Delivering Broadcaster's need

MEASAT

Q: Where is the satellite industry heading to (future prospects)?

A: The satellite industry is growing, especially in Asia. This growth is robust and expected to continue, especially in DTH and HD distribution in emerging markets.

In Indonesia, DTH subscribers have increased from 1M in 2010 to approximately 4M in 2013. The Indonesian pay-TV industry recognises this growth, with 9 DTH operators currently versus 20 DTH operator licenses issued. Ku-band demand is projected to increase from about 100 transponders today to more than 150 transponders in 2017. MEASAT-3b was developed with the above requirements in mind and will provide high-powered Ku-band capacity for these exciting, vibrant markets.

Sub-saharan Africa also exhibits a high demand for DTH given similar market and economic conditions to Indonesia and India, such as: low household TV penetration rates; large and fast growing population; and generally positive trend of foreign investment and economic development. AFRICASAT-1a, with its powerful pan-African C-band coverage, provides broadcasters with the capacity to deliver their content to African pay-TV operators.

Q: What are some of the possible challenges that the satellite communications industry will face in the future?

A: Media and content consumption is evolving. Satellite operators and pay-TV operators need to innovate ways to advance the DTH product from the current, linear video delivery to on-demand delivery that is interactive or even mobile. This is to keep pace with cable, IPTV and OTT offerings.

Yau Chyong Lim

It is possible that broadcasters might also move away from satellite to fiber-based solutions. This has the potential to erode the satellite industry's video contribution business. MEASAT continues to work closely with our partners to identify the best ways to deliver content to pay-TV operators across Asia.

There is also competition for spectrum in C-band, Ku-band and Ka-band between terrestrial and satellite wireless technologies.

Q: What advancements are being made to reduce capacity for HD / UltraHD transmission?

A: Based on the current digital broadcasting standards, an UltraHD channel requires roughly four times the bandwidth of an HD channel, which in turn requires about three to five times the bandwidth of an SD channel.

Advancements in these standards will provide more capacity savings in HD and UltraHD in both satellite transmission and video compression areas.

For satellite transmission, the DVB-S2 digital broadcasting standard can realise a performance gain of around 30% over the previous DVB-S standard, using the same satellite transponder bandwidth and emitted signal power. Advances in this area continue to be made with the introduction of the DVB-S2X standard in March 2014. DVB-S2X offers efficiency gains of up to 50% compared to DVB-S2. MEASAT is actively working towards offering DVB-S2X compatibility for our customers.

These digital broadcasting standards work in tandem with video compression standards such as MPEG-2, MPEG-4 and more recently HEVC or High Efficiency Video Coding. HEVC was introduced as a standard in April 2013 and can double the data compression ratio of the MPEG-4 codec for the same level of video quality.

Notably, the increases in efficiency that these standards offer do not match the increase in capacity required by HD / UltraHD due to either the video quality or even more evidently the increase in new video content. This results in a net increase in the need for satellite capacity.

MEASAT is ready to support current and future digital broadcasting standards to enable our customers to realize capacity savings in their transmissions.

Q: What can you say about the current state of broadcasts' HD transition / digitisation plans?

A: HD is growing in Asia and is expected to continue as more channel operators and pay-TV platforms switch from SD to HD. Advancements in technology are slowly driving down some of the cost barriers to HD content, such as content creation, transmission and reception. Many broadcasters upgrading from SD to HD have also switched from DVB-S to DVB-S2 to reduce the bandwidth required for each channel.

For broadcasters and DTH operators, the main barrier here is capacity. As mentioned above, HD requires three to five times the bandwidth of SD channels and this requirement is not immediately solved by the increased efficiencies offered by the broadcasting standards. This evolution from SD to HD is one of the Asian satellite industry's key growth drivers, creating demand for more capacity across the region.

Given the projected increase in satellite capacity requirements, MEASAT is committed to building its satellite fleet to support the region's needs in both video and telecommunications. 91.5E is already a leading Asian video neighborhood for HD and DTH and MEASAT will continue investing in this key orbital location. *TVAplus*