Jakarta, Indonesia - where lots of Long Distance Links are being deployed. Photo courtesy of ViaLite

Reliability and ingenuity

ViaLite is a developer of RF over fibre satellite communication components to support ground stations, broadcast, and GPS link operation. After releasing a plethora of innovative new products including the System Designer Tool, the company has gone from strength to strength. ViaLite's Richard Jacklin, Director of Sales, reports on how customers have responded to their technology, and how they plan to continue their standard of reliability and ingenuity.

Laurence Russell, News & Social Editor, Satellite Evolution Group

Question: How has ViaLite performed in the APAC region recently?

Richard Jacklin: We have three major regions that we trade in globally: North America, Europe and Asia-Pacific (APAC). APAC is an interesting area, currently making up about 10 percent of our business, which is definitely exhibiting a connectivity demand that ViaLite is enjoying. To support that, we're deploying staff out into the region, which we hope will accommodate further growth.

We've been in the business for many, many years now but in some areas, such as Southeast Asia, some businesses are new to Ka-band diversity links. We have had many projects in the region now, particularly in Indonesia, for installing long-distance links. Other works include rain fade diversity for the Ka-band antennas and site-sharing. We have been very pleased with that.

One dynamic in these areas is that infrastructure often requires more modernisation than you might expect, especially when compared to, say, North America. In that respect, the fibre quality we work with is typically poorer so the transmission losses can be higher. We need to address that to get clients back up to an acceptable standard by designing a system that fits their requirements and accounts for their circumstances.

That has certainly been a challenge, but it's something we've been proactively responding to. We have a new High Sensitivity Receiver which has been designed to take a much lower optical input range - 20dBs lower in terms of sensitivity - and can handle the losses we may see in underserved environments.

On the transmit side of the link, we have the Hyper-wide Dynamic Range card which gives us a greater degree of range on the link. When you get to satellite, and especially high-throughput links, every dB you can add to the dynamic range makes a big difference.

Richard Jacklin, Director of Sales, ViaLite

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ODE-MINI. Photo courtesy of ViaLite

So, we've been accommodating for the growth we've seen in APAC, and we've been developing bespoke solutions to best accommodate the environment.

Question: With the NewSpace era of connectivity gathering speed, what are the most important objectives for developers like yourself?

Richard Jacklin: 2020 has been a pivotal year. We're seeing a lot of the LEO constellations finally starting to launch. We'll have to see how many survive, given the turbulence of the business environment for such high-risk ventures.

From our perspective as a ground segment equipment supplier, the RF over fibre technology we provide is a part of the ecosystem. What our clients need is scale, there are lots of gateways experiencing that kind of demand.

Another important concept is miniaturisation and flexibility. These gateways can be quite large arrays; anywhere from 5 to 25 antennas for a single gateway. We have been designing highly integrated, modular products appropriate for those dramatically varied locations. On the antenna side, it's important that they receive ergonomic outdoor enclosure equipment that provides all the right functionality. We've been showcasing our ODE-MINI enclosure as it's important for the LEO constellation market.

Question: Last year at Satellite 2019 you launched several new products – How has that been going f or ViaLite?

Richard Jacklin: We brought in several products then, one of them being the cloud-based ViaLite System Designer. The objective of that product was to take the knowledge of our RF over fibre engineers and bundle it into a comprehensive, accessible tool that could benefit our customer base.

The product itself is a drag and drop interface where you can arrange your components to quickly build the system that you need, even complex long-distance layouts. That allows users to understand what they need, and more importantly what they can expect from the setup they're looking for, perhaps encouraging them to recognise problems far in advance and account for them long before they can cause an issue.

It's been a very successful release. Some of our major customers have been making good use of it for their own projects. The tool has actually saved a few of our customers! One of our clients in Southeast Asia was looking to put multiple channels down in a single fibre core, so basically a CWDM system. They found that the dynamic range wasn't sufficient with their setup, so we were able to show them a different model, a DWDM system which predicted a sharp performance improvement. If they'd ended up purchasing the CWDM system, it could've been a real crisis, but our tool averted the catastrophe for them.

Some of our customers want us to extend the tool at both ends; further into equipment - all the way to the feed point, which has been a challenge for us but one we've taken on. We're investing in improving the tool further, to deliver the best interface possible. We think the ViaLite System Designer is a very effective tool, which the industry could make great use of, and it has the potential to change the way people supply for the ground segment.

Question: What new solutions can we expect ViaLite ingenuity to deliver in the near future?

Richard Jacklin: The trend in the satellite industry has been to go up the radio spectrum. Popular satellites now at least cover X-band and Ka-band, and satellites of the future will go up to Q/V-band.

Our job is to follow that trend. Last year we launched a C-band product for native transmissions for instance, so we're naturally following the market already, and will continue to do so in line with what can be expected of the future.

We're looking to launch some Ka-band products over the next 12 months, and we have a project with the European Space Agency (ESA) right now, working on these technologies in higher bands, which is all really exciting.

We're also going to be following wider bandwidths. With LEO constellations, it's all about better throughput for customers. Ka-band typically supports a 4GHz wide type of product, so we'll be working in consideration of that.

Transitions in radio spectrum and bandwidth are key drivers for us, and we've made sure we are very intimately acquainted with that, to allow us to best serve an increasingly innovative world. ■

ViaLite appoints dedicated Sales Manager for APAC Customers

ViaLite has appointed John Meyers as APAC Sales Manager. This new role sees the company's expansion with the addition of a dedicated Manager for the APAC region; supporting the business's growth in this area.

John brings over 30 years of experience in the Asia-Pacific market to the business and through his vast satcom experience, enhances ViaLite's 'experts in RF over fibre' offering.

John's experience within the industry has allowed him to develop closer working relationships with a number of satellite operators, cellular network operators and government entities. This experience and these relationships will prove an asset in his management and support of the expanding ViaLite APAC distributor network.

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