices (more details on page 7).

'Best cloud/virtualisation innovation' went to Ericsson and its Video Storage and Processing Platform, which helps operators address the challenges of monetising time-shifted TV services, with added ad-insertion capabilities for VoD and time-shifted content on STB and OTT ABR devices. The enhancements build on the VSPP's software-based infrastructure, which integrates and virtualises the storage and processing capabilities of as many Commercial-Off-The-Shelf (COTS) servers as needed.

Finally, 'Best IoT product, technology or application' was won by SoftAtHome's CloudAtHome Internet of Things solution, dealing with four IoT domains: namely security, energy, health-care and comfort.

A mention also to our highly-commended entries. For the last few years, we have given out recognition in select categories where it has proven difficulty to separate the top two. The ones that just missed out on the top prize this year were Netgem TV's app for Best social TV; EchoStar's Hopper 3 set-top box in CPE technology; V-Nova for the Fastfilmz mobile OTT service in mobile TV; the Rambus CryptoMedia Security Platform in content protection and the Remote Data Wall from Bridge Technologies in best monitoring solution.

See you all again in 2017 with some brand new categories so stay tuned and best of luck to all who enter then! CSI team

Best cable or satellite IP solution

WINNER

Newtec - MCX7000 Multi-Carrier Satellite Gateway Release 2.0 (R2.0)
Satellite networks perhaps do not have the same capacity constraints that face other access technologies, but with competition continually intensifying and new bandwidth intensive services continuously appearing, they nonetheless are subject to the same business and operational imperatives. Namely, these are efficiency, flexibility and cost reduction where possible.

Newtec has specialised in developing and providing satellite communications technology since the 1980s, catering to the broadcast, VSAT, cellular backhaul & trunking and mobility, maritime and other market segments. The company's MCX7000 platform is a dense broadcast DVB-S2X multi-carrier satellite gateway.

The product is an upgrade and extension of an existing product, effectively a second release of the original MCX7000. It now supports all DVB-S2X features such as Channel Bonding and Wideband, as well as all S2X-specified MODulation and CODing (MODCODs). In addition, it also supports other technologies that can help improve transmission efficiency, such as low roll-offs (Newtec Clean Channel Technology®). These efficiency improvements can be stacked, according to the Belgian-based manufacturer, which leads to more bandwidth, better picture quality, additional channels, a higher link margin or an increased satellite footprint. Some of the technologies are also applicable on an installed base of set-top boxes and Integrated Receiver Decoders (IRDs). Bonding as part of this release will be provided as an upgrade in Q2 2017.

The MCX7000 is a versatile solution, whose applications include Ultra-efficient DTH distribution, primary distribution to towers and head-ends and contribution of 4K/8K video on standard and Ka-band High Throughput Satellite (HTS) spot beam transponders. With the increasing number of HTS coming into service, there is an associated need to provide affordable solutions for compatible ground terminal equipment.

Best Data & Analytics Innovation

WINNER

Genius Digital - Multiscreen Insight Service

We at CSI have long reported on how technology companies have started to view and describe data as the new oil, in the sense of its importance to the new digital economy. Its uses span a whole range of applications in TV and media, from content acquisition, to subscriber retention to better service quality and optimizing the user experience. But working with data and making sense of it can be a challenge. According to IBM, digital video is a booming area for content but remains largely untapped for insights as part of the more than 80% of data in the world that's unstructured, making it difficult to process.

Genius Digital has for some time now argued the case for not just data, but 'actionable' data. In other words, it's about using that data in a

fashion that then presents more valuable and meaningful information about videos and viewers. As the UK-based company points out, having a large amount of data about your subscribers is not the same as understanding your subscribers.

In order to do so, Genius Digital has created solutions for service providers to unlock activities such as targeted advertising, cost effective content syndication deals and the measurement of Quality of Experience (QoE). The company turns data into actionable insights so that TV operators can act to build more compelling and profitable services.

Its Insight Platform and Multiscreen Insights Service is aimed at all types of service providers - TV, cable, satellite and OTT – and provides a deeper understanding of real-time audience activity across all platforms and devices (after all, multiscreen is a core part of the reason that many customers now subscribe to a payTV service).

The multiscreen libraries that power the Multiscreen Insights product are a set

of flexible, lightweight and easy-to-implement libraries that can be embedded into an operator's mobile or web applications. These provide monitoring of video and audio consumption, profile management, performance and quality management in each of these environments. The Genius Digital libraries are developed for iOS, Android and Javascript, to cover the full range of devices on which operators make their services available; including Android tablets and smartphones, Smart TVs, game consoles such as Microsoft Xbox and dongles including Chromecast and the Amazon Fire stick.

As a result, operators have a single source with which to measure and analyse consumption from all of the devices in their network. Importantly, as the video landscape evolves, the platform helps with the growing complexity of managing viewer data.

A fit-for-purpose analytics system is paramount in allowing operators to keep pace with consumer desire and expectations. The Insight Platform and Multiscreen Insights Service meets and exceeds these parameters. Congratulations to Genius Digital engineers for creating this sophisticated solution and subsequently winning our Best Data & Analytics innovation category.

Best content-on-demand solution

WINNER

Edgeware - **TV CDN Architecture**
Founded in 2004, Edgeware enables operators and content owners to deliver TV content and services over IP networks at huge scale and low costs. The Stockholm-based company has in recent years been growing its presence in Europe, Latin America and Asia-Pacific thanks to network products that are at once scalable, cost efficient and boast low latency. It also doesn't require a complete transformation of the network, but an overlay. This is important as networks were never originally designed with video in mind, whether on-demand or especially live. Traditional content delivery networks were similarly not optimised for TV or real-time delivery.

TV delivered via IP already dominates peak-hour network traffic. And as the take-up of new TV services and higher resolutions increases, networks are becoming even more expensive to scale. These CDNs were developed to help distribute large amounts of frequently used content – such as PC software updates – but they're not optimized for TV. As a result they may deliver content via lowest-cost peering points or from wherever they have spare storage capacity. This isn't ideal for the real-time delivery of television services.

This is where Edgeware's purpose-built TV CDN comes in. With Edgeware, you can build a network engineered specifically for TV. According to Edgeware, a TV CDN delivers an amazing viewing experience, scales cost-effectively and gives you a unique insight into how your viewers are experiencing your content. It does this using a unique architecture that optimizes the different functions required to deliver TV in different ways and delivers content however is best for you.

The TV CDN is a single, purpose-built TV architecture that combines the scale of a centralised cloud infrastructure with distributed hardware-accelerated technologies. Indeed, a major incumbent European operator recently calculated that adopting Edgeware's TV CDN architecture will decrease capital costs by 50 percent of its network as well as saving it 75% in power and 90% of their rack space – when compared to delivering TV from a conventional architecture.

The new TV CDN architecture is based on existing Edgeware technology which has already been used to build over 100 CDNs around the world, including Televisa, KPN, Telia Company, Vodafone and TVB.

Edgeware's TV CDN was launched in April 2016 at NAB. Ultimately, it enables for a better experience for viewers, something that is critically important in an ultra-competitive market landscape that is becoming more so by the day.

Click here for more information on Edgeware's architecture.

IT'S TV

(BUT NOT AS WE KNOW IT)

NEW FRONTIERS IN SPEED, SCALE AND CONTROL

WITH YOUR OWN TV CDN

Let's make TV amazing again.   **edgeware**

Best content protection technology
WINNER

NAGRA - anyCAST PROTECT
Cardless Solution

NAGRA has, over the years, reinvented itself beyond Conditional Access (CA) into competencies such as a multiscreen, OTT and advanced user experiences. Nevertheless, protecting content revenues remains at the core of the company and in the Kudelski Group DNA since the 1970s. Evidence of this was recently reflected at IBC 2016, when NAGRA won CSI's 'Best content protection technology' for the second year in a row – a rare achievement indeed.

There are different types of services offered by free-to-air broadcasters and pay-TV operators, from low-value all the way to premium 4K/HDR Ultra HD. Of course, robust security becomes more important further up the content chain (note for example the MovieLabs Enhanced Content Protection guidelines), and in the case of anyCAST PROTECT, it is aimed at protecting mid- to high-value assets.

Though NAGRA has had cardless solutions in the past, this is essentially a completely new product, part of the company's anyCAST line of content protection solutions, which comprise six distinct security products under that umbrella brand. Service providers could start by deploying NAGRA's low-cost, software-based anyCAST ENABLE to protect lower-value content during an initial deployment, with the possibility to upgrade to the hardware-based anyCAST PROTECT in the future, which can be done by a simple headend change.

NAGRA anyCAST PROTECT is aimed particularly at pay-TV service providers in emerging markets that are increasingly looking to reduce the total cost of ownership of conditional access systems by leveraging cardless solutions. With anyCAST PROTECT, the company proposes a better way of deploying next-generation cardless systems without the risks associated with older technologies using only obfuscated software or standard key ladders, thereby achieving a lower long-term total cost of ownership.

Because it relies predominantly on hardware security, NAGRA claims the independently audited solution gives pay-TV service providers peace of mind that their content is protected without the compromises in security associated with other cardless solution. It achieves this by embedding critical security functions within the STB hardware itself in what NAGRA calls NAGRA On-Chip Security, or NOCS. This makes the level of expertise required to compromise and commercialise a hack far more difficult than with traditional cardless systems.

But even the best content protection solution cannot prevent new forms of piracy like content re-distribution. So as piracy continues to migrate from the broadcast paradigm onto the internet, NAGRA content protection solutions are evolving to integrate watermarking technologies like the industry-leading NexGuard solution to manage content re-distribution, using forensic tracking and response services provided by NAGRA's global Anti-Piracy Services team.

Launched to market in late 2015, anyCAST PROTECT has already seen commercial traction, being deployed at more than 20 customers in Africa and Asia, including India's largest cable operator, DEN Networks.

Cardless Without Compromise

With the move toward cardless conditional access systems in emerging markets, companies that designed first-generation solutions resorted to using software security techniques and industry standard security mechanisms to secure their solutions. They did this largely because they lacked the necessary hardware expertise or scale to work with silicon vendors to embed their security directly into the set-top box system on a ship (SoC).

Though this approach has proven adequate to date for the protection of low-value content, IT industry security experts and global IT experts consider the techniques used to be fundamentally inferior to the use of hardware-based content protection technologies. This can potentially lead to a number of problems that could ultimately drive the total cost of ownership for cardless solutions far higher than originally anticipated by the service provider. The threats include:

With so many potential problems using first-generation one-way cardless CAS systems, is there still a way to reduce total cost of CAS ownership without compromising security? Is it possible to enjoy the logistics savings associated with cardless systems without the fear that the set-top box will ultimately have to be replaced in case of a compromise?

Why NAGRA is Different

Through its deep hardware expertise, industry-leading technologies and relationships with global silicon vendors, NAGRA and its cardless solutions avoid the risks highlighted above, giving pay-TV service providers unparalleled peace of mind that their content is protected without the possible compromises in security associated with other cardless solutions. And because NAGRA offers the industry's strongest cardless solutions, it also stands behind them with warranties and liabilities that are better than those offered by any other solution provider.

NAGRA anyCAST PROTECT achieves this by moving all critical CAS functionality into the NAGRA On-Chip Security (NOCS) hardware block of the SoC, making use of the hardware's ability to protect the entitlements, in storage and in use, required to access services. Any keys stored outside of NOCS are in encrypted form, providing a cardless solution that is fully hardware-based, not software-based. This makes PROTECT not only superior to any other cardless solution on the market,

but also superior to most card-based products offered by other solution providers. Even independent auditors agree:

"Whilst there can be no certainty regarding the evaluation of any security system, in our opinion we believe that the hardware security-based anyCAST PROTECT is a system that is more likely to prevent a commercially viable pirate attack than many smartcard systems that make use of standard components in the smartcard and OEM devices (e.g. standard smartcard hardware and SoCs using a standard ETSI key ladder). NAGRA furthermore has options to recover the system security by remote updates which can be made to their CAK client and some smaller changes in NOCS3 before it should be necessary to deploy smartcards. Should such a deployment be required, the use of the NAGRA anyCAST COMMAND smart card offers an effective way of recovering from a breach of the SoC." – Farncombe Security Audit, February 2016.

Pay-TV service providers invest huge sums of money in acquiring premium content and deploying customer premises equipment like set-top boxes. These two investments alone warrant the use of the best possible content protection technologies and services. Now, with NAGRA anyCAST PROTECT, that protection is available.

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