

JULY 2020

ASIA VIDEO PULSE

THE NEWSLETTER OF THE ASIA VIDEO INDUSTRY ASSOCIATION



Adapting and Succeeding under COVID

Welcome to the latest edition of Asia Video Pulse. 2020 continues to be a year of challenges for all of us and while the physical effects of Covid-19 may vary country to country and mercifully we have many in our region who have fared well, the economic impact continues to mount.

Against this rather grim backdrop, plenty of progress is being made. The fight against piracy may be a war, but there is no doubt that the battle in Indonesia has been going in our favour. We have measured a **68% decrease in piracy traffic** over the last 10 months, with a significant **increase in legitimate services** amidst an unprecedented campaign of rolling site blocking. Please read **Neil Gane's** piracy update inside.

We continue to see great interest and engagement in our newest committee, the **Premium Video Advertising Committee**. As meetings alternate between broader subject full committee meetings and working group meetings, progress is made on defining categories and agreeing on standards and best practices to help support the future of ad supported business models.

I am also very pleased we have held our first virtual event. The **OTT Virtual Summit** saw by far the highest number of delegates to this event, and we had excellent speakers across all the most germane topics regarding OTT and its development and most importantly very positive feedback on the event. We are grateful to our speakers, sponsors and delegates. We learnt a lot from our first virtual event but I believe both organisers and delegates need to continue to adapt to maximise the experience. Virtual will never be physical, but there are many positives about the virtual experience. As we look to our future events, I do encourage everyone not just to attend but really explore the online features we offer.

UPCOMING

THAILAND IN VIEW

AUG 18

FUTURE OF VIDEO INDIA

SEP 10

SATELLITE INDUSTRY FORUM

SEP 24 - 25

ASIA VIDEO SUMMIT

NOV 9-11

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Members' Article: Choosing the Right Spectrum for 5G

by Hai HU, Senior Communications Systems Engineer at AsiaSat

Higher data rates, ultra-low latency and support for thousands of devices in one location, these are some of the promises of 5G mobile that have caught tremendous media attention.

5G is being billed as a revolutionary force that will transform the way we live and work, which warrants taking C-band spectrum away from satellite-based applications to speed up service availability. But the real story is that **many things on the road to 5G remain uncertain.**

It is our view that **C-band is not the correct band to support the key performance indicators (KPIs) promised by 5G.** While it may be easy – may be even exciting, to dream of all the new 5G mobile use cases and wider uptake of Internet of Things (IoT) applications, mobile operators will need to spend more on 5G mobile infrastructure, with frequency spectrum being only just one of the many line items.

For nearly five decades, satellites have been used to complement landline infrastructure by connecting the world's underserved regions, and providing broadcast and emergency back-up services. **Hundreds of millions of TV households in the Asia-Pacific rely on satellite service for the delivery of multichannel TV.** As mobile operators take up portions of C-band spectrum to “kick-start” commercial 5G deployment in various Asian cities, they are cannibalizing satellite bandwidth that could have been deployed to provide service over a continent-wide footprint.

What is worse, the use of C-band for commercial 5G deployment amounts to only a temporary phase while scaling up for wider use. In our recent White Paper entitled **“Choosing the Right Spectrum for 5G,”** we have shown that 5G data rates achieved by C-band spectrum may not meet the KPI goals when the number of simultaneous users increases. In other words, **the reallocation of C-band spectrum may ease the transition to 5G, but with the expected increase in 5G users, it would provide only an incremental improvement over existing 4G mobile service.**

It will be a matter of time before mobile operators will need to use a much higher frequency, such as the **millimeter wave spectrum (mmWave)** to facilitate mass-market adoption. Not only is there much wider bandwidth available to meet data throughput requirements, but user experienced data rates would improve with reduced coverage range.



Application	Sensitivity to Latency	Mitigation Techniques	Likely Transmission Medium
Television	Low	Some	Fibre, Cellular, Wi-Fi, Satellite
SCADA, and other telematics applications	Low	Some	Fibre, Cellular, Wi-Fi, Satellite
Streaming services	Low	Many	Fibre, Cellular, Wi-Fi, Satellite
Over-the-Air (OTA) updates	Low	Some	Fibre, Cellular, Wi-Fi, Satellite
Internet browsing	Medium	Many, very effective	Fibre, Cellular, Wi-Fi, Satellite
Encrypted Internet Browsing	Medium	Few	Fibre, Cellular, Wi-Fi, Satellite
Voice & Videoconferencing	Medium	Few	Fibre, Cellular, Wi-Fi, Satellite
Cloud-computing & ERP	Medium - High	Some	Fibre, Cellular, Wi-Fi, Satellite
High-frequency trading	Extreme	Few	Fibre, Cellular, Wi-Fi, Satellite
V2V and V2X	Depends on application	Few	Fibre, Cellular, Wi-Fi, Satellite
Mobility connectivity (In-flight/maritime/Cars /train)	Depends on application	Many	Fibre, Cellular, Wi-Fi, Satellite
IoT	Depends on application	Very Few	Fibre, Cellular, Wi-Fi, Satellite

Figure 7 Latency sensitivity and the likely transmission medium of different applications [8]. Source: ESOA, Latency in Communications Networks, 2017

It typically takes a whole decade or even longer to complete the transition to the next generation of mobile technology, and 5G will be no different. It will take time to scale up to nationwide (or territory-wide) service, and mobile operators would want to recoup past investments. It will be quite some time before they can fully capture value from new 5G use cases. **Governments shouldn't rush to take away satellite C-band, when it is only a stopgap solution for 5G.**

For more information, please refer to Hai Hu's White Paper entitled **“Choosing the Right Spectrum for 5G”** available for download at <https://avia.org/download-centre/>