Insight on the global video delivery business

Digital TV Europe

September 2022

The DTVE Interview: Olivier Jollet, Pluto TV | FAST channels | Content discovery | Streaming technology

FAST times

The reinvention of linear in the age of connected TV

This issue

Editor's note

Full stream ahead

Welcome to *Digital TV Europe*'s IBC special issue. The return of Europe's premier broadcast and professional video trade show after the global pandemic is of course a cause for celebration. The TV world has however changed massively since the last time the industry gathered in Amsterdam.

Our special issue addresses some of those changes. We are now more firmly than ever in the streaming age, and our line-up of features fully reflects that.

With subscription video-on-demand maturing and consumer spend being cut back as the cost of living bites, ad-supported streaming video is on the rise. In this issue we consider in depth the emergence of free advertising-supported streaming television (FAST) and the challenges and opportunities it presents.

The proliferation of streaming platforms has accelerated the trend towards service providers adopting the 'super-aggregator' model. That model makes sense if it delivers a differentiated user experience that includes some form of advanced content discovery. We also look at the complex challenges and opportunities of advanced, personalised content discovery.

Finally, the rise of streaming has also led broadcasters to move towards IP and streaming technology to accommodate new viewing habits, including for live and linear programming. In this issue we look at the rise of streaming technology and its application to live programming.

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News digest

News and analysis of the international digital TV business.

Warner Bros. Discovery and BT complete Eurosport-BT Sport joint-venture deal

Warner Bros. Discovery and BT Group have completed the merger of BT Sport and Eurosport into a combined 50:50 joint venture.

The deal, announced in May following the reveal of exclusive talks in February, will create a significant player in UK sports with an extensive portfolio of premium sports rights including UEFA Champions League, the English Premier League, Premiership Rugby, UFC, the Olympic Games, tennis Grand Slams, cycling Grand Tours and the winter sports World Cup season.

The combined company's board is equally split between BT and WBD, with BT consumer CEO Marc Allera serving as the first chairperson.

In a press release, the companies said that BT Sport and Eurosport will "retain their separate product propositions for a period of time", with the intention to "launch a new sports brand in the market and present this combined sports offering together with an entertainment offering from Warner Bros. Discovery."

While Discovery launched its sports-housing discovery+ streamer into the UK market prior to its merger with WarnerMedia, HBO Max has not launched in the country and the company has halted its rollout as it looks to launch a combined streaming service in mid-2023. This statement provides a hint that whatever that new service is, it will launch in the UK complete with this new JV's rights portfolio.

Marc Allera, chairman of the JV and CEO BT's Consumer division said: "As we enter our ninth season, today is day one of an exciting new chapter for BT Sport. I am extremely proud of the teams and the established brand and broadcaster that BT Sport has become, and I look forward to working with Warner Bros. Discovery to create an exciting new sport TV offering for the UK."

Andrew Georgiou, board member of the JV and president and managing director, Warner Bros. Discovery Sports Europe, said: "Today marks the start of our journey to build a new sports destination for fans in the U.K and Ireland. Combining BT Sport and Eurosport U.K. together with Warner Bros. Discovery's world-class and growing entertainment offering will result in an exciting new proposition for consumers.

"It's important for fans to know they can continue to enjoy BT Sport and Eurosport U.K. as they do today and we'll keep them updated on future plans as soon as we can. We are pleased the transaction has closed and we can now further engage all stakeholders in the process of establishing the JV and developing its extensive combined sports offer."

Executive shakeup

Warner Bros. Discovery has also announced its new-look executive teams for MENA and EMEA.

Former Discovery exec Jamie Cooke, who was named WBD's GM for CEE, Baltics, Middle East, Mediterranean and Turkey in June, has outlined his team, with Roni Patel taking on responsibility for managing content licensing for the combined region and the Nordics.

Lee Hobbs is leading the EMEA-wide pay TV channel business, including Discovery Channel, TLC, HGTV and ID brands. Hobbs will also take on responsibility for the new-look EMEA WBD Creative Agency, which will work across content and channel brands.

Elsewhere, Andrei Grigorescu will be responsible for ad-sales for the combined region, while Cristina Valasutean will lead business development and distribution in Romania, Hungary, Czech Republic and Slovakia.

Kenechi Belusevic will be responsible for biz dev & distribution in SEE (Bulgaria, Serbia, Croatia, Bosnia and Herzegovina, Montenegro, FYR of Macedonia, Slovenia, Albania), Baltics (Latvia, Estonia and Lithuania), CIS (Armenia, Azerbaijan, Kazakhstan, Belarus, Moldova, Uzbekistan, Ukraine, Kyrgyzstan, Georgia, Tajikistan and Turkmenistan), Mediterranean (Greece, Malta and Cyprus), Israel and lead on commercial sports development across the combined region.

Francesco Perta will be responsible for business development & distribution in MENA and Turkey. Grigory Lavrov leads on trade marketing across the combined region and channel management for TLC and DMAX in Turkey and Fatafeat in the Middle East.

Mabelie Bruijns will be responsible for all communications across the combined region and pay-TV networks business in EMEA.

Samsung TV Plus gets new look, expanded content offering and renewed 'commitment to future of FAST'

Samsung has announced a new brand identity for its TV Plus FAST platform.

The service currently offers more than 1,600 channels globally across 24 countries and 465 million devices. The company said that users streamed TV Plus content for nearly 3 billion hours over the past 12 months.

Samsung said that the new branding signifies its "commitment and investment in the future of FAST," adding that the platform's integration on select Family Hub refrigerators in the US and Korea indicates this.

Coinciding with this rebrand are a number of renewed high-profile content partnerships with A+E Networks, The E.W. Scripps Company and BBC Studios. The latter will launch a new channel dedicated to *Top Gear*. The channel marks BBC's 5th channel that has launched on Samsung TV Plus, including *BBC Home*, *BBC Food*, Classic *Doctor Who* and *Antiques Roadshow UK*.

The rebrand will also bring a refreshed news offering from ABC News Live, CBS News, LiveNOW from FOX, and NBC News NOW. In addition to delivering national and international news coverage, Samsung TV Plus has launched an expansive initiative to bring live, local news and weather to consumers around the US. Today, the service offers local news programming tailored to viewers' local region across more than 40 DMAs.

In addition, the company also said that it plans to double the size of Samsung TV Plus's VOD offering in 2023 via new and expanded partnerships with content distributors and rights owners including Lionsgate, Vice Media, and others in an effort to grow its 'already expansive' library.

Won-Jin Lee, president and head of the service business team at Samsung Electronics, said: "As an early player in the free ad-supported streaming TV space with unrivalled expertise across hardware, software and services at a truly global scale, Samsung TV Plus has become a top viewing destination for consumers around the globe. We are thrilled to recognise the massive growth we've achieved so far across 24 countries and over 1,600 channels globally. Samsung TV Plus' new brand signifies our continued investment into the future of FAST."

Sang Kim, SVP of product and marketing, Samsung Electronics, said: "Our new look, programming and partnerships come at a time when many consumers are overwhelmed by a myriad of monthly bills and subscriptions. We are proud not only to manufacture quality devices, but ones that provide additional value through instant and free access to entertainment spanning movies, music, news, art, gaming, health and more."

In brief...

beIN Media hails closure of nine piracy operations

beIN Media Group and the Alliance for Creativity and Entertainment (ACE) have reported the closure of nine illegal piracy operations by Egyptian law enforcement. Sixteen Egyptian police officers were involved in the raids and were supported by the Egyptian Ministry of Internal Affairs. These raids resulted in the arrest of the two operators and seizure of domains, assets, and IT equipment, beIN said. The nine sites shut down in this recent action were: yalla-shoot.today, one of the most popular live football streaming websites in the Arabic-speaking world, with a total of 125 million visits in the last two years; yalla-shoot-kora.com, a live football streaming website popular in the region; yalla-shoot-arabia.com, another such site active since March 2020; yalla-shoot-arabia.net, active since March 2021; hdkoora.com, active since early 2018; kooora4k.com; korawatch.com; kooralive-online.com; and alqnassport.com.

Sunrise UPC launches free TV offering

Liberty Global-backed Swiss service provider Sunrise UPC is introducing a free TV tier as part of its yallo offering. Yallo is launching yallo Free TV as a free, advertising-funded TV offer that can also be used by customers of other providers. The service comes with basic features and is targeted at those looking for a service that supports 'occasional television viewing', according to the provider. The launch of the free offering follows Sunrise UPC's acquisition of streaming startup Wilmaa TV in June.

Roku TV launched in Germany

Roku has announced the launch of Roku TV in Germany, marking the latest regional expansion for the company. The company previously launched its streaming players in Germany in 2021, and has revealed Metz blue and TCL as the first partners to launch Roku TV models for the German market. Sets will be available from October in sizes varying between 32" and 65" in HD, 4K and 4K QLED. Arthur van Rest, VP International at Roku, said: "People transition more of their entertainment time to streaming, while continuing to watch a significant amount of broadcast TV, so we are excited to launch Roku TV in Germany and offer a great experience for both."

Patrick Drahi's Altice gets greenlight for BT stake purchase

The UK government is to take no further action in relation to French telecom tycoon Patrick Drahi's stake in BT.

"Following careful consideration, the government will take no further action on the acquisition of 5.9% shares by Altice in BT and the Final Notification has been issued to parties," the Department for Trade and Industry said in a statement.

Business secretary Kwasi Kwarteng called the acquisition of an additional 5.9% stake in the UK telco by Drahi's Altice in for a full national security assessment in May. Altice previously held a 12% stake in the telco.

Altice increased its stake BT from 12% to 18% in December, prompting warnings from the government that it could intervene to prevent a full takeover.

Kwarteng's decision to kick off a review came a few weeks ahead of a deadline that would open BT up to a potential takeover bid by Altice. The French group said at the time it upped its stake that it did not intend to launch a takeover bid, triggering a six-month period under which it is prevented from making such a move under the takeover code.

It has always been considered unlikely that the UK government would permit a foreign company to acquire BT given its involvement in national security work. BT's role in extending connectivity nationwide likely also came into play in considering any risks associated with Altice upping its stake.

Subsequent to Kwarteng's high-profile intervention, press reports appeared suggesting that the government would cap any further stake-building from Drahi and may stop him from taking a seat on the board.

Uncertainty about the fate of Altice's existing stake remained, but has now been cleared up, leading to a rise in the telco's share price.

The DTI could still intervene if Drahi decides to up his stake further. It noted in its statement that "any future transaction could be subject to a separate assessment".

The UK government last year gave itself powers to scrutinise and potentially intervene in market acquisitions on national security grounds under the new National Security and Investment Act.

Change at the top for Altice France

Following a poor period for SFR, Altice France CEO Grégory Rabuel has left the French company and will be replaced by Altice Média chief Arthur Dreyfuss.

The management change will also see Mathieu Cocq, until now executive director for Altice's overseas operations SFR Caraïbe and SRR, become chief executive of service provider arm SFR, a post hitherto held concurrently by Rabuel.

The internal note said that Rabuel was leaving by common consent with Drahi after 13 years with the company. Drahi was quoted as warmly thanking Rabuel for "the colossal work undertaken in recent years".

Dreyfuss will remain at the head of Altice Média, while Laruent Halimi, executive director, legal, at Altice France will become secretary-general of the group, a post until now also occupied by Dreyfuss.

In brief...

Xperi board approves split

TiVo owner Xperi has approved the separation of its business into two entities. Xperi, had previously announced plans to separate its IP and product businesses into two standalone units. This move is now on the verge of completion, with the company announcing formal approval from the board on August 29. The product business, which houses TiVo, IMAX Enhanced, HD Radio and DTS, will operate under the Xperi banner (trading as XPER). The remaining IP licencing business, which owns more than 10,000 patents and applications and will be run by Xperi veteran Paul E. Davis, will be named Adeia (trading as ADEA).

BT launches streaming-only option for Freeview channels

UK telco BT's TV Box Pro customers can now access the bulk of the operator's TV service without the need for a terrestrial antenna via a streaming-only mode on its advanced set-top. BT is also launching the BT TV Box Mini, a new multiroom compact TV box, which lets customers watch TV in an extra room of the house,

YouTube targets streaming aggregation

Google-owned YouTube is reportedly set to launch its own video streaming channel store. According to the WSJ, YouTube will join the likes of Amazon, Roku and Apple in launching what is being referred to internally as a 'channel store'. The platform, which is said to have been in development for at least 18 months, would allow consumers to access streamers a la carte through the main YouTube app. It already offers streamers like HBO Max, Starz, and Showtime to customers in the US via its YouTube TV vMVPD service. YouTube is one of the most ubiquitous apps installed on smart devices. In 2021, it became only the second ever app on Android to be downloaded from the Play Store over 10 billion times.

The content supply conundrum:

more content, more diversity, less time and resources

Jean Gaillard, president of Nomalab, explains that efficient content supply management is of critical importance today.

Efficient content supply is critical

Acquired or commissioned finished content is key for the success of broadcasters and VOD publishers. Thus efficient content supply management is critical.

Content supply management starts with receiving file material from many external sources and subsequently going through several transformation, verification and validation processes to end with fully validated files available for the playout or publishing processes.

Time frames between content availability and rights openings are shorter and shorter. Media organisations often need to move content seamlessly between different distribution channels running on distinct infrastructures.

Operationally, each piece of content theoretically takes the same verification effort. But in practical and economical terms, not all titles can realistically command the same effort.

Most importantly, content deals now relate to large volumes or series which are meant to be published in batches of hundreds of hours. This induces very different provisioning patterns than those linear broadcasters were dealing with before.

The fundamental industry issues hindering the efficiency of content supply chains

Not all content suppliers are equally competent in dealing with the complexity of file formats.

This complexity is the consequence of legacy standards, compounded by continuous progress in codecs and quality: there are effectively tens of thousands of possible combinations of the many parameters that constitute any individual master or delivery file specification.

Equally important is the lack of metadata and shared metadata frameworks. Content gets delivered either without any metadata or with erroneous, incomplete or ambiguous metadata (e.g. "original version with French subtitles" means many different things).

Each piece of content requires discovery to assess the actual editorial usability of each content file.

In most cases this takes place after ingest and after some processing has already happened, which means tedious multiple-party interactions and costly time and resource waste for even the simplest issue.

An unsolvable equation?

File complexity + provider diversity + content diversity + lack of metadata + blind processes + peaks and bursts: these are real-life hard facts that make achieving fast, predictable, scalable, cost-effective content supply in the non-linear age a conundrum for broadcasters and publishers, as well as for content providers.

Continuous investment in software for file transfer, transcoding or technical verification and related resources only deals with the issue in a limited way and will reach economical or operational capacity limits eventually.

How Nomalab's cloud-native content management platform resolves the equation and brings elasticity to content supply management

Nomalab's solution is embodied in its content-centric, collaborative and scalable content supply web platform.

Once any content file is on the platform, its actual content can be played (with subtitles) at high quality with frame accuracy by any concerned party using only a web browser. This enables early discovery of the actual content without handling any file at the destination's end.

Nomalab effectively provides a secure collaborative space between the publisher or broadcaster and each of their content providers, as well as within all concerned internal teams.

No software installation is required. Viewing, managing and collaborating around content is immediate with only a web browser.

The Nomalab platform accepts any type of video file as source and will process it into any deliverable file(s) specifications, then deliver it to its destination point, always automatically verified as fully complying with said specifications.

Content providers are freed from format complexity. Content provisioning can be truly agnostic. Publishers and broadcasters can rely on predictable, constant quality file deliveries, with various integration options for maximum automation.

Nomalab runs its own code on its web architecture fully distributed in the AWS cloud. It is scalable without limits. Each job is independent from any other job. It takes no more time to process a full season as just one episode.

Nomalab's SaaS model makes content provisioning immediately agnostic and elastic, whilst removing the need for investments into file reception, verification and transcoding software and hardware, thus enabling content management teams to focus on their most important tasks with costs under control.

Leading French publishers and broadcasters such as 6play, Salto, M6 Group or TF1 Group already use Nomalab for agnostic and elastic content provisioning.

Nomalab will be at IBC, Hall 2 A36g. Book a demo here

Record generational divide in latest Ofcom report

The gulf in UK video consumption habits has been laid bare in Ofcom's latest Media Nations report, with younger adults now watching almost seven times less scheduled TV than those aged 65 and over.

According to the eagerly anticipated annual report, people aged 16-24 spend 53 minutes in front of broadcast TV on an average day, down 66% over the past decade. Adults aged over 65 by contrast spend an average of 5 hours and 50 minutes per day watching broadcast TV, slightly higher than 10 years ago.

While nine in ten 18-24-year-olds typically bypass TV channels and head straight to streaming when looking for something to watch, 59% of 55-64-year-olds and 76% of those aged 65+ still turn to TV channels first.

The change in consumption habits is borne out by an increasing dependence on a trio of streaming giants – Netflix, Prime Video and Disney+. A fifth of UK homes (5.2 million) subscribe to all three platforms.

Commenting on this record generational divide, Ian Macrae, Ofcom's director of market intelligence, said: "The streaming revolution is stretching the TV generation gap, creating a stark divide in the viewing habits of younger and older people.

"Traditional broadcasters face tough competition from online streaming platforms, which they're partly meeting through the popularity of their own on-demand player apps, while broadcast television is still the place to go for big events that bring the nation together such as the Euro final or the jubilee celebrations."

The report also looks at the impact of the cost-of-living crisis in the UK, with SVOD subscriptions falling by more than 350,000 to 19.2 million in Spring 2022. Three quarters of customers who said that they had cancelled a subscription earlier this year said they would resubscribe depending on changes in programmes, needs or circumstances.

At the same time, there has also been a significant increase in PSB streaming service usage, with 82% of Brits saying they've used a player like ITV Hub or BBC iPlayer in the past six months.

DAZN launches DAZN Bet beta in the UK

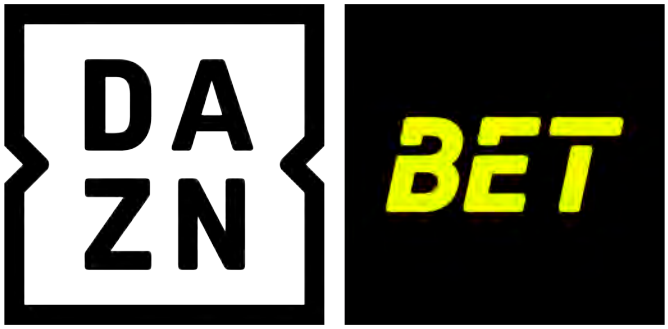
Sports streamer DAZN has revealed the UK as its first beta market for its gambling brand DAZN Bet.

First announced in April, DAZN Bet marks the company's foray into sports betting and is formed as a strategic partnership with gambling tech provider Pragmatic Group. It was pitched as a "fun, convenient, and integrated experience for casual bettors to enjoy."

Several months on from its initial reveal, DAZN has announced a beta launch in the UK with plans to launch in Spain and other European markets later this year.

The beta launch will allow DAZN Bet to better understand how subscribers like to interact with gambling, and will provide the company with further insight as it looks to diversify its revenue streams.

Mark Kemp, CEO, DAZN Bet, said: "The initial launch of DAZN Bet is the start of an exciting journey across media and sports betting and further delivers on commitments we have made to revitalise sports viewing for fans. The launch is only stage one. We are on a mission to create a richer product that is integrated into DAZN's sports streaming service, where possible, providing sports fans with something much more immersive and interactive than what is currently available."



In brief...

Warner Bros. Discovery pulls out of GB News as co-founders quit

UK newscaster GB News has suffered a major blow, with major Warner Bros. Discovery pulling out its investment. WBD will sell the shares that Discovery acquired prior to the merger of it and AT&T's WarnerMedia to existing backers Legatum Ventures Limited and Sir Paul Marshall in a deal worth £60 million. The broadcaster's co-founders Andrew Cole and Mark Schneider have also resigned as company directors.

Walmart adds Paramount+

US retail giant Walmart is to make Paramount+ available to subscribers to its Walmart+ service available at no extra charge. Walmart said it was "taking its membership offering to the next level" by adding the streamer to its list of benefits as a bonus. Walmart+ members will be able to stream Paramount+ as a benefit as part of their membership starting in September. The Paramount+ Essential Plan will give Walmart+ members access to Paramount+'s content including original dramas such as *1883* and *Star Trek: Strange New Worlds* and live sports. The Walmart+ offering, also includes in-store benefits such as mobile scan-and-go, unlimited grocery deliveries and music streaming from Spotify Premium.

Viaplay signs long-term partnership with Erling Haaland

Viaplay has announced its latest marketing initiative as it continues to expand its business throughout Europe: a long-term, multi-market partnership with Manchester City and Norwegian superstar striker Erling Haaland. The 22-year-old Leeds-born Bryne native, who signed for City in the summer, will serve as a Viaplay ambassador in the nine European countries in which Viaplay has rights to Premier League football. Viaplay, formerly NENT Group, made waves in 2021 when it secured a bumper six-year rights deal with the EPL in Norway, Sweden, Denmark, Finland, Estonia, Latvia, Lithuania, Poland and the Netherlands.

The DTVE interview:

Olivier Jollet, EVP & general manager, Pluto TV

The Pluto TV boss tells Jonathan Easton about the Paramount-owned streamer's contrarian approach to the industry, expansion plans and the importance of partnerships and collaboration in an increasingly competitive FAST space.

At a time when Paramount has been heavily pushing its new subscription platform Paramount+, it is easy to forget that it has another major streaming service that is quietly spreading its reach across the globe.

Acquired by then-Viacom in early 2019 for US$340 million Pluto TV has grown from 12 million monthly active users to more than 68 million monthly active users who have streamed over 4.8 billion total viewing hours across 30 countries and territories generating more than US$1 billion in ad revenues in 2021. It has done this by purposely taking a contrasting approach to the trends in the market, Olivier Jollet, EVP general manager at Pluto TV international and head of mobile at Paramount tells *DTVE*.

"We built the company on three contrarian principles: Free in the age of subscription; linear in the age of on-demand and ad-supported at the time where almost all services were going ad-free," he says. "This is still the core DNA of our product, really bringing a lean-back experience into a more on-demand-driven streaming market.

"This vision is still there and even if at the beginning no one believed there was a future in a linear experience in the streaming market, the success of Pluto TV proved that the vision was right."

The most recent expansion of Pluto has been to the Nordics, where the platform has merged with Viaplay-owned BVOD service Viafree. Jollet explains that the company takes a measured approach to expansion and looks to work with players in that market instead of trying to provide outright competition.

"When we started talking with NENT Group (now Viaplay), we

had discussions on how we could partner together and whether we should compete against each other for building a free streaming destination," Jollet says. "We took the decision to join forces and build one destination for free streaming in the Nordics combining FAST, AVOD and BVOD into one platform."

Jollet praises the results as "outstanding," and says that it has a "much broader audience than if we'd have launched each platform standalone."

The next stop for Pluto will be in Canada, where it will launch with more than 100 channels and over 20,000 hours (about two and a half years) of content, fuelling this is a partnership with Corus, similar to that with Viaplay, with Jollet at the time described as a "game-changing partnership".

Expanding on this, the executive says that the case in the Nordics and Canada is a "concept that is applicable in a lot of markets"

He says: "I believe in the power of partnership personally. I think we are in a very competitive landscape and having the ability to build one destination instead of building 10 or 20 different destinations is great for the end users. But it's also great for advertisers who are also looking for a platform with scale to balance versus meta or Google."

Looking forward, Paramount clearly has a dual-pronged approach to streaming with its premium SVOD service and FAST Pluto. However, the distinction between the two is more defined than just a price point, with Jollet holding ambitions for Pluto to be better established as a more brand-agnostic platform where different rights holders can leverage their content libraries regardless of whether they have their own streaming services.

> "More and more people are shifting to streaming, which doesn't mean that TV will disappear, but I see that the potential is massive. I still believe we're at the beginning of the story."

Examples of this cited by Jollet include Netflix showcasing its hit teen drama *13 Reasons Why* on Pluto, while the company has signed a content deal with Sony Pictures Television that brings a range of its content to the platform.

At 68 million monthly active users, Pluto TV is clearly no slouch, and its scope is matched by the drive of its leader who wants the streamer to really establish itself as the de facto FAST platform globally.

"I still believe we're at the beginning of the story when I see how quickly the market is developing," Jollet surmises. "More and more people are shifting to streaming, which doesn't mean that TV will disappear, but I see that the potential is massive.

"We are willing to not only be the leading FAST platform, but we also want to be the leading destination for free streaming. Our company mission is to entertain the planet and the planet is big!" ■

FAST times in streaming

In a moment of rising costs and an overwhelming number of options, consumers are increasingly turning to free alternatives to expensive subscription services. Andy Fry reports on the FAST revolution.

The multi-billion dollar battle for supremacy in the SVOD arena captures plenty of headlines, but one of the hottest stories in the media business right now is the resurgence of ad-funded television. After decades of being overshadowed by pay TV and SVOD, the rise social tv, AVOD and free ad-supported TV (FAST) channels has re-energised the relationship between brands and content.

The expansion of the FAST ecosystem has been especially intriguing. Virtually unheard of prior to the Covid-19 pandemic, linear FAST channels are now being launched almost on a weekly basis. In the US, there are currently more than 1,000 channels available across around 20 platforms – including the likes of Pluto TV, Tubi, Xumo, Roku and Samsung TV Plus. A recent report from nScreenMedia predicted the US FAST market would generate US$4.1 billion in ad revenue in 2023, up from US$2 billion in 2021.

Rest of world data is less robust, but there are encouraging signs here too. A report by FAST channel facilitator Amagi estimates the number of FAST channels grew by 99% in 2021. Amagi co-founder Srinivasan KA explains: "Consumers are exhausted by the cost and overwhelming choices of subscription services. Increasingly, they are clamouring for linear 'lean back' viewing experiences."

Some observers have likened the evolution of FAST platforms and channels to an overdue reboot of the basic cable model. Easy to access and free to use, FAST allows viewers to engage passively with content via slick EPGs. As an added benefit its ad load (for now) tends to be lighter than traditional linear TV. All this, explains Amagi, is why viewing is rocketing. In 2021, total FAST viewership hours grew by 103%, while the average viewing session duration increased by 8%.

Survivor, originally broadcast on CBS, now has a 24/7 home on PlutoTV as a dedicated, standalone channel.

A new medium

The difference between FAST and cable, however, is that the new sector has created a once in a generation opportunity for challengers/disruptors to enter the platform

and channel business. While it's important to note that TV heavyweights like Comcast (Xumo), Paramount (Pluto) and Fox (Tubi) are actively engaged in FAST as platform operators, the likes of Amazon (Freevee), Samsung, Roku and Rakuten TV have also made solid headway. This year, Google launched 50 FAST channels and sister brand YouTube will follow suit imminently.

As channels, an expanding array of content owners is migrating to FAST – some of which have channel experience (AMC Networks, A+E Networks), some of which don't (Banijay, All3Media etc). Fremantle CEO Jens Richter, a FAST advocate, says: "We have been running Buzzr as a digital channel in the US for a few years, but channel curation is essentially a new business for us. FAST is a logical next step because of our expertise in content production and distribution. It is an opportunity we're taking very seriously because it opens up a new revenue stream and gives us access to valuable audience data."

Getting into the channel business has meant "building teams in London and LA that have the know-how to run channels," he says, "the curation of ideas, programming, branding, communications and selling. For us it's been a strategic initiative that runs in parallel to our programme licensing business." The one operational area Fremantle has outsourced is what Richter called "the interface" between platforms and channels. "Potentially, you're talking about dozens of versions of channels across geographies. So for that we use Amagi."

Currently, Fremantle has around a dozen FAST services – ranging from genre-based channels like gameshow channel Buzzr to programme-specific channels such as its *Baywatch* Channel. Underlining the fluid nature of channel composition in this arena, there's also a Jamie Oliver FAST channel on Freevee in the US (Tubi, as an aside, has a dedicated Gordon Ramsay channel). "For us, FAST is an additional option in each territory," says Richter. "With *Baywatch*, the show had been through several licensing arrangements before it felt like the right time to create a non-exclusive channel. But even within the digital ad-free space we have the choice of licensing content to AVOD or a third party channel."

As a case in point, Fremantle recently licensed *American Idol 2022* to Samsung TV Plus. Initially, Samsung TV Plus offered the show as an AVOD exclusive before shifting it over to Entertainment Hub, a new owned and operated channel it has just launched (alongside other thematic channels such as *Wild Planet*).

The approach at All3Media is similar. A3M International EVP strategic development Gary Woolf says "our first FAST channel off the block was *So...Real*, a North American lifestyle/reality channel; we also have a channel for *The Only Way Is Essex* in North America. Last November we launched our *Midsomer Murders* channel in North America (on Roku), and we've got others planned."

Like Richter, Woolf sees FAST as "part of a joined up distribution plan. If I look at *Midsomer Murders* in North America, we've got a premium SVOD partner which carries all seasons – and is the first home for new episodes – so there will always be clear water between that and what we're doing in the free space; we've got seasons on PBS affiliates we're mindful of; we've got AVOD partners for the show; and then we've got the FAST activity. We plan carefully."

Quality and quantity

Hitting a certain quality threshold goes without saying, but what else do rights owners need to be mindful of when launching channels? "Volume of content is one," says Woolf, "realistically at least 100 hours; a viable schedule refresh rate so that the channel doesn't get stale; and that the channel does 'what it says on the tin'. An example of this last point is So...Real. We've seen that channel really growing this year, and the beauty is we can use multiple brands." When a channel is reliant on a single show, it's important to take "a deep dive" to sustain interest, adds Woolf. "So as part of our 25 years of *Midsomer Murders* celebration, actor John Nettles is introducing ten favourite episodes."

In addition to shows, there's an expectation that would-be FAST channels will have considered back up content like trailers and interstitials: "Aside from them being a delivery requirement with many platforms, they can also serve a real purpose retaining audiences," says Woolf. "It's important to use the 'real estate' around programmes to support the channel and keep viewers locked in."

> FAST is not about always-on channels, but tactical services that help platforms distinguish themselves from their rivals.
>
> Baskar Subramanian, Amagi

The ability to launch digital-first ad-supported channels is not new, of course. IP owners have been doing it for years on YouTube. Woolf stresses, however, that FAST is "a very different experience to YouTube. Successful FAST platforms tend to have an EPG – so it's very simple to find what you want to watch. We're fully in control of the schedule and promotionally there are more opportunities to work with FAST platforms than on YouTube. That said, YouTube channels have their place – and we work with our sister company Little Dot Studios to make sure we're also driving revenues through their network of YouTube channels."

Shaun Keeble, VP Digital, Banijay Rights is another exec masterminding a significant shift into FAST. He says FAST channels "are almost always curated either around IP, genre

Blue Ant Media's paranormal-oriented HauntTV is available on platforms including Samsung TV Plus and the Roku Channel.

or brand. We have focused our efforts on launching curated genre-based channels that house recognisable IP including *Deal or No Deal, Fear Factor, MasterChef, Survivor, All Real* and *Reel Truth Crime*."

Banijay currently has 10 FAST channels, spanning across territories such as the US, Canada, the UK, Germany and Brazil, working with various platforms. "We are planning more single IP and aggregated channels, which will soon bring our live streams to over 50. This is complementary and incremental to linear TV distribution. The FAST channel distribution model is typically non-exclusive and focused on exploitation of titles in their third or fourth distribution window."

Keeble sees FAST as the route to potentially lucrative ad revenues: "FAST channels are typically watched on a connected TV, meaning they are attractive to brands that want their messages on living room devices. EPGs and the ability to partner platforms on marketing are a strong way to signpost channels."

Like Fremantle, Banijay Rights works with Amagi on the interface with platforms. It has sought to amplify its reach and revenue by leveraging Amagi's cloud-led solutions including Cloudport – a cloud-built playout and distribution solution which allows multi-country feeds to be centrally managed. Amagi's other products like Thunderstorm and Planner have also been leveraged for dynamic ad insertion and automated content scheduling. "Typically Connected TV platforms expect distributors to use a third party facilitator to host their FAST channel," says Keeble, "acting as a gateway. Some facilitators offer full suite packages including content scheduling programmes and ad selling technology. The would-be channel owner would need the ability and infrastructure to send digital files to facilitators including video files, meta data and artwork."

Theoretically, anyone with 100 hours of programming and the capacity to produce some short-form content could launch a FAST Channel. But this reckons without the

What next for FAST?

Original content including sport: Rob Gambino, director of playout strategies at Harmonic, told DTVE that the popularity of FAST channels is "paving the way toward new developments and a superior streaming experience. In the next 12 months, FAST will evolve, giving viewers access to more original content including premium movies and live sports." Edgio is bringing live sport to FAST, using its tech capabilities to tackle everything from latency to ad insertion.

Genre eats all: As FAST real estate becomes more valuable, the pressure will grow on single IP channels. Given a choice between a cooking channel and a chef-specific channel where will audiences alight? Possibly, single IP channels will take on a more tactical role. If there's a difference from cable, it's that FAST can probably absorb a wider range of genres (eg six variants on true crime).

Personalisation: Amagi CEO Baskar Subramanian expects personalisation to drive greater choice and stickiness in the FAST ecosystem: "As it evolves, do we want FAST just to replicate cable? Why should two people have to watch the same cooking channel if one of them is vegan and the other likes BBQ?."

Hybrid Platforms: With SVOD platforms entering the AVOD space (eg Netflix) and FAST channels upping the ante on quality, the gap between the two camps is blurring. The future probably lies with the kind of multi-tiered solution that Comcast (for example) is heading towards via Peacock, Sky, Xumo et al.

Localisation: SVOD 'global' series help amortise production costs. But FAST is largely a territory by territory proposition. Samsung TV Plus, for example, is now in 16 markets with distinctive services. Although it has partnered global content providers including the BBC, Banijay and ITV Studios, Richard Jakeman, European head of business development for Samsung TV Plus, explained in a podcast with consultancy 3Vision that it is imperative content is localised.

Consolidation: FAST may be free but that doesn't mean viewers want a dozen competing platforms. Inevitably, the market will shed also-rans as advertisers and audiences coalesce around preferred platforms (perhaps hybrid as outlined above). The question is whether anyone can find a way to connect up what has become a disjointed discovery experience (so many apps, so many business models). Sky Glass is an early attempt to provide a 'super-aggregation' solution.

Efficient ad tech: Industry leaders like Comcast view advertising on FAST as a useful complement to traditional TV and AVOD. The trouble is that the digital ad-first market is highly-fragmented. Comcast's ad solution division Freewheel is exploring ways to simplify the process of connecting ad buyers and sellers. Last month, for example, it teamed up with AMC Networks to introduce a self-service linear addressable advertising solution. This makes it easier for programmers to access addressable advertising across all of their inventory supply pools, including digital, set-top-box video on demand and linear. "Our purpose is to better connect buyers and sellers with solutions that make TV advertising more efficient, says Mark McKee, general manager, FreeWheel."

OKAST

Q&A: Cédric Monnier, CEO & co-founder, OKAST

Cédric Monnier, CEO & co-founder, OKAST, explains what content providers needs to think about when launching into the world of free advertising-supported streaming television (FAST).

What are the key things that a content provider needs to consider before launching a FAST channel?

FAST is somehow the best combination of old TV and Internet: free access to content, no need to choose, laid-back experience, powered by proven advertising technologies (programmatic) based on user-centric data. Most content providers are embracing this new form of distribution, seeing it as the perfect opportunity to monetise their extensive inventories, giving a new life to their niche content.

Two essential things must be kept in mind when looking for success:

- **It's TV(!):** meaning you must build a linear schedule as good as you used to do in broadcast: the weekend is not the same as weekdays, prime time is not morning, etc. The audience watching a FAST channel on a connected TV will not see the difference from regular TV channels, so they do expect the best quality content and an attractive schedule (so forget automatic random scheduling of content!).
- **It's advertised:** it is key to have an advertising strategy that supports the scheduling, not only with 6-10 minutes ad breaks but also auto promotion jingles and alternative content when the ad replacement doesn't work as well as expected.

Leaders and key players like Pluto TV, Samsung TV Plus, Rakuten have engaged in a complete review of their channels lineup, looking for more premium ones. There will be fewer opportunities and more competition to be part of their offering: new channels will have to prove they are 'ads bankable'.

Therefore, it would be wise to establish a holistic strategy where FAST channels are not only going to walled garden CTV platforms but also aggregators' apps, OTT platforms and websites.

What do channel providers need to think about in securing access to platforms?

In this value chain there are two stakeholders: the software provider building the channel, and the distributor (mainly CTVs) putting it on screen and managing advertising.

Some key issues to be careful of:

- **Hidden costs** that can occur from the software vendor: platform fees, CDN fees, resulting from increasing numbers of delivery platforms.
- **Ad revenue deals** with CTV: when they manage your full inventory, they can take the lion's share. Better to secure an inventory split to add more ad servers.
- **Data reporting:** knowing the audience and boosting ad performances rely on the quality of provided data. Getting access to transparent in-depth data is a gamechanger: walled garden software solutions and CTV analytics can be a blind spot.
- **Reliability:** a black screen has always been everybody's worst nightmare in broadcast, and it's the same for FAST! Validate cloud performances and security measures set in place by the software vendor.

What can OKAST Channels offer to FAST channel providers that sets the product apart in the market?

We've been doing OTT and broadcast for years, so it was quite a natural move to build OKAST Channels, where we included a proven playout with advanced schedule engine, and an in-depth data engine complemented by a complete advertising solution (SSAI plus ad server management with more than 25 SSP pre-integrated).

We therefore streamline our OTT expertise (more than 400 platforms launched in four years), our native cloud infrastructure, and a constant broadcast grade attention to security and reliability in a simple solution that you can integrate in your existing infrastructure.

What steps would you advise existing OTT players looking to enter the FAST world to take and how can you help them with this?

FAST is very exciting but still a young market, sometimes a bit like the Wild West!

Our classic advice to any lead or customer:

- Have clear revenue targets: don't try to be everywhere before you can optimise the business model and get a positive ROI. Start first with the big leading platforms!
- Don't underestimate the lead generation effect from your FAST channel to your own OTT platform or application: indirect subscriptions can often complement ad revenue and AVOD revenues.
- Strategise ads: the more you understand the audience, the more you can adjust your schedule and content selection. It will help to increase the CPM value and get more paid ads.

At OKAST, we not only deliver a software to use, but also accompany our customers at every step from building schedules to launching, then analysing data and iterating until they get a successful channel.

limitations imposed by platforms. The growing consensus is that leading platforms are unlikely to want more than 150-200 channels once they have matured – to avoid detracting from the sector's 'lean back' appeal. Amagi CEO Baskar Subramanian says: "FAST is attempting to solve the paradox of choice, the idea that there is so much content audiences are having problem discovering something to watch. So a sensible limit on channels is likely."

This upper ceiling is not the only issue restricting opportunity for new entrants. Of the total channels available on each platform, around 25% of channels are likely to be in-house operations (the situation at Pluto TV). "After that, the question becomes – which are the best channels to fill out the portfolio? That isn't immediately obvious, so we're seeing a lot of churn," says Subramanian.

Room for growth

Assuming mature FAST territories play host to around half a dozen platforms, some of which carry the same channels as each other, then the total market for third party channels will probably drops into the mid-hundreds. Of these, says Subramanian, some will be repurposed versions of existing linear channels which reduces the shelfspace for newcomers. AMC Networks, for example, has around a dozen FAST Channels including *The Walking Dead* Universe.

One company moving in precisely this way is Blue Ant Media, a content studio that already has a strong channel footprint. Jamie Schouela, president, global channels and media, says: "We've been operating as a traditional broadcaster for several years with our Love Nature PayTV channel, which is currently in around 130 territories. In 2020, we launched Love Nature as a FAST Channel in the US on platforms like Roku and Samsung TV Plus. We immediately saw audience and revenue growth and realised this was a material business. So we launched FAST channels in areas such as paranormal (Haunt TV), true crime (Total Crime/Crimetime), home and lifestyle (Homeful) and HistoryTime (History). These are areas where we have strong content and can add value."

Schouela has no doubt that channel experience has enabled Blue Ant to get to grips with FAST quickly: "It's a real advantage because we know how to curate a channel. A lot of folks have entered FAST without any experience, but audiences respond to all the things we know how to do, scheduling, marketing etc."

So far, Blue Ant has gone down the genre route. Schouela is looking at "single IP channels, but I'm not sure they can have the same longevity as genre channels. There's a role for single IP channels in helping platforms achieve spikes but were focused more on brand-building." In terms of creating differentiation from other channels in the same niche, he adds: "We want our channels to be distributed across multiple platforms to achieve reach, which inevitably means competition. But we tell platforms the content on our channels will be at least 75% exclusive – meaning it won't be available anywhere else outside that destination."

For simplicity/efficiency, platforms will probably mimic traditional payTV by carrying portfolios of channels from partners. This further reduces the extent of the FAST opportunity for content companies. All in all, "it's a competitive world, for sure," says Woolf. "I think it's probably tougher now than it was a couple of years ago. With so many FAST channels in existence, the platforms can afford to be selective. They are looking at where there are gaps and opportunities, but also churning out channels that just aren't doing the business."

In 2021, Paramount CEO Bob Bakish described Pluto TV as "an incredibly growth engine for this company. The expanding engagement attracts more and better content and advertisers, which drives up ad values. In other words, the industry is locked in a virtuous cycle, one that seems to have a lot of room to run."

Pluto TV: From channel operator to platform pioneer

Paramount was late to the SVOD party with Paramount+, but it was quick to spot the potential of AVOD and FAST. Its fast-growing platform Pluto TV is now in around 30 countries and generated US$1 billion in ad revenue last year. In a recent development, it launched into the Nordics in partnership with NENT.

Dan Fahy, SVP Streaming, Paramount UK, says the UK iteration of the platform "launched in 2018 and is now available across a range of key platforms. We've been adding channels throughout and now have over 140."

Five Pluto TV channels come from sister company, Channel 5. And there are more from based around Paramount IP (such as long running series including *Catfish* and *Judge Judy*). But Fahy says Pluto TV isn't configured to only support in-house channels: "Less than a quarter of channels on the platform are our own brands. It's a key part of our strategy to curate a great mix of partners."

In terms of differentiation from rival platforms, Fahy says PlutoTV is very focused on its linear channel proposition and isn't using FAST as a spin-off from a distinct business. What's more, the platform isn't seeking to replicate traditional linear by having a small number of powerchannels (think ITV or TF1). "We don't want a situation where one channel has 25% share and another has 3%. None of our channels get more than 6-8% share and we want to maintain that."

Pluto TV invites flexible partnerships, says Fahy: "There's a hands-off model, where partners can licence shows into an existing thematic channel. Or we can collaborate on the creation of a programme specific channel – as we did with All3Media on channels like *Ten Years Younger* and *Wild At Heart*. We handle a lot of the logistics and we're very transparent with performance data."

Pluto TV in the UK is primarily targeting VOD-first homes – i.e. those who have turned their back on traditional TV: "That cohort is currently three million but will rise to 10 million by 2030. Services like Pluto TV are about reaching them when they are looking for a simple but compelling passive 'lean back' experience."

Fahy acknowledges progress is likely to be slower in markets where there is a resilient incumbent free to air offering. "But we're ahead of expectations in markets like UK, Germany, Italy and Spain." In France, the platform launched its 100th channel in June 2022 – up from 40 channels at launch.

Chefclub: From social media powerhouse to FAST channel operator

One class of IP owner that could make a genuine impact in FAST is social media destinations that have already built a strong loyal audience. A case in point is Chefclub, a cooking brand with 100 million social media followers and 2.5 billion global views a month. Chefclub now has a channel on Pluto TV in France, the US, Latin America, Spain and the UK. It is also rolling out via Samsung TV Plus.

Marie-Laure Marchand, SVP global consumer products & business development, says: "FAST channels are a big priority for us as they provide the perfect platform to showcase the diversity and depth of our content portfolio. We are expanding our capacity as a food entertainment studio which can provide content to a broad variety of media platforms, including FAST."

> FAST channels are a big priority for us as they provide the perfect platform to showcase the diversity and depth of our content portfolio.
>
> Marie-Laure Marchand, Chefclub

From a 'How-To' show that goes outside the studio to discover how certain ingredients are made, to a vegetarian programme that entertains viewers with astounding trompe l'oeil creations, Marchand says: "We can offer shows that meet every demand. We are also reformatting existing short content from Chefclub Original and Chefclub Kids into commercial half-hours for the channel."

In terms of the key considerations when launching a FAST channel, Marchand says: "Firstly, high quality content that catches and keeps the audience's attention. You also need a specific format and number of episodes, for example 25 to 30 minute episodes that can accommodate ad breaks and a minimum of 100 hours to start with. It is also important to refresh a minimum of 20% of your content every month and produce new content monthly."

Explaining the relationship with Samsung TV Plus and Pluto TV, Marchand says: "Samsung TV Plus is connected TV which means our Chefclub channel is offered as part of a bouquet of channels available on every Samsung TV device in France and Switzerland. And Pluto TV is the number one AVOD service in the US (a key focus for Chefclub), widely available to anyone on mobile, CTV, consoles and the web. Between them, we can reach an ever-expanding range of new viewers."

This however is a platform-centric view. For channel operators, the implication is increased production investment and more reliance on exclusives (which minimises exploitation value elsewhere). Richter says the need for original production investment in FAST channels is coming "in the next 12-24 months". Schouela agrees: "As the market sustains, FAST channels will need more exclusives and first run content. Platforms are definitely getting choosier and are starting to drop channels to replace them with something that is better quality and stickier. So they will favour brands that stand for something."

Tempering expectations

Would-be channel operators also need to be wary about over-exaggerating the amount of ad revenue they are likely to generate. Earlier this year, a report by VIP+ found that the average large FAST channel was generating around US$23.2 million in ad revenue by the end of the second year after launch. But this is predicated on the US market, where ad spend is higher. Furthermore, warns Richter, "many European territories also have access to a range of free TV choices, so take up of FAST is likely to be slower by comparison."

There is an argument that the cost of living crunch will drive people out of SVOD platforms into the arms of AVOD and FAST. This may be true, but it doesn't take account of the fact that advertisers may also cut spend. In other words, FAST channels may experience slow payback – even if viewing grows rapidly.

Can content owners increase their ROI by rolling out the same channels across multiple platforms – as in social media? Yes, says Subramanian, but they will need to make modifications to be successful. "There are brass tacks issues like different ad loads. But we're also seeing channels start to diverge in terms of their core demo – so channels will need to select content accordingly."

Subramanian agrees there is likely to be consolidation, but still sees opportunities for boutique players. "FAST lends itself to an agile approach to channel curation. I could easily see the emergence of pop up channels – linked to events and anniversaries; maybe a channel that is launched around the Olympics. For some content owners, FAST is not about always-on channels, but tactical services that help platforms distinguish themselves from their rivals."

A slight variant on this idea, content owners could also view FAST channels as short-term windows in their distribution strategy, rather than here to stay channel brands like Discovery. If FAST platforms decide to deliberately allow a certain percentage of channel churn each year, there may be an opportunity for content owners to create channels with a one-to-two year life span.

Should platforms prove unresponsive to particular channel ideas, there's always the option of going it alone – possibly in partnership with a FAST facilitator like Amagi, Harmonic or Wurl. "We see apps launching in the space that carry a range of FAST channels – so that's absolutely possible, and something that Little Dot Studios have done recently with their Veely app," says Woolf. "Having your own app means you're not benefiting from the traffic of a big platform; but it does give you flexibility if you can persuade viewers to install your app." ■

Hybridity: a smart move for streaming players

Jonas Engwall, CEO of Bedrock, talks about the future of streaming and shares his thoughts on hybridity.

The last decade saw a massive increase in online video adoption and the Covid-19 crisis acted as a proper catalyst for this trend. Individuals found themselves spending more time at home, with fewer options for entertainment than ever before. This was an unprecedented opportunity for streaming players to grow their audience and their efforts were mostly focussed on offering their users more content and better quality and experience to keep them engaged.

However, last year marked a new chapter of the streaming market as video streaming providers around the globe faced a slower growth of VOD consumption. The competition had become fiercer than ever and consumers have been drowning in an ocean of content, having subscribed to multiple platforms without really knowing what to watch.

Today, to keep up the pace, streaming players have to rethink their strategy including their revenue, content and distribution models. Most of them have already started transitioning to a hybrid monetisation approach with a quarter (25%*) planning to go for a combination of AVOD and SVOD. There's no doubt that hybridity is the future of streaming, but how and why should this move be made?

Diversifying the sources of revenues

As the streaming war heats up, it is becoming increasingly difficult for providers to rely on a single monetisation model and maintain their revenue model. Jonas Engwall, CEO of Bedrock goes through the limits of AVOD, SVOD and TVOD and EST, and presents and why going for a hybrid model makes more sense today:

The AVOD model offers viewers access to original content or live content for free, or for a reduced membership rate. But the limits are found when not managing to maintain sufficient audience growth, to satisfy the increasing appetite of advertisers for targeted audiences.

With SVOD, there will always be viewers that unsubscribe and it takes significant marketing efforts to continually add more subscribers. As for TVOD and EST players, they have no guarantee of future revenue with the one-time transactions.

To overcome these limits, actors in the market are turning to a hybrid model so they can combine two or more monetisation models. This way, they have the means to address various audiences' expectations, increase their reach and, therefore, their conversion capacity.

By doing so, players can launch competitive offers leveraging AVOD, commercial animations – such as promotions and discount – bundles or multiple subscription plans.

This diversification means that consumers will increasingly be able to choose when to consume content with ads, or to avoid the ads by paying. Advertisers will be able to touch only those people who are interested in watching your ads, and ROI will be easier to measure. For example, viewers are more willing to watch ads on streaming, because ads are more relevant; advertisers can be more confident that their ads were viewed, and, ultimately, they are able to engage more effectively with consumers. Streaming is a win-win-win. It makes more sense for users, advertisers, and broadcasters.

"Actors in the market are turning to a hybrid model so they can combine two or more monetisation models. This way, they have the means to address various audiences' expectations, increase their reach and, therefore, their conversion capacity."

Going forward, we are likely to see a fracture between players who have diversified revenue streams successfully and profitably, and those that have not. Collaborating with a partner who understands what's at stake and has an extensive knowledge in streaming commercial offers is key to future proof a streaming platform.

Pushing the right content and offer to the right user, when they need it…

To optimise their chances of getting attention from people and having a positive impact on them, streaming players have to diversify their content and the way it can be accessed.

From premium to original content, live streaming, replay and bonuses expectations vary from one audience segment to another. For example, sports enthusiasts much prefer watching live sporting events rather than recorded ones. Indeed, if anything happened during a game, they probably already know it because it's been in the press or someone told them (even by accident).

These last few years, streaming giants have made available more content than ever, investing in original content so it's absolutely tailored to their users' expectations. But if they keep adding content, how their platform isn't going to be a mess, a mix of anything and everything, to their audience's eyes?

At Bedrock, we leverage new technologies such as AI to create a tailored user experience. Based on data related to the user's demographics and consumption, streaming platforms can be relatively different: suggestions, videos' thumbnails, colours…. It all can be personalised to remain relevant to each segment and offer. Engagement and retention are intricately linked, so offering a seamless and personalised streaming experience is a good way to demonstrate your ability to meet their expectations while putting performance at the top of your priority list.

…and where they need it

Consumers today are looking for convenience and, as mentioned above, they do not consume content the same way, depending on the segment they belong to. Some like watching the latest episode of the series that everyone is talking about on their phone while commuting, so they can talk about it with their colleagues once at work. Others might prefer watching live a mouth-watering cooking show on TV, at home, with their friends.

There are different moments, different ways of consuming and different use cases. It is logical for people to spend more time with big screens, as the viewing experience is better, thanks to (now standard) technologies such as 4K, HDR, or Dolby atmos. That's why we currently see the race around big screens intensifying with multiple businesses, including Amazon, Apple, Google, Sky, investing.

In any case, viewers want to be able to access a wide range of different video offerings from any device they want. Therefore, content providers should work with a partner who can make their service available on multi-devices. This will not only help keep their customers satisfied but also allow providers to collect and analyse video consumption habits. Using the data that has been collected, content providers can adjust their content and ad strategy to ensure it is relevant for viewers.

Bedrock, like other large platforms, is putting a lot of effort into CTV and OTT developments because this is where we see a lot of interest at the moment. But we know that mobile is just as important so we keep our standards high to deliver a smooth experience across all devices.

Overall, the more you know about your viewers' habits and profiles, the better you can retain and improve your commercial strategy. At Bedrock, we know how crucial it is to leverage this knowledge the best you can. This is why we use technologies such as AI to give a better view into segments' specificities and automate upsell mechanisms. From 'comfort' features, such as a no-ads option and better video quality, to download-to-go and locked content, upsell propositions can then be tailored to each segment.

To an extent, hybridity in all its forms can be a way to address the 'subscription fatigue' we've heard so much about lately. Making sure that viewers can watch what they want, when they want and where they want is key to retaining its viewership and attracting new segments.

In a nutshell, people's budget for streaming services is not infinitely extensible and there's already a plethora of offers on the market. So streaming players need to think 'hybridity' and work on commercial propositions that'll meet their viewers' expectations while opening a door to new opportunities.

*source: The State of OTT Revenues 2021, Applicaster

News analysis

How Disney overtook Netflix as the world's biggest streamer

Disney's ability to overtake Netflix has been defined by its clear direct-to-consumer vision combined with its IP and financial resources, reports Jonathan Easton.

Disney is now the largest streaming operator in the world.

The company revealed in late July that it had a total of 221.1 million streaming customers globally across Disney+ (including Disney+ Hotstar), Hulu, ESPN+ and Star. The figure eclipses – albeit narrowly – Netflix's total of 220.67 million, after the company recorded its second consecutive quarter of churn.

While Disney is technically the largest operator, it is worth noting the figure may be slightly misleading. In the US – Disney's largest market – the company operates a trio of streaming services, and if a user is subscribed to more than one of them either as standalone subscriptions or via the 'Disney bundle' they will count as multiple numbers towards that 221 million total.

Caveats aside, it is still impressive that Disney has achieved this level of success when its D2C streaming efforts didn't really kick off in earnest until 2019 when it took over full control of Hulu and launched Disney+ in an initial three markets.

The power shift was viewed by some as an inevitability; *Digital TV Europe*'s sister research house Omdia previously predicted that Disney+ alone would overtake Netflix for subscribers within the next five years and this may well become the case should the respective company's trajectories remain the same.

As it stands at the end of Disney's Q3 2022, Disney+ (including the Asian market-oriented Disney+ Hotstar) was at a total of 152.1 million. If the streamer has grown as large as it is within three years, Omdia's estimation that Disney+ will add 144 million subscribers between 2021-27 to take its total to 274 million should ring true.

The report predicted meanwhile that Netflix will only add 31 million subscribers between 2021 and 2027, while in the same period losing four million subs in the US.

So this all begs the question of why and how Disney has managed to achieve the impossible by supplanting the name that put SVOD services on the map.

A diverse content offering and defined content portfolio

Disney has made no secret of the fact that it has relied on established IP in order to grow its flagship streaming product.

Disney+ has become home to event television with a seemingly endless flow of Star Wars and Marvel series, along with major movies like the Robert Zemeckis-directed live-action *Pinocchio* and the sequel to '90s cult halloween movie *Hocus Pocus*.

While it gets few points for pure originality and has been criticised as something of a nostalgia trip, Disney's strategy for Disney+ from a content perspective has paid off.

Beyond the more family-friendly fare of Disney+, the US-exclusive Hulu has one of the most broad streaming offerings on the market and caters to a more adult audience. The streamer has also significantly benefited from the US$71 billion acquisition of 21st Century Fox, with movies and series that previously would have gone to cinema or linear now being exclusive to the platform.

Disney+'s *Andor* (opposite) is the latest show from the company's production line of Star Wars and Marvel shows, while Netflix's eagerly-anticipated *Sandman* adaptation (right) is the streamer's latest hit.

The most recent example of this is *Predator* franchise spin-off *Prey*. The 20th Century Studios film, which started production in 2018 before the Disney-Fox takeover, was taken directly to SVOD, and as a result *Prey* has become Hulu's biggest-ever streaming launch (even overtaking *The Kardashians*) while also being the most-watched film premiere on Star+ in Latin America and on Disney+'s Star hub.

This is all without mentioning Disney's ever-expanding sports rights portfolio both domestically and internationally. The company continues to invest heavily in rights for ESPN+, and the streamer is in the running to pick up the NFL's prestigious Sunday Ticket rights.

The Fox acquisition has also benefited Disney here, with its acquisition of Star India also giving it the rights to the prestigious Indian Premier League (IPL) cricket rights in the country. Such is the importance of the IPL, that the company paused the rollout of Disney+ Hotstar in India when the Covid-19 pandemic led to the competition's postponement. In June DisneyStar retained a rights package to the IPL, but it will share them with Viacom18.

All of these examples point towards a company that is laser focused on growing its D2C business and knows exactly what it is doing with it.

Netflix stumbles with an identity crisis

While Disney's success in streaming has come from establishing key USPs across its portfolio, the 'Netflix decade' was largely defined by a combination of novelty and naivety.

When it exploded onto the mainstream in the early 2010s, Netflix was *the* streaming service. Which is to say that if you wanted to stream a show or movie there was a good chance that it would be on Netflix. It didn't really need a brand identity beyond the big red N.

This was a moment in time before streaming operators even considered producing original content for their platforms. If you told an average person a decade ago that the most-expensive TV show ever produced would be made by the website where you buy your cat food you'd probably be laughed out of the building.

Netflix can almost single-handedly be credited with transforming the industry in this way. 2013's big-budget and star-studded *House of Cards* came with a huge ad campaign, and was one of the key factors in changing the mindset that a 'web series' can be just as prestigious as anything on HBO or AMC.

Three years later, the Duffer Brothers' *Stranger Things* would go on to become a genuine worldwide sensation which carries on to this day and set the bar for what a streaming series can achieve in cultural impact. The company has subsequently had a number of comparably sized hit series with the likes of *Squid Game*, *Money Heist*, *Bridgerton* and, most recently, *The Sandman*.

But while the past decade saw Netflix set the gold standard as a video streaming operator, the company has lost millions of subscribers in 2022. Part of this is to do with the oft-discussed 'pull forward' effect of the Covid-19 pandemic, while the company also lost millions when it pulled out of Russia. Attributing Netflix's losses just to those factors however somewhat misses the bigger picture.

During its peak growth, there was also a degree of arrogance from Netflix's co-CEO Reed Hastings, who said that the company's biggest rivals were not its streaming competitors, but other forms of media. He wrote in 2019: "We compete with (and lose to) *Fortnite* more than HBO."

But since Disney acquired Fox and made it clear that it was out for Netflix's crown, the Los Gatos-based streamer was in a race against time to bolster its offering with originals. This was largely to compensate for studios like Disney, Warner Bros. NBCUniversal and Paramount taking back rights in order to launch their own streamers.

Netflix essentially became a victim of its own success. It quietly built a monopoly in a D2C market to which major Hollywood players were slow to react. And by the time it was that dominant force, its users were repeatedly coming back to Netflix not to rewatch *Stranger Things* or *13 Reasons Why*, but for the staples of comfort television like *The Office* and *Friends*.

This is a gap which Netflix has repeatedly tried and failed to fill, and instead the company is reliant on an unsustainable model of adding new content with little sense of quality control.

This increasing dependence on original content production has seen Netflix's subscription costs steadily increase to the point where its initial selling point of 'all the movies and series you want to watch for a low monthly cost' rings hollow in 2022.

Netflix has also branched out into video games in an effort to salvage its momentum, but a damning Apptopia report showed that only 1% of its subscribers are actually playing its games. The early August report noted that Netflix's games available on mobile have been downloaded a total of 23.3 million times with an average of 1.7 million daily users.

Such is the comedown that Netflix is going through that it has laid off hundreds of staff, with the company being exposed for failing to prepare for the hard graft that would come after its initial period of accelerated growth.

Netflix is not on the brink of collapse, and there isn't a company aside from Disney that has the resources, portfolio and wherewithal to reach the heights of the streamer which is still the most-subscribed to individual streaming service in the world.

Disney's surge to the top of the streaming tree would not have been possible without Netflix, and it has clearly learned lessons from its rival in regards to what does and doesn't work from content, technological and strategic perspectives. Disney's growth in streaming under CEO Bob Chapek stands in contrast to a company which is struggling to define itself in this era of market maturity. ■

Making content stand out from the streaming crowd

In 2022, end-users are presented with a glut of content at any possible moment. As such platform operators need to do more than ever if they want their shows and movies to make an impact, reports Anna Tobin.

There is so much video content being pushed out into the ether that without a finely tuned search, discovery and personalised recommendation facility, it is almost impossible for viewers to quickly surface the content they want to engage with. And, if viewers aren't satisfied they will churn leaving content providers with a market share headache.

As the Nielsen State of Play report, published April 2022, stated: "The groundswell of over-the-top (OTT) platforms and content now provides more choice than consumers can keep track of. It's clear that media companies will need streaming-first mindsets going forward, but they will also need to understand consumer behaviour and sentiment to deliver what audiences are looking for – and keep them engaged amid an ever-growing range of choice."

Nielsen's State of Play report argued "the video streaming industy as reached a tipping point."

Peter Docherty, founder and CTO of ThinkAnalytics, outlines the scope of the problem: "If you look at an OTT service, people may have 100,000 different programmes available to them to watch. One of our customers may even offer up to two million pieces of content. So the main challenge is to get people watching before they get bored of searching."

It's pointless having attractive assets if you can't attract

anyone to them, adds Jose Luis Vazquez, CEO at Mirada. "You can have thousands of assets in your library that you have invested heavily in, but if you can't get that asset in front of the right users it becomes worthless."

Refining content descriptions

Part of the battle to win over eyeballs is down to how accurately you describe your content, says Martin Prins, head of product at Media Distillery. "Content descriptions are often too generic and not sufficiently descriptive of what the content is. Each time a user selects an item of content and it's not what they want there's disappointment. And consumers will only tolerate a certain amount of disappointment before they consider churning."

It does't help that many TV services do not create individual user profiles and even if they do, users often don't use them. In this situation, says Pierre Donath, CPO and CMO at 3SS, "The TV service provider can't know which individual in the household is making the content selection and pre-senting relevant recommendations can be a guessing game."

It's also difficult to assess how many assets a viewer must consume in order to create an accurate profile. This is also dependent on whether that profile related to what users willingly watched or what the system pushed in front of them, says Vazquez at Mirada. "Are you what you have been watching? That's the big question no one has the answer to yet."

Searching out the variables

Search and recommendation is crucial to user experience, but to optimise results this must take into account a number of variables, such as search time of day and which device the content is to be delivered to. "It's unlikely that you are willing to watch the same content on the big TV, as you would if you were travelling on a train, so you need to be able to differentiate those aspects," says Vazquez at Mirada.

There needs to be an effective visual element to search too, adds Trent Wheeler, SVP, product at Gracenote. "One trend involves presenting programme imagery within user interfaces that captures the specific aspects of content that attract individual viewers. For example, if a service's content recommendation algorithm is suggesting a TV show to a viewer because of their affinity for the theme of 'love stories,' then the image shown to them should visually communicate romance. What makes this possible is a granular understanding of all aspects of content through deep and descriptive programme metadata.

"Through personalised visual merchandising, video services can actually move the needle on key consumption metrics. In a recent test of a solution called Gracenote

> Super-aggregators can deliver value through search and discovery functionality that breaks down walls between siloed streaming catalogues and linear TV.
>
> Trent Wheeler, Gracenote

Personalised imagery, a leading US streaming service experienced an 11.2% increase in time spent watching titles versus non-targeted images and a 7.7% lift in the number of titles watched. When video services are vying to keep viewers engaged with content on their platforms, these are compelling results."

Understanding the metadata

Drilling down, it's clear that good content intelligence really understands the metadata. This identifies the themes, characters, sports and sports teams and even directors that viewers like and this can be used with a variety of recommendation techniques.

"To deliver highly personalised entertainment experiences, understanding content at a granular level is now more important than ever," says Wheeler at Gracenote. "Gracenote addresses this need through its Video Descriptors offering, which assigns structured metadata tags to TV shows and movies based on different dimensions, such as mood, theme, setting, character or source material. By capturing what content is about and relating those attributes to other programmes, the metadata solution enables nuanced dis-covery and recommendations capabilities that surface the programming that will best resonate with individual viewers."

Content makers are also keen to work with operators to get their content greater visibility on programme guides. And, Wheeler says that Gracenote's recently launched ID Distribution System facilitates this. "It helps content sources manage and optimise both first-party and third-party Gracenote metadata and its distribution to video services around the globe, making it easier to connect viewers with programming and UIs of downstream distributors," he explains.

Measuring success

It's all very well having the tools for content discovery, but it's just as important to work out which work best when, adds Doherty at ThinkAnalytics. "You must be able to measure and see what's working and what's not working. To do this, you need more than a generic business intelligence plat-form, you need an insight platform that's set up to give you key metrics and KPIs that will help you

make better business decisions. You also need to be able to A/B test to see which particular carousels work best. You need to be constantly testing, because you can always make improvements."

With regulations – such as GDPR in the EU and similar in other territories – content providers are restricted in the data that they can collect on users and use for measurements. But as Prins at Media Distillery points out, you can do a lot to support the user and provide a better experience, without breaching data privacy. "Viewers can derive huge benefits from getting a better understanding of content. If a viewer rapidly gets accurate, granular knowledge about an item of content, about say, Roger Federer's latest tournament, rather than just tennis or sports, the discovery experience is improved and this can be achieved without tracking the viewer."

Gracenote video descriptors assign metadata tags to TV shows and movies based on different dimensions, such as mood, setting or source material

This is why metadata and the AI that analyses that data is so important. It could tell you, for example, that a user is planning a trip to Paris and, therefore, they may be open to content involving Paris.

The rise of the content super-aggregators

Metadata is what underpins all content discovery, reaffirms Mirjam Laux, VP international platform of Roku, adding that ultimately, metadata works better when you can share it. "At the moment, metadata is owned by individual platforms and streaming services, but there is willingness within the industry to collaborate and find a solution. Ultimately, we all want to improve the viewing experience for consumers and grow the overall streaming universe.

"Platforms like ours must work hard and together with publishers to surface the right and relevant entertainment for consumers to watch at the right time to ensure the search experience is seamless and up-to-date."

Equally, viewers want to be able to discover all of their content in one place. They no longer have any loyalty to channels and they don't think about what's on catch-up,

Optimising voice control

Voice control is also playing a growing part in content discovery. And to optimise your voice search discovery you must take advantage of its increasingly sophisticated features, says Peter Docherty, founder and CTO of ThinkAnalytics.

"It's not just about using the natural language processing (NLP) to understand what the person says, it's using this in combination with content intelligence to un-derstand the intent behind the voice command. What are they really looking for? What did they mean? Then you have to be able to translate that into something that can be delivered. They might ask are there any good come-dy movies on tonight? But maybe your content intelligence has picked up they like slap stick comedies, but not dark comedies, for example."

Mirjam Laux, VP international platform at Roku adds that voice control speeds up the search process and it will increasingly become the go-to search facility as younger users are much more comfortable with it. "We are seeing an increased use of voice control for content discovery, particularly among digital natives," she says. And, of course as voice control is reliant on machine learning, the more it is used the better it gets.

"The user experience for people with strong regional accents can be pretty poor right now, but it's getting better all the time," says Kjeld Beijer, product marketing and product partnerships manager at 24i. "We're also seeing services, such as Google Voice Assistant, making more use of voice pattern profiling that identifies not only the words spoken, but the in-dividual speaking those words. So, if a parent asks a question like 'show me something funny' they may get a very different answer to if their child asks the same question, even if the words used are exactly the same."

Video services must gather more 'world knowledge' to actually understand what users are asking via voice queries, sums up Trent Wheeler, SVP, product at Gracenote. "People naturally use more words when talking than writing - especially with a remote control. With text-based search, metadata on programming that's currently airing or available may be sufficient. But with voice-based search, services require more metadata to understand what the end user may be asking for. This includes knowledge of alternative programme names, abbreviations, colloquialisms and more captured in programme metadata.

"When datasets are truly comprehensive, better search results and, there-fore, more satisfying user experiences will naturally follow. This is the point at which voice control for video content will begin to approach its full potential."

Keeping your subscribers happy when you're not another Netflix yet?

When a company cannot afford to create a video streaming solution from scratch, how can it keep users engaged but not see its expenditure go through the roof?

Accelerate TTM with a modular frontend strategy

Instead of spending months on designing and building apps from the ground up to cover all your supported devices from iOS, Android, and web to Smart TVs and STBs, there is a faster rollout alternative. A modular framework acts as a construction kit for a frontend experience – a rich assortment of features, like interactive electronic program guides, parental controls, 'continue watching', VoD, catch-up options, etc. – that is implemented to quickly set up those features that interest a particular company. So what is the right approach capable of reducing development costs and TTM, and saving you from unexpected complexity and performance issues in the long run?

One business logic – multiple platforms covered

Regardless of the number of platforms to be covered, before the frontend app development stage, the logic to communicate to the backend should be written. Here lies the way to reduce costs – the creation of a unified business logic that is then used across all platforms.

Once a common code that's valid for all devices is written, mobile, web, set-top box and smart TV UIs are integrated into this business logic for further interactions with the backend.

Nikita Ragozin, Oxagile, React Native specialist says: "We've tested several development scenarios on similar projects, and after experiencing the ins and outs of different approaches, voted to use React Native to distribute frontend OTT apps across the platforms and devices a customer wants. JavaScript expertise allows for designing the solutions for all platforms including Smart TVs and STBs, which played an important role in making the decision."

UI with React Native: hidden dangers

Does it pay off to use React Native forks?

As a copy of React Native designed to manage a particular development task, like frontend development for Xbox or FireTV, forks aim to jumpstart the development process.

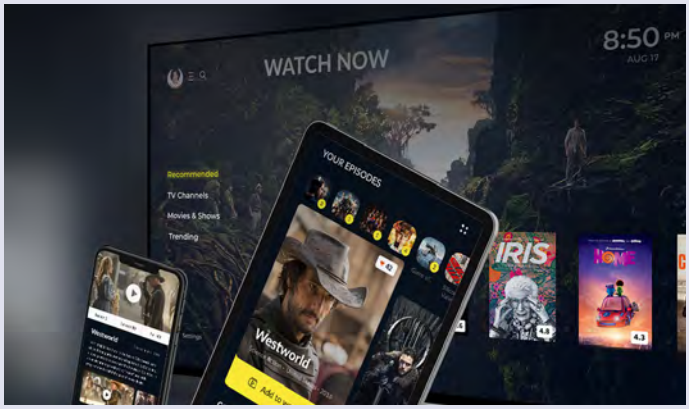
Anna Gulevich, Oxagile's project manager, says: "Our team considered the idea of utilising a React Native fork for one of our projects. On the face of it, the concept seemed nice – 80% of one and the same code, only 20% of code tuning for the sake of iOS UIs."

Ragozin says: "However, in the course of evaluating React Native forks, we got a feeling that some SDKs and frameworks built on top of React Native are far from being production-ready. It turns out that if there are any alterations required for the part already implemented with the fork, it'll be far easier and quicker to use React Native to improve it."

Limited support of controllers is what you stumble upon

The controllers embedded in many React Native forks are most commonly limited in terms of navigation mechanics support.

Generally, the support of controllers, including laser pointers, joysticks,



and Apple TV Remotes, requires quite significant expertise. While working with forks, development specialists regularly face controller-related blockers, having to modify them by themselves.

React Native forks and memory leaks

Writing the code without memory leaks is a multi-level process combining a whole complex of specific knowledge and a set of tools. While dealing with React Native forks, chances are high that you will face memory leakage issues at all levels. Most use cases are often not related to longer user sessions typical of the TV viewing experience and searching for a memory leak is not critical for many fork contributors. Yet, it's a must for performance-driven video apps, and the process sometimes takes up to 12 hours, and that doesn't include time and effort spent on fixing.

Can proprietary forks be more mature?

Nikita Ragozin says: "There were some attempts to use a proprietary React Native fork designed to speed up the development on one of our projects for the client's specific platform selection. But they were defeated after our team faced some issues. To avoid pain, React Native on its own is a sound choice."

Proprietary engines tend to suffer from a lack of community support, which makes specific platform customisations and bug fixing complicated and time-consuming. The source code can't be viewed or modified publicly when it comes to proprietary libraries and tools. Thanks to massive community support, working with pure React Native is a completely different story.

Contributing to economy and efficiency

We've seen about threefold development cost savings enabled by the shared business logic on one of our projects. Creating a worthy replacement for Netflix isn't just about time and money perfectly saved, though – choosing React Native for multiple platforms will let you get any UI configurations in a flexible, quick, and pain-free way, avoiding many potential perils lying in wait.

or live. They just want to watch something that they are interested in, in that moment. What they want is a universal home search screen, and this is where super-aggregators come in.

"Super-aggregators have opportunities to deliver value through universal search and discovery functionality that breaks down walls between siloed streaming catalogues and linear TV," says Wheeler at Gracenote. "Additionally, with views across all content catalogues, they have opportunities to de-liver increased personalisation and, as a result, drive advertising revenue for their overall ecosystems."

Content aggregators need to build strong partnerships with their various content providers so that they can have access to that metadata, but this is easier said than done. A truly functional universal search and recommendation facility is the holy grail that everyone is working towards and technology is not the obstacle here, says Kjeld Beijer, product marketing and product partnerships manager at 24i.

"We know that consumers want this and that it's in the best interests of content aggregators to give it to them, so they can solidify their role at the heart of in-home entertainment," he says. "At 24i, we have a cloud-based Unified Search feature in our middleware that is being used by operators, such as Waoo in Denmark, to unify search across the different aspects of its platform. If it has agreements with the third parties on its platform, we also include content from those third parties in the search results. But we know that services like Netflix and Disney+ aren't always willing to do those deals – they will share metadata with selected partners, but not with everyone, because they prefer to own the complete customer journey. They don't want to just become a collection of content landing pages where people come from someone else's UX.

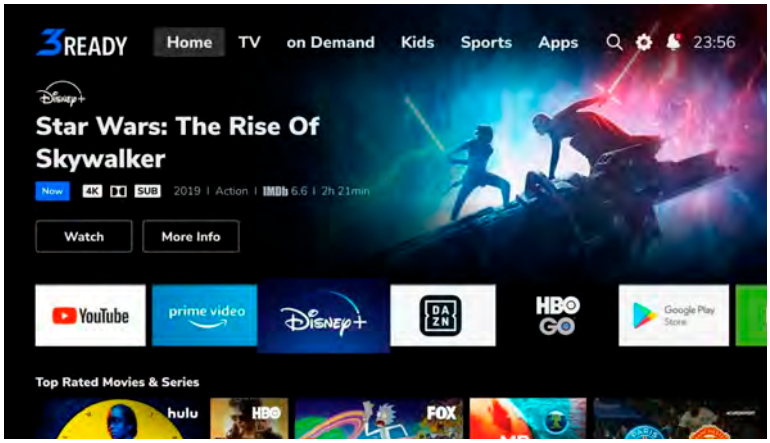
"That's one of the reasons I think it's hard to see a point in time where we'll have a truly universal search and recommendations facility. There would need to be so many agreements in place between fierce rivals who aren't going to want to give up control of their customer journey. The same can be said for a single metadata standard or a single platform that aggregates all the streaming content from every different service provider – many streaming services just don't see that it's in their interests to cooperate."

Pierre Donath at 3SS is a little more optimistic, he says: "The APIs exist that can allow the required profiles to be built. Content rights are, of course, the bigger challenge. Exclusivity of content will be tough, but I believe rights holders will become less restrictive over time in response to competitors who favour a more flexible approach to content availability. Who gets access to data is at the heart of this topic."

Stefan Blickensdoerfer, CTO at 3SS, adds: "If they make it easy and, critically, cheaper to access and consume the content 'stuck' in different content providers' silos, this can be a win-win. Aggregators can earn through reve-nue sharing and innovative monetisation models and content owners gain subscribers and viewers.

"Obviously, if everyone aggregates the same content, again this creates direct, head-to-head competition, and, therefore, the players need to find their niche, and competitive edge. They can do this through better, more creative bundling and pricing, and/or by making the service available on more devices, giving the consumer increased choice. Combining the video service with other services is a powerful strategy. Here, operators are in pole position, because they have an existing relationship with the customer and can bundle with broadband, TV and mobile-data access." This gives operators the opportunity to create super bundles and provide users with a single bill for all of their services.

Increasing fragmentation is forcing fierce rivals to work together, adds Beijer at 24i. "We're seeing more of the larger pay TV operators boosting their ARPU by bundling services like Netflix as part of their offering, giving con-sumers the convenience of a single bill, and sometimes significant discounts, as well as a single interface and aggregated content discovery experience. Broadcasters want to go OTT to have a direct relationship with their audience, but they also want to stay part of the pay TV ecosystem, because it offers them a route to more eyeballs. And the hardware manufacturers want both broadcasters and pay TV operators to continue publishing apps on their app stores. It's a symbiotic relationship.



Above: Chinese STB maker Skyworth Digital partnered with 3SS to create a Android TV STB platform.

"When we're talking about aggregation, it's also important not to overlook the bundling that's also going on in the pure OTT arena, as smaller SVOD services team-up to take on their bigger rivals by creating added-value packages. A good example is CuriosityStream's 'Smart Bundle,' which com-bines its own content with that of rival SVOD services Tastemade+, SommTV, Topic, One Day University and Nebula. I suspect we'll see more of that kind of partnership as smaller services compete with the bigger fish in the streaming market."

To conclude, there is no simple answer to getting the right content in front of the right people at the right time, but technology is the enabler here, not the obstacle. This is a challenge for the industry to come together and solve. ■

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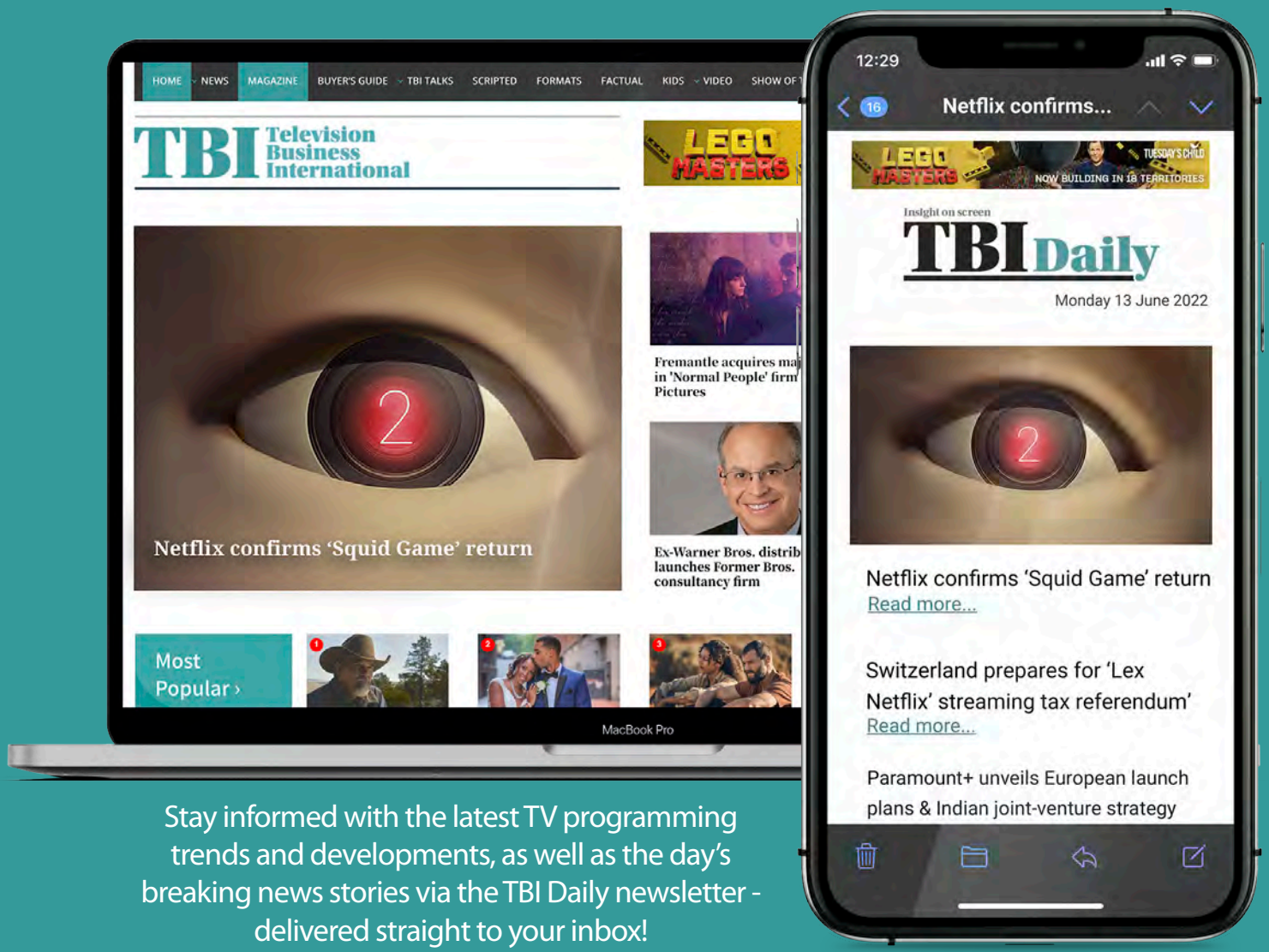

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Streaming live and at scale

In a world where video live-streaming is increasingly becoming the norm for watching sports, there are many key factors which can make the difference between a successful service that surpasses traditional linear TV and disaster, Adrian Pennington reports.

The streaming habit is ingrained; the technology to produce and distribute D2C via cloud and OTT has matured, and traditional media businesses are becoming streaming-first organisations. While most streaming content is available through on VOD services and live events have mostly remained on traditional broadcast channels this is changing fast.

OTT services like DAZN and Amazon Prime have purchased domestic rights for major sports leagues in Europe and North America. Major mergers such as the swoop for pay TV broadcaster BT Sport by Eurosport-owner Warner Bros. Discovery are paving the way for more live events to be streamed online.

To compete with broadcast and meet customers' expectations, direct-to-consumer operators must reach millions of viewers with impeccable video quality at the lowest latency possible, as well as add value through experiences such as betting, social-watching and multi-cam.

"Everything is possible if you drop tons of money, but that is not a wise business strategy," says Gwendal Simon, distinguished CDN architect, Synamedia. "Agile, scalable, and efficient CDNs capable of dealing with highly fluctuating peaks and valleys of demand are key. Intelligent CDNs pushing traffic to the edge of the network, offloading origin servers, and reducing network traffic are a must."

Sports rights are increasing in value, which only raises the pressure on streamers to get it right. The number of major sporting events available online is set to drive revenue for global broadcast rights beyond US$85 billion by

the end of 2024, according to a recent Rethink TV report. That report also claims rights growth could galvanise the popularity of smaller sports properties. In part this is because production, contribution and distribution can be done over the internet or via the cloud in a far more cost-efficient fashion than ever before.

Unlike VOD streaming though, where traffic is distributed over time, live streaming connections happen simultaneously, provoking peaks of traffic on the network that in generally exceed previous maximums.

"Without a solution to scale, all operators would have to review their investments and plan to address new capacity needs," says Damien Sterkers, video solutions marketing director at Broadpeak. "Today, this already represents a serious technical and financial challenge, and it will get even less sustainable as streaming continues to grow exponentially."

Respondents for this story emphasised that operational scale is critical, especially when limited on resources.

"At some point, the streaming provider will not only need to grow in their domestic market but acquire customers outside of their domestic market," says Rémi Beaudoin, CSO, Ateme. "However, going outside of their domestic market also means having to scale up their audience and their operation and thus they'll face some new issues and challenges.

Streaming at scale is a top priority for service providers. According to Alain Pellen, senior market manager, OTT and IPTV, Harmonic, DAZN is finding it challenging to deliver HD to fewer than one million subscribers in Italy and is working on improving the streaming experience so it is on par with Sky on DTH.

The crux of the matter is that, when it comes to large-scale high-profile live events in particular, the viewer experience must be indistinguishable whether people are attending in person or streaming from their sofa.

"While the operational complexities should never be underestimated, the technology stack required to support such events has largely been figured out but is constantly evolving," says Marty Roberts, VP of media analytics at Brightcove. "As streaming becomes a more significant part of how brands and businesses connect with audiences, the challenges and solutions must be explored and faced head on."

The basic requirements

The secret to 'broadcast quality' is actually quite simple: it involves distributing a single version of a content to all viewers (one-to-many) and securing enough fixed network resources.

Streaming relies on numerous individual copies of the content (one-to-one), which are likely to constrain the network during peaks and cause quality issues such as freezing, decreases in video resolution, and latency.

"The easiest approach to match streaming quality to broadcast is to use the same one-to-many delivery principle," says Sterkers. "This is especially relevant as popular live events are what 'over-dimension' the streaming infrastructure and cause constraints. Since popular live events are the moments viewers want to see the same content, it makes sense to distribute a single copy rather than unnecessarily replicating individual copies over and over."

However, if you want to switch from multicast to unicast this becomes a much more complex proposition for the provider.

> As streaming becomes a more significant part of how brands connect with audiences, the challenges and solutions must be faced head on
>
> Marty Roberts, Brightcove

The challenge remains the same: to ensure provision of an experience as good as or better than the broadcast experience, meaning the lowest latency possible, dynamic ad insertion, a smooth experience and good-to-excellent visual and audio quality.

"The main challenge is to provide the same level of quality of experience as before while delivering more personalised content," says Beaudoin. "Consumers got used to a smooth experience with broadcast and multicast and expect the experience and the functionalities to remain the same with unicast."

Unicast, of course, would enable providers to give their end-user complete control over their TV including the possibility to fast-rewind, fast-backwards, pause, etc).

"With unicast, we can deliver high-quality, personalised streams to each user by leveraging the heuristics of their device, bandwidth, and location," says Jason Friedlander, head of marketing for Edgio (formerly Limelight Networks). "In many ways, broadcast is becoming inferior to streaming experience when we talk about quality and personalisation."

Part of the personalisation and monetisation equation is the ability to serve targeted ads. Friedlander says targeted ads generate higher CPMs and provide a better user experience, "so having a platform that has industry-leading SSAI technology integrated into the core platform, removes technical headaches that can come from having to find and implement various vendors."

The key challenges

The biggest challenge surrounds major live sports when millions of viewers flock to the streaming service to watch

the game simultaneously. The delivery ecosystem must quickly adjust to the sudden increase in demand without impacting the user experience.

"The challenge is scalability and dynamic infrastructure resources allocation," says Simon. "You may allocate enough infrastructure resources to offer the most incredible experience ever, but if those resources sit idle waiting for the next mass event, the ROI will never work.

> AI forecasting technologies guarantee that a consumer finds a nearby server to deliver the stream at the best possible quality
>
> Gwendal Simon, Synamedia

"This means allocating those resources dynamically while the event is happening, monetising the experience and then moving those resources to other tasks. Maximising the infrastructure resource utilisation is not simple, it requires a sophisticated understanding of traffic predictions, demand for bandwidth, streaming, processing, and content storage. This is where insights and AI allow the edge of the network to reach peak utilisation for extended periods of time."

On the content delivery side, traditional CDNs have limitations, and service providers are looking at alternative technologies to improve the streaming experience, including multi-CDN, private CDN, multicast ABR on ISP network, deep caching (MEC) and Open Caching as specified by Streaming Video Alliance.

Whatever the chosen technology it must be reliable. It must be fault tolerant and always available. "An outage or even failure of a critical feature from ad insertion to the CDN can be catastrophic to a content owner's business on any given day, and that is even more amplified when streaming a significant live event," says Friedlander.

With many of the obstacles attached to scaling an event that reaches viewers in their millions already solved, the key challenges now lie in optimisation. Firstly, media companies need to strike the right balance when it comes to visual quality. The higher the quality, the more expensive the bandwidth cost, so the need to ensure the viewer experience is the best it can be within these constraints is vital.

"The timely delivery of in-stream advertising is also an area that requires due care and attention," says Roberts. "When it comes to live-streamed events, ads need to appear at the right cue points in the right sequence, so it's vital that the ad-tech stack can insert the right content quickly. Technology is not infallible, so it's important that a team is in place to resolve any critical issues in real-time."

Harmonic's VOS360 SaaS platform was used to deliver this year's Super Bowl with a peak of 5.6 million simultaneous sessions.

Overcoming the issues

According to Ateme, the ability to develop an elastic content delivery network – which controls where the popular contents are fetched, and how you can scale up and down when there are peaks – is critical. "You need to have control over the CDN that can again go up and down depending on the demand. Having a fixed configuration, a fixed CDN or a rigid approach won't allow you to have good performance at scale."

ABR technologies – including DASH and HLS – and distributed infrastructure using CDNs are the key ingredients in the recipe to overcome these hurdles. Smart algorithms enable these technologies to scale fast while minimising energy consumption and give the content provider full control.

"The key is to use cloud technologies to scale encoders and packagers so that the video is prepared without compromising quality," says Simon. "AI forecasting technologies guarantee that a consumer finds a nearby server to deliver the stream at the best possible quality."

Broadpeak talks up the potency of Multicast ABR (mABR) for permitting one-to-many distribution on the network, down to a device such as a home gateway or set-top box in the viewer's home. mABR has been used successfully by many operators, including in Italy when Serie A football matches were exclusively available via streaming.

"With one-to-many distribution, the load on the network no longer increases with the number of viewers, allowing virtually unlimited quality levels," explains Sterkers. "For example, streaming live sports to millions of viewers with an increased 4K resolution is generally considered unrealistic in one-to-one mode. mABR enables it pretty seamlessly, since only a single copy is distributed. mABR can solve current scalability issues and may become an important enabler for future streaming enhancements."

RedgeTechnologies

Q&A: Przemysław Frasunek, Redge Technologies

The CEO of Redge Technologies talks to DTVE about the company strategy and development perspectives after Play Group's acquisition.

Play Group has acquired 92.5% of the shares of Redge Technologies – the leading OTT technology provider in Poland. What does that that mean for the Polish company? What was the rationale for the acquisition?

Play Group is the leading provider of telecommunication services in Europe, which acquired Play and UPC Polska. On the other hand, Redge Technologies has been cooperating with Play since 2007 working on PLAY NOW, Play's video service. Delivering a technically excellent product strengthened our position as a reliable partner. The acquisition is a natural stage in the development of our cooperation,

On what terms will you cooperate after the acquisition?

We remain autonomous as a separate organisation. We will continue to develop our products and support our customers in most innovative OTT projects. The strategy, brand, management team, office, sales organisation and operations will remain the same. From our perspective, our partner has now become our protector , someone who invests in our creativity and places trust in our solutions.

Is there a synergy effect in the cooperation of Redge Technologies with the Play Group? If so, in what specific fields?

We have become part of the international telco group whose values align with ours. I think it's a win-win, it's a benefit for both parties. The synergy with Play gives us a boost in the telecommunications area. We have been developing Redge Media CDN since 2007. Now we have a strong partner allowing us to quickly expand CDN infrastructure to Western Europe. We get better exposure in the international market because of support from the international telco group.

What are your current endeavors?

This was a very intense and successful first half of the year for Redge Technologies. First and foremost, we managed to extend our contract with TVN Warner Bros. Discovery group. Our SDP platform won a public tender from TVP, the Polish national broadcaster. We expanded our CDN presence into Czechia. Last, but not least we won a very competitive tender from one of the leading broadcast groups in the MENA region.

What is the strategy for the coming years?

Redge Technologies strategy remains the same since 2020 and is based on three pillars. The first is what we are doing now, i.e., implementation and integration for large broadcasters or operators, where it is necessary to build an end-to-end OTT solution.

The second pillar of the strategy is the development of our UX 3.0. vertical solutions dedicated to smaller entities with attractive content. We see the potential of verticals such as sports, news and culture. We are also dynamically developing PPV services and in this area, we have successes supported by experience. In June, we broadcast an MMA tournament that took place in Slovakia.

The third pillar is a video cloud. We are aiming at providing whole video processing and delivery chain in an API-based, self-provisioning model. We strongly believe in the edge computing paradigm. Our CDN solution was engineered with this architecture in mind. We are able to deliver personalised streams, with server-side ad insertion and unique forensic watermarking.

I didn't mention our separate product line, Redge Guardian, providing carrier-grade, multi-terabit deep packet inspection. It fits into our edge computing strategy, as well as into the telco ecosystem. Thanks to it, we are providing DDoS mitigation service for high-profile government customers. Redge Guardian may play an important role in upcoming 5G SA deployments.

I believe that our edge-based strategy makes us future-proof.

What is your technology outlook for the next five years?

I strongly believe in a cloud-edge continuum with dynamic resources management and seamless workload migration between centralised cloud infrastructure and an edge cloud. My dream is to make cloud computing more standard and compatible between vendors. 5G is one of the key growth drivers for edge computing, allowing European telcos to enter the cloud computing market and start competing with big techs. As Europe, we should be technologically sovereign.

For more information see www.redge.com

Harmonic promotes Content Aware Encoding (CAE) to improve streaming quality of experience. The technology has been deployed by over 100 service providers for more than 10,000 channels in live applications from which service providers can realise bandwidth savings of up to 40%, the vendor claims.

To support targeted ads and blackout management, a scalable playlist manipulator is needed, Harmonic says. When it comes to scalability, this is a challenge for the complete infrastructure, including CDN delivery, origin, server-side ad insertion and NPVR recording.

"Cloud-based solutions are a perfect match for extreme scaling challenges," says Pellen, pointing to the VOS360 SaaS platform used to deliver this year's Super Bowl with a peak of 5.6 million simultaneous sessions.

"We recognise there are silos between the on-net traffic managed by a dedicated infrastructure and the off-net traffic managed by third-party CDNs. In a world where all traffic will be unicast, there is a need to rationalise delivery networks using the ISP's private cloud to deliver content to devices inside the ISP network."

Pellen also acknowledges that the largest sports events require geo-redundant cloud and multi-cloud solutions, along with other redundancy capabilities, such as seamless fail-over, "to ensure viewers don't miss a moment."

Brightcove points to learnings such as its Audience Insights that Roberts says enable businesses "to create data-driven strategies that can have a remarkable impact on improving monetisation."

He says: "Beyond this, we believe there are areas of innovation beyond multi-bitrate streaming. We see an evolution to multi-codec switching, even mid-stream, enabling a truly seamless viewer experience."

In June this year Limelight acquired Edgecast from Yahoo and rebranded as Edgio, retaining over a decades worth of knowledge inside the company.

> Cloud-based solutions are a perfect match for extreme scaling challenge
>
> Alain Pellen, Harmonic

"Using these insights, we built a platform that orchestrates thousands of distinct decisions per second for every viewer that presses play to deliver high-quality and ultra-personalised streams," Friedlander says. "Finding a reliable technology partner that allows you to operationally scale, means you can innovate and evolve with your audience with only a fraction of the resources." ■

Latency, ULL and Tiered Latency

Low latency is now a hygiene issue for a sports OTT business.

"People expect to receive a stream that is on par with the broadcast," says Rémi Beaudoin, CSO, Ateme. "The most important is to ensure your service can achieve low latency, meaning you may need to change your compression system and/or your CDN system to meet these requirements. In particular, low latency compression, DASH or HLS packaging, and possibly bitrate, as all of these are the compression and delivery mechanisms that allow a customer to reach and power a low latency streaming service."

Jason Friedlander, head of marketing for Edgio has a slightly different view. "While latency is important, our customers care more about monetisation. They want streams relatively close to broadcast but will not sacrifice quality or monetisation opportunities. We have had customers experiment with real-time technologies, like webRTC, but our focus is on HLS and its low latency features."

Delays in streaming can be frustrating at the best of times. When an event is available through multiple distribution avenues, such as traditional pay TV and online, companies can encounter the "Twitter problem." Do individuals learn about the goal, highlight, or winning contestant before the online stream catches up? In this instance, sub-two second latency strikes the right balance between maintaining the monetisation model and 'syncing' the audience to keep everyone in the moment.

"Ultra-low latency is defined as sub-1 second," says Marty Roberts, VP of media analytics at Brightcove. "This is primarily driven by sports betting, where there is a concern that latency creates an arbitrage opportunity. The tech stack for this is a little less mature, so monetisation via in-stream advertising isn't yet possible - but we may see this evolve soon."

Unicast delivery can also for tiered latency, to accommodate the different latency needs for say a live concert or news vs a football match. Tiered latency delivers broadcast-equivalent latency as well as allowing services such as adaptive quality and time-shifted viewing.

Gwendal Simon, distinguished CDN architect, Synamedia, explains the use case further. Some viewers chat while they watch a game, others want to zap from one camera angle to another. For these use cases, synchronisation is key. This is achieved using HESP, an innovative packaging technology which offers accurate group synchronisation with low latency – typically about two seconds.

Some consumers want to bet on the next action in the game. To prevent cheating from people physically watching the event, we have to guarantee sub-second glass-to-glass latency. This is possible with WebRTC technology.

"Each of these technologies - DASH/HLS, HESP, WebRTC - needs the development of a new pipeline to ingest, process, and distribute the content," he says. "The beauty comes when one unique infrastructure implements the delivery at scale by automatically adjusting the hardware and software resources to the population's requirements."

Synamedia

Q&A: Steve Locke & Romain Eude, Synamedia

Steve Lock, Senior Director, Video Platforms, and Romain Eude, Director of Product Development, Synamedia talk about the company's acquisition of Utelly, its integration into Synamedia Go and how service providers can make super-aggregation a truly compelling experience for consumers.

What is the background to Synamedia's acquisition of Utelly and how will it integrate into Synamedia Go?

SL: We saw that content discovery and allowing companies to be able to maximise the value of partnerships they have – and pulling all this together – is critical. Utelly goes a long way to solving these problems, dealing with the complexities and challenges of content discovery across multiple services. Utelly also has other capabilities including integrating podcasts and music streaming and so on. The acquisition took us a lot further forward into that market than if we'd tried to do something on our own. We are quickly integrating the technology into our Go Aggregate and Go Recommend packages within Synamedia Go. We will demo those capabilities at IBC.

What in your view makes for compelling super-aggregation of multiple content services?

RE: You can bring all these services together but there is a danger that you might actually make the experience a bit worse for the consumer. Taking a step back, we can see that content discovery is key and the industry must put content first rather than stacking different providers on top of each other. And content means not only video but podcasts and audio including movie soundtracks. For super-aggregation to work you need to have the metadata to connect everything at the base of a magical pyramid. Higher up that pyramid you get to find the nuggets that make for a truly enjoyable experience. But we need to build the right foundations to get to that point.

What challenges do service providers and their content partners face in working together and developing a meaningful offering?

RE: Good metadata is the oil that makes everything work and getting access to good metadata is challenging. You can invest in a great UX but having access to good content descriptors is essential if you want people to stay with your service. As you add services to the offering, the problem doesn't get easier. It's important to have a future-proofed solution. And then even if you have great metadata, you have content providers with their own interests and commercial rules that come into play. So you need to get the technology and commercial interests of different partners to work well together and then you can unlock the benefits of content discovery for the consumer.

How can service providers and content providers more meaningfully integrate services and platform?

RE: When content providers think about aggregation, they need to consider the all the elements including content rights as well as the sourcing of metadata. Service providers need to anticipate what happens when multiple providers are aggregated together. For example, be prepared for different content partners competing for the best position on the screen. But then they need to think about how different services work seamlessly with each other which takes us back to the principle of putting content first. That is where we can help because we have put solving these problems front and centre. Sourcing metadata is not something that can be done once and forgotten about. It needs to be constantly refreshed and updated.

SL: As a technology company we can solve the technical problems and remove the business challenges. Service providers need to acquire rights and balance different interests. With Go.Aggregate we can accommodate the commercial rights already in place and take away the complexities around enriching the metadata and keeping it up to date.

Is super-aggregation ultimately a true differentiator for fixed and mobile service providers?

SL: It isn't easy to give a single answer to that question for all markets and regions of the world. Super-aggregation in some regions is now a must-have and it isn't necessarily a differentiator. What becomes more important is offering a compelling experience and that's why we have focused on content discovery. As a super-aggregator you may have the relationships in place and carry all the services consumers need, but what is the viewing experience?

RE: if you think about mobile networks, people have been using those networks to stream a lot of video and it represents solid revenue for operators. Now those operators are thinking about how they can stimulate usage and provide added value for end users, going from being a utility to offering content discovery and bundling - becoming virtual TV operators. Selling voice and data is not enough anymore. Last year, as a standalone company, we also worked on an EU project with public broadcasters who had TV, radio and podcasts and wanted to create a real super-aggregated experience. This confirmed that going beyond video is meaningful, so we made our platform an enabler of cross-media aggregation. You can bring TV series, movies, podcasts, games, and books – all sorts of creative works – together and connect them. That is really starting to have traction.

Tech in focus

News and analysis of the technology behind digital video.

Vodafone Deutschland starts standardising TV frequencies

Vodafone Deutschland is standardising the frequencies used by its TV and radio channels across its footprint to improve the uniformity and efficiency of its offering.

Up to 350 TV and radio channels will receive a new frequency. The conversion process for Vodafone's 13 million TV customers will be phased on a step-by-step basis.

The process kicked off on August 29 in Nuremberg, with subscribers informed that they may need to retune their set-tops to continue to receive a full range of channels.

Set-tops from Vodafone, Unitymedia and Sky and some integrated TV sets will find the new frequencies automatically.

Following the switch in Nuremberg, the change will be rolled out to other regions and is expected to be complete by the middle of next year.

The move follows a process of creating a uniform pay TV offering and a switchover process in North Rhine-Westphalia, Hesse and Baden-Württemburg, the three regions where Vodafone acquired networks from Liberty Global's Unitymedia division.

Lars Riedel, head of TV and entertainment at Vodafone (below), said: "Since we always change over at night and most TV devices automatically carry out a channel search, many of our customers will not even notice the changeover. The uniform frequency spectrum gives us greater technical freedom and increases the performance of the network. As a result, our customers can continue to benefit from our wide range of entertainment offerings for GigaTV and higher data rates in the future."

HbbTV Association updates Conformance Test Suite

The HbbTV Association has announced the release of a new version of the HbbTV Conformance Test Suite.

Developed by the HbbTV Testing Group, v2022-2 is the second major release of the Test Suite in 2022. It contains 3,000 test cases, including a mixture of tests that have been approved for the first time, and tests that were updated after feedback from users of the Test Suite.

The launch comes after a testing event held by the Testing Group at the beginning of July. At the event, which saw the participation of 12 companies, the group gathered evidence required for the test approval.

The HbbTV Conformance Test Suite provides device manufacturers with a tool to verify product compliance with the latest HbbTV specifications. It is available through one of the registered HbbTV test centres and for HbbTV members to use in their own facilities.

Vincent Grivet, chair of the HbbTV Association, said: "The constant adjustment to market requirements and addition of further features is key to the strong industry acceptance of the HbbTV specifications among broadcasters, platform operators and hardware manufacturers as the standard for improving the TV experience and enabling new monetisation opportunities such as Targeted Advertising. The release of the new HbbTV Conformance Test Suite version ensures that existing and new features quickly and smoothly reach HbbTV-compliant TV sets and STBs.."

The group has added seven members in recent months: ATET (France), Digita Oy (Finland), Ocean Blue Software (OBS, UK), Rundfunk Berlin-Brandenburg (rbb, Germany), Skyworth Group & Shenzhen Chuangwei-RGB Electronics (China), Synamedia (UK) and ZEASN Europe (Netherlands).

AWS launches UAE region

Amazon Web Services (AWS), the IT services subsidiary of the Washington online retail giant, has announced the launch of a new server region in the United Arab Emirates (UAE).

The launch represents AWS's second region launch in the Middle East, and will serve developers, enterprises, governments and more around the Gulf.

Amazon said that the launch will support an average of nearly 6,000 full-time jobs annually at external vendors with a planned US$5 billion investment in the local economy through 2036. The company also said that the AWS Middle East (UAE) Region will add an estimated US$11 billion over the next 15 years to the UAE's gross domestic product (GDP).

The new launch brings AWS to 87 availability zones across 27 geographic regions, with announced plans to launch 21 more availability zones and seven more AWS Regions in Australia, Canada, India, Israel, New Zealand, Spain, and Switzerland

Prasad Kalyanaraman (pictured), vice president of Infrastructure Services at AWS, said: "AWS is committed to helping customers in the UAE deploy the most advanced cloud technologies and achieve the highest levels of security, availability, and resiliency. With the launch of the AWS Middle East (UAE) Region, we are making it possible for even more customers to harness the power of the cloud to drive innovation across the UAE, while also investing in the local economy through job creation, training for highly sought-after technology skills, and education resources to further advance the UAE's strategic priorities."

BT launches streaming-only option for Freeview channels

UK telco BT's TV Box Pro customers can now access the bulk of the operator's TV service without the need for a terrestrial antenna via a streaming-only mode on its advanced set-top.

BT is also launching the BT TV Box Mini, a new multiroom compact TV box, which lets customers watch TV in an extra room of the house,

BT TV Box Pro is BT's latest set-top box, which includes BT TV's traditional hybrid functionality but also enables streaming-only mode, removing the need for a terrestrial antenna for linear channels. When customers set up the box for the first time, they'll now be given the option in the set-up journey to either connect via internet mode or aerial mode.

The streaming option will give access to the main Freeview channels from the UK's public service broadcasters, and a range of other channels, but will not include all the channels currently available over the air on Freeview.

Existing BT TV Box Pro customer will receive an automatic software update allowing them to reset their connectivity settings if required in the future.

In addition to the all-new internet mode, BT TV Box Pro provides BT TV customers with a range of features including 4K HDR, Dolby Atmos, and 1TB of storage, which is double the capacity of the previous BT TV box, with up to 600 hours of recordings.

The box comes with four tuners, allowing customers who continue to use its hybrid functionality to record up to three shows and watch a fourth simultaneously in antenna/aerial mode, and record up to four channels at once. Alternatively, in internet mode customers can record up to two channels at once.

The device also comes with a Bluetooth remote, Integrated search and enables pause, rewind, and record functionality.

In brief...

Norigin Media integrates Mux Data

TV Apps solution provider Norigin Media has integrated video infrastructure platform Mux's Mux Data into its TV App framework. Mux Data has been integrated via Norigin Media´s Tracking Manager and React-based TV App framework to help organise analytics for collection by broadcaster streaming TV services, giving them reliable Quality of Experience measurements across devices, according to the pair. Norwegian National Broadcaster´s streaming TV flagship TV2 Play is among those to use this integration.

Simply.TV acquires EPG specialist GVIDI

Danish TV metadata provider Simply.TV has announced the acquisition of EPG specialist GVIDI. This marks the first acquisition made by Simply.TV, and will add approximately 25 customers currency served by GVIDI via its Basic EPG, GVIDI EPG, GVIDI Movie and GVIDI Discovery products.

United Group picks Nagra for digital watermarking

South-eastern European service provider United Group's United Cloud 'innovation centre' has chosen technology outfit Nagra's NexGuard Watermarking to further ensure OTT content protection for all United Group's assets.. As part of the provider's OTT content protection expansion, Nagra's NexGuard watermarking is intended to ensure United Group's protection of all types of content assets. The deployment includes server-side watermarking deployed on their private cloud, enabling United Group to shut down piracy at the source and in real time, according to Nagra.

TF1 taps Smart Ad-Break from Synchronized

French broadcaster TF1 has tapped ad tech specialist Synchronized, to integrate the latter's Smart Ad-Break service, which automates and optimises ad placement. The Smart Ad-breaks service enables content owners to automatically identify the optimum placement for ad breaks in a video, whilst maintaining content integrity and the user experience according to Synchronised. The service, which is already in live production on MyTF1 and TF1's linear channels, sits alongside Synchronized Smart Thumbnail offering which automates thumbnail creation. Both services enable TF1 to automate its editorial workflow.

Xperi launches 'first-of-its-kind' TiVo smart TV OS

Xperi has announced the launch of its smart TV operating system.

TiVo OS is described by Xperi as a 'first-of-its-kind neutral platform' that is aimed at giving OEMs more control over the user experience while aggregating content from VOD and linear services. It achieves this via a universal discovery system which Xperi said makes TiVo OS the "ultimate independent smart TV system".

Jon Kirchner, CEO, Xperi, said: "We estimate that nearly 40% of the smart TV market is searching for a truly independent platform like ours, and a supportive industry partner with deep domain expertise.

"Today, nearly 30 million households worldwide are powered by TiVo through an array of CTV and other partners. We are pleased to have signed our first smart TV partnership for TiVo OS, our embedded operating system and media platform for smart TVs, underlying progress toward our goal of becoming a leading independent TV OS platform supplier."

Kirchner told DTVE that the connected TV and smart TV space was one of three key growth areas in video that the company is targeting, alongside IPTV, particularly in North American, and for connected car entertainment.

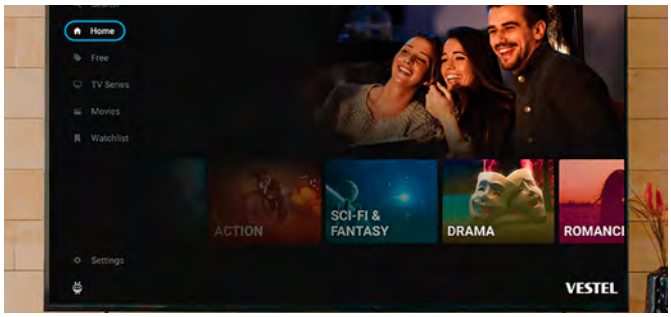
In the smart TV space, Kirchner said that Xperi was targeting TV manufacturers that did not have the scale and resources to develop their own proprietary platform, like Samsung or LG, but which nevertheless would like to offer an enhanced and regularly updated range of services.

"I think we're in a unique position to personalise the content discovery experience in the TV," said Kirchner.

"That means streamng and live TV personalised to the user rather than continuously trying to shift users onto proprietary programming that some of the other platform operators have curated in their own interests, not necessarily in the interests of users. We beleive our independent offering will represent something new and innovative with a different level of personalised experience that is unbiased."

Kirchner's comments were amplified by Geir Skaaden, chief products and services officer at Xperi. He said: "There is a set of TV manufacturers outside of the few that have the resources to build their own platforms that are looking for solutions not only to control the brand experience but to provide a strong end product consumers that drives a better overall user experience."

The first manufacturer to deploy the OS will be Vestel, one of the top three European TV makers. Its Powered by TiVo Smart TVs are expected to ship in 2023 as part of a multi-year, multi-country, multi-million-unit agreement.



In brief...

BT Sport deploys Red Bee Media automated subtitling tech

UK sports broadcaster BT Sport has announced a new partnership with UK-based video technology specialist Red Bee Media to make live content more accessible with the company's automated subtitling service. The broadcaster will deploy ARC (Automatic Real-time Captioning) in a move designed to increase the amount of subtitled sports content that it provides viewers with by approximately 200 extra hours of viewing time per month. As a result BT Sport will become the first major UK broadcaster to deploy the technology, with ARC supporting a wide range of live sports coverage for the broadcaster alongside Red Bee Media's existing human-enabled subtitling service.

Kaon, Green Streams and 3SS team up for IPTV and OTT platform

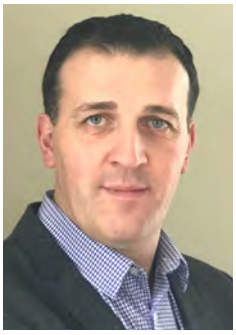
Technology providers Kaon, Green Streams and 3SS have teamed up to launch a joint IPTV/OTT service platform product. The joint offering is based on their pre-integrated end-to-end technology platform and is designed for tier two and medium-sized providers to deliver super-aggregated video services based on Android TV and relevant multiscreen platforms. The new turnkey platform comprises Green Streams' TVaaS backend platform, Kaon's Netflix-certified set-top box and 3SS' front and UI/UX platform, based on its 3Ready product framework. Green Streams GmbH was co-founded in 2021 by industry veteran Gernot Jaeger to deliver an IPTV and OTT backend platform that integrates with partners for key components such as frontend applications, metadata, recommendation or QoS/QoE analytics.

Polish vMVPD WP Pilot signs up Redge Technologies for VOD launch

Polish online pay TV service WP Pilot has tapped homegrown technology provider Redge Technologies to add video-on-demand functionality to its existing online TV offering. A library of movies, series, entertainment programmes, sports content, games, and fairy tales for children, as well as live TV timeshifting, are being delivered to Polish consumers by the Redge Media video streaming platform. As a leading vMPVD, WP Pilot offers more than 100 linear TV channels spanning general entertainment, news, movies, sports and content dedicated to kids.

Broadpeak launches dynamic ad insertion as-a-service on broadpeak.io

Broadpeak has announced a new Dynamic Ad Insertion (DAI) application on its broadpeak.io software as a service (SaaS) platform. The broadpeak.io DAI as a service utilises server-side ad insertion technology pre-integrated with all major ad servers on the market, reducing the time to market for targeted ad streaming services and enabling OTT service providers to start monetising their content quickly. The DAI application leverages standard IAB interfaces and protocols such as VAST and VMAP to streamline targeted ad distribution.



Q&A: Gabriel Cosgrave, Xperi

Gabriel Cosgrave, General Manager, EMEA, Australia & New Zealand at Xperi, talks about the evolution of streaming, his company's acquisition of Vewd and the need for alternatives to big tech walled garden platforms.

Why does Xperi's acquisition of Vewd make sense, and what impact will it have on your presence in the market for streaming technology?

Xperi and Vewd share a common objective: to bring a suite of products and services to market that simplify streaming complexity by replacing the sea of apps on smart TVs and offer a more intuitive, personalised search function while uniting the entire value chain – from content owners to device makers and SoC partners. Combining Xperi's product offerings with Vewd's suite of media platform solutions accelerates the success of our strategy of offering personalised discovery product

Our products have been integrated and market-tested for many years via Vewd's long-standing partnership with TiVo, which is part of Xperi. This acquisition ensures we are well positioned to pursue various growth opportunities in a rapidly transforming industry and to invest in new products and capabilities. We are excited about the next phase.

What do you see as the key priorities for streaming providers currently and how does your set of solutions address these?

With so many video entertainment services available to choose from and more content becoming available for free, a vast majority of consumers are ad tolerant. This paradigm shift is likely to continue, with more services offering free or lower priced options with ads to help consumers manage costs in such a saturated market. For example, TiVo's solutions ensure there is less scrolling and more watching, making the experience more enjoyable and engaging for subscribers.

Unlike other platforms, Powered by TiVo smart TVs allow user choice and control, enable subscriber acquisition and retention for content services, and provide recurring revenue for partners. This differentiates TiVo OS from big tech platforms that are aggressively working to protect "walled gardens" to extract all economic value from end user data and drive content engagement that benefits them instead of the consumers who are looking to reduce the complexity of their viewing experience.

What are the key challenges faced by existing video service providers and what do they need to do to stay relevant in the streaming age?

Acquiring and retaining new subscribers are key challenges, TiVo Discovery Solutions delivers personalised recommendations, natural voice recognition, and insights for a superior entertainment experience, enabling service providers to maximise engagement and minimise churn.

When it comes to personalisation technology, MVPDs and OTT service providers have a choice: they can develop recommendation engines and other elements of personalisation in-house, or they can turn to a third-party provider. Either way, the most significant driver of revenue is deploying new services with a fast time to market, bringing relevant content to viewers, and reducing subscriber churn.

How big a part will content discovery play in how service providers market and differentiate their offerings and what do they need to do to deliver a discovery experience that really sets them apart?

In today's media landscape, with video streaming at an all-time high, consumers are faced with an unprecedented number of options for media and entertainment services. According to the 2022 Q2 TiVo Video Trends Report, which will be released later in September, as the number of available streaming services continues to grow, content discovery is the number one concern for consumers. Nearly 30% of respondents use a companion app to track and discover content across different sources.

To win the battle for viewers, service providers need to make content easy to find and ensure an outstanding QoE for their subscribers. TiVo Discovery Solutions enable providers to attract and retain subscribers by making content easy to find and ensuring an outstanding QoE.

As streaming and traditional TV providers face up to changing consumer dynamics and macroeconomic challenges, how can technology of the type that Xperi specialises in help them improve monetisation of their content assets?

Xperi's TiVo solutions make it easy for people to find, watch, and enjoy what they love in one integrated, extraordinary video experience that brings entertainment together, driving loyalty and engagement. Powered by TiVo™ smart TVs offer a global video service and monetisation platform fully aligned with the business objectives of TV OEMs and content providers, allowing them to control the TV experience. Powered by TiVo Smart TVs ensure global and local CSP availability, pre-integration with end-to-end TV ecosystems, and an aggregated platform ad inventory to maximise revenue. Monetisation occurs through multiple channels including advertising sales, viewership data, and lower-cost content offerings for viewers who balance subscription costs with watching ads. TiVo's independent media platform allows user choice and control, enabling subscriber acquisition and retention for content services.

StreamVX: operators need to 'maintain subscriber experience'

Operators need to 'maintain subscriber experience' in face of new challenges, according to a leading OTT and IPTV expert.

The post-pandemic streaming industry faces a significant crunch as the rise in the number of subscriptions during COVID lockdowns tails off and switches to customers cutting back on subscriptions due to the cost-of-living squeeze, meaning there is a need to look to new technologies to improve the subscriber experience, according to Szymon Karbowski, CEO of TV technology outfit StreamVX.

According to Karbowski, platform operators face a perfect storm of challenges, ranging from churn through to the impact of inflation on customer spend by way of the need to respond to the climate crisis.

In an article for DTVE published online, Karbowski said that service providers "have to maintain a good subscriber experience" in the face of these challenges.

He highlighted the need to deploy solutions that can be integrated on existing hardware, "with features such as skip intro, stopping an episode and resuming at the same stage sometime later, and identifying a particular actor's presence in other series or movies and switching to these videos and particular scenes to see this actor" as ways to improve the customer experience.

Karbowski also said operators need to address the growing importance of AVOD with "targeted advertising, based on location and other data".

"The subscriber understands the relationship between advertising and receiving a less expensive service; companies can reduce churn and retain profitability via an efficient and acceptable advertising model," he said.

Karbowski also highlighted the need for improve operators' carbon footprint, for example by reducing unnecessary storage of content through more efficient use of technology.

MediaTek launches Pentonic 700 chipset for CTVs

Taiwanese semiconductor company MediaTek has announced the launch of a new chipset for 120Hz 4K smart TVs.

The Pentonic 700 is a smart TV system-on-chip (SoC) which features an AI processing engine for premium 120Hz 4K TVs, with support for Dolby Vision IQ, integrated 4K120 MEMC and TCON, and gaming optimisations.

The chipset's AI processing unit (APU) supports MediaTek's AI-Super Resolution, AI-Picture Quality (AI-PQ) Scene Recognition and AI-PQ Object Recognition technologies for advanced edge smoothing and detail reconstruction.

It can also display content from different sources with Picture-by-Picture (PBP) and Picture-in-Picture (PIP) support with PQ enhancement, with MediaTek giving the example of watching sports while also videochatting with friends and using other applications on the TV.

Pentonic 700 is also designed with gaming in mind, as it supports variable refresh rate (VRR) up to 144Hz to give brands the ability to customise TVs for gaming applications so players can enjoy games without screen tearing and stuttering – a common issue facing gamers on the bleeding edge of technology.

The SoC will power mainstream 4K smart TVs as part of MediaTek's broader Pentonic chipset family, offering brands a full range of options for premium, high-end and mass market TVs. The first TVs powered by Pentonic 700 are expected to be released in Q4 2022.

Alex Chen, general manager of the TV Business Unit at MediaTek, said: "MediaTek's Pentonic series brings more intelligence to smart TVs with a host of AI-powered picture quality enhancements. "Smart TV brands can count on Pentonic 700 to deliver incredible experiences whether consumers are watching videos or sports, gaming, or using their TV as a control centre for their other smart devices."

In brief...

TVCoins shakes up FAST with revenue-sharing white label platform

White label video streaming platform TVCoins has launched a FAST platform with a built-in viewer incentive programme, and functionality that enables content owners to publish their live and on-demand video with no upfront investment. TVCoins' offers white label video streaming apps at no cost to its customers, relying on an ad-supported, revenue share business model. The company aims to attract customers with a risk-free way of moving content catalogues online and building a D2C brand.

Yahoo and Comscore in CTV partnership

Comscore has struck a partnership with Yahoo to provide its DSP advertisers with greater brand safety and suitability controls for CTV campaigns. The Yahoo DSP will integrate with Comscore Activation, a set of pre-bid inventory filters to help marketers achieve brand-safe campaign delivery across CTV inventory. The tech is powered by Comscore's contextual AI engine and intelligent categorisation technology, which it says allows for a better understanding of CTV media and content. Comscore also utilises the IAB's genre categories included in its Content Taxonomy 3.0 framework, enabling advertisers using the Yahoo DSP to filter buys based on TV genres.

VIDAA picks Amagi for FAST

Cloud-based SaaS tech provider Amagi has struck a content distribution agreement with CTV platform operator VIDAA. The partnership will leverage Amagi's Content Plus marketplace to give VIDAA users in the Americas, Australia, and the UK access to Amagi's network of FAST channels and AVOD assets across a variety of genres including sports, news, music, movies, and documentaries. The VIDAA smart TV OS powers TV brands including Hisense and Toshiba. Its FAST channels service, VIDAA TV, launched in the US and Mexico in January.

Tele2 taps 3SS and SEI Robotics for Android TV dongle offering

Swedish service provider Tele2 has tapped Three Screen Solutions (3SS) and SEI Robotics to launch its new Tv Hub Mini, a 4K dongle for streaming TV. Based on the Android TV OS, subscribers to the new offering will access content via a custom 3SS-engineered user experience powered by its 3Ready product in what 3SS says is its first major operator dongle deployment.

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THE TV PLATFORM.

Q&A: Jörg Meyer, Zattoo

Jörg Meyer, chief commercial officer, Zattoo, explains how small and mediuim-sized network operators in an increasingly competitive market can tap into white-label IPTV offerings to compete effectively with larger, well-resourced players.

Why is an up-to-date IPTV platform critical for the success of network operators?

Deploying an up-to-date IPTV platform is a critical part of ensuring the success of a modern service provider's offering. Delivering a multi-play proposition is a must for any network operator looking to compete in the market today and tomorrow. And it is important to realise that TV is an essential part of the mix. Customers expect internet, telephony and TV from a single source and TV is an important driver for customer acquisition and retention. Operators are also facing intense competition – and competition that is increasing all the time – on multiple fronts from both national and international providers, so it is doubly important to offer something distinctive. And an added-value service like TV is the clearest way to do that.

What are the key challenges facing network operators in operating their own IPTV platforms?

Many network operators lack the critical scale that would justify the development and operation of their own home-built IPTV platform. Such a platform comes with ever-growing requirements that are too complex for many operators to manage. They face increasing demands not only from their own end customers, but also from their content partners. They not only need to develop and operate the platform but to constantly update it to meet new consumer demands and to ensure that the user experience remains up to date. For many operators building their own platform is simply not a sustainable solution.

What solutions are available and what do they offer?

The good news is that the market offers solutions in the shape of competitive white label IPTV platforms – meaning platforms that allow customer-branded IPTV services. Operators now have the option of delivering a state-of-the-art IPTV service and delivering something distinct without making huge upfront investments of their own or losing control of their own destiny.

What advantages might a white label platform offer and what are the essential elements of such a platform?

Relying on a white label platform or TV-as-a-Service enables operators to tap into the benefits of scale, as such platforms are deployed across multiple service providers, enabling costs to be kept down. They don't need to make unnecessary big upfront technology infrastructure investments. Because of those benefits of scale, operators can benefit from state-of-the-art functionality that is constantly updated without the need to maintain large engineering teams. In fact, they are freed up from focusing on the technology and can concentrate on marketing to, and servicing, their customers. Such a platform should offer, among other things, an advanced set-top box and app-based IPTV and OTT experience. It should be possible to deliver advanced feature sets including network DVR, catch up TV and instant restart, and applications for web, mobile and streaming devices.

What should network operators consider when choosing an IPTV platform?

Choosing the right platform concept requires network operators to make a few key strategic decisions. Operators should be clear about the general objective of their IPTV activities and what they want to achieve with it. They should have a clear understanding of what skills they want to build up in-house and they have to provide a clear direction for the business case to their teams, meaning whether the TV product in itself shall generate a positive contribution margin or whether it's financed from the revenues of other product areas where it contributes to sales. When answering these questions, network operators need to consider the impact of increasing price pressure they face from very large operators – typically former incumbents – that control a large part of the market. Of course, these former incumbents are themselves under increasing pressure from global OTT players, with subscribers increasingly tempted to cut the cord. In competitive scenarios such as this, which are becoming more and more frequent, the ability to deploy a carrier-grade IPTV service can make a big contribution to maintaining or even expanding the scope operators possess to price their services flexibly, enabling them to compete directly with these very large players. Such TV services are, after all, a significant driver of premium customer experience in telecommunications markets today.

People & places

The latest appointments, promotions and departures in the European digital TV industry

ITVX hires commercial lead

Ahead of the launch of ITVX later this year, UK pubcaster ITV has appointed **Lynette Kewley** as director of commercial and propositions for the streamer.

The newly created role will sit in both the streaming and commercial leadership teams, and will see Kewley sit alongside chief product officer **Deep Bagchee**, director of D2C technology **James Murphy** and group chief data and AI officer **Sangeevan Bala** in **Rufus Radcliffe**'s streaming division.

Kewley currently serves as ITV's director of strategic partnerships, a role she has held since March 2020. The exec is also ITV's board representative at YouView, and previously spent two years as head of product partnerships EMEA for YouTube. She will be responsible for optimising all the key elements of ITV's streaming business, and delivering on the broadcaster's targets to double digital revenues to at least £750 million.

Disney has raided Google for its new head of Indian streaming giant Disney+ Hotstar. **Sajith Sivanandan** (above) becomes EVP and head of Disney+ Hotstar, reporting into **Rebecca Campbell**, chairman of Disney's international content and operations group, and **K Madhavan**, president of India's Disney Star. Sivanandan's remit includes oversight of all Disney+ Hotstar business in India, including direct responsibility for the streamer's business priorities and growth. He will also work closely with international and US-based Disney+ execs to fuel expansion.

Mark Hoffman, the chairman and president of NBCUniversal-owned news broadcaster CNBC, has stepped down. The executive became CNBC president in 2005 before ultimately taking over as chairman in 2015. Hoffman was replaced by **KC Sullivan** – former finance chief and current president of NBCU's global advertising partnerships based in London – on September 12. He will report to Cesar Conde, who was hired by NBCU in 2020 to oversee NBC News, MSNBC and CNBC. Hoffman, 65, will stay on as a consultant through the transition

Netflix has hired a pair of execs from Snapchat, including the social media platform's chief business officer, to oversee its advertising business. **Jeremi Gorman** (left) and **Peter Naylor** who currently serve as chief business officer and VP of Americas, at Snap, will serve as president of worldwide advertising and VP of advertising sales respectively. Gorman will report to chief operating officer and chief product officer Greg Peters, while Naylor will report to Gorman. Gorman previously served as head of global ad sales at Amazon, while Naylor previously was head of ad sales at Hulu.

RTL Group has appointed a new chief financial officer for RTL Deutschland. **Ingrid Heisserer** (left), currently CFO Austria and Germany at the cosmetics company L'Oréal, will become the new CFO of RTL Deutschland, effective December 1. She succeeds **Alexander Glatz**, who left RTL Deutschland at the end of August. Separately, **Xenia Meuser** (above, right), currently SVP attract and retain and brand and marketing at New Work, will take over as the new chief human resources officer of RTL Deutschland from October 25.

Other moves...

Vodafone Deutschland has named **Marcel de Groot**, chief commercial officer of Vodafone's Dutch JV with Liberty Global, VodafoneZiggo, as its new managing director for consumer business.

Virgin Group has tapped former Virgin Media and Sky Italia CEO **Tom Mockridge** to lead its new Italian broadband business Virgin Fibra.

Broadband technology solutions provider OpenVault has announced the promotion of **Keith Broach** to executive vice president of global sales.

Australian social video monetisation specialist Totem Global has named **Jason Behan** as director of strategic partnerships.

Integrated media technology solutions provider LTN has announced the appointment of **Brad Wall**, former senior vice president of network and broadcast operations at Disney Media & Entertainment Distribution, as its new chief technology officer.

Sports-oriented vMVPD service FuboTV has announced the appointment of **Lynette Kaylor** as its senior vice president, advertising sales.

The National Association of Broadcasters (NAB) has announced a pair of appointments to its television board of directors: **Catherine Badalamente**, president and CEO of Graham Media Group; and **Phil Tahtakran**, SVP, head of federal government affairs for NBCUniversal.