

# **A PATH TO FUTURE GROWTH AND PROFITABILITY**

Merging space into the terrestrial  
telecommunications ecosystem



Booming capacity is causing major disruption in the space commercial telecommunications industry, driven by new High Throughput Satellites (HTS), the reality of new Low Earth Orbit (LEO) constellations, and investments in fiber capacity by terrestrial providers. As a result, many satellite operators have to drop prices to maintain revenue but at the expense of EBIT and EBITDA margins.

Capacity increases will likely persist resulting in continued margin pressures. What should these companies do? Many are trying to move up the food chain into providing managed services; many are also trying to maintain pricing in the geographies where there are few or no other service providers.

We suggest an alternative path: consider purposefully integrating into the terrestrial telecommunications ecosystem.

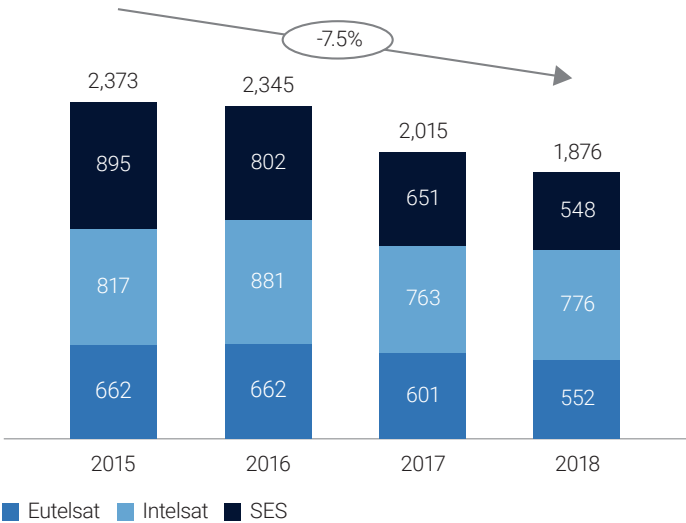
**THE SITUATION**

Satellite capacity continues to increase particularly through the introduction of HTS satellites. Indeed, space bandwidth capacity for Fixed Satellite Service (FSS) has grown from 1.4Tbps<sup>1</sup> to 3.7Tbps<sup>2</sup> in the last four years. On top of that, terrestrial capacity has also grown in the last four years. For example, global Internet bandwidth capacity has grown from 170Tbps to 393Tbps<sup>3</sup> in the last five years. As a result, geosynchronous equatorial orbit (GEO) bandwidth pricing has greatly dropped—some estimate by 35 to 60% over the last two years.<sup>4</sup>

Even with this drop, though, current satellite pricing is still much higher than typical terrestrial pricing.<sup>5</sup> As a result, while space commercial telecommunications operators have largely maintained their revenues over the last four years, their EBIT margins have in aggregate among SES, Intelsat, and Eutelsat dropped by 7.5%, compounded annually (see figure 1).

This trend is not likely to be reversed anytime soon especially with new LEO constellations getting closer to reality. OneWeb launched their first set of operational satellites in February,<sup>6</sup> SpaceX has two prototypes in space with more planned to follow in May,<sup>7</sup> Telesat has been operating a prototype LEO satellite for more than a year,<sup>8</sup> LeoSat plans to launch their first satellites in 2019,<sup>9</sup> and Amazon is planning their own LEO constellation Project Kuiper.<sup>10</sup>

**FIGURE 1: EBIT (M€) 2014 TO 2018**



Source: CapIQ

1. <http://pdf.secdatabase.com/2081/0001178913-18-001678.pdf>
2. <https://www.nsr.com/the-impact-of-capacity-pricing-on-ma-and-investment-decisions/>
3. <https://global-internet-map-2018.telegeography.com/>
4. <https://spacenews.com/satellite-capacity-prices-down-60-percent-in-some-cases-and-still-dropping/>
5. <http://pdf.secdatabase.com/2081/0001178913-18-001678.pdf>, AP Analysis
6. <https://www.oneweb.world/newsroom/oneweb-makes-history-as-first-launch-mission-is-a-success>
7. <https://www.nasaspaceflight.com/2019/03/falcon-heavy-starlink-headline-spacexs-manifest/>
8. <https://www.telesat.com/services/leo/phase-1>
9. <http://leosat.com/media/1117/leosat-marketing-pack.pdf>
10. <https://www.itu.int/ITU-R/space/asreceived/Publication/DisplayPublication/8716>

## THE CURRENT RESPONSE

Satellite operators have been responding in several ways. One way is to avoid becoming a commodity by moving into higher value-added services, such as providing managed network services. But this approach pits the operators against many of their traditional customers like satellite services providers Speedcast, Panasonic Avionics, Global Eagle Entertainment, and Gogo and, therefore, is having mixed results. Another approach is to maintain pricing in geographies where there are few or no other alternatives (that is, outside North America or Europe).

This certainly makes sense, but what to do in large markets like North America and Europe where much of the telecommunication volume occurs?

## A PATH FORWARD

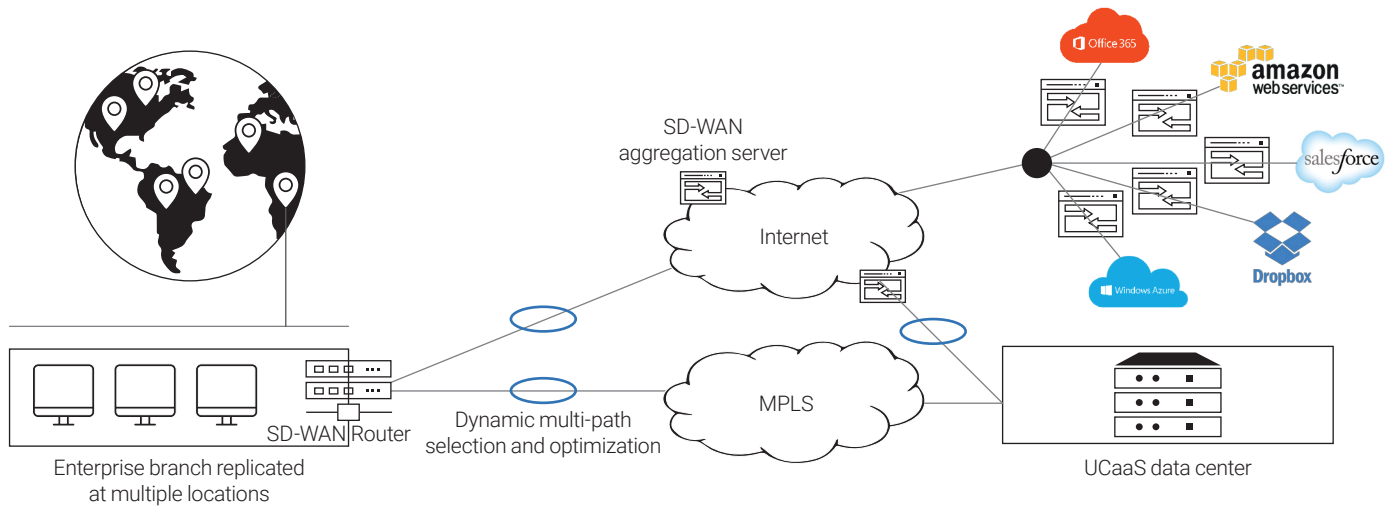
While the space commercial telecommunications industry is evolving, the terrestrial industry is also evolving. One important trend is the integration of different terrestrial technologies allowing the use of generic hardware to connect to different networks, such as, LTE, 4G, broadband, or MPLS.

This can be done through Software Defined Wide Area Networks (SD-WAN). In SD-WAN, the customer has generic, non-proprietary connectivity interfaces where the information can be routed through different networks. The network that is chosen (LTE vs. MPLS, for example) is often decided by the interface software depending on the amount and priority of the data and the price. In other words, SD-WAN provides one interface to multiple data pipelines.

Consequently, a path forward for space commercial telecommunications companies is to integrate into SD-WAN, by either becoming another pipeline or perhaps even providing SD-WAN managed services along with the data pipeline. Figure 2 illustrates this.

There are several advantages to this path along with a serious disadvantage. First, the serious disadvantage: becoming just another data pipeline—and a cost disadvantaged one at that—seems like a further step towards commoditization of satellite bandwidth. On the other hand, the growth of SD-WAN shows the commoditization of bandwidth that will and is happening in the North American market regardless.

**FIGURE 2: SD-WAN CONSTRUCT AND WAN TRANSPORT OPTIONS**



○ WAN transport options, MPLS, FG/LTE, Broadband, **Satellite**

Source: <https://thenewdialtone.com/wp-content/uploads/2016/11/SD-WAN-Architecture.jpg>

# AlixPartners

It is arguably better to be part of that ecosystem for several reasons. First, satellite telecommunication does have some advantages over terrestrial technologies. It is often still the best means to communicate to rural sites unconnected by fiber. Satellite also offers another means for backup service in case of congestion or terrestrial system faults or damage.

Second, being part of the terrestrial ecosystem may allow satellite operators to be better positioned to understand, add value, and integrate into potential growth markets, such as, 5G, autonomous vehicles, and the Internet of Things.

## HOW TO APPROACH

The terrestrial telecommunications industry has a fragmented, complex value chain comprising managed service providers, system integrators, equipment providers, and network providers with different players providing single or multiple roles.

Space companies that want to be an integrated part of this ecosystem should consider where they want to play, who they want as their customers and competitors, and what is their value proposition.

Obviously, the capabilities and cost of their current satellite networks and services will play a big role. Participating in this space may need changes to the architecture and design of future satellites and ground systems.

Mapping out the roadmap and business case of the investments, timing, and potential benefits and risks is essential before either deciding to pursue this path or deciding not to.

## CONTACT THE AUTHORS:

### **Eric Kronenberg**

Managing Director  
+1 646 746 2454  
ekronenberg@alixpartners.com

### **Lou Peluso**

Managing Director  
+1 212 845 4081  
lpeluso@alixpartners.com

### **Ernie Chung**

Director  
+1 214 647 7566  
echung@alixpartners.com

## ABOUT US

For nearly forty years, AlixPartners has helped businesses around the world respond quickly and decisively to their most critical challenges – circumstances as diverse as urgent performance improvement, accelerated transformation, complex restructuring and risk mitigation.

These are the moments when everything is on the line – a sudden shift in the market, an unexpected performance decline, a time-sensitive deal, a fork-in-the-road decision. But it's not what we do that makes a difference, it's how we do it.

Tackling situations when time is of the essence is part of our DNA – so we adopt an action-oriented approach at all times. We work in small, highly qualified teams with specific industry and functional expertise, and we operate at pace, moving quickly from analysis to implementation. We stand shoulder to shoulder with our clients until the job is done, and only measure our success in terms of the results we deliver.

Our approach enables us to help our clients confront and overcome truly future-defining challenges. We partner with you to make the right decisions and take the right actions. And we are right by your side. When it really matters.

The opinions expressed are those of the authors and do not necessarily reflect the views of AlixPartners, LLP, its affiliates, or any of its or their respective professionals or clients. This article A path to future growth and profitability ("Article") was prepared by AlixPartners, LLP ("AlixPartners") for general information and distribution on a strictly confidential and non-reliance basis. No one in possession of this Article may rely on any portion of this Article. This Article may be based, in whole or in part, on projections or forecasts of future events. A forecast, by its nature, is speculative and includes estimates and assumptions which may prove to be wrong. Actual results may, and frequently do, differ from those projected or forecast. The information in this Article reflects conditions and our views as of this date, all of which are subject to change. We undertake no obligation to update or provide any revisions to the Article. This Article is the property of AlixPartners, and neither the Article nor any of its contents may be copied, used, or distributed to any third party without the prior written consent of AlixPartners.