

# DTH still dominates

Asia remains a huge driver of satellite connectivity because of the many advantages the latter offers. However, to be able to reach out to current and future viewers, satellite operators continue to require a robust infrastructure, as **Josephine Tan** discovers.

**T**he goal of every broadcaster is to maximise the audience for its content by reaching as many viewers as possible in the most cost-effective manner. With the kind of scale that is available in the highly populated Asia-Pacific region, direct-to-home (DTH) delivery continues to play an essential role in the broadcast ecosystem.

DTH is the dominant platform for Asia due to the advantages it offers pay-TV operators in the region, Yau Chyong Lim, COO of Measat Satellite Systems, tells *APB*.

These, he elaborates, include:

- Reliable video delivery over a large geographical area at a fixed distribution cost.
- The ability to reach mass audiences in Asian countries where terrain can be geographically challenging — for example, archipelagos such as the Philippines and Indonesia, or large land areas such as India and China.

■ The widespread availability of satellite infrastructure, as compared to terrestrial fibre, which can take years to roll out.

Yau foresees 4K/Ultra HD (UHD) being the “main technology trend” in this year that will impact the satellite and broadcast industries. He explains: “Satellite has traditionally been strong in multi-point video distribution, and this strength will assist the industry to distribute 4K/UHD content effectively, despite increases in bandwidth requirements. The progress made in the 4K/UHD space includes high dynamic range (HDR) standards being cemented, and vendors increasing production of 4K/UHD-related



PHOTO: MEASAT SATELLITE SYSTEMS

Measat Satellite Systems recently demonstrated the transmission of 4K/UHD HDR content via its *MEASAT-3* hotbird satellite, using the DVB-S2X broadcast standard at 18Mbps. Regardless of the video resolution, Measat believes that DTH remains the dominant delivery platform in Asia-Pacific.

equipment, leading to more 4K/UHD content in the near future.”

In March this year, Measat successfully showcased the transmission of 4K/UHD HDR content via its *MEASAT-3* hotbird satellite using DVB-S2X broadcast standard at 18Mbps. Alongside five other partners — Ateem, BBright, Binastat, Celebrities Management and Cisco — Measat demonstrated the playout of 4K/UHD HDR content over a 4K/UHD playout server. The content was also encoded and compressed using the high-efficiency video coding (HEVC)/H.265 compression standard, and decoded by a 4K/UHD HEVC/H.265 decoder that supports the hybrid-log gamma (HLG) standard.

Yau elaborates: “While 4K/UHD HDR provides higher quality video than HD, it also elevates the broadcaster’s content above the rest of the pack to give consumers the best possible viewing experience they can have at home. Thus, with infrastructure and pipelines already in place, satellite is a convenient and cost-effective video delivery mechanism that maximises its reach to pay-TV operators.”

Another company which has conducted 4K/UHD test trials over satellite capacity is SES. To accelerate 4K/UHD home delivery, SES recently collaborated with US-based telco Verizon to drive the development of 4K/UHD solutions for Verizon Fios subscribers throughout the US.

As part of the alliance, Verizon received and tested content from SES’ pre-packaged 4K/UHD platform, which combines a line-up of 4K/UHD channels and reception equipment in a service delivered over satellite capacity.

Commenting on the trials, Deepak Mathur, senior VP, commercial, Asia-Pacific and the Middle East, SES, says: “Our trials have shown that SES’ approach has been very effective in accelerating the take-up of 4K/UHD in the US. The market’s reaction to

our line-up of programming has been favourable, and in particular, our introduction of the first commercial 4K/UHD programming in HDR — Travelxp 4K — has created a lot of excitement among our trial participants.”

Besides Travelxp 4K, programming on the SES 4K/UHD line-up include Fashion One 4K, 4KUniverse, NASA TV UHD, Insight TV, UHD1, C4K360, Funbox 4K, Nature Relaxation 4K, as well as SES’ 4K/UHD demonstration channel. These channels are hosted on a trio of SES satellites — *SES-1*, *SES-3* and *AMC-18* — which cover the cable headends in the US.

Although the US is seeing “fast-growing” 4K/UHD TV adoption compared to Asia-Pacific, Mathur believes that 4K/UHD will be adopted widely in Asia in due time, given the strength of growing economics, as well as the young and technology-savvy population in the region. “Currently, a lot still has to happen in Asia-Pacific before 4K/UHD can roll out as a mass-market service. Most developing Asian countries are still growing their HD bouquet, and the digital switchover (DSO) in some countries is still incomplete. While we have not carried out 4K/UHD trials in Asia to date, we are not ruling out its possibility in the future,” he adds.

Despite the ongoing developments in the delivery of 4K/UHD content over satellite, HD remains the standard offering, even in developed markets such as Japan, Malaysia, Australia and South Korea. In developing markets such as Thailand, the Philippines and Indonesia, HD channels are also increasingly occupying a larger proportion of the channel line-up.

In China, China Central Television (CCTV) has signed an agreement with Intelsat for the distribution of five HD channels via IntelsatOne terrestrial fibre and teleport services. As a result of the agreement, CCTV will expand its use of the HD format for its new and

## Next Month @ Distribution

### Set-top Boxes for New TV Platforms

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To empower media operators to better serve their customers, SES has introduced its subsidiary company **MX1**, which offers digital video and media end-to-end solutions to enable operators to capture a spectrum of viewers with different entertainment and lifestyle needs.

# over Asia-Pacific

documentary style programming to viewers in the US. Three HD channels — CCTV-4, CGTN and CGTN Documentary — are available now on *Intelsat 34*, with two additional HD channels, CGTN-Français and CGTN Español, slated to be aired in the future.

Terry Bleakley, regional VP, Asia-Pacific Sales, Intelsat, explains: “Using a DTH platform, media organisations can generate higher revenue streams by customising content to regional audiences. Cable distribution is also cost-efficient, but infrastructure may vary greatly from region to region. Hence, DTH represents a more reliable distribution platform.”

In the midst of an evolving media landscape, the broadcast industry is also seeing the emergence of over-the-top (OTT) platforms, which has resulted in the shift towards non-linear viewing.

Bleakley highlights that non-linear TV represents “potential revenue streams” for programmers, and Intelsat customers are viewing this as a “complementary revenue stream” to linear distribution. “All of the multi-screen options create additional complexity to our media customers’ operations, yet at the same time, they would also like to find more efficiencies,” he adds.

This was one of the factors that drove Intelsat to develop the *IntelsatOne Prism* service, a multimedia networking platform and portfolio of managed services that allows broadcasters and service providers to upgrade a satellite-

based network to an automated hybrid satellite and terrestrial converged IP network.

Designed to optimise network efficiency, *IntelsatOne Prism* enables service providers to transmit content via a single platform, including live video, file transfer, voice-over-IP (VoIP), Internet access and data exchange.

Acknowledging the rise of OTT and non-linear services, SES’ Mathur stresses that pay-TV “continues to be popular among viewers and remains a dominant mode of content delivery in Asia-Pacific”. He explains: “Linear TV is achieving strong growth in fast-growing markets such as Indonesia, Vietnam and the Philippines, while in established TV markets such as India, local media content and hundreds of channels are readily available to consumers today.”

To enable broadcasters and service providers to capture a spectrum of viewers with different entertainment and lifestyle needs, he recommends that satellite operators offer integrated DTH and OTT services on hybrid platforms. For instance, SES has introduced its subsidiary, MX1, a move that has enabled the company to scale up its existing video capabilities while offering digital video and media end-to-end solutions to empower its customers to better serve their consumers.

With increasing consumption of video and content on the go, Mathur adds that satellite makes content viewing possible on the

move, in areas where there is lack of terrestrial connectivity, and even enables live video and the streaming of high-quality content on planes and ships today.

Although OTT is changing consumers’ viewing behaviour, and prompting some broadcasters to move certain content from satellite to OTT distribution, OTT and linear TV over satellite need not be a zero-sum game, Measat’s Yau stresses. Instead, it is possible for the two to co-exist and complement each other in the emerging economies of Asia, he suggests.

“In the longer term, we may see the convergence of linear and non-linear services through hybrid DTH-OTT set-top boxes (STBs). As for the more immediate future, we continue to see opportunities for DTH growth in Asia. For example, India — one of Measat’s key DTH markets — recently announced the need for more transponders. Additionally, Nepal and Pakistan have announced that they are looking to launch new DTH platforms,” Yau concludes.

Another development impacting the satellite industry is the deployment of high throughput satellites (HTS), which is capable of delivering higher throughput at a “lower cost per bit”, making it a compelling connectivity solution for broadcasters and service providers in Asia, SES’ Mathur points out.

While the majority of broadcasters still require traditional wide beams for a particular country or region, the diversity in Asia

“While non-linear TV represents another potential revenue stream for media operators, our customers view this as a complementary revenue stream to their linear distribution, which continues to be the primary source of revenue.”



— Terry Bleakley, Regional Vice-President, Asia-Pacific Sales, Intelsat

means content is being localised for different languages. These areas, Mathur adds, is where HTS spot beams can be useful in delivering local content for local consumption.

SES’ hybrid HTS satellite fleet currently comprises the *SES-12*, *SES-14*, *SES-15* and *SES-17* satellites. Out of these, *SES-12*, which is scheduled for launch later this year, will extend services to Asia-Pacific at the 95°East orbital location. Mathur describes: “With a combination of Ku-band wide beams and multi-spot Ku- and Ka-band beams, *SES-12*’s spot beam will be more competitive for regional broadcasters who are interested to broadcast local content to a province that is covered by a spot beam — as opposed to using traditional wide beam.”

“The increasing uptake of HTS, however, will largely be due to the demand for connectivity on the go. Consumers will come to expect constant connectivity, available anytime and anywhere, and will increasingly want to view content and video everywhere. The need to provide affordable connectivity solutions to fulfil consumers’ re-

quirements will fuel the adoption of HTS in the region.”

Similarly, Intelsat has also launched its second satellite under the *Intelsat Epic<sup>NG</sup>* platform — *Intelsat 33e* — that has already commenced service from the 60°East orbital location, extending Intelsat’s HTS services in C-, Ku- and Ka-band to Europe, the Middle East, Africa, Asia-Pacific, Mediterranean and Indian Ocean.

Equipped with a flexible HTS payload design, the *Intelsat 33e* will enable the delivery of broadband services to fixed and mobile network operators, as well as the distribution of regionalised content for media organisations, according to Intelsat’s Bleakley.

He further reveals that *Horizons 3e*, which is expected to launch in 2018, will complete the coverage of *Intelsat 33e* in Asia-Pacific. “The digital payload of *Intelsat Epic<sup>NG</sup>* satellites allows for connectivity between spectrum types, in any bandwidth increment, and from any beam to any beam, offering media customers total flexibility and the capability to use C-band and Ku-band depending on their needs,” he concludes. **APB**