

Article Overview

The North Asia Optical Cable System refers to a network of high-capacity submarine fiber-optic cables connecting North Asia with other global regions, enhancing digital connectivity, low-latency communication, and data traffic resilience.

Overview

The North Asia Optical Cable System encompasses multiple submarine cable projects linking countries such as Japan, South Korea, Taiwan, and China to Europe, North America, and Southeast Asia. These systems are critical for supporting cloud services, AI applications, financial markets, and global internet traffic.

Key Systems

- o E2A (East Asia to North America): A 12,500 km transpacific cable connecting Taiwan, South Korea, Japan, and California, USA. It features 12 fiber pairs with a total capacity exceeding 192 Tbps, providing robust connectivity for AI, data centers, and cloud services. The system is scheduled for service in the second half of 2028 and is built by Alcatel Submarine Networks (ASN) with consortium members including Chunghwa Telecom, SK Broadband, SoftBank, and Verizon Business Global LLC .
- o Far North Fiber (FNF): A 14,000 km trans-Arctic cable linking Japan to Europe via the Northwest Passage. It offers 24 fiber pairs with 15 Tbps per pair, designed to reduce latency by over 50 ms compared to traditional routes and avoid geopolitical chokepoints like the South China Sea. FNF integrates SMART cable technology for oceanographic and seismic monitoring and is expected to be ready for service in 2029 .
- o Fibre-optic Link Around the Globe (FLAG): A 28,000 km mostly-submarine cable connecting the UK, Japan, India, and other regions. FLAG was first commercially operational in 1997, using synchronous digital hierarchy technology and erbium-doped fiber amplifiers, providing over 120,000 voice channels and linking European and Asian high-density crossings .
- o Regional Systems: Other North Asia-focused cables include Candle, connecting Japan, Taiwan, the Philippines, Indonesia, Malaysia, and Singapore with 24 fiber pairs, and AUG East, linking Singapore and Japan with multiple landing points in Southeast Asia and South Korea, designed for ultra-high bandwidth and millions of simultaneous HD video streams .

Importance and Features

- o High Capacity: Modern North Asia cables support tens to hundreds of terabits per second, accommodating exponential growth in global data traffic.
- o Low Latency: Systems like Far North Fiber provide reduced round-trip delays, critical for financial markets and AI-driven applications.
- o Geopolitical Resilience: New routes avoid congested or politically sensitive areas, enhancing security and



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reliability.

- o Technological Integration: Many cables incorporate SMART sensing for environmental monitoring alongside commercial data transmission.
- o Global Connectivity: These cables form the backbone of international internet infrastructure, linking Asia to Europe, North America, and Southeast Asia. The North Asia Optical Cable System represents a strategic and technological network essential for modern digital economies, ensuring high-speed, resilient, and secure global communications.

The FALCON cable system was originally a private cable owned by FLAG Telecom. FLAG Europe Asia (FEA), FLAG North Asia

The FLAG North Asia Loop has 24 fiber pairs, providing significant bandwidth for East Asian telecommunications needs. The

TeleGeography's comprehensive and regularly updated interactive map of the world's major submarine cable systems

The MIST is an 8,100 km submarine cable system connecting Singapore, Malaysia, Myanmar, Thailand and India (Mumbai and

Crossing the Pacific Ocean, the E2A submarine cable system will link major digital hubs in Asia and North America,

Submarine optical cables from China can directly connect to North America, coastal Asia, Europe, and Africa, and China has

Cinia and Far North Digital announced a joint effort to build a fiber optic cable system linking Europe and Asia through

CHT, SKB, Softban and Verizon to build a new East Asia To North America (E2A) submarine cable system linking

"The activation of our new undersea fiber-optic cable system between Hong Kong and Japan underscores Level 3's

The E2A consortium is pleased to announce the start of construction for the new submarine

EAC-C2C is a submarine telecommunications cable system interconnecting several countries in Asia, the Pacific, and the United

This chapter gives a comprehensive analysis of the construction, layout, and characteristics of the international submarine optical

Reach North Asia Loop (RNAL) is a multi- terabit intra-Asia self-healing submarine telecommunications cable system, connecting the

The E2A cable system aims to significantly enhance digital connectivity between Asia and North America, provide a

All cables going to Asia are also connected to the MENA region. Other cables are TE North, MedNautilus, Hawk, ORVAL, Estepona

Far North Digital-True North Global Networks and Cinia have announced plans to jointly construct a fibre optic cable

Web: <https://bssoda.pl>

