

Satellite Executive BRIEFING

Vol. 15 No. 9 November-December 2022



Industry Trends, News Analysis, Market Intelligence and Opportunities

An Industry in Transition

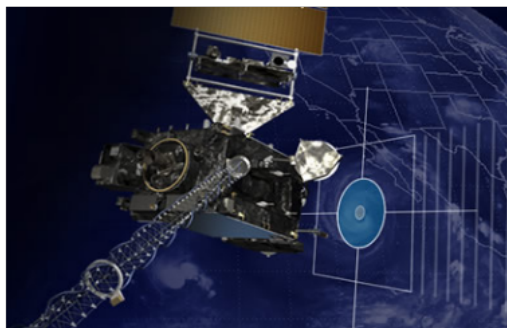
By Elisabeth Tweedie

This year marks the 25th anniversary of the World Satellite Business Week, and drew a record number of attendees. 1,200 to be precise. Had Euroconsult not closed registration the week before the conference started, due to capacity limitations, there may well have been even more. As it was, the 1,200 came from 50 different countries, proving once again, that although satellite may only represent a small part of the overall telecoms market, it is by no means a niche business.

Pacôme Revillon, CEO, Euroconsult, opened the conference as always, but handed over to Nathan de Ruiter, Managing Director, Euroconsult Can-

ada, to do the opening presentation, which gave a brief look back over the last 25 years and offered some projections for the next few years, if not 25 years.

In 1997 there were 53 satellites



in orbit, and only a handful of operators. Now we have 53 active operators of geostationary satellites (GEOs), and 2,500 satellites

in non-geostationary orbit (NGSO). Direct-to-home television wasn't launched until 1989, now there are 225 million households around the world watching DTH. As we are all well aware, streaming is taking over from cable and satellite, although DTH

Continued on page 4

What's Inside

From the Editor 3

Why Satellite has to Move to a Cloud-based Infrastructure...9
by Paul Isaac

Burnt Toast
by Lou Zacharilla.....12

Product Spotlight:
Jonsa Maritime Antennas.....15



TECHBrief: Virtual Ground Stations.....17

Event Parallels
by Martin Jarrold.....20

MarketBrief:
Space Insurance Market.....22

Advertisers Index 26



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Industry in transition**...from page 1**

remains a growth market in some parts of the world, Africa and Asia Pacific in particular. However, according to de Ruyter, to replace the revenue from one lost US DTH subscriber, an operator would need to sign up 20 DTH subscribers in India. Overall satellite service revenues from video are expected to decline; and by 2031, data, which today only represents 15% of revenues will account for 42% of the US\$124 billion total satcom revenues.

Looking to the near-term future, it seems both repetitive and trite to say that we are an industry in transition. I know I have written that several times in the past. But maybe more than ever it is true today. That's probably why we all love this business, it's constantly changing. The buzz right now is focused on multi-orbit and the associated partnerships and mergers.

Consolidation

Combining two of those topics was the recent announcement from Eutelsat and OneWeb about their plans to merge. Eva Berneke CEO, Eutelsat and Neil Masterson, CEO OneWeb were on stage together in Paris, discussing their plans, which included the second-generation constellation for OneWeb. Berneke pointed out that combining the LEO constellation with Eutelsat's GEO satellites may mean that OneWeb wouldn't need "as many new satellites in order to address peak capacity." Before the announcement, OneWeb's second generation constellation was expected to be larger than the current generation of 648 satellites. Berneke didn't seem

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concerned about the market's negative reaction to the announcement of the merger, saying that it was a big change for Eutelsat's investors, who understood the company and were used to regular dividends. Now they were faced with a new company that they don't really know much about, and the prospect of no dividends for the next three years, so "We need to educate the market." Masterson sees great synergies between the two companies, explaining that as an established player, Eutelsat brings experience, regulatory knowledge and an understanding of satellite markets.

OneWeb on the other hand brings "agility and pace." He was also very enthusiastic about the fact that the combined company would be the only one in the world with a hybrid GEO-LEO constellation. If, Lightspeed from Telesat goes ahead, (and there are unconfirmed rumors that it may not due to supply chain and financing issues), this will no longer be the case.

There was of course, much speculation about a potential merger between Intelsat and SES announced by the Financial Times a few weeks ago. However, whilst neither Steve Collar, CEO SES, nor David Wajsgas, CEO Intelsat would deny outright the rumors, neither would confirm them either.

The other big industry merger and acquisition, that of Inmarsat by Viasat,

earned the two companies the Excellence in Satellite Communications Award, for the strategic transaction of the year. That merger has just received UK regulatory approval.

Other recipients of Excellence in Satellite Communications Awards, were: Starlink, for the Global Satcom Business Award, for its rapid deployment of its constellation. Hispasat, for the Regional Space Business Award, and the Comisión Federal de Electricidad (CFE) Telecomunicaciones e Internet para Todos, for the Universal Connectivity Award. This is an initiative supported by Hughes, Stargroup, APCO Networks, Eutelsat, Axess Networks and Globalsat, to help bridge the digital divide by connecting over 7,200 WiFi and internet community access sites in Mexico.

Industry Forecasts

Euroconsult is forecasting that satellite capacity will grow to more than 97 terabytes per second in the next five years, with 94% of this growth coming from the non-geostationary constellations (NGSOs). Given this extraordinary figure, it is hardly surprising to find a growing interest in being able to offer multi-orbit services. How else will today's GEO operators remain relevant? Until recently, Starlink has been pursuing a one-stop shop direct to the consumer model. Now,



This year's World Satellite Business Week held in Paris, France attracted over 1,200 participants..

it is moving into the enterprise market and as Jonathan Hofeller, VP Starlink Commercial Sales, said “We are exploring the opportunity to work with partners around the globe. Between now and the end of the year, that is something that I am personally trying to drive.” One of the operators that in discussions with Starlink is KT SAT, which according to David Kyungmin Song, KT SAT’s CEO plans to diversify so as to be able to offer both LEO and MEO options to its broadband customers. Turksat and Arabsat also confirmed that they were in discussions with LEO operators, but did not specify which ones.

Innovations

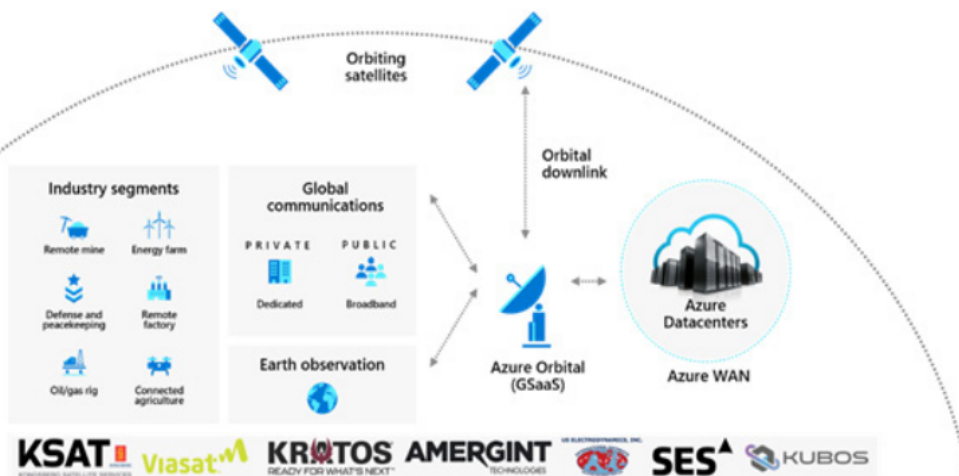
Being able to offer multi-orbit service, requires more than signing

an agreement with a NGSO operator. It requires major innovation in the ground segment, so as to provide operators the ability to switch seamlessly between orbits. In a session entitled: “New Digital Dawn for the Ground Segment Business” representatives from ST Engineering iDirect, Kratos, Spacebridge, CPI, Comtech and Hughes were unanimous in the need for flexibility, virtualization and standardization. The latter referring to adhering to telco standards, so as to be easily interoperable. One of the key drivers behind the aim of interoperability, is the hope that by incorporating LEOs into the service offering, satellite can finally overcome one of the main objections of terrestrial operators; namely that of latency, and be regarded as viable part of the telco offering, rather than the technol-

ogy of last resort.

At the end of last year ST Engineering iDirect announced it was entering into a strategic partnership with Microsoft Azure to drive the adoption of virtualization and cloud to enable the digital transformation of the ground segment. During World Satellite Business Week, Frederik Simoens, CTO ST Engineering iDirect and Steve Kitay, Senior Director Microsoft Azure Space in a discussion with CNBC shared more information about the partnership and the progress that has been made. Simoens explained that in the past the company had been forced to focus on things other than their core expertise, such as building hardware and appliances. By virtualizing the modem and moving it to the cloud, “it allows us to focus our expertise on making technology that


Azure Orbital Ground Station as a Service



makes communication over satellite as efficient as possible, as flexible as possible, and with as high-throughput as possible. This expertise is what really differentiates us, so this is a game changer.” Not only is it a game changer for ST Engineering iDirect, it is also a game changer for customers, particularly for new entrants into the market. With a hardware-based model, a large capital outlay was needed initially, regardless of whether the number of users and volume of traffic justified the investment. This cloudification of the modem technology, changes the customers’ investment from capex to opex, or a “pay-as-you-grow” model.

From Microsoft Azure’s side, Kitay explained that the organization is all about bringing cloud computing and space technologies together with a partner ecosystem. Currently, Azure Space has four ground stations, but will soon have 15. Partners include Viasat, KSat, Airbus, Kratos, SES, SpaceX, and Thales among others. Azure Orbital is essentially offering “Ground Station as a Service.” Kitay

sees Azure’s role is “to make space more accessible, the democratization of space.” He pointed out that this is very early days in the transformation. NGSO satellites make capacity available wherever it is needed, so it is beneficial to effectively have the ground station in the cloud, so you can access it, wherever it is needed.

The industry has made a lot of progress in the last 25 years. Doubtless much more will be made in the next 25, de Ruiter speculated about provision of communications for the lunar economy. Personally, I’m more intrigued by where we will be in the next year or two! 

Microsoft's Azure Space has partnered with companies such as Viasat, KSat, Airbus, Kratos, SES, SpaceX, and Thales among others, to provide "Ground Station as a Service."



Elisabeth Tweedie has over 20 years experience at the cutting edge of new communications entertainment technologies. She is the founder and President of Definitive Direction (www.definitivedirection.com), a consultancy that focuses on researching and evaluating the long-term potential for new ventures, initiating their development, and identifying and developing appropriate alliances. During her 10 years at Hughes Electronics, she worked on every acquisition and new business that the company considered during her time there. She can be reached at etweedie@definitivedirection.com