

ASEAN Optical Cable Transmission Construction



Article Overview

ASEAN optical cable construction is rapidly expanding, with high-capacity submarine cables like SJC2 and ADC enhancing regional connectivity and supporting digital infrastructure growth.

Key Submarine Cable Projects

SJC2 (Southeast Asia-Japan Cable 2) is a major high-capacity optical submarine cable connecting Singapore, Hong Kong, and Japan, with branches to other Asia-Pacific regions. Constructed by NEC, it spans approximately 10,500 kilometers and uses advanced wavelength division multiplexing technology, capable of transmitting over 126 terabits per second. SJC2 strengthens network redundancy, reduces latency, and supports bandwidth-intensive applications such as AI and cloud computing across Southeast Asia and East Asia. Asia Through Cable (ADC) links China (Hong Kong and Guangdong), Japan, the Philippines, Singapore, Thailand, and Vietnam. Owned by the ADC Alliance, it carries over 160 Tbps of traffic, providing high-capacity data transmission across East and Southeast Asia. ADC is a critical infrastructure milestone, enabling the growth of AI, cloud services, and other digital applications in the region. Intra-Asia Marine Networks is another ongoing project connecting Japan, Malaysia, and Singapore, with additional links to Korea, the Philippines, and Taiwan. This system employs Spatial Division Multiplexing (SDM) technology with up to 16 fiber pairs, ensuring scalability, resilience, and long-term performance for regional digital transformation.

Strategic Importance

Article Content

Southeast Asia's undersea cables under great power pressure

Nearly all of Southeast Asia's internet connectivity depends on fragile fibre-optic cables. Any disruption would have

The protection of submarine cables in Southeast Asia: The security

Southeast Asia's digital economy is estimated to reach \$1 trillion by 2030. 1 A key component of this digital economy

The Vast Network Below: A Closer Look at Submarine Cable System ...

A submarine communication cable is a fiber-optic cable constructed underwater to connect two or more landing

Southeast Asia's undersea cables under great power pressure

The deeper problem for the region is structural dependence on foreign powers to build, upkeep and repair undersea

The Vast Network Below: A Closer Look at Submarine Cable System ...

The Southeast Asia-Japan 2 (SJC2) submarine cable system spans 10,500 km, connecting a total of 11 cable landing

Broadband Infrastructure in the ASEAN Region

Leveraging existing infrastructure Right-of-way procurement and uniform construction techniques would be enabled

Fibre-optic co-development along the Asian highways and Trans

In response, some measures have been proposed to lower the construction costs; one of the prominent measures is

2025/21 "The Struggle for Subsea Cable Supremacy in

INTRODUCTION In February 2022, America's SubCom was awarded the contract to

Challenges to Submarine Cable Connectivity in Southeast Asia and

The fibre optic cables laid on the world's seafloors have become more indispensable in the digital era when data is

NEC Completes Construction of New Asia Pacific Submarine Cable

The ADC submarine cable is owned by the ADC Alliance and has multiple pairs of high-capacity optical fibers. It is to

Subsea power cables as catalysts for the energy transition in

Subsea power cables are in huge demand and are manufactured by a handful of companies. A recent study by the

NEC Completes Asia Direct Cable (ADC) Submarine Cable

The ADC submarine cable is owned by the ADC Consortium and features multiple pairs of high-capacity optical

Report on China's Participation in the Construction and Protection of ...

Preface International communication submarine cables are optical cable systems laid on the seabed and used for transnational

ASEAN DIGITAL MINISTERS MEETING (ADGMIN)

Seek to streamline and simplify (if possible, applying exemptions to) the regulations and policies of the individual ASEAN Member

ASEAN TELECOMMUNICATIONS AND INFORMATION TECHNOLOGY MINISTERS

2. ASEAN Member States, however, have different regulations and policies with regard to the repair of submarine cables within their

Subsea Communication Cables in Southeast Asia: A Comprehensive

Ultimately, Southeast Asian stakeholders will need to assess whom these operations really benefit. At the regional

(PDF) Challenges to Submarine Cable Connectivity in ...

PDF | On Jul 20, 2023, Jeslyn Tan published Challenges to Submarine Cable Connectivity in Southeast Asia and the Implications for

ASEAN (cable system) — Grokipedia

The construction of the ASEAN submarine cable system, a regional telecommunications network linking Indonesia, Malaysia,

ENHANCING ASEAN CONNECTIVITY

Alternatively, when building a power transmission line, it may make sense to also design the towers to allow for internet cables. In

SJC2 optical submarine cable in operation: Press Releases | NEC

The SJC2 consortium announced today with NEC Corporation (NEC; TSE: 6701) the completion of construction and

E2A Consortium Unveils Next-Generation Submarine

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

ASEAN DIGITAL MINISTERS MEETING (ADGMIN)

ASEAN Member States and dialogue partners and the private sector, in strengthening the resilience and repair of submarine cables

NEC Signs Supply Contract for I-2SEA Submarine Fiber-Optic Cable

NEC Signs Supply Contract for I-2SEA Submarine Fiber-Optic Cable System
~Contributing to the Construction of a

ASEAN ACADEMIC REPORTS ON SUBMARINE CABLES

As a regional communication hub with over six cable landing stations connecting to 23 international cables (Telegeography, 2023),

ASEAN's Optical Fibers and Bundles Market Report 2026

The ASEAN market for optical fibers and bundles stands at a critical inflection point, shaped by the dual forces of

The Struggle for Subsea Cable Supremacy in Southeast Asia: ASEAN ...

INTRODUCTION In February 2022, America's SubCom was awarded the contract to construct the Southeast Asia-Middle East

ASEAN CONNECTIVITY STRATEGIC PLAN

The ASEAN Connectivity Strategic Plan, covering the period of 2026 – 2035, is guided by key ASEAN instruments and documents,

NTT Ltd. to Commence Construction of the Optical Submarine Cable

NTT Ltd. today announced it will commence the construction of a “MIST” large-capacity submarine cable between

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://jrsekwele.co.za>

Email: info@jrsekwele.co.za

Phone: +31-20-794-2536

Address: Herengracht 47, 1015 BB Amsterdam, Netherlands

This document is for informational purposes only. Specifications subject to change without notice.

