

# Satellite's New Role in Delivering OTT



The rise and rise of streamed video has completely revolutionized how we watch TV and consume content, *writes Hans Massart, Head of Media and Broadcast, ST Engineering iDirect...*



the global video streaming market size was valued at US\$42.6 billion in 2019 and is projected to grow at a compound annual growth rate (CAGR) of 20.4% from 2020 to 2027. In some parts of the world OTT has overtaken traditional pay TV. It's a meteoric rise, but with demand burgeoning in every region, how do telcos and service providers ensure they can satisfy demand by reaching new subscribers and deliver a high quality of experience (QoE)? Furthermore, in addition to OTT as an entertainment tool, what other purposes can video streaming be used for?

In order to extend reach and assure a wrinkle-free service, providers will need to look beyond traditional

methods of connectivity. Ongoing innovation and technological advancement will be required to meet the growing expectations for exceptional video quality and performance.

There is no one-size-fits-all solution for OTT delivery, and it will involve an ecosystem of connectivity mediums to create a seamless experience. One of these delivery methods is satellite, and it has been overlooked for far too long in terms of OTT distribution.

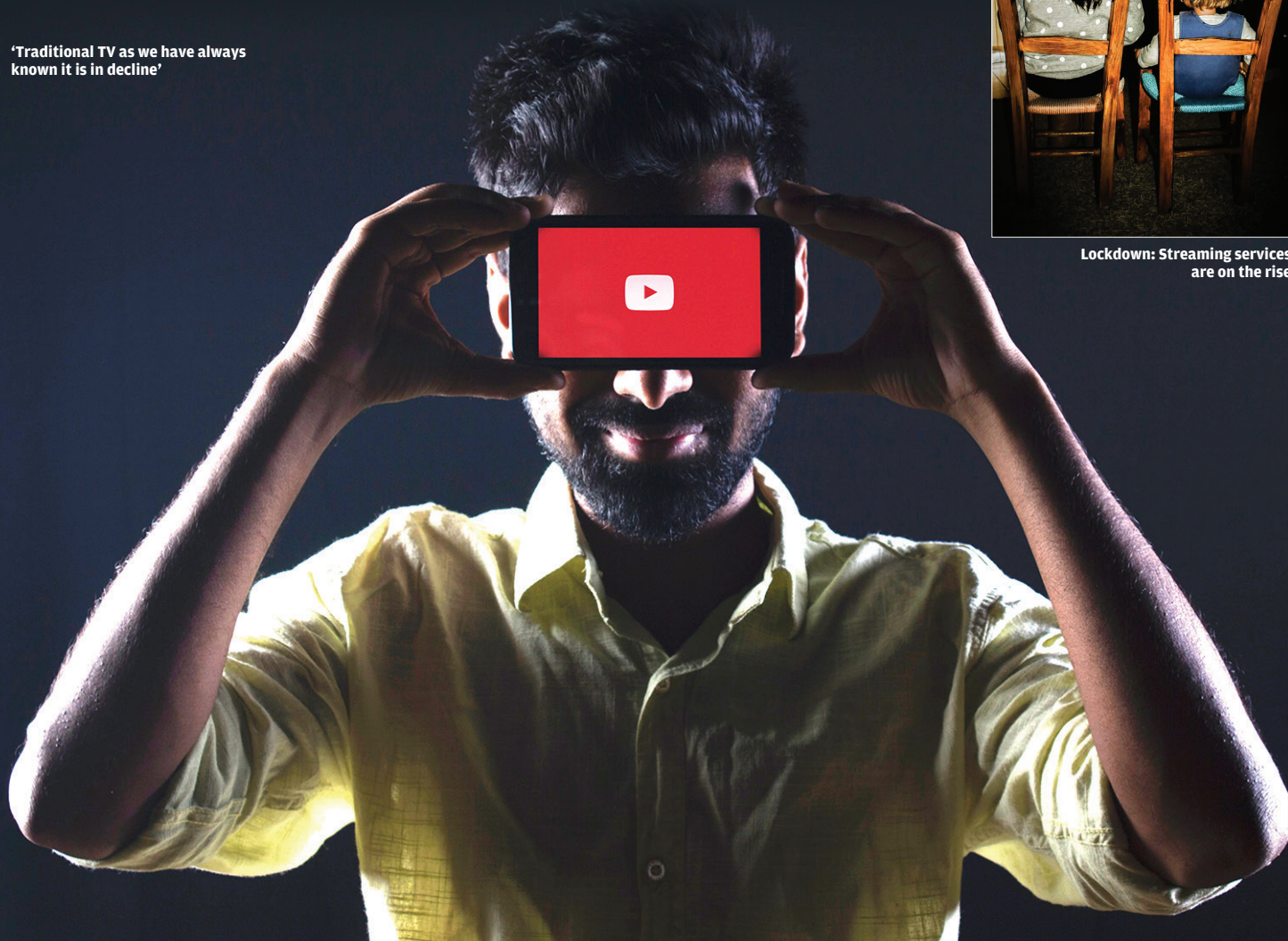
Satellite has always been associated with Direct-to-Home (DTH) TV delivery. This has been its traditional stomping ground - and satellite has been very successful in this area. However, times are changing and it's time to start to

think out of the box. Traditional TV as we have always known it is in decline, and therefore it's now time to look at the ways in which satellite technology can cost-effectively and reliably benefit providers of video streaming services. Satellite can also help DTH providers to migrate to deliver OTT services using specially adapted set-top boxes, enabling them to be agile and respond to market demand. ▶



Lockdown: Streaming services are on the rise

'Traditional TV as we have always known it is in decline'



## Satellite's New Role in Delivering OTT *cont'd...*

▶ In a survey conducted by Access Intelligence on behalf of ST Engineering iDirect in 2020, we posed the question to a group of telcos, mobile network operators (MNOs) and service providers: What are the primary ways that MNOs plan to leverage satellite as part of a converged network? Out of the responders, 34.5% said that they would use satellite to provide OTT video content distribution. The appetite to utilize satellite is very evident as it offers capabilities that no other form of connectivity can.

Providing the connectivity for streaming services, especially for live content such as sports and news coverage - which are both huge potential growth areas - to a wide audience doesn't come without its challenges. For instance, facilitating the required amount of bandwidth must be done efficiently and, equally, sound traffic management and minimalization is crucial to ensure unblemished streaming.

With so many factors to consider, it's no surprise that service providers are under increasing pressure when it comes to choosing the right connectivity technology for their networks.

So, what makes satellite so unique in the case of OTT delivery?

### No More Buffering

Satellite has the ability to reduce buffering by feeding the Content Delivery Network (CDN). As growing traffic presents a fundamental challenge to telcos and CDN streamers, bandwidth must be used efficiently, and traffic minimized while offering the best possible QoE to consumers. At peak times especially, terrestrial networks can experience severe congestion. We are all familiar with the frustration of buffering that interrupts our viewing and perhaps causes us to give up watching altogether.

Satellite may be used to significantly reduce distribution backbone traffic and ensure efficient use of bandwidth. By distributing content spatially relative to end users, the CDN achieves high performance, thus reducing buffering. This is especially significant for live events such as sports where downtime can't be tolerated.

Furthermore, as telcos work to expand their reach to more remote areas, satellite enables them to offer high-quality video streaming to

isolated communities that would not have previously had access due to its geographical reach.

### Unlimited Scaling

Satellite can scale rapidly and cost effectively. The beauty of satellite is its ability to reach anywhere on the planet. A satellite's footprint covers a vast geographical area and therefore allows service providers to deliver multicast content to many more subscribers in ever more remote locations.

For viewers in areas where there is no terrestrial access, this opens up a new world of entertainment and access to other important content such as governmental broadcasts and educational programming. This ability to reach anywhere also translates into mobile access for those who have no terrestrial connectivity or where connectivity is patchy and unreliable, such as passenger vehicles, trains and planes. Satellite's ability to reach a growing population of receivers in a cost-effective way makes it the perfect choice for OTT on the move.

However, scalability does not relate to simply geography alone. Satellite can address scalability in terms of receivers. A network of receivers can increase rapidly and dramatically, yet satellite will not struggle to reach each receiver due to its ability to multicast. When an operator decides to increase both its footprint into more isolated regions and augment receivers, satellite can support this new coverage with ease.

### Providing Critical Educational Links With OTT

Satellite enables broadcast distribution in OTT format. With schools around the world closed due to the COVID-19 pandemic, educational content must be distributed to children at home. The impact of the lockdown has had a detrimental impact on children around the world, but for those in emerging regions especially, the lack of access to education has hit them hard.

In order to combat this challenge and to provide education for all children, the academic sector has been using video to enhance at-home learning and schools are creating multimedia content to deliver information in the form of presentations. This makes the learning process much more effective and also gives children the incentive to

learn as they are being taught by their teacher, and not by a parent.

Many households, however, do not have access to an internet connection but they do have a TV set. Using a specially adapted set-top box, OTT content can be pushed to these households using satellite. The content may be viewed either on a TV or on a mobile device such as a tablet.

The ability of satellite to reach to even the most remote places on the planet, means that no child needs to forego their education and can even enjoy interactive classes through bi-directional satellite links.

### No Geographical Restraints For Mobility

Satellite can serve vehicles, trains, vessels and aircraft. In addition to distance learning, satellite can also be utilized to push video content to moving vehicles. Terrestrial networks are simply not available in the middle of the ocean or at high altitude, yet passengers and crew expectations of their video experience are the same as if they were at home.

Though COVID-19 has dealt a blow to the aero market, NSR predicts that planes will require ever more connectivity once air travel resumes to pre-pandemic levels which will see a market opportunity twice as large as 2019 with US\$5 billion in annual retail revenues by 2029. Though plans for IFC are largely delayed, they are not cancelled. The opportunity is still very much alive.

The cruise market, also hit hard by COVID-19, will be forced to change the way in which it operates but NSR sees sustained demand for connectivity

on a per-vessel basis. The question will be how many vessels will be active and what will the occupancy levels look like? Will there be more or fewer sailings? Whatever the outcome, NSR predicts that "demand for satellite services will continue to increase." When traffic does pick up, streamed content can be cost-effectively distributed via satellite and can provide entertainment as well as informational services to passengers and crew.

### Pushing Innovation In OTT

ST Engineering iDirect is constantly innovating and developing strong technological partnerships that enable us to spearhead satellite's place in the OTT ecosystem. With our heritage in video and IP and our leading position in the broadcast market, we continue to forge the path to the future of OTT, enabling providers to deliver content anywhere and for a multitude of use cases.

As we move into a more converged era with new and emerging technology and a need to take connectivity to people everywhere, satellite has a critical role to play in a wider OTT ecosystem.

### ST Engineering iDirect Webinar

ST Engineering iDirect will be holding a webinar on October 7 at 9.30AM ET to explore OTT.

The Bigger Picture of Video Streaming: Taking on the Future of OTT, 5G and CDNs will explore how the OTT ecosystem can work in harmony to ensure reliable, high-quality OTT delivery, anywhere in the world.

Register at: <https://bit.ly/351dch8> ■

