Central Asian Five Countries Join Transparent Optical Cable 2 Cores

Overview

Kazakhstan, Azerbaijan Launch Active Phase of Underwater Fiber The initiative will link the Kazakh port city of Aktau with the Azerbaijani city of Sumqayit.

Key Takeaways

The Central Asian nations are collaborating on the Trans-Caspian fiber-optic cable, a 2-core submarine system linking Europe and Asia to enhance digital connectivity and reduce reliance on Russian networks.Project Overview

The initiative, part of the Digital Silk Way project led by NEQSOL Holding and implemented through AzerTelecom, aims to establish a high-capacity fiber-optic corridor connecting Europe with Central and South Asia . The first phase involves laying a 380-kilometer submarine cable along the Caspian Sea seabed between Sumgait, Azerbaijan, and Aktau, Kazakhstan, with a transmission capacity of up to 400 terabits per second . The cable is designed with two cores, providing redundancy and high-speed data transfer for regional and international traffic.

Participating Countries

The project primarily involves Kazakhstan, Azerbaijan, Turkmenistan, Uzbekistan, and potentially other Central Asian states, forming a digital corridor that bypasses traditional Russian-controlled internet routes . Kazakhstan and Uzbekistan are particularly motivated to reduce digital dependence on Russia, while Azerbaijan serves as a regional hub for the cable network .

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Technical and Strategic Significance
• Marine Surveys and Construction: Specialized vessels are conducting seabed mapping, depth analysis, and environmental assessments to ensure safe and efficient cable deployment .

• High-Speed Connectivity: The cable will enable low-latency, high-capacity data transmission between Europe and Asia, supporting economic modernization, digital services, and regional development .

• Digital Independence: By creating alternative routes, Central Asian countries can secure communications, attract global tech partnerships, and reduce reliance on Russian-controlled networks .

• Economic Impact: The project is expected to generate multi-billion-dollar benefits by facilitating trade, cloud services, and digital infrastructure growth .
Timeline and Implementation

Construction is scheduled for completion by the end of 2026, with ongoing pre-engineering studies, desktop analyses, and supervision contracts already in place . The project is being executed collaboratively by AzerTelecom and Kazakhtelecom, with technical support from consulting firms like Pioneer Consulting .

Broader Implications

The Trans-Caspian fiber-optic cable is a cornerstone of the Digital Silk Way, positioning the Caspian Sea as a critical hub in global digital infrastructure. It strengthens regional cooperation, enhances connectivity for Central Asian nations, and provides a strategic alternative to existing internet routes dominated by Russia or China . This 2-core optical cable represents a major step toward digital sovereignty, economic modernization, and integration into global digital networks for the Central Asian region.

Article Content

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Fiber maps visualize the global network of fiber optic cables, showcasing how data moves across continents and under oceans.

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Boosting Subsea Cables with Multi-Core Fiber Technology

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Under such circumstances, the success of this transoceanic-scale 7,280-kilometer

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Submarine Cable Map

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

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Fiber-optic cable

A TOSLINK optical fiber cable with a clear jacket. These cables are used mainly for digital audio connections between devices. A

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The Central Asia 2026 GCCM: Huawei Advocates for AI-Centric All-Optical ...

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Fibre-optic Link Around the Globe

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How Many Core In Fiber Optic Cable Do I Need

The number of optical cores in an optical fiber is the total number of equipment interfaces multiplied by 2, plus 10% to

Handbook Optical fibres, cables and systems

The simultaneous availability of compact sources and of low-loss optical fibres led to a worldwide effort for developing optical fibre

FASTER

FASTER is a 11629 km trans-pacific cable system, landing at Chikura and Shima in Japan, Tanshui in Taiwan and Bandon in the US,

Central Asia-EU summit in Samarkand marks historic regional unity

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This week''s Central Asia-EU summit in Samarkand has shown historic unity of the countries in the region, the five

International Efforts to Expand Fiber Optic Infrastructure

Expanding fiber optic infrastructures is becoming more important to meet the growing demand for high-speed internet

Middle Powers along the Middle Corridor – Geostrategic Media

The five Central Asian countries, plus Azerbaijan and Georgia, worked to rapidly develop alternative trade routes,

Fiber Optic Cable Core: Understanding Its Types and Uses

1) What is a fiber optic cable Core? “The core of a fiber optic cable is the central transparent portion of the optical fiber

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