

Making waves in the connectivity market

With the launch of Cobham SATCOM's SAILOR XTR antenna platform, the company has been enjoying some strong early feedback. Jens Ewerling, VSAT Product Manager, outlines why the product has been making waves and how the pandemic has altered demand in maritime connectivity as it continues to become more heavily digitised.

Laurence Russell, Assistant Editor, Satellite Evolution Group

Question: Cobham has conducted and observed research on the 'new high standard for the future of maritime satcom.' What were your findings?

Jens Ewerling: We prioritize a strong research focus on the evolution of maritime satellite communications demand. We've found that when ships leave coastal regions, they leave terrestrial range within just an hour. So, the satellite takes over almost immediately and is the pivotal fulcrum of a ship's connection to the world, its networks, and the vessels around it. We're quite aware of our responsibility to provide the kind of reliability and flexibility that our partners can trust.

Question: As we begin to grasp the post-pandemic world, what are the modern connectivity demands of the maritime sector?

Jens Ewerling: There have been times during the pandemic when there were up to 200,000 seafarers stranded on their respective ships, meaning there were no ports that were available to admit them, and they were unable to bring new crew aboard. Some of those labourers had been aboard the same ship for a year and a half and were legally unable to leave.

Usually, the standard in modern shipping allows for crew exchanges every three to four months, which are broken up by breaks between six weeks and two months long to spend with their families. If those ships had lost connection, they would have been



Jens Ewerling, VSAT Product Manager, Cobham SATCOM

completely cut off from their loved ones for an incredibly long time.

Naturally, the pandemic accelerated the uptake and upscaling of communications technology in order to assure that kind of reliability. Before these unprecedented times, there was a reluctance in the industry to accept digitalization, however there is now more recognition of its potential to increase operational efficiencies and deliver ROI, which has led to owners and operators actually installing more advanced systems to stay ahead of demand.

Question: The SAILOR XTR antenna platform is the first of a new generation of software-controlled antenna systems designed for quick deployment, operational reliability, simplicity, and best-in-class radio frequency (RF) performance. Could you expand on its capabilities?

Jens Ewerling: The XTR system was designed to cater to the emergent capabilities that satellite constellations can provide to the maritime market. Our focus on accessibility and reliability are encompassed by what we've been calling 'rapid deployment technology.'

It wasn't that long ago that maritime VSAT was so complicated that it necessitated two or three specialised engineers equipped with dedicated technology to establish and maintain connections. All that work has now been replaced with the functions of software that come packaged with the VSATs. That's changed the nature of the

SAILOR XTR antenna. Photo courtesy of Cobham





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marketplace, which we're keen to expand upon with the simplicity of the XTR antenna.

Question: What are the potential efficiencies of maritime digitization and IoT adoption?

Jens Ewerling: With the antenna being such a pivotal gateway between ship and shore, we need to make sure every safeguard is in place so to ensure its reliability. That means real-time monitoring with cloud technology. That's vital to ensuring results.

On a wider scale, there's simply a massive demand for ship digitization. Most ships in operation aren't digitised and remain analogue. There's an extensive potential there for updating vessels for IoT support and the yields such innovations would bring.

For example, courier companies like FedEx know the whereabouts and service status of all of their trucks and can reliably determine the service cycles of important aggregates like engines. That kind of awareness is a far cry from the shipping industry, which remains nowhere near that level of control.

We've seen how the transport

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industry has benefitted from the assurance of real-time tracking and system health monitoring on land already. Those efficiencies are yet to be realised at sea, but there's a lot to gain from it.

Question: What are the benefits of a software-controlled antenna?

Jens Ewerling: The unique antenna platform of SAILOR XTR is driven by software and therefore can handle important management and set-up tasks from the safety of the ship's superstructure, which would otherwise require mechanical intervention leaving operators exposed to the elements. No one needs to measure and apply cable attenuation or position the antenna mechanically. The SAILOR XTR finds its own centrelines via satellites and checks antenna cables itself.

This system has been streamlined

to the point that it's as user friendly as the average smartphone application.

Question: Many actors are concerned about the increasing threat of cyberattacks on their operations. How does Cobham SATCOM technology and SAILOR XTR answer their worries?

Jens Ewerling: In a proper installation, maritime antennas and user terminals in general are not directly connected to the Internet. However, should such direct connection be made either on-board directly or over a satellite Internet connection we also employ an encryption key chip in our antenna which collaborates with our software, making it impossible for hackers to read the private keys associated with them after set-up.

Question: How has SAILOR XTR fared on the maritime market? What feedback have you received from customers and partners on the product?

Jens Ewerling: We've seen some fantastic feedback so far, though at the time I'm answering we are still in the product launch phase, having begun shipping a month prior.

After a two-and-a-half-year development process and a June 2021 launch, we've only just begun to hear the extent of our partners' thoughts on the product, but what we have heard has been very positive.

Many of Cobham SATCOM's goals are associated with the production and launch of the XTR antenna platform. We've been working with many of the up-and-coming satellite constellation companies in the interest of understanding their requirements on the ground and we're quite pleased to find that what we designed our antenna to do, has been exactly in line with what the satellite companies and service providers have been expecting.

We're well-positioned for the LEO/MEO revolution to come, and to continue serving the march of global digitisation in order to serve the maritime market as effectively as possible. ■

SAILOR 1000 XTR Ku. Photo courtesy Cobham



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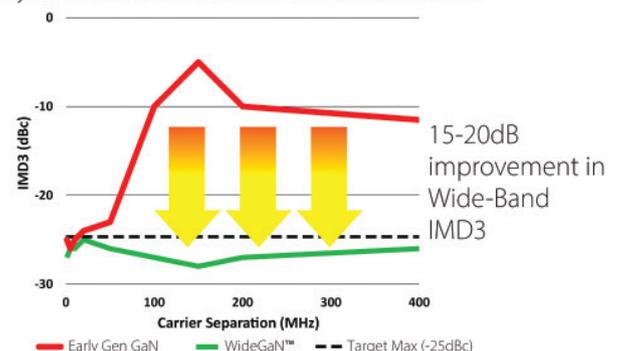
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