Delivering crystal clear HD broadcasts

HD broadcast is growing in popularity across India, in tandem with the rest of the world. Following the watershed moment in 2010 when the New Delhi Commonwealth Games were broadcast in high-definition across the world, an increasing number of live sporting events and more have been recorded and broadcast using high-definition next generation technology. Customer feedback has been very positive: a greatly enhanced experience leading to increased viewing time and offered improved advertising opportunities.

Analogue TV services are now being replaced across all regions. According to analyst firm Research and Markets, by the end of last year 68% of Indian households with a TV were receiving digital services. This is predicted to increase to 77.2% by the start of 2017 and reach 98% within five years[1]. Growth has been fueled by increased high definition output from major content providers across the country. However, the benefits have not been able to reach customers in all cases as some areas are still hampered by the limitations of legacy cable technology.

To address this, many cable services providers are looking to IPTV (TV broadcast over the Internet) to grow their viewing figures and commercial opportunities.

IPTV offers cable companies the ability to offer their content to a wider audience, in addition to providing greater numbers of local channels and a more interactive experience. To supply these services through the Internet, though, broadcasters need to overcome the issue of poor cable-to-home technology and bandwidth restrictions in some areas, which lower the quality and reliability experienced by end users.

Many suppliers are attempting to deliver IPTV through broadband technology designed to support lower bandwidth services such as email and basic web browsing. This infrastructure divides its available bandwidth to multiple locations, making delivery of data-hungry applications extremely challenging, especially in areas of dense usage.

A new generation of broadband technology known as Layer 2 Multicast (L2M), built specifically for the delivery of live and recorded HD video content with the power to simultaneously stream content to thousands of subscribers, is now available in India. The technology addresses exactly this issue.

Branching out for broadcast

L2M technology provides video feeds to end users using a ‘tree structure’ that replicates the same data stream and then delivers it without any transmission loss to multiple end points. It does this by ‘copying’ data from the source and simultaneously broadcasting it through many single transmissions to multiple end points.

This approach provides the same high quality as a one-to-one connection while making the best use of all available bandwidth for cable operators. Making it possible for cable companies to offer more local programming to a greater number of people without racking up huge bandwidth costs. Gone are the days when subscribers used to experience pixelised images and deteriorating quality every time a new household in the apartment complex signed up to that new cable provider!

Consumer appetite for live events is insatiable: at the same time, there is an explosion in very popular, local programming. A large television network reported in May 2016 that its cricket coverage was watched by 335 million people and viewed in half of the country's pay television households. With intense competition among cable companies, those providers who deliver high grade digital viewer experience cheaply, stand to grow significantly. With the technology now available to support more viewers, multi-cast infrastructure is set to be one of the main drivers for growth in the industry.

Footnotes

[1] Research and Markets, India Digital TV Forecasts, March 2016 (http://www.researchandmarkets.com/research/rcq2h4/india_digital_tv)