



The 2017 forecast

UHD could be mainstream in 2017, but that's just the beginning, says **Ian Trow**, senior director of emerging technology and strategy at Harmonic

In 2016, video content and service providers continued to launch OTT multiscreen services, began dabbling in UHD, and embraced cloud technology in an effort to streamline video production and delivery as well as reduce costs. Many want to know, what's in store for 2017?

At the moment, we're seeing increased interest in targeted advertising. I anticipate that 2017 will be the year that targeted advertising overpowers the spot ad, as video content and service providers look to provide a more personalised video experience and boost their revenue potential. Harmonic's customers are transitioning from SDI baseband video compression headends to IP and software in an effort to increase flexibility and efficiency. It's all about catering to user preferences, similar to what consumers experience in the streaming world.

Transport stream splicing and viewer analytics are required capabilities in compression solutions moving forward. While targeted advertising used to be difficult for broadcasters and other service providers to implement, a connection between viewers and the transmission point now exists thanks to next-generation STB and cable infrastructure. Broadcasters, in particular, need to support this level of interactivity to sustain their advertising revenue and fight back against online and smartphone advertising.

On another note, UHD TV is gaining momentum around the world. Recently, Strategy Analytics reported that the Western European UHD TV market shipped more than five million sets in 2015.

What's impressive is that Germany and the UK became the first countries outside of the United States and China to ship more than one million 4K TVs in a single year.

THE YEAR OF UHD AND HDR?

With UHD going strong, many people in the industry think that 2017 will be the year of UHD HDR. HDR will undoubtedly enable viewers to enjoy the ultimate television experience. But I believe it's going to be limited to proof of concept, with a few operators delivering HDR to a limited set of screens.

Screen availability is an issue. The majority of UHD TV sets in homes are SDR. Until there is an agreed upon industry solution for delivering UHD HDR to legacy screen sets, many video content and service providers will be reluctant to adopt HDR. Moreover, an end-to-end production workflow is needed. At the latter end of 2017 and early 2018, the industry will be in a better situation to deploy UHD HDR to the masses.

“Expect to see more cross virtualisation between broadcast and enterprise infrastructure in 2017”

In 2016, software-defined networking and cloud technology became hot concepts for OTT and multiscreen delivery, and that trend will continue in 2017. We're seeing a rapid transition from CAPEX to OPEX service delivery models. Being able to manage the video production and delivery workflow for broadcast and OTT applications via standard IT hardware, over public or private cloud infrastructure, dramatically speeds up time to market for these services.

A few leading broadcasters are currently trialing OPEX-based service delivery models for OTT and catch-up TV. Those trials will grow in size in 2017, for broadcasters as well as aggregation channels. Sports channels, in particular, appreciate the opportunity to quickly package content and

make it widely available to consumers. Expect to see more cross virtualisation between broadcast and enterprise infrastructure in 2017. Major enterprises, like hotel chains and automakers, love the idea of using production server capability for professional video applications, such as training exercises. Thanks to the internet, the functionality of video has become ubiquitous and is a standard feature in an enterprise domain.

BANDWIDTH ISSUES

On the cable side of the business, bandwidth is still a big issue. Video accounts for a very high percentage of total internet consumption. A recent report from Cisco claimed that by 2019, online video will be responsible for four-fifths of global traffic. While cable operators have been working on adding capacity to their networks, as with a highway, the more capacity that's added, the more is used. Many cable operators are looking to transition to 1Gigabit connectivity, which they could achieve via software-based CCAP solutions that streamline the process and resolve space and power constraints in the headend and hub.

Finally, 2017 becomes the year when streaming video quality is important. According to a report on US video streaming from Verizon Digital Media Services, 86 per cent of viewers say it is very or extremely important to get a TV-like quality experience every time they watch, on every screen they use. Viewers in Europe also demand a high-quality video experience. Compression optimisation technologies are emerging to help reduce operators' network delivery and storage costs, increase their ability to reach more consumers over congested mobile networks, and enable a more consistent viewing experience with enhanced video quality and less buffering. ■