

ASN achieves highest spectral efficiency on the Amitié transatlantic cable with a commercial transponder.

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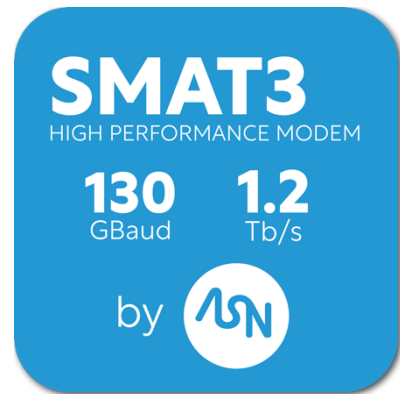
Alcatel Submarine Networks (ASN) has successfully completed the field trial on the Amitié transatlantic cable, utilizing SMAT3 coherent technology. This trial exceeded previous industry benchmarks in terms of spectral efficiency, achieving a remarkable 7.52 bit/s/Hz and a spectral efficiency of 6.17 bit/s/Hz if we take into account only the usable ethernet payload, with an 800G line rate single carrier over live traffic using 400GE clients. It addresses the fiber pair with the most comprehensive WSS functionality, providing a capacity of 24 Tb/s per fiber pair using 400GE/800GE clients with operational margin.

ASN's latest commercial transponder technology, SMAT3, was used with water-filling adjustment, achieving an operating speed of 130 Gbaud and facilitating next-generation coherent transport with capacities of up to 1.2 Tb/s per wavelength.

The rise of AI services is driving the need for enhanced subsea network capacity. This trial showcased recent advancements in coherent transmission systems that enable improved performance.

The real-time field trial was conducted on Amitié, a system delivered by ASN in 2023 utilizing SDM1 technology, over a distance of 6,234 kilometers between Lynn, US, and Bordeaux, France, establishing a new benchmark in terms of spectral efficiency. The spectrum used for the trial was provided by Vodafone.

"ASN was thrilled to collaborate with Vodafone on the Amitié cable field trial, demonstrating ASN's commitment to meet the rising demands for high-capacity data transmission. With the high-performance SMAT3 transponder, we not only achieved significant transmission capabilities but also focused on reducing power consumption to promote sustainability", according to Olivier Courtois, Director of Product Strategy and Marketing at ASN.



About Alcatel Submarine Networks (ASN)

With over 160 years of history and 80% ownership by the French State Investment Agency (APE), Alcatel Submarine Networks (ASN) is a major player in the submarine cable industry, with more than 850,000 km of submerged optical systems deployed worldwide - equivalent to 21 times the Earth's circumference. With its 3 factories located in Europe and an exclusive fleet of 7 cable-laying vessels spread across the globe, ASN develops, designs, deploys, and maintains turnkey submarine transmission systems for telecommunications operators, content & service providers (OTT), as well as offshore oil and gas applications. With a complete portfolio of services and a unique expertise, ASN meets specific and growing demands of its clients to deliver ever-increasing connectivity across the seas and oceans.

ASN is actively continuing its investment in the development of Submarine Line Terminal Equipment (SLTE). This focus on innovation and advancement in SLTE technology highlights ASN's commitment to maintaining its position at the forefront of the subsea communications industry. By doing so, ASN ensures that its systems are equipped with the latest technological advancements, offering enhanced performance, reliability, and efficiency.

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