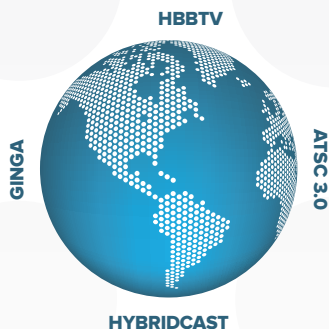# DIGITAL TV EUROPE

**App, app and away**
The rise of Android TV

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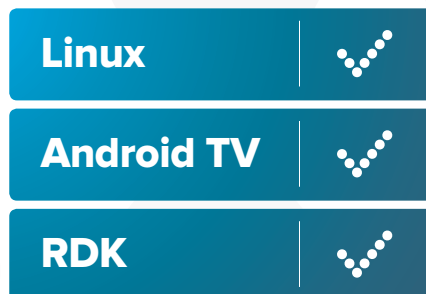
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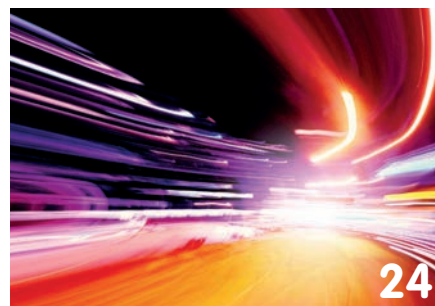


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# The new triple-play

**Multi-play** service providers face serious challenges. The phrase 'highly competitive environment' has been making an increasingly frequent appearance in cable and telecom operators' quarterly earnings presentations, as they have struggled to differentiate their offerings on the basis of something other than price and to drive up margins.

Ahead of the annual ANGA COM trade fair in Cologne, this issue of *Digital TV Europe* looks at some weapons in operator arsenals that could give them an advantage in the battle to win and retain subscribers at a time when other ways to differentiate offerings are losing their edge.

Exclusive content is becoming prohibitively expensive for territory-specific service providers while the way content and other services are packaged is already being used to maximum advantage and can easily be copied.

Operators competing head on in the classic triple-play market therefore are tapping into the potential differentiating power of the user experience, raw broadband speed and value-added broadband services to stay one step ahead of rivals.

In this issue of *Digital TV Europe,* we first take a look at the user experience and, in particular, at the rise of Android TV as the operating system of choice for a growing number of service providers.

Android TV's popularity has been enhanced by Google's introduction of Android TV Operator Tier, which gives operators much more scope to design the user interface and decide which content to surface at the top of search results. But Android TV's popularity remains due, above all, to the access it gives to the Google Play store. In the battle to win and keep subscribers, service providers know that they have to provide easy access to the expanding range of OTT TV services that consumer now use. Access to third-party apps via the set-top box is growing in importance as the appeal of the big basic TV bundle declines.

Second, appropriately for our ANGA COM issue, we take a deep dive into how cable operators can tap the latest innovations from CableLabs to deliver ever greater broadband speeds to their customers.

In this issue we assess which technologies operators are prioritising for investment – such as CCAP, R-PHY, or Full Duplex DOCSIS – as they seek to maximise the use of their existing hybrid fibre-coax infrastructure to stay ahead of telecom rivals that may find it necessary to lay fibre-to-the-home to remain competitive.

Finally, we take a look at one of the new service categories that multi-play operators are looking to roll out to provide added value to their customers over and above a competitively-priced triple- or quad-play bundle. We examine how service providers can break into the market for smart home services, looking at the market, what makes sense for operators to focus on, and the pitfalls and challenges of expanding the range of offerings to encompass devices that are often sold at retail. ●

**Stuart Thomson, Editor**
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# News digest

> Disney acquires Hulu > Vaunet slams Vodafone > Mediaset pivots to free as Premium goes OTT > SVOD impact on UK production 'overstated' claims COBA exec > Viacom plans major expansion following acquisition of Pluto TV

## Disney wraps up deal with Comcast to gain full control of Hulu

**By Manori Ravindran >**

Disney revealed on May 14 that it will assume full operational control of *Handmaid's Tale* streamer Hulu, effective immediately, in return for Disney and Comcast entering into a "put/call" agreement regarding NBCUniversal's 33% ownership stake in the platform.

Under the deal, Disney can buy NBCUniversal's interest in Hulu as early as January 2024. Effective now, NBCUniversal has relinquished voting rights around Hulu.

Hulu's fair market value in 2024 will be assessed by independent experts but Disney has guaranteed a sale price for Comcast of at least US$27.5 billion (€24.6 billion).

In addition to the put/call agreement, Comcast has agreed to extend Hulu's licensing of NBCUniversal content and the Hulu Live carriage agreement for NBCUniversal channels until late 202. The company has also agreed to distribute Hulu on its Xfinity X1 platform.

NBCUniversal can terminate most of its content licence agreements with Hulu in three years, and in one year NBCUniversal will be able to take some of the content it currently licenses to Hulu for its own streaming platform.

Hulu struck a deal with AT&T in April to take back a 9.5% minority stake from the company for US$1.43 billion.

Comcast has reportedly been mulling a sale of its 30% stake in Hulu for some time. In late April, it was reported that the business was weighing the pros and cons of doing a deal now rather than later.

Disney company CEO and chairman Bob Iger commented on the acquisition, saying: "Hulu represents the best of television, with its incredible array of award-winning original content, rich library of popular series and movies, and live TV offerings. We are now able to completely integrate Hulu into our direct-to-consumer business and leverage the full power of The Walt Disney Company's brands and creative engines to make the service even more compelling and a greater value for consumers,"

The deal is the latest step in Disney's efforts to capitalise on the rapidly growing streaming space, following the announcement of Disney+.

According to a report from from Ampere Analysis, buying Hulu will "allow Disney to reinvent the TV 'channel family' for the streaming generation".

**Iger: "Hulu represents the best of television."**

Guy Bisson, research director at Ampere said: "With full operational control of Hulu, Disney's streaming jigsaw puzzle is complete. The concept of building a family of services to capture audience in a fragmented and competitive world is not new – it was first explored when digital TV came along in the early 1990s – Disney now needs to update that model for the 21st century and Hulu is the key."

During an earnings call in November 2018, Iger said that Disney spoke on the company's ambitions for Hulu, hinting at international expansion. He said: "Given the success of Hulu so far in terms of subscriber growth and the relative brand strength and other things like demographics, we think there's an opportunity to increase investment in Hulu notably on the programming side."

## Austria

**CAB> T-Mobile and UPC to become Magenta Telekom**

Service provider T-Mobile Austria has merged its operations with cable subsidiary UPC Austria, formerly owned by Liberty Global, to create an integrated service provider to be known as Magenta Telekom after Deutsche Telekom Group's flagship product brand.

The Deutsche Telekom subsidiary will market its services under the Magenta retail brand, while retaining the T logo as its corporate brand. The company plans to begin phasing in its new brand communication immediately, and to gradually build up its use. The combined company's official name will be Magenta Telekom GmbH. At a yet-to-be decided date in the future, that name will supplant the name T-Mobile Austria GmbH.

## Belgium

**CAB> Proximus sees growth**

Belgian telecom operator Proximus saw growth in TV and fixed broadband customers in the first quarter, despite lower marketing, and saw its latest convergent offerings gain traction. Proximus added 7,000 new TV subscriptions to its base in the first quarter, translating into an uplift of 2.8% year-on-year.

**CAB> Telenet gets lift from fixed-mobile convergence**

Liberty Global-backed Belgian cable operator Telenet's operational performance in the first quarter was boosted by solid take up of its fixed-mobile convergence bundles, although revenue and like-for-like EBITDA were broadly flat year-on-year. Revenue for the period was €626.4 million, flat on a like-for-like basis, as was adjusted EBITDA of €320.3 million.

## Croatia

**OTT>** Hopster strikes partnership with A1 Hrvatska

Kids digital service Hopster has struck a distribution partnership with Telekom Austria's Croatian unit, A1 Hrvatska, which provides Hopster customers with convergent telecommunication solutions, including mobile, fixed and TV services. The deal offers A1 postpaid mobile subscribers who are using the A1 Internet protection for children service a free Hopster subscription. Customers will be able to access Hopster's educational shows, music, games and books via their mobile or tablet for free from the App Store and Google Play. The ad-free app also features a collection of ebooks, videobooks, audiobooks and nursery rhymes, and bedtime lullabies.

## Denmark

**CAB>** TDC looks to football

Danish cable and telecom operator TDC saw its TV base continue to decline in the first quarter, with the loss of 56,000 TV customers year-on-year to the end of March. The company had 1.225 million TV revenue-generating units at the end of March, down 17,000 on the previous quarter.TDC has announced initiatives to stabilise and return the TV business to growth following its move to create separate a separate customer-facing entity – Nuuday – alongside an infrastructure arm. The group has struck a deal with Nordic Entertainment Group to carry English Premier League football overage. Half of the matches will be available exclusively on Xee from August 2019.

## France

**OTT>** Xavier Niel to the rescue at Molotov?

Free founder Xavier Niel may step in if French OTT TV player Molotov's investors block the company's planned sale to Altice France, according to local reports. According to *L'Opinion* Niel, a long-time acquaintance of Molotov co-founder Jean-David Blanc, is prepared to take part in a new capital increase. Despite counting seven million users, Molotov has struggled to attract paying subscribers and its financials are believed to be precarious. Altice Europe has been in exclusive negotiations to acquire Molotov, but the talks have reportedly hit a significant stumbling block, with a number of Molotov's investors unhappy with the move, according to financial daily *Les Echos*.

## Events

**ANGA COM**
**Date:** 4 - 6 June
**Venue:** Köln Messe, Germany
**W:** angacom.de

**NEM**
**Date:** 10 - 13 June
**Venue:** Hotel Dubrovnik Palace, Dubrovnik, Croatia
**W:** neweumarket.com

**TechXLR8**
**Date:** 12 - 13 June
**Venue:** ExCeL, London, UK
**W:** tmt.knect365.com/techxlr8/

**Variety TV Summit Europe**
**Date:** 13 June
**Venue:** Royal Lancaster Hotel, London, UK
**W:** tmt.knect365.com/variety-europe/

**BroadcastAsia**
**Date:** 18 - 20 June
**Venue:** Suntec, Singapore
**W:** broadcast-asia.com

**LOVE Broadcasting Summit**
**Date:** 25 June
**Venue:** Waldorf Hilton Hotel, London, UK
**W:** marketforcelive.com/love-broadcasting/

**IBC**
**Date:** 13 - 17 September
**Venue:** RAI, Amsterdam,
**W:** show.ibc.org/

**Content Innovation Awards**
**Date:** 13 October
**Venue:** Hôtel Barrière Le Majestic, Cannes, France
**W:** tmt.knect365.com/content-innovation-awards/

**MIPCOM**
**Date:** 14 - 17 October
**Venue:** Hôtel Barrière Le Majestic, Cannes, France
**W:** mipcom.com

# Vodafone-Liberty concessions 'miss the point'

**By Stuart Thomson >**

German commercial broadcaster association Vaunet has slammed Vodafone's moves to secure EC regulatory approval of its acquisition of Liberty Global's Unitymedia as missing the point.

Vaunet managing director Harald Flemming said that Vodafone's moves "could only astonish" observers as they "mostly" met requirements under existing German regulations for open access to broadband networks under non-discriminatory terms and the general principle of net neutrality.

Vodafone has struck a deal with Telefónica Deutschland to provide access to the latter to its broadband network in a move designed ensure that the EC gives approval to cable giant Liberty Global's sale of its German business to the operator.
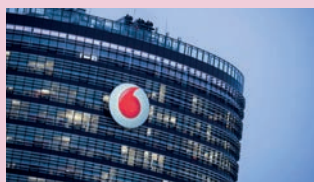
Vodafone submitted a remedy package comprising the cable wholesale agreement and a commitment to ensure sufficient capacity is available for OTT TV distribution to the EC to secure approval of the deal with Liberty.

The operator said that in combination, the wholesale agreement and OTT commitment would enhance broadband competition in Germany to the benefit of consumers and broadcasters.

Flemming said that the opening up of broadband access was "already enshrined" in the country's telecommunication law while the maintenance of net neutrality "must be self-evident". Vaunet maintains that a combined Vodafone and Unitymedia would enable the telecom operator to dictate commercial terms to pay and free TV providers regarding not only carriage fees but exclusive distribution windows and DVB-C broadcast capacity. Flemming said that Vodafone's proposed measures ignored the cable video market and brought nothing to improve OTT distribution.

He said that commitments that were relevant to the Dutch market, where Vodafone and Liberty Global combined their propositions in the VodafoneZiggo JV, were not importable to the German market, where the situation of commercial broadcasters varies from state to state and where cable distribution, often bundled with housing rental agreements, represented a barrier to entry.

# A smart approach to the cloud

**With TV operators still in wait and see mode on the migration of live media workflows to the cloud, Synamedia has championed a flexible approach to helping them manage the shift.**

*Julien Signes, SVP and general manager of video processing at Synamedia*

Migrating video delivery infrastructure to the cloud and applying artificial intelligence to improve the video experience are topics that are currently exercising the minds of the industry's top technologists, with broadcasters and service providers seeking to maximise flexibility and responsiveness while optimising their cost structure.

"There is a lot of interest in transitioning to the cloud – every tier one operator is taking a look at that," says Julien Signes, SVP and general manager of video processing at Synamedia. "But very few commercial operations actually run end to end in the cloud. The first reason is that the maturity of the cloud for broadcast quality 24/7 is not quite there, and the second is that the cost of operating in the cloud remains pretty prohibitive, especially in terms of bandwidth management. It is one thing to process in the cloud but to ingest your content and deliver it to the end user from the cloud is still too much for most operators."

Synamedia has responded to the cautious approach taken by service providers by developing a flexible, container-based architecture that "enables you to migrate to the cloud gracefully when you are ready", says Signes.

Signes believes that Synamedia's approach is best suited to the needs of broadcasters and content service providers today, enabling them, for example

to spin up temporary special event channels from the cloud quickly. They can also use the cloud for disaster recovery applications, while keeping workflow for core operations on premises.

"Today we can show service providers that they can operate in the cloud but they don't necessarily have to do it today – we think that this is a really smart solution," he says.

The key, he says, is to be 'cloud ready' without necessarily being obliged to take a leap into the unknown. Broadcasters and service providers want to ensure that their investment is future-proofed without necessarily doing anything in the cloud today.

In this context, he explains, cloud deployments can be 'hot' or 'cold'.

Hot in this context means that an operator sets up a duplicate headend in the cloud that is 'always on' meaning that it can migrate from on-premises to cloud completely seamlessly and transparently. The downside is the bandwidth cost associated with always-on availability.

A 'cold' deployment means that the cloud infrastructure is not pre-provisioned for a seamless transition – meaning in effect that that services can be migrated with about 90 seconds' delay. The upside is that operators save costs associated with that always-on availability.

Signes says that Synamedia can run cloud and on-premises based services on the same core architecture to give operators the flexibility they need.

"Today people want to experiment on the cloud and be cloud-ready," he says.

One further aspect of cloud delivery is migration to OTT TV delivery for certain services using adaptive bit-rate encoding. At the forthcoming ANGA COM trade show in Cologne, Synamedia is highlighting its ability to synchronise adaptive bit-rate streams with broadcast delivery, delivering a unified experience across streaming and broadcast delivery.

"We are not a pure OTT TV player but we come from the broadcast business and we want to enable broadcasters to deliver the same quality of service for OTT content as they do for broadcast," says Signes. "It's about bridging the gap between broadcast and OTT TV, which has often involved a sub-par experience in the past. Coming from the broadcast side we think we have something special to offer by enabling service providers to deliver OTT at scale with the same experience as broadcast."
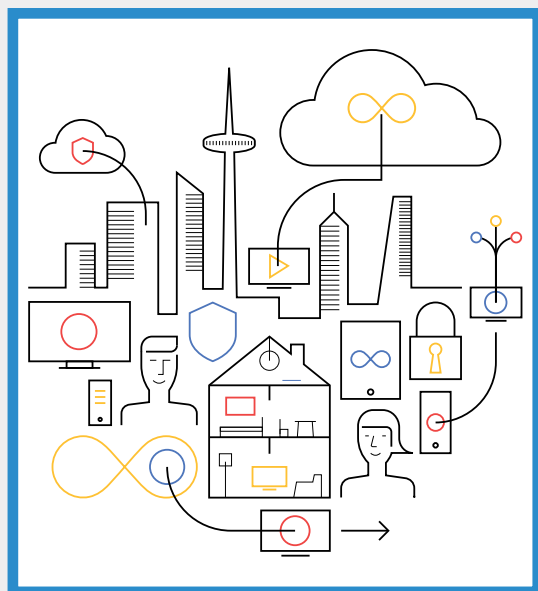
## Artificial Intelligence

In this context the transition from traditional to cloud infrastructure should be seamless not only to the service provider but to the consumer too.

To deliver the quality of broadcast to adaptive bit-rate (ABR) video, Synamedia is tapping the power of AI to bring its 'Smart Rate Control' technology, plus a new ingredient in the shape of automation of transitioning between ABR profiles, to the party.

"We are not unique in providing ABR but what makes us unique is bringing in automation and smart rate technology based on our video quality metrics," says Elke Hungenaert, the company's VP of product management.

Synamedia maintains that the addition of new automation capability for its Virtual Digital Content Manager with Smart Rate Control will save operators up to 50% in bandwidth and storage costs.

"Automation is the new element. Providing ABR systems for 200 channels with eight profiles for each channel adds up to a lot of profiles. You need to set quality levels for every one of those, it is very cumbersome to configure and you have to make manual adjustments over time," says Hungenaert. "With

our automation you don't need to make those manual adjustments and you can transition through profiles much faster."

The technology is designed to anticipate the subjective perception of the human eye. Signes says that Smart Rate Control, based on Synamedia's patent for Streaming Video Quality, "is not a pure algorithm but collects metrics about the type of content being streamed over time. The longer it runs the more accurate it will be because it has more data."

Adding automation to the Smart Rate Control technology can deliver significant operational cost savings for service providers, says Signes.

At ANGA COM Synamedia will demonstrate its Smart Rate Control technology alongside statistical representations that show how automation works in practice as part of Video Service Manager, the company's control and management solution.

"We have realised that keeping operational costs under control is a big part of running a video service. Video Service Manager can deliver operational cost savings and what we are trying to do is make this as seamless as possible, with as much automation as possible," says Signes. ■

*Find out more https://www.synamedia. com/blog/what-makes- us-the-leader-in-video- processing-a-visual- overview/*

## Global Wrap

Qatar-based **beIN Media** has signed a deal to exclusively broadcast this year's CONMEBOL Copa América football tournament in Australia and New Zealand. **BARC** (India), **Médiamétrie** (France), **Numeris** (Canada) and **Video Research** (Japan) announced in a joint statement on May 15 that they will collaborate on future audience measurement initiatives including the development of common technical standards and operational processes. The bodies have come together to form the Global Alliance for the Measurement of Media Audiences (**GAMMA**). **TiVo** is to split into two separate companies, the company confirmed on May 9. In a statement, the company, which became synonymous as a leader in the DVR space in the early-2000s, stated that the board has "decided that separating its Product and IP Licensing businesses is believed to be the best strategy to maximise shareholder value". Sports streaming disruptor **DAZN** has launched in Brazil. This is the ninth market that the London-based DAZN has entered since launching in August 2016 in Austria, Germany, Japan, and Switzerland. US broadcast group **Sinclair** has confirmed the acquisition of 21 Regional Sports Networks (RSNs) and Fox College Sports from Disney in a deal worth US$10.6 billion (€9.6 billion). **Altice USA** is to acquire millennial-focused digital news company Cheddar for US$200 million pending regulatory approval.. The US arm of Patrick Drahi's international cable and telecom group said the deal would broaden its portfolio. of high-quality news businesses.

## Germany

### OTT> New OTT for Pantaflix

Pantaflix, the German video-on-demand (VOD) provider, has announced that it is adding an advertising-financed free of charge (AVOD) service, along with a subscription service (SVOD),The company said that the expansion "gives the Group the opportunity to tap additional sales potential".

### PROG> Discovery Deutschland adds HGTV

MX1 announced that Discovery Deutschland will use its managed media and distribution services to deliver an eighth German channel, Home & Garden TV (HGTV), which will be available to viewers from 6 June 2019. Discovery operates seven of its German TV channels through MX1 services and capacity on SES's Astra satellites. HGTV will see MX1 deliver a fully managed playout, including advanced graphics, uplink, and distribution services. The free-to-air SD channel is distributed via SES's Astra 1KR satellite and reaches over 118 million homes across Europe.

## Latvia

### CAB> All Media Baltics lands Premier League rights

All Media Baltics has secured the exclusive media rights to English Premier League football from 2019-22 in Estonia, Latvia and Lithuania. The broadcaster will show over 200 matches per season across All Media Baltics TV channels and streaming services in the region. It will also offer local language commentary in Estonian, Latvian and Lithuanian along with a range of highlights and analysis content.

## Norway

### CAB> Canal Digital continues slow decline

Telenor-owned pay TV service Canal Digital continued its long decline in subscriber numbers in the quarter to March, losing 16,000 customers over the period. Over the year to March, the pay TV service lost a total of 46,000 customers. Canal Digital's losses led Telenor's Broadcast unit to a drop in revenues and EBITDA. Telenor said that good sales performance from digital-terrestrial transmission unit Norkring and Telenor Satellite could not fully compensate for the effects of a lower customer base.

# Mediaset pivots to free with premium OTT

### By Stuart Thomson >

Mediaset is "transforming" rather than "shutting down" its Mediaset Premium pay TV business after making the offering an OTT-only service, according to chief financial officer Marco Giordani.

Speaking on an earnings call after Mediaset posted reduced revenue and EBITDA but an improved net profit, Giordani said that Mediaset was reorienting the business to take account of its lower subscriber base as a result of no longer having football rights.

"What we have closed is the traditional pay TV operation with card-based subscription," he said.

"We are adopting a more digital and modern way of serving and providing the service to our customer using OTT, which means that we don't have any more cards, we don't have decoders and we don't have CRM with a call centre any more."

Giordani said that Mediaset is now "clearly following a model" based on advertising and free-to-air content "with some pay services'

Giordani declined to comment on Mediaset's interest in pan-European consolidation, but confirmed that the group was "working on a business model" involving the potential consolidation of Mediaset España, which has been widely seen as a first step towards a wider European play potentially involving other commercial broadcasters.

The contraction of its pay TV arm's base hit Mediaset's revenues for the quarter to March. Mediaset Italy's revenues in Q1 tumbled to €492.1 million from €609.6 million, which the company attributed to the decline in the Mediaset Premium base following the termination of its Premium Calcio football offering.

Mediaset dropped Premium Calcio from after losing control of the exclusive rights to Serie A Italian football and Champions League football and pulled Mediaset Premium from the country's digital-terrestrial TV platform as part of a move to "digital transform" the group's pay model.

In Spain revenues were down a more modest 1.5% to €226.1 million, with advertising revenues more or less flat year-on-year.

# Poland

**CAB> Cyfrowy Polsat boosted**
Pay TV operator Cyfrowy Polsat added 300,000 multiplay customers in the first quarter, with overall contract sales up by 535,000 year-on-year to 14.33 million. The operator's base of bunded customers was up 18% year-on-year to 1.85 million, or 33% of its overall contract customer base. Polsat said that its bundled revenue-generating user base stood at 5.57 million at the end of the quarter. Total pay TV customers were up by 93,000 to 5.1 million. Mobile customers overall now number 7.5 million, up 455,000, thanks in part to the multiplay strategy while broadband customers numbered 1.8 million. The quarter saw Cyfrowy Polsat launch a range of new services, including a new IPTV offering to complement its satellite service.

# Portugal

**DTT> Altice renews RTP deal**
Altice Portugal and Rádio e Televisão de Portugal (RTP) have agreed to renew the distribution agreements of the public station channels until 2022 on its Meo platform. Altice said that the deal ''guarantees stability in the development of the relationship between both companies, and that it marks ''opens space for collaboration and innovation in a shared effort of commitment with the country''.

# Spain

**PROG> FOXNOW launches on Orange**
Fox Networks Group has launched its FOXNOW service with Orange TV in Spain. The service is available without additional cost for Fox and Fox Life subscribers as part of the Orange TV Cine y Series package.

**CAB> Growth for Telefónica**
Telefónica grew its convergent customers base by 4% to 4.6 million, with 92% of the local TV base now signed up to convergent services, compared with 89% of broadband customer and 84% of mobile customers. Some 81% of customers now take the group's TV service, a growth of 4% year-on-year.

**CAB> Euskaltel sets targets**
Spanish regional cable operator Euskaltel expects to add 30,000 subscribers and €10 million to income this year. Euskaltel is expanding its service offering into five markets in regions outside its core territory, using Orange's network to expand into Navarre, León, Cantabria, La Rioja and Catalonia, where it has partnered with automotive club RACC.

# Sweden

**IPTV> SVODs in demand in Nordics, but Netflix is behind**
The Nordic markets have among the highest uptake of SVOD services in Europe, but Netflix is struggling, new research has revealed. According to industry expert Ampere Analysis, the average market share of Netflix in the region is just 49%, compared to an average of 71% in the rest of Western Europe. Local players like Viaplay, TV2 Play, C More and the regional version of HBO account for most streaming service contracts in the region. In every other Western European market except Germany, Italy and Spain, Netflix claims the majority of SVOD subscriptions. The report suggests that Netflix features a lack of 'Nordic Noir' crime drama content that appeals to the tastes local market.

**DTT>** EU Commission to investigate Telia-Bonnier deal

Following the announcement of Telia Company's proposed acquisition of Bonnier Broadcasting in March, the the European Commission has opened an in-depth investigation. In a statement, the Commission said that it "is concerned that the merged entity may shut out competitors from the audio-visual sector in Finland and Sweden". Telia Company, a retail television distributor, functions by licensing channels from broadcasters such as Bonnier Broadcasting. The proposed acquisition looks to create a vertically integrated audio-visual player in Denmark, Finland, Sweden and Norway. However, concerns have arisen in Sweden and Finland as Bonnier Broadcasting owns channels that are considered essential for distributors. The authority believes that, under a unified operation, these channels could be removed from Telia's rivals in the two Nordic nations. It has been argued that this would put other operators at a significant disadvantage and create a monopoly. There is a deadline of September 19 for the deal to be closed.

## Switzerland

**CAB>** Sunrise optimistic on Liberty Global deal

Swiss service provider Sunrise says it has been "broadly supported" its acquisition of Liberty Global's Swiss unit by investors and expects the deal to be closed in the fourth quarter following a final regulatory approval. Sunrise CEO Olaf Swantee has already said he believed the deal could win shareholder approval despite resistance from the company's largest shareholder Freenet, which has a 24.5% stake in the company, amid concerns about the price paid to take over UPC Switzerland, which has struggled to retain subscribers in a competitive market. Sunrise shareholders will decide at an EGM whether to back a capital increase to finance the deal. Despite the deal having yet to be approved, Sunrise said it had already started integration planning and was confident that synergies could be realised.

**DTT>** Swisscom TV sees upswing from bundles in 'saturated market'

Swisscom grew its TV base by 4,000 subscribers in Q1 in what the company said was a "saturated" market that was "driven strongly by promotional offerings". The 0.3% quarter-on-quarter increase in the Swiss telco's TV base took its total to 1.52 million, with Swisscom saying that the growth was driven by its bundled offering. The annual increase in TV subscribers was 2.1%. Swisscom had a total of 2.48 million inOne customers at the end of March, with the latest mobile offering inOne alone registering over 250,000 customers in the first five weeks after its launch. In the residential customers segment, inOne accounts for 57% of mobile subscriptions and 60% of fixed-line broadband connections. At the same time, Swisscom lost 3,000 broadband customers in the quarter, taking its total down 0.1%to 2.03 million. Year-on-year, the broadband base increased by 0.2%. Overall Swisscom's revenue dipped by 0.2% at constant currency to CHF2.86 million (€2.54 million), with Swiss revenue dipping by 1.9%.

# SVOD significance 'overstated', claims CoBA executive

**By Jonathan Easton >**

The significance of SVODs has been "exaggerated" by the UK press and government, claimed Adam Minns, executive director of the Commercial Broadcasting Association (CoBA), to Lords at a parliamentary evidence session.

On May 14 the House of Lords Communications Committee continued its ongoing inquiry into the role of public service broadcasters (PSB) in the age of on demand video.

Speaking alongside Ali Law, the UK and Ireland head of policy for Sky, Minns pointed out that SVODs like Netflix and Amazon Prime Video spent a combined £150 million (€174 million) in 2018.

This contributes to a total of a total £2.1 billion (€2.4 billion) spent on original content, with SVODs making up just 7%.



**Minns: "The scale of SVODs has been exaggerated".**

Minns argued that UK TV production is in a period of boom, and that he had "not seen anything like it since Cool Britannia".

However, several Lords took umbrage with what they perceived to be a 'bullish' assertion that PSBs had been unaffected by the current climate.

Lord Allen of Kensington claimed the evidence the committee had received points to a "series of headwinds" for PSBs, such as a "6% decline in audience in 2018 alone", "significant increase in production costs, and particularly in getting to young people", and "dramatic increases" in online advertising. All of this evidence, Allen claimed, is in conflict with the "rosy picture" painted by Minns and Law.

Both Minns and Law were, as expected, opposed to any suggestion of regulation, but Minns did concede that the shift away from PSBs is a "slow burn".

In agreement, Law argued that any levy or regulation would "just take away money from original productions".

From the perspective of Sky, Law said that "UK content is in a good position" and that linear and near-live viewing make up "almost 80%" of the platform's viewership.

In the second session of that day, the Committee heardf rom PACT and Indie Club. PACT is the UK's leading trade association for film, TV, animation, children's and digital production companies. It leads industry initiatives, such as negotiating the Terms of Trade, a standard contract for PSBs and production companies. Indie Club was recently founded and represents the interests of production companies outside London.

During both sessions, topics discussed included whether there is there a shortage of production staff and capacity in the UK, and what interventions might be necessary to support the production sector; wihether there has beenan inflation in production costs and in which areas; what PSBs could be doing to encourage independent production companies to work with them; whether public service broadcasters doing enough to appeal to and represent the regions and nations of the UK.

# Q&A: Nivedita Nouvel, Broadpeak

Nivedita Nouvel, Vice President of Marketing at Broadpeak talks about the challenges facing video content providers and how they can optimise the delivery of their services

### What are the key challenges faced by video content providers in delivering streaming video and how can they overcome these?

Today's consumers expect exceptional video experiences across all devices. To guarantee the best quality of experience for viewers, content providers need to deliver high video quality and low latency for live content, with no service interruption or rebuffering. However, delivering high-quality video streaming experiences can be challenging when content providers do not control the delivery of their content.

There are a couple of strategies that content providers can take to gain back control over the delivery process and enhance QoE. One approach is to use more than one CDN service. Using multiple CDNs, content providers can choose the best content delivery networks for streaming their content, taking into account the user context. Another way to improve QoE and reduce CDN costs is by deploying local caches in operators' networks. With local caches in the operator network, content is streamed from a location closer to end users, which reduces latency and network congestion, resulting in higher video bitrates, faster start times, and uninterrupted viewing sessions.

### How can network operators best serve their content provider partners and what needs to be done by both to optimise video delivery?

Partnership is the key word. Operators control the access network, including the last mile. They hold the power to boost the video quality.

Several scenarios are possible for content providers and operators to partner. One option is for the operator to deploy a multi-tenant infrastructure that it can monetise with content providers. Another idea is for content providers to place their own local caches in the operators' network, similar to how Netflix does. Content providers can cache content based on its popularity, setting up a threshold on the number of times content is requested before caching it locally. It's important to keep in mind that there's a trade-off between local cache size and cost of delivery. Content that is not cached will be delivered through a traditional CDN service.

### How can a multiCDN strategy help improve video streaming?

The best CDN is not the always the same for every content. It can vary depending on end-user geographic location, end-user network service provider, time of the day, and type of content (i.e., VOD or live). Using multiple CDNs, content providers can create rules to always select the best one. It is also possible, through innovative technologies like Broadpeak's CDN Diversity™, to combine several CDNs to achieve even higher video quality and manage seamless fail-over.

### What role can local caching play in optimising video delivery?

Local caching means streaming content from a location that is closer to end-users via the operator's network. There is no impact of the contention point that may exist between a CDN service provider or a transit provider and the operator's network; therefore, it improves startup time, reduces rebuffering, and allows higher bitrates to be realised. Local caching technology also provides significant savings for content providers, as they no longer need to pay the CDN service provider for all of the streams consumed by the network service providers' subscribers.

### How important is monitoring the Quality of Experience of streamed video and what tools do content providers need to do this effectively?

Monitoring content consumption is key for content providers so that they can make the appropriate decisions at all levels, from support to capacity planning and marketing. There are several different levels of analytics that content providers can employ. They can use information from the video delivery system to determine what content has been consumed where, and understand the state of the servers. Only by utilising information from the players can content providers gain insights into QoE, such as startup time, latency, video quality, and number of rebufferings.

It's important to combine all of this information to get the real picture of what is happening and find the root causes of errors. Having the ability to track specific sessions is also essential. Content providers can monitor layer switches and rebufferings to pinpoint when and why they happened, taking the right measures to resolve the issue.

## Turkey

**PROG>** **FilmBox debuts Turkish Drama Channel in Kosovo**

Channel provider SPI International/ FilmBox has debuted its recently launched Turkish Drama Channel (TDC) in Kosovo through a new distribution agreement with cable operator Kujtesa. Subscribers will have 24/7 access to hundreds of hours of Timeless Drama Channel content broadcast in Albanian. Kujtesa is the leading cable company in Kosovo, with a TV offering of over 180 channels and network coverage of almost 98% of Albanian-speakers living in Kosovo. The company's digital platform includes Kosovo channels, selected channels from Albania and Macedonia and selected international channels.

## UK

**SAT>** **MPs raise piracy concerns against beoutQ**

BeoutQ, the allegedly Saudi Arabia-backed pirate TV network, has been slammed by members of the UK's Digital, Culture, Media and Sport (DCMS) Select Committee. In a parliamentary session on May 10, Jeremy Wright QC, DCMS secretary of state, responded to a question from Giles Watling MP, confirming that a number of UK government departments are "pursuing this matter" and that "the [UK] embassy in Riyadh is speaking to the Saudis on this subject". BeoutQ has gained notoriety since its launch in 2017 for pirating hundreds of live sports events including the NFL SuperBowl, and English Premier League. UK networks, in-cluding BBC, ITV, Channel 4 and Sky, have all seen their content pirated by the network.

**OTT>** **ODMedia launches British business**

Dutch content services and processing company for on-demand media ODMedia has launched its UK business. The company had previously opened offices in Belgium, Scandinavia and Spain in the last 12 months. A German business is planned for late 2019. Heading up the London-based company will be media consultancy Media Minds. ODMedia UK is led by ex-Visual Data executives Anita O'Donnell and Yives Reed. ODMedia has a strong relationship with OTT platforms across the world, and is a Netflix Preferred Fulfilment Partner. The company acts as an aggregator for major platforms, and provides monetisation, target audience development, digital-rights management and cross-promotion. In addition, ODMedia manages non-linear and linear channel playout for SVOD, AVOD and TVOD.

**CAB>** **Ofcom introduces 'best deal' rule**

Broadband, phone and pay TV firms must tell customers about their best deals, Ofcom has announced. According to a statement from the regulator, broadband, TV, mobile and home phone companies will be required to tell their customers when their contracts are close to expiry and tell them about the best deals on offer, including those for new customers. Ofcom says that more than 20 million customers have passed their initial contract period, and that many of these could be paying more than they need to.

# Viacom to 'lean into Pluto TV' with international ambitions

**By Stuart Thomson >**

Viacom is to exploit "a significant opportunity in leveraging Viacom's global operating footprint to drive Pluto TV's growth" beginning with the launch of the recently-acquired free OTT TV service in Switzerland and an expansion of the service in the UK, Germany and Austria, with a Latin American launch scheduled for later this year, according to Viacom CEO Bob Bakish.

Speaking on Viacom's latest quarterly earnings call, Bakish said that Pluto would launch in "additional territories" next year.

He told analysts that Viacom would "lean into [Pluto TV] harder and invest some incremental money" to expand on its leadership position.

Bakish said that the acquisition of Pluto TV "was always more than a D2C play", and represented "an opportunity to broaden our partnerships with existing distributors". He cited Comcast's recent inclusion of the service as part of its Xfinity Flex offering for internet-only subscribers as proof of the validity of the strategy, and said that a second deal was already signed "with another large distributor".

Viacom has also expanded Pluto's premium content line-up by adding 14 new channels to the platform with "more to come", according to Bakish.

Viacom will launch a US Hispanic version of Pluto TV – Pluto Latino – in July, including a set of specialised Spanish language offerings.

Pluto TV is now "an integral and compelling part" of Viacom's upfront offering to advertisers, according to the CEO.

Bakish told analysts that the company's advertising-supported video-on-demand (AVOD) play was working, with Viacom18's Voot service in India passing the 50 million monthly active users milestone with a target of 100 million next year.

Bakish said that the platform had helped Viacom expand its reach to a "hard to reach" younger demographic, helping it achieve an audience of 80% of US 18-34 year-olds across linear, digital and social products.

Pluto TV had 16 million monthly active users at the end of April, a 31% over the three months since Viacom announced its acquisition of the OTT TV platform.

Bakish said that Viacom expects its Advanced Market Solutions unit, which includes Pluto TV, to almost double its revenues in this financial year and to represent close to 20% of domestic ad revenues.

Bakish also hailed Viacom's success in expanding distribu-tion with skinny bundles offerings such as AT&T' DirecTV Now packs, as well as to OTT TV providers such as Netflix and Hulu.

On the wholly-owned subscription video-on-demand side of things, Viacom expanded its distribution in the US on the new Apple TV app and announced its first Latin American partnerships for Paramount+ with Brazil's Net and Claro.

Overall, Viacom's fiscal Q2 saw revenues slip by 4% at constant currency to US$2.96 billion, and adjusted operating income dropped 1% to US$637 million.

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## Complete STB Software Solutions
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Our mission is to bring our customers the software they need to adapt to the ever-changing requirements of the digital TV markets.

## Q&A: Gernot Jaeger, Zattoo

Gernot Jaeger, Chief Officer of B2B at Zattoo, talks about the latest expansion of Zattoo's end-to-end white label IPTV platform, which is now available as an Android TV solution for operators.

### What are the main reasons for the overall growth in interest in Android TV?

We can clearly see that more and more operators are turning towards Android TV Operator Tier as an alternative to Linux based set-top boxes. Existing and announced large-scale deployments of TV services are deploying on Android TV supported set-top boxes. They also set the course for medium-sized operators to follow.

We are proud to be an innovation leader in the industry, and now also when it comes to Android TV for Operators.

To meet the needs of this segment, we are now expanding our hosted and managed TV-as-a-Service platform and include white label applications for Android TV Operator Tier set-top boxes in our service scope.

And last but not least, we are proud and delighted to announce that we will be launching Android TV for Operators for a European tier-1 network operator very soon.

### What are the drivers pushing this development?

We observe huge challenges that many network operators are facing when launching their next generation IPTV/OTT services. There is a clear trend towards more devices, an ever increasing complexity, stricter security requirements and growing user expectations. For example, users want to be able to cast content from their smartphones to the TV, or from the TV to another device.

However, these challenges also present an opportunity for those who are successful in standing out in the market with great TV and entertainment services. Android TV, for example, enables that, and we provide the core foundations for it.

### What do you see as the key advantages of the Android TV Operator Tier for operators?

We provide the entire service to the network operator and in the case of Operator Tier set-top boxes, it comes with a white label application

that is fully customisable. It includes a very rich feature set and the Android functionalities deeply integrated across the different devices. One big advantage for network operators is the short time to market and, of course, 4K Ultra HD is standard.

With Android TV Operator Tier, features and functionalities come to the big screen that users already know from their small screens. For example, users have access to the Google Play store and also have access to voice control via Google Assistant across their devices.
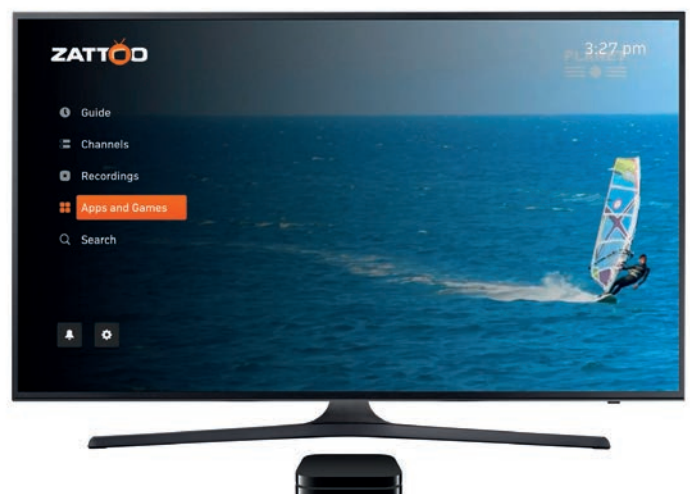


*Zattoo is also showcasing other innovations and enhancements of its end-to-end TVaaS platform live at ANGA COM 2019. Examples include 4K/ UHD and personalised TV / content discovery. Zattoo will be presenting its entire service scope with live demos throughout the ANGA COM show in Cologne (Hall 8, Stand R9).*

# Onwards for Android

**The rise of Android TV as the operating system of choice for an ever-growing range of service providers speaks to the realisation that aggregation of multiple app-based video services and a compelling user experience are the key competitive tools for operators. Stuart Thomson reports.**

**The** Android TV Operator Tier platform has gained numerous adherents among service providers over the past year or so, giving rise to a sense that Google's TV operating system now has unstoppable momentum. That at least is the case among telecom operators that primarily look at TV as an essential part of the multi-play bundle and see the future of video as app-based and open.

As streaming services have gained in popularity at the expense of traditional pay TV, multi-play operators have become more focused on marketing those multi-play services while providing access to multiple OTT offerings to their customers via the set-top box.

The Android TV Operator Tier matches the needs of many operators because it takes much of the development work to create an advanced TV service out of the operator's hands. Compared with the Android TV retail platform it gives operators additional flexibility to create their own user interface and surface their own content first in search results. Above all, it works for operators because it gives access to the Google Play store with its plethora of content offerings. Other key features that appeal to service providers include the fact that the Google's market power and scale means that they can tap advanced high-power set-tops that are cheaper because they are deployed at scale. It also gives them access to Google Assistant and voice-based search.

For a growing number of service providers, Android TV matches their needs by enabling them to provide, instantly, a broad range of on-demand apps within a user experience that is recognisably their own.

## User experience

Swedish cable operator Com Hem, now owned by Tele2, has been live with Android TV for about a year across both its cable TV service and its Boxer-branded digital-terrestrial service. The company initially targeted its premium subscribers along with those customers that used a conditional access module rather than a set-top and did not have access to advanced services. The initial focus was also on subscribers that did not have a DVR service, although Tele2 is looking to introduce DVR as part of its Android TV offering in the future. The operator launched with an advanced box capable of addressing its entire base.

"We saw several advantages. Product-wise it enabled us to own the UI and the UX," says Jessica Andersson, head of TV product at Tele2, who adds that adopting Android TV was cost efficient, enabling the operator to avoid devoting resources to working on a TV platform itself as well as offering frequent updates.

"Having Operator Tier does require you to do more of your own development but having your own UI and the ability to integrate other apps like Netflix into that UI has been a huge advantage," she said. Andersson says that "owning the UI" and having customers land on its own branded area rather than being one of a number of apps was a major attraction, along with the ability to deliver a unified customer experience across all platforms.

Com Hem also offers its TV service on retail devices in the form of Com Hem Play, which is available on other devices such as Apple TV as well as Android devices. Andersson says that the company will "go more and more in that direction in the future and become less dependent on set-tops and infrastructure".

"We are already preparing for that shift. We really see this as a bridge to a boxless world," she says. Nevertheless, this is not a shift that Com Hem will make in the near future, for the same reasons as many other operators, including the fact that older subscribers are more comfortable with set-tops than with newfangled apps and the fact that the box servers as a point of aggregation of a range of other services that carries the operator's own brand. "I think it plays a role," she says. "Specifically, it plays a role in aggregating content and Android TV enables you to merge SVOD services as well as other content. Being able to deliver this to multiple devices is

something that Android really supports."

Andersson says that Tele2 aims to tap Google's voice search capability as soon as Google Assistant is available in Swedish, something that is expected for Android TV soon, and to build its own UI to give its own content a privileged position in order to promote specific services and content.

## Competitive markets

For mid-sized operators in competitive markets, Android TV makes perfect sense. South-East Europe-based United Group, owner of Serbian cable operator SBB and a number of networks across ex-Yugoslavia states including Slovenia and Bosnia-Herzegovina, deployed its Android-based service last October using the Operator set-top mode but with the Android TV native launcher rather than a custom launcher.

Srđan Đurđević, R&D director at United Group, says that the company opted to use the default Android TV native launcher to start with in order to get its service up and running as quickly as possible.

"Our idea was to be fast to market and

that's why we used their native launcher," he says. Đurđević says that the group is mulling migrating to an Operator Tier launcher that it could develop from its own internal resources. However, he says the basic launcher has proved "good enough" to enable a differentiated service. "Our UX team did a nice job to connect their home page with our home page with call to action buttons and a branded background," he says.

One of the main attractions of the platform he says, was the scope it offered to layer additional services on top, including the Google Play Store, Google Cast, YouTube and gaming apps.

"The same is happening on TV as has happened in the mobile business where everything is app-based. Now we have smart

boxes and app-based TV is already part of Android. With this type of box we can control HDMI1 on the TV and become the aggregator of entertainment services," he says.

Đurđević says that United Group installed some 50,000 boxes in the first three months after launching the platform. The operator is now moving on to the next stage of its Android story by developing devices to complement its EON advanced hybrid set-tops.

"We have a very aggressive roadmap and we are developing new Android TV set-tops and dongles and so on. Our idea is to develop more operator devices that support the EON-based Android TV ecosystem, and then develop more services," he says.

While the initial EON box is a hybrid device that allows the operator to provision it for IP or DVB reception or both remotely, United Group is now planning to launch ha pure OTT box and a dongle that does the same job with an eye to a future that "is all IP-based".

Đurđević says that United Group is also interested in the potential of delivering its services direct via smart TVs, but the business case for this is still to be worked out in a market characterised by low average revenue per user.

For the foreseeable future, however, these



**"What we are seeing now is that the bigger operators are starting to take an interest in Android TV."**

**Kai Christian Borchers, 3 Screen Solutions**

all-IP devices are designed to complement rather than replace the hybrid model.

"In the cable world DVB-C is an advantage for us compared with pure IP providers because we can connect any TV in the home inexpensively and older people for sure will need DVB," says Đurđević.

The flexible combination of access to Google Play apps with over-the-air TV channels appeals both to established operators with legacy TV bases and to those seeking to break in as disrupters – examples of the latter include Wind Hellas, the Greek telco that launched an Android TV-based offering, in this case with a custom launcher provided by Zappware, and which was able to use its ability to deliver Netflix as a key element in a highly successful marketing campaign
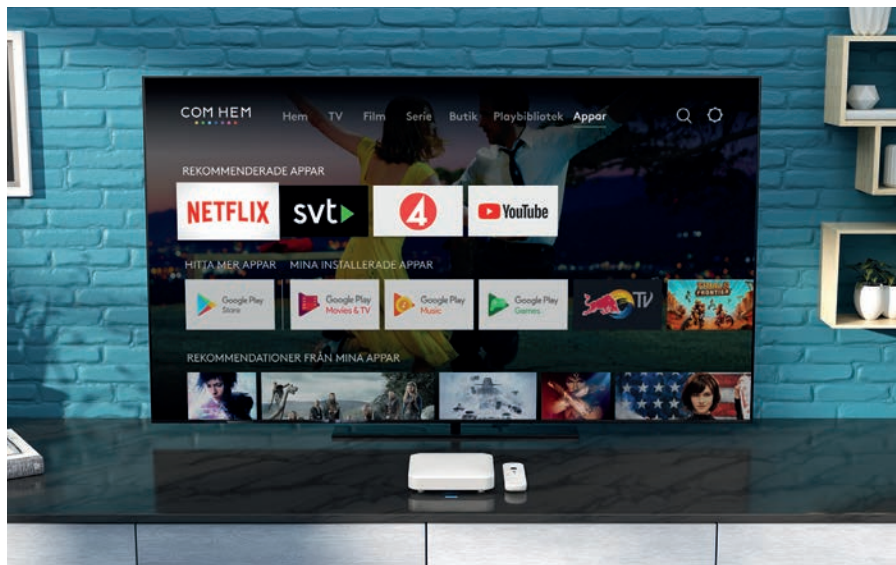
**Tele2-owned cable operator Com Hem was an early adopter of Android TV.**

## Flexibilty

Android TV – both in its Operator Tier and Google UI iterations – now offers a greater degree of flexibility than was the case when Google initially set its sites on the TV market.

Chris Thun, vice-president of product at TV technology provider TiVo, which recently participated on a webinar on this topic produced by *Digital TV Europe*, says that Android TV Operator Tier "really gives the operators a significant degree of control back where they own the branding and the user experience in return for building into their own experience a few of the things that are really important to Google" such as Google Assistant and rules around surfacing the apps in the Google Play store. "Beyond Operator Tier the Android TV team has also made a lot of progress in security and clarifying the reality around data ownership," he adds.

"The real draw is the pay TV industry recognises the value of embracing a platform approach, especially with the world of pay TV and OTT converging. It doesn't make sense to think about monolithic middleware as a path to market. Android TV represents a really viable platform approach for the industry to converge around," says Thun.

While the main initial appeal of Android TV Operator Tier has been to mid- and small-sized operators, Kai Christian Borchers, CEO of technology outfit 3 Screen Solutions (3SS), which has been heavily involved in getting Android TV Operator Tier service providers up and running, says that larger players are

now taking an interest.

"Up to now the operators that were looking at Android TV in general were operators that had somewhere below two million subscribers. What we are seeing now is that the bigger operators are starting to take an interest," says Borchers.

Google recently revealed that there were 140 Android TV projects of all flavours up and running or in the works this year, with 40 services now live.

Borchers says that the main pull of Android TV Operator Tier is the Google Play Store. The older Android Open Source Project (AOSP), which he describes as "now technically a clone of Android TV" is, says Borchers, being seriously evaluated by some larger players that want to do more of the work of setting up a TV service in-house.

Whereas in the early days of AOSP, operators had to do most of the work of building the TV service themselves, they now have a access to all of the technical features of Android TV but without the Google Play Store, meaning that operators that go down this route will likely tap an app store provider such as Metrological or Vewd to deploy a service.

Borchers says that operators choosing to go down the Operator Tier route now find that Google is increasingly working towards operators' specific requirements, such as enabling them to give prominence to their own search results rather than those that Google turns up.

Ivan Verbesselt, senior vice-president of marketing at TV technology outfit Nagra,

agrees that Android TV of all flavours has "momentum" and says that this is primarily because Google "listened to what operators wanted and created something more flexible".

Verbesselt says that not all operators will want to be tied as closely to Google as the Android TV Operator Tier still requires and some of these may choose to adopt the AOSP. "They don't get all the apps but they are in control of their own destiny," he says.

There are other advantages. Pre-integration of conditional access by the likes of Nagra means that operators can take advantage of off-the-shelf set-top boxes to deploy service in a much shorter time than is possible with Linux devices.

## Challenges

Many of the operators that adopt Android TV will tap the services of a custom launch provider or do additional work in-house to develop a functioning user interface and other features that Google does not support, such as DVR. New features introduced with Google Assistant need to be matched with a front-end experience.

"DVR is so highly proprietary and there are so many country-specific rules that you have to follow – can you do local or network DVR, how many parallel streams can you record, can you record pay TV services? Also, what kind of stream to do you want to record – DVB, IPTV, OTT? This is something Google doesn't want to be bothered with," says Borchers.

Borchers says that 3SS has a launcher that works with hybrid deployments – something else that many operators want – whether that means OTT plus DVB or OTT plus multicast IPTV. Pure OTT deployments, says Borchers, typically are targeted to niche markets such as subscribers' second homes or for multiroom applications, or to deliver a skinny-bundle service off-net.

Hybrid deployments seem likely to be the rule for most operators, whether they have launched a service already or not.

Mikolaj Zapala, senior director, strategic accounts at TiVo says that his company has also "seen a rise of interest" in hybrid platforms in various combination, particularly among operators that "have significant [numbers

of] boxes in the field". The challenge facing operators with legacy deployments, he says, is how to transition to Android TV without duplicating back-end infrastructure.

The question of how close operators can get to Google without starting to feel uncomfortable is one that has been aired frequently at industry conferences over the last couple of years. Operators that use Google Assistant are opened up to the possibility that Google could gather and use data from its operator customer base, although it says it is not doing this.

Tor Helge Kristiansen, vice-president of technology at Nagra, also points to what he sees as a certain lack of clarity about how long Google will continue to support a given generation of set-top boxes with updates before introducing updates that leave older boxes behind.

For Tele2's Andersson, from an operator perspective, "in the short term, the biggest concern is about software stability and being

beyond the point where Google is willing to upgrade them to the latest version of the platform.

While the commercial arrangements between Google and operators are still "not completely adapted to what we as operators want to do", Đurđević believes that "this will probably come soon", and Google has instituted a carrier billing programme for operators that want to add Google Play apps to subscribers' monthly payments.

Regarding the lack of support for DVR, he says that United Group is now wholly focused on a cloud DVR model, but has yet to launch.

## Evolution of TV

While DVR can be seen as a legacy product, at least in its set-top box-based form, one of the major attractions of Android TV is that Google is seen as a company that is helping define the future of consumer technology,

operating unit has adopted Android TV as part of its battle with larger players such as Telefónica and Vodafone.

Not every operator is interested in jumping on the Google Assistant bandwagon, or at least not yet. United Group's Đurđević says that his company doesn't currently see much mileage in adopting the platform because of the lack of local language support and because such technology is not currently "a must in our region". However, he says, as the market evolves and the group's TV customer base becomes familiar with this type of technology, United Group will introduce voice control as a. matter of course.

For many small to mid-sized operators in particular, the integration of Google Assistant is also a huge benefit, particularly as Google is willing to let operators privilege their own content in search results. It also gives them a key building block in a smart home play.

"Part of the value of Google Assistant is that you can control not only the TV but enable it as the control centre for the home," says Nagra's Kristiansen.

Voice search via Google Assistant – and Android TV in general – is a part of what Nagra's Verbesselt describes as the bigger picture of "client horizontalisation", with Android boxes joining their place in a line-up of native IP devices that includes Roku, Amazon Fire and Apple TV.

'Client horizontalisation' goes hand in hand with 'service virtualisation', meaning migration of the service provider headend to the cloud. In this telling, back-end platforms of the type offered by Nagra under its OpenTV brand and multi-device security will unify an offering that is essentially device-agnostic. Local OTT TV providers will be encouraged to sign up with local service providers rather than to strike out on their own by porting their service to various retail devices.

Getting those OTT TV service on board is the key goal. For infrastructure-based service providers, this enables them to take ownership of the HDMI1 port on the main TV in the living room – something that is emerging as the new Holy Grail for TV operators – as well as servicing consumers' requirements for multiscreen viewing.

"Keeping people on HDMI1 is beautifully achieved with Android TV," says Verbesselt. "You have all these pre-integrated apps and YouTube and that is a big upside. And you can cajole local players to integrate." ●

## "Keeping people on HDMI1 is beautifully achieved with Android TV."

**Ivan Verbesselt, Nagra**

able to transition when there are new updates" rather than big questions about who controls data, "but on a long term basis it's something we keep a close eye on and also still have concerns over".

For TiVo's Zapala, Google's efforts to "clarify what it is collecting, what it is viewing and what it is and isn't able to access" has gone a long way to assuage operator concerns about data.

United Group's Đurđević likewise is unconcerned about control of data, and argues that Android TV is simply more beneficial for the service provider than the cable operator alternative of RDK. The latter requires that operators develop their own app store or use that of a third party such as Metrological, which lacks the universality of Google Play.

Đurđević says that the main "challenge" facing his company is how to keep up with updates in the Android TV operating system. Đurđević is less concerned about ongoing support for legacy set-tops, pointing out that operators will be able to continue to use boxes

and that brand perception is important to its service provider partners as well.

It is no surprise then that operators that adopt Android TV have in general keen to deploy Google Assistant.

"Voice interaction has now entered the mainstream," says TiVo's Thun, who adds that "voice offers major opportunities to simplify the UX going beyond command and control, involving natural language understanding" and points to a future of "highly personalised, highly conversational interfaces".

There are some caveats. 3SS's Borchers admits that the lack of language support is "a bit of an issue" in the way of operators in some territories signing up for Google Assistant.

Even in countries where there is language support, some larger players such as Orange have their own smart home strategy and have developed their own voice-enabled assistant as part of that drive, and in these cases signing up with Google may be less attractive – although in the case of Orange, that company's Spanish

# Taking on the cord-cutting threat

**Zappware's inaugural Strategy Summit in Ghent saw a raft of industry participants discuss strategies for succeeding in pay TV and taking on the cord-cutting challenge.**



**If** there's one question exercising the minds of pay TV operators today it is how to differentiate their offer amidst unprecedented competition between service providers while battling OTT to prevent cord cutting.

It's a huge issue with many fast-moving parts but the news dominating the agenda at the Zappware Strategy Summit held in Ghent, Belgium in May is that there is a technical and a business solution.

In a nutshell this requires: aggregating pay, free to air DTT and OTT app content by getting consumers to stay on HDMI1; creating a state-of-the-art UX; making content discovery frictionless for the end user and available across all screens and devices; and working with a partner to achieve efficiencies in resource, scale, investment and time to market

The day-long event drew senior executives from IPTV, telco and traditional pay TV operators in Latin America, the Middle East and all corners of Europe to participate in informal, in-depth discussion with ecosystem partners including Google, Amazon Web Services, Askey, XroadMedia, Spott and more.

Zappware, which provides user interface design and video back-office solutions and whose headquarters are in Belgium, hosted the Summit, which was supported by *DTVE*.

"Traditionally, operators would approach vendors somewhat late in the development process but in such a fast changing increasingly complex world this may no longer be fit for purpose," said Patrick Vos, Zappware CEO. "We believe that there are challenges on both sides which are best addressed together. We want to push one step beyond and talk in terms of strategy which can then lead into devOps and a joint solution to move forward."

Simon Frost, head of EMEA media marketing, Amazon Web Services (AWS), agreed: "The opportunity for all those in Media is to drive engagement with audiences and focus on how best to do that. Enabling innovation and addressing any friction that limits being able to deliver end-user value is essential."

It is clear from *DTVE*'s latest annual market survey that the content arms race is forcing industry executives to look beyond exclusive content to differentiate digital TV strategies. That lesson wasn't lost on Greek telco WIND Hellas which launched its first TV service in April 2018 facing incumbent competition.

"Coming last to market with a zero customer base, it was clear that going for exclusive content was not an option," said Hermann Riedl, chief business and digital transformation officer. "For us, the UX was the only viable differentiator. The keys for us were openness and simplicity."

Based on an Android TV core and partnered with Zappware in a turnkey management role, WIND "built a leading edge UX" on a proposition that united pay TV, DTT and catch-up channels aggregated on the HDMI1 port of a stylish new STB.

Amplia Communications is the largest fibre-optic network infrastructure provider in Trinidad & Tobago, and plans to capitalise on its IPTV linear service, which it created with Zappware.

"Since Zappware is a multi-tenant solution we are able to offer our IPTV platform to other operators in the Carribbean," general manager, Lisa Agard told delegates. "They can leverage off our platform to get a quicker time to market. Being able to offer them one platform is going to be a tremendous advantage."

Preventing cord cutting is not enough on its own. Service providers also need to make money and part of this equation is changing the advertising proposition to one based on transactions. Michel De Wachter, co-CEO at Belgium's scale up of the year Spott explained that his company has developed a cloud solution allowing its users to enrich large volumes of video content with product placement data allowing a unique and (proven) better user experience directly leading to a positive impact on new advertising models like a click to purchase model, while Tom Dvorak, co-founder and CCO, XroadMedia explained how his company helps master the video content explosion through a personalised UX.

The event also included presentations from Lebanese broadband provider Cedarcom on the challenges of entering a piracy saturated market and from Google's strategic partnerships development manager, Android TV, Jackie Barnham, on deploying Android TV.

With the UX of pay TV companies perceived to be lagging behind while OTT platforms take a lead on innovation, delegates to the Summit took away the lesson that the opportunity is there to take on the threat by placing the UX at the front and centre of their strategy. ●

# #TiVoPerspectives

## How can I predict churn?

Patrick Byrden, Senior Director – Customer Solutions

Measuring viewership – or the amount of time someone spends watching content – has long been a metric that operators have used to identify if a customer is at risk of leaving their service. However, it has not proven to be the only reliable indicator and in fact, only allows you to predict churn with about 20% accuracy. At TiVo, we thought this could be improved and wanted to understand if a more personalised service helped to reduce churn. By analysing engagement – or the amount of times someone finds content via personalised search and recommendation – alongside viewership, we were able to predict 30 days in advance the customers who will churn, with 75% accuracy. We were also able to show that those people who used personalised content discovery to find content are three times less likely to churn, than those who found content by traditional methods.

To find out more come and see my International Keynote at 12.30pm on 5th June in Room 3 or visit TiVo at Hall 7, Stand H19 during ANGA COM 2019.

## The STB isn't dead. It's just transitioning again.

Mikolaj Zapala, Senior Director – Strategic Accounts

We always hear stories that the end of the era of the Set-Top Box (STB) is coming yet so far this has not happened. What is true is the role and type of STB has continued to transition to meet the needs of today's consumer. The age of mass digitisation has happened, the deployment of Digital Video Recorders (DVRs) rolls on but there is a move towards smaller, connected hybrid and IP-only boxes that allow operators to move functionalities like recording to the cloud and bring new streaming services into the homes of their customers.

One of the biggest areas of conversation in the industry is around the momentum that Android TV™ has gained in the market recently with operators. At TiVo we're embracing Android TV and our latest CubiTV™ Solutions help operators leverage the advantages of access to Google Play and Google Assistant alongside TiVo's expertise in deploying end-to-end Pay TV systems around the globe.

To find out how TiVo's CubiTV Solutions can supercharge your next STB deployment come and visit us at Hall 7, Stand H19 during ANGA COM 2019.

*Google, Google Play and Android TV are trademarks of Google LLC*

# Speed merchants

**Broadband providers are engaged in an arms race to deliver ultra-fast services to subscribers. HFC cable network operators are making use of a fast-evolving range of tools to stay ahead of rivals, writes Adrian Pennington.**

**The** 'need for speed' is dominating the cable operator market as competitors jostle to deliver tomorrow's Gigabit services for consumer and commercial applications.

In order to deal with the expected rapid growth in demand for bandwidth, operators are searching for new technologies and architectures that can help them supply those speeds and new services, using an efficient scalable design, with predictable and controllable cost of ownership. In doing so, they may consider making changes to their headend network, nodes and amplifiers, their service groups sizes, the modulation profile used on different areas of the plant and more. The challenge is to choose the right mix of adjustments that can help them optimise their network and supply their subscribers' demand.

"The evolution of the headend and the Converged Cable Access Platform (CCAP) is a major part of everyone's roadmap for transformation," says Sean Welch, VP and GM at Cisco's service provider business.

Most operators have already embraced CCAP and are deploying DOCSIS 3.1 cable modems to enable DOCSIS 3.1 in most service areas. But DOCSIS 3.1 also opened up the possibility for 10G / 4096-QAM services along with a migration from a centralised to a Distributed Access Architecture (DDA). Each cable operator's roadmap is unique of course, yet all need to begin with some form of digital transformation in their access.

Distributed, virtualised architectures are expected to transform cable networks. According to analyst group Dell'Oro, investment in cable infrastructure will reach US\$2 billion (€1.8 billion) globally by 2023 to prepare operators for multi-gigabit future services using a combination of extended spectrum DOCSIS, full duplex DOCSIS 3.1 (FDX) and fibre-to-the-home (FTTH).

"Transitioning from where we are today into a Distributed Access Architecture is a real accomplishment," says Welch. "Understanding that there is more than one way to get there is important."

The overall aim is "to make networks more efficient, offer premium bandwidth, and stay ahead of fibre-based competitors," Dell'Oro research director Jeff Heynen adds.

## Priority investments

Broadly, it appears that operators in Europe are focusing their investment in three high-priority areas. The first is low latency DOCSIS for improved gaming support, virtual and augmented reality support and 5G backhaul support. Second is augmented upstream bandwidth capacity, which looks to support higher bandwidth demands in the upstream for video-based IoT devices. Lastly is augmented downstream capacity, with a focus on supporting higher service level agreements for the future.

"Operators have many options available to them as they plan for the evolution of their future networks," says Tom Cloonan, formerly of Arris and now office of the CTO, CommScope. "This includes turning on more DOCSIS 3.1 Downstream OFDM channels, plus beginning to turn on – and adding in additional – DOCSIS 3.1 Upstream OFDMA channels."

Operators are also increasing the average bandwidth capacity to each of their subscribers by using combinations of at least three techniques. These are: increasing the spectral efficiency using the higher QAM Modulation orders permitted by DOCSIS 3.1; increasing channels per Service Group; and decreasing the number of subscribers per service group by performing physical or virtual node splits.

The Society of Cable Telecommunications Engineers & International Society of Broadband Experts (SCTE, ISBE), agrees that most upgrades in Europe are focused on increasing the capacity of the Hybrid Fibre-Coaxial (HFC) network, starting by migrating to DOCSIS 3.1 and then utilising node splits when necessary.

While still deploying and upgrading their heavy base of Integrated-CCAP systems, many operators are also considering transitions to DDAs where parts of the traditional I-CCAP are moved to the node structure – closer to the subscriber. Remote PHY or Remote MACPHY are the key technologies.

"Based on our discussions with European operators and ecosystem partners, it is clear that scaling capacity – with DOCSIS 3.1 – in both the upstream and downstream is a priority for 2019," says Welch. "DAA, and in particular Remote PHY, is a 2019 initiative driven by the need to modernise the analogue optical network that connect hub sites to fibre nodes in the field. Further, deploying IP over fibre in the aggregation network will unleash a compelling opportunity to converge all forms of access traffic – such as mobile, cable, fibre and copper – and operators are excited about this business case."

## DDA based on R-PHY

Based on discussions with operators it is working with, Finnish tech company Teleste says DDA "seems to offer the next attractive option to enable significantly higher data transmission capacity, attractive quality of service for subscribers, as well as less operational expense".

"Nearly all operators that we are working with are at least investigating DAA technologies," says Jim Walsh, marketing manager at California-based network test, measurement and assurance vendor Viavi Solutions. "The current status varies from initial investigations to full implementation; in many cases, their deployment pace is being dictated by the maturity of their selected solutions. Some operators see DAA as a long-term enabler of node splits to address bandwidth needs while also enabling virtualisation of their service provision infrastructure, while others see it as more of a short/medium term stopgap solution with FTTH as the inevitable long-term path."

Early trials and limited deployments have begun, with CommScope projecting growth in the penetration of these technologies starting significantly by end of the year.

This is something also tracked by Dell'Oro, which expects North American cable operators – such as Comcast and Mediacom – to move from lab and field trials of R-PHY and R-MACPHY to general availability.

"Equipment vendors are ramping up production of their node units to meet what is expected to be a major year of deployments in 2019," the analyst states in a briefing note. "We expect Comcast to use DDA to dramatically reduce service group sizes from an average of 300 to 400 homes to less than 100. Other operators, including Cox and Spectrum, will quickly follow suit."

Early deployments in Europe, at Com Hem and Stofa, have enabled the rollout of DOCSIS 3.1 services, while simultaneously moving away from the operator's traditional, I-CCAP platforms. "Both operators face significant competition from fibre providers, so they view R-PHY as a stepping stone to either FDX or FTTH," suggests Dell'Oro.

Managing churn and OPEX forms a focal challenge for operators. As acquiring new customers is potentially expensive, investments in providing high quality subscriber experience – including attractive service bundle and high capacity broadband – helps to leverage churn rate and improve cost-effectivity in the longer run.

"R-PHY offers operators real benefits in terms of subscriber experience and it is an excellent option in areas where higher data transmission capacity is needed without long construction times," argues Hanno Narjus, Teleste's SVP, network products. "In addition to factors such as increased service reliability, more bandwidth and less latency, the technology enables operators to reduce headend footprint and ensure the availability of their legacy services."

Distributed access is used when fibre transport to the nodes is at capacity, when distribution hubs are very far away from nodes, and/or when distribution hubs are out of space. Further drivers include the desire to bring fibre closer to the home – in order to be better prepared for a FTTx architecture – and a desire to improve signal-to-noise ratios using Ethernet.

"The use of Ethernet optics will also offer other benefits, such as permitting operators to multiplex more wavelengths on a single fibre feed," says Cloonan. "It will also help them to consolidate headends and to

tie their HFC plants into virtualised data centres, which would allow cloud computing environments to more easily manage HFC equipment. These transitions should help operators to future-proof their head-ends and HFC plants."

Equipment providers have started to offer Remote PHY products to operators for deployment. However, some operators are choosing to wait for the technology to mature, or for a specific flavour of the

upgrades would require truck rolls."

Teleste's Narjus also makes the point that "ecosystem-level thinking" and "industry-wide interoperability" between vendors is a must-have before the benefits can be realised.

"For both R-PHY and R-MACPHY implementations to succeed in enabling robust multi-vendor field deployments, industry-wide interoperability is needed," says Narjus. "The question is how operators can safely grasp the opportunities offered

Walsh. "The two are very often paired – if an operator is considering 1.2GHz downstream extensions and/or converting to 204MHz upstream it often makes sense to align these activities with DAA deployments. The same can be said for headend upgrades to DOCSIS 3.1, these are often coupled with DAA transitions."

Cisco makes the case for Remote PHY with an IP-Ethernet network as the most capable and economically scalable solution that exists. "While network capacity will always be important, the ability to dynamically scale network operations by automating processes, machine learning, network insights, auto-remediation, telemetry, etc will change how we look at it," says Welch.

> *"R-PHY offers operators real benefits in terms of subscriber experience and it is an excellent option in areas where higher data transmission capacity is needed."*
>
> **Hanno Narjus, Teleste**

products to become available before they begin deployment.

Many operators are currently using dense I-CCAPs which still have unused capacity. For those operators the need to upgrade the network may be less pressing. Additionally, an architectural upgrade such as the transition to DAA cannot be taken lightly. A great deal of consideration must go into which access architecture is the best fit, and detailed planning in order to be prepared for the transition from a network readiness, as well as from an operational perspective.

## Sluggish rollout

"Most operators are slow-rolling DDA due to the higher cost and the current rapid evolution of the technology," says Dean Stoneback, senior director, engineering and standards, SCTE, ISBE.

"The technology of remote architectures is still in a rapid state of change as the flexible MAC architecture [FMA] specifications continue to evolve and as FDX equipment enters the market," says Stoneback. "The uncertainty around the rapid change in technology is most likely slowing down the deployment of remote architectures. Early adoption of remote access equipment is not necessary 'future-proofing', as hardware

by the technology transformation while avoiding vendor lock-in."

Interoperability of distributed access ecosystems has been proceeding slower than anticipated. However, MSOs have been actively driving implementation of CableLabs' R-PHY standard.

"CableLabs has also been providing vendors an invaluable opportunity to test the technology in a multi-vendor environment for some time, and distinct demonstrations of interoperability go on between several CCAP core and RPD vendors as well," says Narjus.

While there are cases of operators focused on new fibre build-outs, DOCSIS 3.1 upgrades and DDA in some cases operators are working on all three technology areas in parallel.

"For greenfield opportunities, fibre is generally the option of choice, but for expanding existing networks DAA and DOCSIS 3.1 are generally the focus," says

Observing that "nothing will ever be truly future proof" he asserts that Cisco is the only vendor currently with a FDX-ready Remote PHY node, "where operators can install and operate the node today and then turn-up FDX when they are ready to in the future."

FDX contains within it the capacity to ramp upstream and downstream speeds to 10 Gigabit, speeds which – if companies like Intel are to be believed – will be needed to turbo charge the growing number of devices, vast amounts of data and immersive experiences for home users, let alone business case scenarios.

Yet the market itself seems to lag behind that of vendor urgency for symmetrical bandwidth.

"It has been raised by some FTTH providers as a competitive differentiator however, to-date, there does not appear to be significant consumer market demand," says Ralph Brown, chief research and development officer at cable industry technology body CableLabs.

"Competition continues to be based largely on download speeds. Symmetrical bandwidth has been more important in serving business



**Teleste Luminato 4x4 modular headend: the company believes R-PHY offers real benefits.**

customers and cable operators use both DOCSIS and fibre to serve these customers."

Walsh agrees with this reading of the situation: "Outside of a few isolated regional regulatory requirements, demand for symmetrical offerings from cable operators is almost entirely driven by the need for a competitive response to FTTH marketing.

"It is expected that future applications will emerge driving consumption closer to symmetrical, but today it is still heavily weighted toward downstream."

Teleste's Narjus comes to a similar conclusion: "At the moment are almost no services for which fully symmetrical high bandwidth is actually required and, even today, the network bottleneck continues to be the downstream. However, in some areas FTTH operators have been marketing symmetrical bandwidth to consumers quite intensively, causing a need for cable operators to upgrade their networks in order to maintain competitiveness."

The three main methods to achieve symmetrical bandwidth are FTTP, FDX and extended spectrum DOCSIS (ESD).

## Toward DOCSIS 4.0

While FDX is designed to enable 10G symmetrical speeds, proposals to extend the life of coaxial even further are in motion. DOCSIS 4.0 or Extended Spectrum DOCSIS (ESD) would support symmetrical broadband speeds as high as 30G or even 60G by tapping into more of the cable HFC plant's available RF spectrum. The concept would allow cable operators to basically triple the 1.2GHz of plant spectrum that can currently be leveraged for DOCSIS 3.1. At 3GHz the spectrum would trump the 1.8GHz of FDX with as much as 6GHz thought possible (10GHz being the physical limit of coaxial).

The technique would complement rather than substitute FDX by using Full Duplex DOCSIS hardware while keeping the upstream and downstream spectrum blocks separate.

Specifically, this involves using FDX chipsets to raise the spectrum ceiling occupied by upstream traffic to 492MHz or 684MHz while keeping upstream and downstream in separate blocks of spectrum. Downstream spectrum would be pushed above this level and the downstream would

operate up to 1.8GHz, in theory.

"Vendors and operators are working together to characterize the current HFC plant performance levels and to identify new equipment that can help augment current DOCSIS products," says Cloonan. "It is expected that these activities could lead to a future Extended Spectrum DOCSIS environment."

CommScope predicts that downstream

bandwidths may move to 1.2GHz in the short-term, and then to potentially higher spectral widths (1.8GHz or 3.0GHz or higher) in the more distant future.

"Upstream widths will likely move to mid-split – 85MHz – or high-split – 204 MHz – with some operators planning even higher splits of up to 684MHz using FDX-capable technologies or other technologies, such as Soft-FDD [frequency division duplex]," says Cloonan.

Detailed analysis of coaxial plant characteristics, tap and drop line characteristics, amplifier, node and consumer premises equipment characteristics will be required to make this happen. Detailed work on power and thermal management is also required for these next-gen systems.

CableLabs and SCTE ISBE are working together on proactive network maintenance (PNM) tools and operational practices for DOCSIS 3.1 and FDX.

"Without PNM tools, it would be nearly impossible to understand and manage RF impairments and interference since multiple devices will be transmitting RF signals in both directions on the cable at the same frequencies simultaneously," says Stoneback. "These tools will be used by early adopters to gain experience and optimize future deployments.

"In most cases, HFC operators are planning to use FDX or ESD to provide higher upstream rates to the majority of their customers, while utilising targeted FTTP deployments for the highest tier customers."

Cisco acknowledges that fibre may have the advantage today, in terms of symmetrical bandwidth, but notes that it is nowhere near as extensively deployed as DOCSIS networks. "Should there be a race between achieving fibre network coverage parity and deploying FDX, my money would be on FDX," Welch says. "And I would not mind doubling down on that. Fibre is going to remain being important, but the key takeaway here is that

> ### "The evolution of the headend and the CCAP is a major part of everyone's roadmap for transformation."
>
> **Sean Welch, Cisco**

DOCSIS networks continue to innovate. What is important here is keeping focus on the long-term vision. CableLabs set the goal with 10G, and reaching that goal still requires much innovation."

Indeed, CableLabs' latest initiative is a '10G platform' that will ramp up from the 1 gigabit offerings of today to speeds of 10 gigabits per second and beyond

Comcast, Charter, Cox, Mediacom, in the US plus Rogers, Shaw Vodafone, Telecom Argentina and Liberty Global are implementing the new 10G initiative, with lab trials underway, and field trials beginning in 2020, according to CableLabs.

"While FDX is a fundamental element of the platform, enabling the sharing of spectrum both upstream and downstream concurrently, other technologies will be needed to deliver the full 10G experience," explains Brown. "One such technology is Full Duplex Coherent Optics, which will significantly increase the value of the currently-deployed fibre infrastructure, boosting capacity to meet the growing demand of broadband customers."

Consensus over the future of the DOCSIS standard will be required to guarantee smooth, industry-wide deployments and the future competitiveness of the technology.

Whether it will invest in Extended Spectrum, Full-Duplex DOCSIS or something in-between, the industry can already foresee innovations that could extend the life-time of coaxial cable infrastructure for many years to come. ●

# Telcos get smart

**Telecom operators are increasingly looking to smart home applications to deliver additional revenues, but partnerships are crucial to making this work, writes Anna Tobin.**

**Service** providers are increasingly looking beyond the triple or quad-play bundle. With OTT streamed content now eating into their traditional pay TV subscriber revenues and competition in broadband access becoming intense, cable and telecom providers see a need to tap new revenue streams. It is for this reason that so many of them want to be at the forefront of an Internet of Things (IoT)-enabled smart home revolution.

Tunnelled right into the home, network operators are well placed to exploit the opportunities all these wonderful new internet-enabled smart things offer. But while the telcos want a chunk of the revenues, they don't want to be associated with any glitches that are likely to beset any emerging technology. Cybersecurity, in particular, has proven to be a big issue for many IoT vendors. One wrong step and a telco's reputation can be ruined overnight.

Telcos already know about the issues that smart home technologies throw up because their customer service providers are often the first point of call for complaints, even if the issue has nothing to do with them. Telco subscribers who are streaming a live football match, for example, will often call their service provider when they experience buffering or latency because they assume it's their fault. More often than not, it's a separate issue that is nothing to do with the telco.

But some shrewd operators sees these wrongly directed customer service calls as an opportunity, not a waste of time. To leverage their position as the first point of call, many are now looking to take ownership of the whole home network. "They want to create a carrier-branded solution that covers the infrastructure that you put inside your home," explains Bruno Tomas, director of programme management at the Wireless Broadband Alliance.

"The solution is to have very effective and robust guidelines and companies such as BT, Comcast and Liberty Global have all been contributing to creating this."

These guidelines will effectively ask customers to commit to only using equipment provided by their telco – or their recognised partners – as part of their home network. If they use a service not covered by these guidelines, consumers will likely invalidate their telco service guarantee. Loyalty is the price they will pay for cybersecurity and quality of service.

"Anyone can buy a router from anywhere and add it to their home mix and suddenly create problems. These guidelines are regarded as the solution and they include not only an architecture proposal, but also end-to-end security," says Tomas. "To protect operator traffic there must be a way on the end-to-end network to show you all of the components that are there. That is the premium that I believe

they are advocating to customers."

Telefónica announced the launch of its Aura platform at Mobile World Congress (MWC) 2017. This is designed to "enable users to manage their digital experiences with the company and control the data generated by using Telefónica's products and services in a transparent and secure manner."

Aura is not a smart-home proposition per-se, says Oscar Mancebo, head of Movistar Home at Telefónica, but it is a gateway for bringing artificial intelligence into the home and it is continually evolving. "Telefónica's chief data officer presented at MWC 2019 with new plans to expand the use of its cognitive intelligence Aura in the home, developing the new vision of 'Home as a Computer' in collaboration with Microsoft," explains Mancebo.

"Home as a Computer's mission is to open the Telefónica connected-home ecosystem to third parties. The company will leverage its position as number one provider of home technology in multiple countries by connecting the devices and mobile apps with Aura and allowing new digital experiences to be built on top," he says. "These are the living apps, relevant new services that may be first-party like Smart WiFi, Connected Car, Movistar Cloud or third-party like El Corte Ingles, Atletico de Madrid and Air Europa."

Getting the key to this smart home gateway, however, isn't easy. Any third-party looking to connect to the Aura platform must pass Telefónica's high privacy standards.

## Partnering with IoT players

If telcos are to keep control of the home network, they must partner with the growing number of IoT companies that are now pushing their devices to consumers.

Security cameras, geo-fencing solutions to track children and remote health monitors are just some of the devices people are now adding to their home networks. Mancebo says that Telefónica has narrowed down its smart home focus to "TV and entertainment, communications and management of home connectivity".

"The first steps are into thermostat control and lights, etc. and then third-party services reinvented with AI and a voice-user interface

**Telefónica launched its Aura platform at Mobile World Congress earlier this year.**

– e-commerce, football clubs, airlines – we are actively exploring more areas that are relevant to customers. We want to help the discovery of relevant services and deliver new enriching experiences that are truly relevant to customers. Finding the balance between this and monetisation is our challenge," he says.

The need to make these additional services



## "Home as a Computer's mission is to open the Telefónica connected-home ecosystem to third parties."

**Oscar Mancebo, Telefónica**

monetisable is the main reason why telcos will largely position themselves as gateways into the home for third-party smart-home service providers, rather than actually moving into smart home app provision themselves. "We don't see service providers offering these devices themselves, because that takes a lot of know-how and expertise, but what they are looking at is how they can onboard and manage these devices in a seamless way, so that it becomes say a Comcast-validated device or a Liberty-Global-validated device," explains Tomas at the Wireless Broadband Alliance.

"It avoids the operator becoming just the pipe and gives it the chance to up sell because it has a common branding and common security. I believe that there are also some interesting things around the concept of creating in-home hybrid networks, where the operator will still have control of the network, but, for instance, if the user would like to enable specific services

over their networks they could do so.

"There is a trend of more people working from home. This doesn't always just require Wi-Fi coverage. There are services that companies want to push in specific regions of the world. For instance, if you need to access a virtual private network, you can do it over a set of service provisioning items. Partnering with

common enterprises that have this flexible model is another way for operators to up sell their services."

Another obvious segment for telcos to develop partnerships with is television manufacturers. James Thomas, product manager of home entertainment at LG Electronics says that it makes sense for his company to help service operators to enter the smart home space.

"LG are leading providers of smart home technology – from TVs to speakers to home appliances – and an integrated-user experience is at the heart of our product offering. Each new TV line-up brings a bounty of new features that are there to support and encourage connectivity with telecoms services, such as in-built Google Assistant, which connects to other smart appliances around the home," he says.

It is unlikely, however, that a main TV will become the central control for the entire smart

home infrastructure. With smartphones, tablets, PCs and multiple TVs around the home, it makes more sense for the smart home controls to be accessible from any connected screen.

"The TV is becoming one more device in the home environment," explains Tomas at the Wireless Broadband Alliance. "Multi-device is what the operators are focusing on and this is why they realise it is important to harmonise all of the smart-home architecture. In any household, you may have several devices per person, and everyone is using these OTT applications for video and to access service provider applications that are mobile based. The TV is only one part of that equation."

Nevertheless, Anthony Zuyderhoff, senior vice president international CPE at CommScope, now incorporating Arris, believes that there is still scope for the TV to be the go-to for some smart-home services.

"With the emergence of 'voice-visual' assistants both for the home, as well as on smartphones, there is a growing realisation that some voice interaction is better served by adding a visual component as well," he says.

"Asking for the weather today in your town is relatively easy to 'listen' to, however, asking what the weather will be like for the entire week is more challenging without a visual aid. What better visual aid exists in most homes than the TV screen? It is generally located in more than one location in homes, and with the technology Arris is developing, we can leverage our new smart media devices to give people both audio and visual interactivity," says Zuyderhoff.

"This is a great way for people to search for their favourite video content, monitor the health of their home network, set thermostats or light their homes, and leverage a myriad of other voice-visual skills that are being developed around the world. There is also now a growing trend to add the most popular IoT services as a software download to a gateway or SMD. Smart home companies recognise the importance of supporting the consumer in having fewer home hub devices. They are, therefore, working to add hub solutions as software to the service providers' existing devices."

## Software solvers

Because of the complex technologies involved in creating a truly smart home, telecom operators

### Talking smart homes

Voice-activated devices are set to make the smart home more user friendly, not just for actioning, but also for search.

Netgem.tv MD Sylvain Thevenot believes that voice control services will play an increasingly important role in smart homes. "Netgem has been a pioneer of voice control with TV and launched in 2017 the first Alexa skills controlling a TV service (EETV), subsequently expanded to support Google

**Zuyderhoff: voice assistants are opening exciting new opportunities for service providers.**

Voice – and richer in features. Initially used for 'remote control shortcuts,' our voice-control services now allow simple access to content through 'recommendations.'"

Integrating voice control with video, is a particularly interesting development agrees Anthony Zuyderhoff, SVP at CommScope.

"The emergence of voice assistants is opening exciting new opportunities for service providers in the video and broadband sectors," he says. "In video, the ability to search for pieces of content without the occasionally cumbersome use of a remote control is but one of many exciting use cases. Other broadband use cases could be visualising and fixing your Wi-fi network, setting up parental controls, or setting up a guest network, to name a few. It also allows service providers to think of new, exciting ways to reduce churn and improve ARPU, as they could be the central hub for more than 'just' video and basic data services."

Voice control can be difficult in certain settings, points out Bruno Tomas at the Wireless Broadband Alliance. He highlights in an apartment setting where sensitive receivers can pick up speech from a neighbouring property, or where multiple people are speaking simultaneously in a busy home.

are working with a host of software providers to deliver what they promise. "Telecom service providers do not have the ability to innovate at the pace required to support smart home services," says Sylvain Thevenot, managing director of Netgem.tv. "This is due to the fact that the standards are not established, new technologies arise very quickly, and that they need to focus their capex investments on important network developments – fibre and 5G in particular."

Arris, now part of CommScope, is focusing on integrating all the different smart home devices as they come on stream.

"We have introduced a new segment of SMDs, which combine the functionality of some of the most important devices in the home – including the set-top, speakers, smart assistant, IoT hub, and remote control," explains Zuyderhoff.

"This category intends to capitalise on the growing trend around premium sound, voice control and seamless integration of various consumer services. We're investing in concepts around integrated sound bars, as well as more mainstream audio-enabled devices. We are also integrating technologies from Google and

Amazon, which will allow service providers to offer more services to their customers with less electronic 'clutter' by combining, for example, a video device with a voice assistant or a gateway with a speaker."

One of the questions that still hasn't been unanimously decided on is whether the home network is better off being managed within the home or within the cloud.

"There is this big discussion right now with many of the home broadband providers in terms of where in the home environment the operators would like to see the intelligence to manage all of these devices. Whether it's more of a cloud-based approach or a more of a local edge of the network approach," says Tiago Rodrigues, general manager at the Wireless Broadband Alliance.

"Do you have more intelligence inside the house with more gear that will somehow manage the multiple devices that are connected in the home environment or do you want to push it to the core of the network with a cloud-based approach?"

As the standards, technology and smart home services develop, the answer to this question will become apparent. ●

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**Gala dinner:** 3 December

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# Technology in focus

## Infrastructure equipment and product news for digital media distribution

## Redesigned Play Store and 'one-click' subscriptions

Google has revealed the latest iteration of Android TV, with a major overhaul of the Play Store being front and centre.

At its I/O developer event, Anwar Haneef, product lead, Android TV Ecosystem & Integrations, unveiled a 'complete refresh' of the Play Store on Android TV. This refresh gives the interface a cleaner look that catches up with the Oreo redesign of Android TV. In practical terms, the new look comes with a focus on improving the downloading of apps and subscribing to services.

This is achieved by allowing publishers to combine the installation of an app with signup and login processes, with purchasing being made more convenient through the use of PIN codes. This removes the need for awkward logins through on-screen keyboards and lengthy subscription forms.
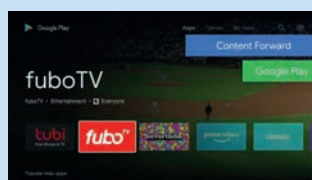
"This will further streamline the purchasing process on Android TV and make it much easier without the need for a password," said Haneef. "Purchases on Android TV will be smoother, faster and more seamless."

The updated Play Store will be released separately from the next Android TV full update. In an interview with Variety, Shalini GovilPai, director of Android TV, justified Android TV's historically slower updates, saying that it doesn't "necessarily need to be on the same timeline" as its mobile counterpart.

During the presentation, GovilPai also boasted Android TV's success, stating that the operating system is being used by six of the top ten smart TV OEMs and over 140 pay tv operators worldwide. She also said that this momentum extends to developers with over 1,000 streaming content providers and over 5,000 Android TV apps on Google Play.

The presentation also showed a brief glimpse of the long-awaited Prime Video app. In April. Amazon and Google announced a truce that will see YouTube on Amazon Fire devices, and Prime Video app for Chromecast and Android TV.

## TiVo launches legal case against Comcast

TV technology specialist TiVo has, through owner Rovi, launched a legal action in the US against Comcast, alleging that the global cable-to-content giant is infringing six of its technology patents with its X1 video recording hardware and software.

The claims are the latest in a long battle between the two companies that started in 2016 when a licensing agreement came to an end. Prior to that, TiVo is reckoned to have secured around $250 million (€224 million) in revenues from Comcast over a 12-year period. TiVo says Comcast has been infringing its patents since the relationship ended, but Comcast says the tech it now uses was built in-house.

"We believe Comcast's Xfinity X1 continues to infringe Rovi's cloud and multi-room DVR patents – a vital component of home entertainment," said Arvin Patel, EVP and chief intellectual property officer at Rovi, in a statement. "Litigation is always a last resort but we will continue to take every necessary legal action to ensure that Comcast fairly compensates Rovi for its use of our patented innovations."

In response, Comcast said: "Rovi has in recent years deployed its increasingly obsolete patent portfolio in an unsuccessful litigation campaign seeking to charge Comcast and our customers for technology Rovi did not invent. Rovi launched this campaign in April 2016 by asserting infringement of 15 patents – 14 of which have been held to be invalid and/or not infringed by Comcast, or have been withdrawn by Rovi.

"While we haven't had an opportunity to review Rovi's latest complaint, we will continue to defend ourselves against allegations we determine to be meritless."

# Apple TV app launches in 100 countries

Apple has launched its redesigned TV app, making it possible for consumers to subscribe in one place to channels such as HBO, Showtime, Starz, Smithsonian Channel and EPIX.

The update, which was first announced at an Apple event in March, is now available in over 100 countries. Apple said more channels would be added over time around the world.

Users can subscribe to the channels directly from the Apple TV app, and all content can be watched from inside the application. This means that they don't have to juggle multiple different apps to watch content.

The Apple TV app is where the Apple TV+ service, with Apple's original programming, will be found when it launches this autumn.

There will be some limitations, however. Netflix has said it will not be included in Apple's channels, which means programming on Netflix will appear in search results but viewers will need to exit the Apple TV app.

The redesign is available on iPhones, iPads, Apple TV and select Samsung smart TVs. It will be available on Macs this autumn.

The Apple TV app's new look is similar to other streaming services, and includes content carousels, tabs and recommendations.

The app offers personalised recommendations of shows and films from more than 150 video apps and streaming services as well as a new Kids section.

Subscribers to the channels can watch and download shows and movies both online and offline. Ap-

ple said its TV app is, for example, the first and only place where HBO subscribers can download Game Of Thrones for offline viewing.

Users can also share their subscription with up to five other family members at a time.

It is Apple's first big push into making money from TV content outside of sales through the iTunes store.

Apple hasn't said what its cut of revenue from subscribers who sign up to services through Apple Channels will be, but CNBC has reported that the company was pushing for 30%.

Some reports suggest Apple gets 15% of revenues from subscribers who sign up for services such as HBO Now, Netflix and other streaming apps through the App Store.

# BBC launches Doctor Who VR experience

The BBC has released a new Doctor Who virtual reality experience that allows fans to step inside the TARDIS.

Launched on May 16, *Doctor Who: The Runaway* is a free short that is available on a range of VR headsets.

Thirteenth Doctor Jodie Whitaker reprises her role, and the experience features new original music from series composer Segun Akinola. It has been produced by the BBC's digital drama team, BBC VR Hub and Passion Animation Studios.

Zillah Watson, head of BBC VR Hub, said: "This is the most ambitious project yet from our team in the BBC VR Hub, and the result is a magical adventure that Doctor Who fans everywhere will simply love. It also shows the enormous potential that virtual reality has for creating new kinds of experiences that appeal to mainstream audiences."



*Doctor Who: The Runaway* is available for UK audiences to download for free in two versions. The immersive interactive version is available from the Oculus Store and Vive Port for use on Oculus Rift and HTC Vive with a runtime of 13 minutes. The 360 degree video version is available to download from the BBC VR App for the Oculus Go and GearVR with a runtime of 11 minutes.

The experience is not available on PlayStation VR, which Sony

announced in March had sold over 4 million units worldwide.

Jo Pearce, creative director for the BBC's digital drama team, says: "Fans will find themselves at the centre of this wonderfully animated story, helped by the natural charm and humour of Jodie Whittaker, in an adventure that really captures the magic of Doctor Who. Viewers truly are in for a treat – for those who ever dreamed of helping to pilot the Tardis, this is your opportunity!"

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## In Brief

### 3SS and Media Distillery tie up AI TV deal

3 Screen Solutions (3SS), and AI specialist Media Distillery, have teamed up to launch and co-commercialise a new pre-integrated AI-based end-to-end platform. The solution comprises a combination of machine learning methodologies to recognise visual and audial elements of video, including faces, speech, topics, logos and text to enable user searches that yield more accurate results.

### Swiss Sunrise launches 4K OTT service

Sunrise, the Swiss network operator, has launched a new multiscreen TV platform as an OTT service. The service, named Sunrise TV neo, is available as an app for Apple TV, smartphones and tablets, and PC. Sunrise TV neo consists of more than 230 TV channels, with over 110 in HD quality, and becomes the first OTT TV app in Switzerland to support UHD/4K. This will include the Insight TV UHD channel, among others, at launch.

### VO and b<>com partner

Content security and TV technology outfit Viaccess-Orca is partnering with b<>com to advance the development in piracy tracking watermarking, specifically in streaming. In an effort to curb streaming piracy, the teams at b<>com and Viaccess-Orca are working in tandem with the goal of developing a watermarking solution that addresses the various piracy threats that broadcasters face and make it possible to identify its source, the pair said.

### EE launches UK's first 5G service

BT-owned EE is launching the UK's first commercial 5G mobile service at the end of May in six cities across the country: London, Birmingham, Cardiff, Manchester, Edinburgh and Belfast. The first phase of the launch will tap 4G and 5G networks to deliver higher bandwidth ahead of a second phase in three years time that will see the introduction of a full 5G core network.

### Netflix and Cellcom collaborate

Netflix is continuing its expansion into Israel with the announcement of a distribution deal with Cellcom. Cellcom, Israel's largest cellular provider with over 2.5 million subscribers, will serve as a distributor of Netflix in Israel, including providing direct access to the service from the Cellcom TV platform.

### Redbox partners with You.i TV for Roku app

US video rental service Redbox has selected You.i TV to develop a new Redbox On Demand service for Roku. This new app will be the first developed for Roku using the React Native development framework. The company promises that this will deliver better viewing experiences by offering "a more compelling user experience and more consistency across platforms". It also promises that the combination of React Native's open source, JavaScript application framework and the You.i TV SDK will result in "faster time to market" and "more efficient development".

# Sony Europe to launch first 8K TVs

Sony Europe is to begin selling its first 8K TVs The company says that the ZG9 8K HDR Full Array LED TV offers 16 times the resolution of Full HD.

Sony's 98" and 85" models are slated to become available at select retailers from June.

Sony's Master Series TVs also feature Netflix calibrated mode and IMAX Enhanced mode.

The Master Series ZG9 8K HDR Full Array LED TVs feature the latest generation Picture Processor X1 Ultimate, with what Sony describes as an algorithm that is specially developed for 8K that can intelligently detect and analyse each object in the picture to provide detail and contrast for a more realistic picture. The ZG9 models include Sony's new Sound-from-Picture Reality feature to reproduce the intended position of the sound on the screen so when actors are speaking, the sound appears to be coming directly from their mouths and not from a speaker elsewhere.

Sony says that its large 8K screens provide four times the pixels of 4K or 16 times the resolution of Full HD.

Sony also says that its Picture Processor X1 Ultimate has been optimised to upscale any content closer to true 8K picture quality using a new, dedicated 8K database.

The TVs feature Sony Android TV which supports apps from Google Play, including YouTube, Netflix, Prime Video and more. The ZG9 TVs have Google Assistant built-in. Additionally, they have built-in microphones to enable viewers to talk to the TV using Google Assistant, and the TVs also work with smart speakers such as Sony's own LF-S50G and SRS-XB501G, Google Home or Amazon Echo devices.

The TVs will also be compatible with Apple AirPlay 2 and HomeKit.

# Cablenet launches Plume in Cyprus

Cypriot quad play provider Cablenet has announced the availability of Ultra WiFi, Powered by Plume.

Plume is the creator of the world's first cognitive services platform for the smart home. Its open and hardware independent solution enables the curation, delivery, management, optimisation, and support of new services and applications quickly at scale.

This new service builds on Cablenet's fiber power speed internet proposition. Ultra WiFi, Powered by Plume includes the full Plume services bundle accessed through the highly-rated Plume App, two high-performance WiFi access points called SuperPods, and unparalleled customer support, from just €5.90 a month, with a 24-month contract.

"We are driven to deliver the most innovative experiences for all our customers," said Nicolas Shiacolas CEO of Cablenet.

"As the smart home continues to rapidly evolve, we must gear-up to provide the best in-home experiences. That means providing fast and reliable whole home adaptive WiFi, advanced security, personalisation and control. Ultra WiFi, Powered by Plume fuses all these important elements."

Plume co-founder and CEO Fahri Diner said: "Plume is delighted to support Cablenet's initiative to strengthen its smart home offer through the addition of our cognitive in-home service bundle. This unprecedented proposition means the fastest internet possible for everyone everywhere, higher quality homework time for children, and peace of mind for parents. We're honoured to be partnering with Cablenet to change the game."

# Amazon launches new Fire tablet for kids

Amazon has launched a new Fire tablet specifically for kids bundled with a year's free Amazon FreeTime Unlimited subscription and a doubling of the amount of Spanish-language content available for kids.

The Amazon Fire 7 Kids edition, which will cost US$99.99 (€89) in the US, will come with a year of Amazon FreeTime Unlimited, the tech giant's subscription offering for the 3-12 year-old kids market. After the first year, customers can continue their subscription from US$2.99 (€2.63) per month for Prime members and US$4.99 per month for new customers.

The FreeTime Unlimited subscription can be used on compatible devices including Fire tablets, Echo devices, iOS devices, and Android devices.

The subscription will include access to titles such as Toy Story: Smash It! and Fantastic Beasts and Where to Find Them from the likes of Disney, PBS and Nickelodeon as well as books, audio books, educational apps and games.

Amazon has doubled the amount of Spanish language programming on the service compared with a year ago, with over 2,000 titles available.

**Amazon Fire 7 Kids comes with a year of FreeTime Unlimited.**

Parents can choose to enable Spanish only content, English only content, or a combination of both, and can customise the settings for each individual child profile. FreeTime comes with parental tools including age filters, the ability to set educational content quotas, limitations on screen time by category and total screen time, bedtime shutdown and the ability to add or remove content and enable or disable the web browser.

The device comes with a 7-inch display, and 16 GB of in-built storage with up to 512 GB of expandable storage via a microSD card slot.

# Bouygues Telecom taps AirTies for WiFi

French service provider Bouygues Telecom has tapped technology outfit AirTies to provide its WiFi software and Mesh extenders to its broadband subscribers.

Bouygues Telecom will integrate AirTies Smart WiFi software with subscribers' existing Bbox gateways.

Bouygues Telecom will also offer AirTies' Air 4830 Mesh extenders, powered by Quantenna, to provide high-speed WiFi throughout subscribers' homes.

"At Bouygues Telecom, we're dedicated to providing our millions of customers with the best possible technology and services to enhance their digital lives. In-home WiFi is more essential than ever, and we're excited about bringing next-generation WiFi to our subscribers across France. After an extensive review, we

selected AirTies as our strategic supplier because of the proven performance of their end-to-end portfolio of Smart WiFi software and products," said Jean-Christophe Reversat, director of products and services development at Bouygues Telecom.

"Bouygues Telecom is widely-recognized for their innovative services today and their vision of tomorrow. The combination of AirTies' elegant extenders and Smart WiFi software will enable them to deliver an enhanced home WiFi experience for customers throughout France. We are extremely proud they chose to deploy AirTies across their existing and next-gen gateways," said Philippe Alcaras, CEO of AirTies.

Bouygues Telecom is separately bringing iFeelSmart's Centaurus Android TV Operator

Tier custom launcher to its BBox Android TV Operator Tier set-top box. Demonstrating the strong market trend around Android TV for pay TV operators, the partnership will see Bouygues customers get the updated user interface. iFeelSmart provides applications for operators, service providers and content distributors with more than 2.5 million customers.

### Telefónica showcases AR
Spanish telco Telefónica has teamed up with the city of Segovia. Natoural Digital Solutions and Samsung to showcase a virtual tourism experience based on 5G and augmented and mixed reality technology. The presentation in Segovia, part of the Ciudades Tecnológicas 5G project, taps into augmented and mixed reality to offer a virtual tourism experience that places the visitor in scenes of centuries past and real-life present scenarios, according to the telco.

### ShemarooMe on Apple TV
ShemarooMe, the OTT service from Indian Shemaroo Entertainment, has launched an Apple TV app. ShemarooMe offers an a la carte service. Introductory pricing for individual category plans cost INR49 (€0.63) per month or INF499 (€6.43) per year. The all-access plans cost INR129 (€1.66) a month or INR999 (€12.87) a year. The ShemarooMe OTT app is available from Google Play, iOS App store or online.

### SES video down
Satellite operator SES's video business continued to deteriorate in the first quarter, with analysts at Berenberg commenting that the long-term picture was worrying, despite the impact of a one-off loss in the quarter from the end of a wholesale leasing agreement with Echostar. SES posted revenues of €480.6 million, down 2.3% at constant currency. Video revenue was down 7.3%, while networks revenues were up 5.4%. SES posted Q1 EBITDA of €290.1 million, down 7%.

## Russia postpones digital switchover in 21 regions

The Russian government has postponed digital switchover in 21 regions of the country, according to local reports. The government has postponed switchover in the relevant regions until October.

All remaining Russian regions with analogue TV transmissions were originallly due to make the change on June 3.

Transport and communications ministry spokesman Alexey Volin informed Russia press that digital switchover had been pushed back because people needed more time to install equipment at their summer houses, adding that during the summer season many families were not at their main place of residence. He also said that the government wanted to avoid causing disruption to the tourist industry.

Additionally, said Volin, the bulk of funds allocated to help poorer Russians make the change had yet to be used to purchase equipment.

Volin said it would also be easier to handle problems if the switchover was phased. Under the original plan's description, all 57 remaining regions were analogue TV is still available would have been switched off at the same time.

Volin said that despite the delay, all regions would be required to complete preparatory work for switchover ahead of the original June deadline.

## Chile postpones analogue TV switch off

Chile has postponed the switch to digital TV to 2024, the country's government announced on May 15.

The announcement came as part of a revised plan for the implementation of digital television in the country over the next four years.

It is expected that this plan will see 80% of Chileans receive a digital television signal by 2022.

This update comes after Chile's national television association, the Asociación Nacional de Televisión de Chile (ANATEL) requested a postponement of the original cut off date from regulator Subsecretaría de Telecomunicaciones (SUBTEL).

## Mediapro acquires VR specialist Visyon

Catalonian producer and broadcaster Mediapro has acquired local VR specialist Visyon.

Visyon was founded in 2012 and has been working on immersive technology solutions including virtual, augmented and mixed reality. The company currently employs 70 full-time staff, mostly at the main Barcelona headquarters, and has offices in Madrid, London, Dubai, as well as a presence in Milan, Eindhoven, San Francisco and New York.

The company has worked on 400 projects since its creation across sports, entertainment, business solutions, retail, education and healthcare.

Mediapro and Visyon have been working together since 2014, developing content for major sports and entertainment clients, such as the production of the world's first live VR telecast



of a football competition, for the Arabian Gulf League.

The two companies are now working together on the development of new business models for the broadcasting of immersive sports and entertainment and the evolution of the eSports industry and exploring multiple formats and use cases tapping the potential of 5G connectivity, according to Mediapro.

Separately, pubcaster RTVE tapped the Barcelona-based company for the 360° and VR live broadcasting of the 2019 Goya Awards ceremony, and has filmed and post-produced several classical theatre plays for RTVE's VR app, such as *The Misanthrope* by Molière, *The Kitchen* by Arnold Wesker and *Cyrano de Bergerac* by Rostand, within the framework of the International Classical Theatre Festival of Almagro.

Other Visyon clients include Nike, The World Bank, Samsung, SEAT, Iberdrola, Google, Red Bull and Damm.

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# On the move

Nordic Entertainment Group (NENT Group) has appointed **Jonas Gustafsson** as senior vice president and CEO of Viasat Consumer, a new NENT Group operating unit. Viasat is one of the most recognised entertainment brands in the Nordic region and the new organisation comprises Viasat's satellite and broadband TV consumer offerings. Jonas Gustafsson's appointment is effective from June 1 and he will be part of the group executive management team reporting to NENT Group president and CEO **Anders Jensen.** Jonas Gustafsson joined NENT Group in 2015 and is currently acting CEO of NENT Group Sweden, a role in which he will continue until Filippa Wallestam, CEO of NENT Group Sweden, returns from parental leave in August 2019. Also at NENT Group, **Sahar Kupersmidt** has been appointed as senior vice president and head of people and culture. The newly created role of head of people and culture will be part of the Group's executive management team. It will encompass NENT Group's human resources departments and will be responsible for talent attraction and retention, as well as competence and leadership development.

Current ITN deputy head of compliance, **Rowena Cordrey**, is to join Viacom International Media Networks as vice-president, head of content, legal and compliance. In this role, Cordrey will oversee the legal and regulatory compliance of Viacom's content across Channel 5, MTV, Comedy Central and Nickelodeon; including broadcast, online and marketing output across the UK, Northern and Eastern Europe. Cordrey's remit will primarily be across Channel 5, working with programme makers and the editorial team to represent the channel from a content legal perspective. She will be responsible for recommending strategy, policy, process and best practice in relation to regulatory and legal programme compliance. Cordrey will report into **Marcus Lee**, VP for General Counsel, VIMN, UK, Northern & Eastern Europe.

Telecom Italia (TIM) has named **Giovanni Ronca** as chief financial officer reporting directly to CEO **Luigi Gubitosi**. After a transition period Ronca will become CFO as of June 17, replacing **Piergiorgio Peluso**. Peluso, as of that date, will report to Gubitosi, managing the Group's strategic projects and extraordinary operations. Ronca was co-head of UniCredit commercial bank network in Italy and member of the executive committee of the bank until March. From 2014 to 2016 he was based in New York as head of UniCredit activities for North and South America.

**Hugo Barra**, the vice president of Oculus VR at Facebook, is leaving his role to focus on building a "global AR/VR partner ecosystem" at the company. Barra, who joined Facebook from Chinese electronics company Xiaomi in January 2017, will be succeeded in the position by **Erick Tseng**, Facebook's current product management director. This reshuffle coincides with what Barra described on Twitter as the completion of Facebook's "first-gen VR lineup", with the latest product – the Quest all-in-one headset – launching May 21. Tseng has been with Facebook since 2010.

French technology outfit and service provider Netgem has appointed **Mathias Hautefort** as CEO, replacing **Joseph Haddad**, who remains chairman of the company. Hautefort will assume his new position on July 1 and will remain president of Vitis, the unit that holds Netgem's Videofutur service provider arm. Netgem is in the midst of transitioning to a service-led business and the move came as the company posted Q1 numbers that saw revenues slide by 40% year-on-year to €6.6 million. While consolidated net revenues were down by 32% to €3.6 million on a like for like basis, non-consolidated revenues from Videofutur, owned jointly with Caisse des Dépôts and Océinde, were up 42% to €3 million. More than 50% of the group's net revenues now come from services.

WarnerMedia Entertainment exec and industry veteran **Kevin Reilly** is to remain at the company for at least four more years in an expanded role, the company has announced. Reilly's role will expand to include all WarnerMedia Entertainment basic cable networks as president of TBS, TNT and truTV, in addition to chief content officer, WarnerMedia Direct-to-Consumer. As part of this reorganisation, truTV president **Chris Linn** has left the company.

All 4 head **Richard Davidson-Houston** is to leave Channel 4 after 12 years. Davidson-Houston oversaw the transformation from the largely catch-up focused 4oD into All 4 in 2015. During that time, All 4 saw a period of record growth in digital viewing and digital revenues. All 4 is now available on more than 20 platforms in the UK and has over 20 million registered users, including over two-thirds of all 16-34 year olds in the UK Davidson-Houston joined Channel 4 in 2007, being appointed head of Channel 4 Online in 2010. Prior to his time at Channel 4, Davidson-Houston worked as an internet business consultant and a founder before joining Microsoft in 2002.

**György Zsembery**, the CEO of Ukraine's leading cable operator Volia is to step down. Hungarian national Zsembery, who is to take up a new position outside of Ukraine, will continue to contribute to Volia in the role of vice-chairman of the board. He will be replaced as CEO by **Anton Dzyubenko**, who was previously the chief executive of advertising-supported video-on-demand service TV Play Baltics, part of Providence Equity-owned media group All Media Baltics, where he was responsible for operations and management of the group's activities across Estonia, Latvia and Lithuania. Prior to joining All Media Baltics in 2017, Dzyubenko was chief commercial officer and member of the board at Volia. ●

**Please email contributions to: jonathan.easton@informa.com**

# NEM

## A Market With a View

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*"The rise of Netflix has accelerated change not only in commissioning and budgets but also about when and where the resulting content is first and best distributed."*

# Game of streams

**As** the final season of *Game of Thrones* concluded, fans may have had mixed feelings about how the story line ended, but for HBO the dilemma is how to replace its blockbuster hit.

With the finale drawing a record 19.3 million viewers, what to replace it with is also important for any pay TV platform that distributes HBO programming, including Sky. *Game of Thrones* is one of the shows that makes customers renew their subscriptions.

The distribution chain of which Sky is a part is now in flux. The rise of Netflix has accelerated change not only in commissioning and budgets but also about when and where the resulting content is first and best distributed. The streaming battle has an impact on everything from the cost of content and talent to platform economics. As in *Game of Thrones'* Westeros, where various dynasties are all vying for the Iron Throne, in media Disney, Apple and AT&T, which owns HBO, are all looking to take on Netflix with rival services set to launch later this year.

Later this year HBO's SVOD service will be folded into a broader WarnerMedia streaming offer. WarnerMedia owner AT&T is betting big on streaming. The still-unnamed service will carry episodes of new shows from channel brands including HBO, TNT and CNN that could air on the streaming service first before they play out on linear free TV and pay TV platforms. AT&T CEO Randall Stephenson told investors that he considered pay TV platforms to be important "business partners" going forward even as he said the company is pushing "digital distribution on top of that as well".

As the launch nears, WarnerMedia's evolving relationship with traditional distribution platforms is work in progress. Pay TV companies face a dilemma – how do their own SVOD and catch-up TV services fit together with the new streaming services being launched by their traditional partners?

As Netflix and other streamers continue to poach pay TV subscribers from cable and satellite companies in the US – some three million paying subs were lost in 2018 alone, according to a recent report by Leichtman Research Group – the landscape is changing. This trend of pay TV attrition looks set to continue, at least for the big bundle channel offers, because they are no longer the favoured services of younger consumers particularly. As a result, pay TV platforms have signed deals with Netflix and Amazon Prime to distribute their services on their platforms because the operators were quite rightly concerned about the SVOD players hijacking their customers.

Last month Disney unveiled details of its own plans to spend billions to try to take on Netflix. The company has spent US$71.3 billion (€63.9 billion) to acquire most of 21st Century Fox including super brands *The Simpsons* and *X-Men* which will join Marvel, Pixar, LucasFilm and other studios and franchises in its portfolio. In mid-April Disney shares soared after the company unveiled the particulars of its direct to consumer "suite of streaming services" led by Disney+. Shares got another boost on Disney's announcement that it would take operational control of US OTT service Hulu. Taking control of Hulu means that the Mouse House can "completely integrate Hulu" into its direct-to-consumer business, Disney CEO Bob Iger said on announcing the deal. Adding Hulu's 28 million subscribers to Disney+ will

certainly help build scale against rivals like Netflix. Disney told investors in April that it expects Disney+ to attract 60 to 90 million subscribers by 2024. Hulu should reach as many as 60 million by that date and sports service ESPN+ could reach up to 12 million.

Part of the allure of Disney+ will be the Netflix-busting price of US$7 a month, but Netflix continues to ramp up its original content spend and its subscriber count. The streamer added 9.6 million subscribers in the first three months of this year alone, giving Netflix 149 million global subscribers.

Not all the services out there will survive but the betting is pretty good on the likes of Disney and WarnerMedia figuring it out. However, the streaming future is not all about SVOD. Advertising supported VOD is gathering pace, as shown by Viacom's US$340 million purchase of ad-supported streaming platform Pluto TV and its plans to ramp it up internationally.

The question of how traditional pay TV players find a space alongside the streaming plans of the big media players is still being worked out. Different solutions will be tried, including a greater emphasis on creating original productions. Vertical integration meanwhile seems to be back on the table for pay TV and broadband provider Altice, which recently paid US$200 million to acquire Cheddar, the ad-supported youth targeted news network which is on both pay TV and internet bundles. If you know the allegorical story *Who Moved my Cheese*, you'll know that those who don't try to adapt to the new reality risk becoming extinct. ●

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