



Evolving the O3b constellation

O3b Networks was founded in 2007 to establish a constellation of communication satellites located in medium Earth orbit (MEO) to provide high throughput and low-latency connectivity to remote and underserved world regions. The first four satellites were launched in 2013, which were rapidly followed by eight more in 2014. Coverage extends across much of Africa, the Middle East, Asia-Pacific and the Americas. O3b was named 'Satellite Operator of the Year' at the Satellite 2016 conference in recognition of its innovation and industry contribution. Amy Saunders spoke with Imran Malik, Vice President (Middle East and Asia-Pacific) of O3b Networks, to find out how the company has developed since its launch, and how the O3b constellation will evolve in the future.

Question: O3b Networks was founded in 2007 by entrepreneur Greg Wyler. What can you tell us about its development since then, and the milestones reached along the way?

Imran Malik: Since O3b was founded, the company has grown exponentially, proving that low latency, high throughput satellites serve a strong and growing need in different regions around the world. O3b serves customers in every region of the world, the majority of which are mobile network operators (MNOs). The low latency O3b service enables these MNO's to launch 3G and 4G services. O3b also serves customers in the enterprise, mobility and government verticals. We've launched 12 satellites into orbit and have plans to launch eight more. This expansion is a huge accomplishment for O3b and comes as a direct result of the increase in contracted capacity around the globe. In fact, O3b is the fastest growing satellite network in history.

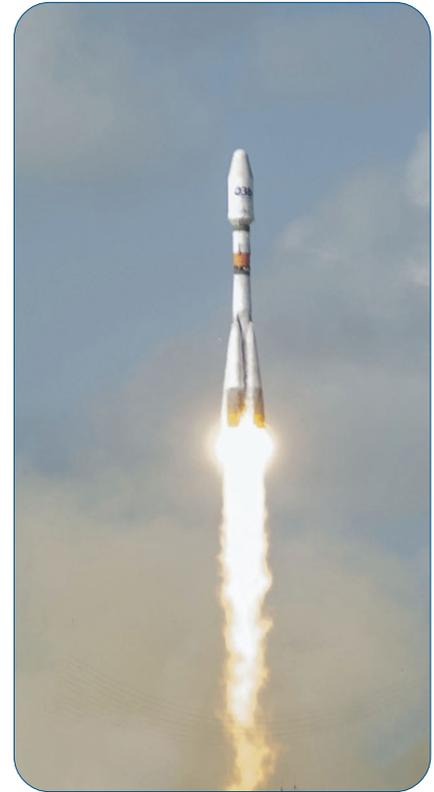
Question: What was the greatest challenge in establishing the satellite constellation?

Imran Malik: The greatest challenge, after getting the constellation in orbit and commissioning the nine global gateways, was getting customers to believe that we really could deliver 'fibre from the sky.' Most customers currently

using satellite services are not used to being able to transfer 100s of megabits per second with the performance characteristics of fibre. Once they see the remarkable difference they are able to deliver in web browsing, streaming full motion HD video and supporting cloud based services, they begin to imagine what more they can do with the service. They accelerate plans for 3G and LTE services and their customers consume more bandwidth. Before they have the O3b service, it is hard for them to imagine. After they have the service, most ask for an upgrade ahead of their business plans. The O3b service is a true enabler!

Question: Which markets, end-user applications and world regions is O3b Networks targeting, and where is there the most room for growth?

Imran Malik: O3b is focused on connecting un-fibered, remote areas of the world in markets, including the Asia-Pacific, Middle East, Africa and Latin America. We're not solely working with telcos to provide the people of these remote communities 3G and 4G services, but also with major industries to enable innovation that will stimulate economic growth. The energy, government and maritime sectors are already benefiting from O3b technology, but haven't come close to maxing out the potential. A great deal of opportunity still exists for cellular backhaul and



verticals such as offshore energy platforms, military and aviation for enhanced connectivity.

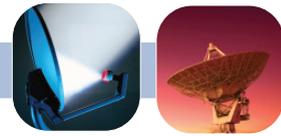
Question: Where does O3b Networks see itself in the market in comparison with its competitors?

Imran Malik: O3b is really leading the charge when it comes to growth and innovation. I think the recent SES acquisition is a significant testament to the value of O3b as a service provider. In fact, O3b is the only satellite operator that has now ventured into providing fully managed services to its customers.

Our technology is flexible enough that it allows us to deploy innovative hybrid solutions that build on and enhance existing technology, like sub-sea fibre. This agility and ability to customize affordable, effective solutions sets us apart in the market, and has proven to be extremely successful for our customers.

Question: How have demand and uptake developed since the launch of commercial services?

Imran Malik: We're seeing upgrades across the board from the majority of our customers, some by more than 300 percent! Typically, once end users realize the incredible impact that faster connectivity has on their lives, which doesn't take long, demand rises



Imran Malik, Vice President of the Middle East and Asia-Pacific



and the deal represents SES's desire to execute a long planned growth strategy.

The deal will have little impact on O3b's operations, but will provide important financial synergies that will benefit both companies.

Question: What trends and challenges does O3b Networks expect to see moving forwards, and how will the company meet those challenges?

Imran Malik: O3b welcomes all industry innovation. We were born from innovation, and it keeps the industry healthy. As far as new operators and new orbits are concerned, O3b chose its frequencies and orbital positions carefully. We feel that the orbit at 8,062km provides an optimum height for

coverage and fleet cost, and Ka-band is a very efficient and less crowded spectrum. We are very happy to compete with the assets we have: O3b provides true middle mile solutions. It is not meant for direct consumers, unlike the new LEO constellations being developed today.

Question: What's on the horizon for O3b Networks for 2017 and beyond?

Imran Malik: Certainly more rapid growth is on the horizon. We intend to continue to develop the type of services and support that our customers are demanding, and that likely means more managed services including a mix of satellite (both C-band and Ka-band) and fibre connectivity with better performance, better reliability and more value creation for our customers. ■

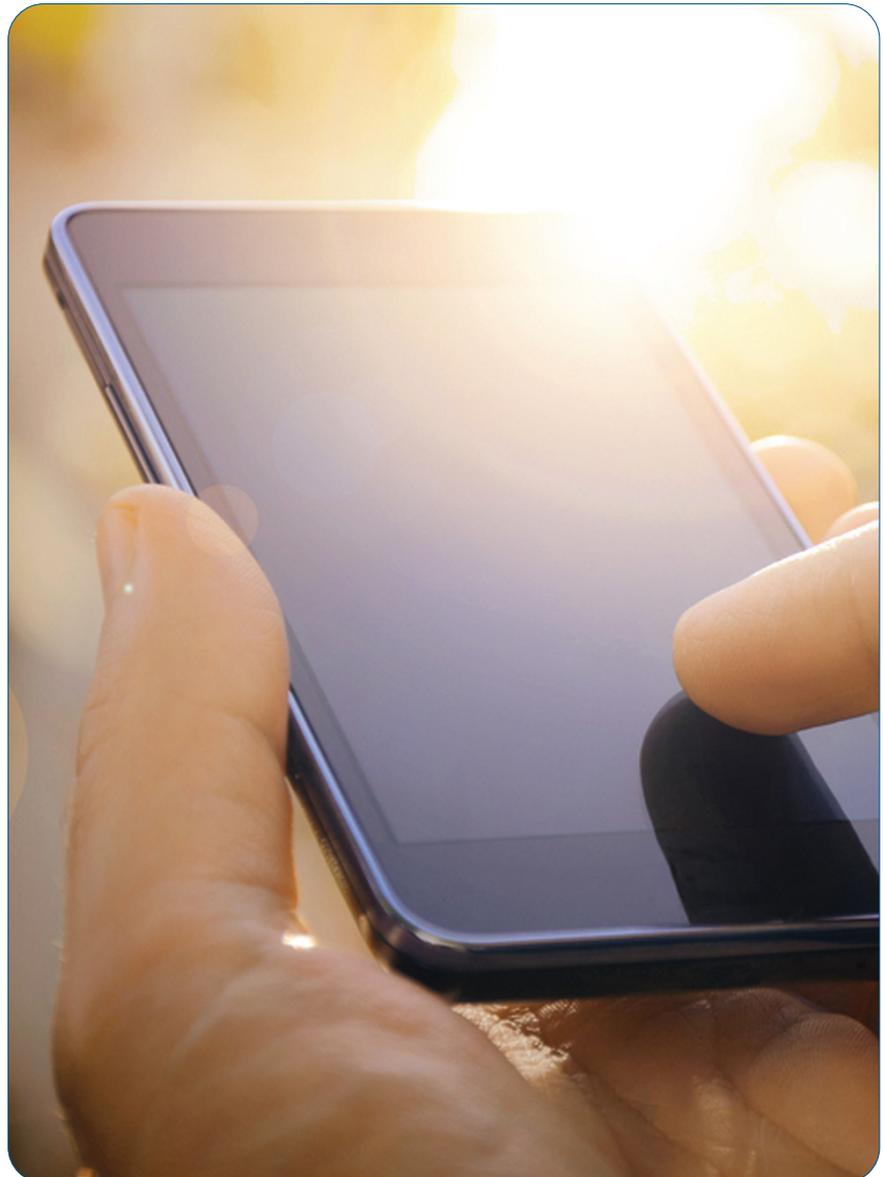
drastically and more capacity is required to keep up. Education, medicine, business, and social development have been tremendous for these regions, and have had a direct correlation to demand increase. When someone in the Solomon Islands can say they are experiencing similar connection speeds to those of any major city connected by fibre, it comes as no surprise that service providers are looking to expand their contracts and offer their customers more.

Question: O3b Networks recently ordered an additional eight satellites for its constellation – can you provide an overview of this project?

Imran Malik: O3b has a unique orbit. Additional satellites can be added without the restrictions of the traditional 'orbital slot.' These next eight satellites are intended to fill the demand that we see building. Just like the first 12, they are being built by Thales and will be launched by Arianespace, four at a time from Kourou, French Guiana. The first launch is scheduled in early 2018, and the second in 2019.

Question: SES recently completed its acquisition of O3b. How did this deal develop, and how will it affect O3b Networks' operations?

Imran Malik: Yes, SES completed the purchase of O3b on 1 August 2016. SES was an early investor in O3b, providing not only investment, but crucial guidance and in kind support. There has been a close and beneficial relationship between the two companies since the initial investment



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