

PRESS RELEASE

Alcatel Submarine Networks and Facebook first to introduce aluminium conductor in optical fiber cable for more cost-effective submarine systems

New cable variant using aluminium conductor offers an alternative to copper conductor cables, with same level of quality and reliability

PTC 2019, Honolulu, US, and Paris, France, 20 January 2019 – Alcatel Submarine Networks (ASN) announced today the commercial availability of aluminium conductor cable for optical fiber submarine systems, after an extensive testing and qualification program to demonstrate its suitability for ultra-long haul deep sea transmission systems. This included mechanical, electrical, optical and environmental tests performed on deep sea and armoured cables, also validated during a sea trial.

This new cable variant has already been selected for a major long-distance project and is part of the “SDM₁ by ASN” solution, designed to optimise the cost per bit.

Najam Ahmad, Vice President, Network Engineering at Facebook, said: “Our efforts are focused on expanding connectivity and increasing the adoption of innovative technologies, without compromising reliability. The use of aluminum cable in submarine systems represents an attractive evolution as technology advances and demand increases for more data throughput and higher speeds.”

The use of aluminium conductor answers the need of operators and content providers to better support the growth of demand and to reduce submarine cable costs, by introducing an alternative to copper conductor, which is one of the most expensive raw materials currently used in repeatered submarine systems.

In addition, the aluminium conductor provides several benefits and advantages compared to copper, including:

- A better cost-effectiveness, while maintaining a performance equal to copper.
- A more stable supply market, which benefited over the past fifteen years from technology improvements, mainly driven by the oil & gas industry. This has led to the development of new industrial techniques and equipment now available for aluminium processing and welding on long distances.
- A potential for higher speed of production to speed-up the delivery of new systems.
- An enabler to achieve solutions for low direct current resistance (DCR) with higher number of fiber pairs.

Philippe Piron, President and CEO of Alcatel Submarine Networks said: “The introduction of a new cable variant using aluminium conductor addresses the market demand for more cable capacity at a reasonable cost, while keeping the same level of quality and reliability. After the introduction of loose tube technology in submarine cables 25 years ago, ASN is again the first to bring an innovative improvement to submarine cable design, and continues to show its leadership by anticipating customer demands.”

ABOUT ALCATEL SUBMARINE NETWORKS

Alcatel Submarine Networks, part of Nokia, leads the industry in terms of transmission capacity and installed base with more than 600,000 km of optical submarine systems deployed worldwide, enough to circumnavigate the globe 15 times. From traditional Telecom applications to Content and “Over The Top” Service Provider infrastructures, as well as to offshore Oil and Gas applications, ASN provides all elements of a turnkey global undersea transmission



systems, tailored to individual customer's needs. An extensive Service portfolio completes its comprehensive offering for the submarine business, including project management, installation and commissioning, along with marine and maintenance operations performed by ASN's fully owned fleet of cable ships.

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