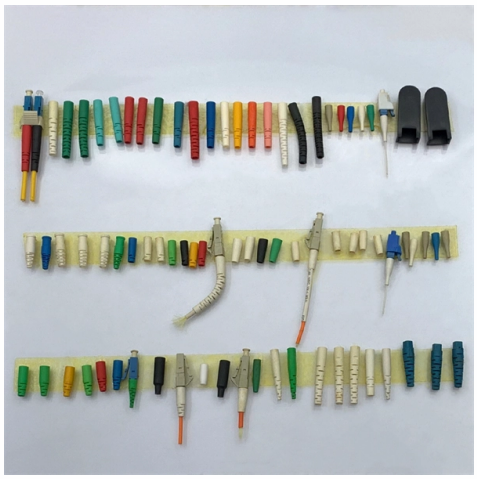
China Unicom Backbone Optical Cable Protection Policy



AI Overview

China Unicom implements multi-layered optical cable protection, including active/standby switchover, intelligent monitoring, and redundancy for both terrestrial and submarine backbone networks.Network Protection and RedundancyChina Unicom's backbone optical network is designed with high reliability and resilience in mind. The company has expanded its “Eight Vertical and Eight Horizontal” backbone optical fiber network, adding over 9,000 kilometers to interconnect computing power hub nodes, which enhances network accessibility and routing diversity . This backbone network incorporates active/standby protection mechanisms, ensuring that in the event of fiber faults, traffic can be switched over within 50 milliseconds, meeting carrier-class protection standards . Such rapid switchover minimizes service disruption for critical applications.Intelligent Monitoring and ManagementThe company employs intelligent submarine and terrestrial cable management systems capable of automatically detecting service degradation, fiber loss variations, and pump failures . These systems allow proactive identification of potential risks, enabling preventive maintenance and reducing downtime. For submarine cables, China Unicom collaborates with specialized marine equipment and remotely operated vehicles (ROVs) to ensure safe installation and maintenance, even at depths up to 8,000 meters .Subsea Cable SecurityChina Unicom participates in the construction and maintenance of international submarine cables, integrating security and resilience measures to protect against physical and operational threats . This includes strategic routing, redundancy, and monitoring to mitigate risks from environmental hazards or potential interference. The company's approach aligns with global standards and ITU-T recommendations, ensuring both high-capacity data transmissi...

Article Content

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China''s aggressive push toward a fully fiberized nation is entering a new phase—one defined not by basic coverage, but by adoption, quality, and the integration of AI-driven operations.

Safeguarding Subsea Cables: Protecting Cyber

For each subsea cable system, please provide the system name, geographic landing points, current operational status, total design capacity, and the identity of all co-owners and cable

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100+ China Telecom Industry Statistics (2026, Fact-Checked)

China now operates 3.37 million 5G base stations, supporting over a billion 5G subscriptions. The supporting infrastructure includes 5.48 million kilometers of fiber-optic cable and

FORWARD-LOOKING STATEMENTS

The Company accelerated the deployment of the “New Eight Verticals and Eight Horizontals” backbone optical cable network, implemented large-scale deployment of G.654E new optical cables between

a “major player” in BUilding tHe CyBer sUperp

A “major player” in Building the CyBer Superpower China Unicom shares the mission of building industrial power and strives to be a major player in building China as a cyber superpower. The

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As the forerunner of G.654 optical fiber, China Unicom has started live network trials in the primary and secondary backbone networks in Shandong and Xinjiang to assess its transmission performances

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The directors of the Company consider Unicom BVI and China United Network Communications Group Company Limited (a state-owned enterprise established in the PRC, hereinafter referred to as

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Efective cable protection requires unprecedented levels of international cooperation. This includes joint monitoring operations, sh red response protocols, and coordinated legal frameworks for attribution

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Strengthening the construction of intelligent computing centres China Unicom accelerated the construction of data centres and core node intelligent computing centres, fully ensuring resource

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Introduction China Unicom proposed the all-optical infrastructure system architecture, cooperated with Huawei to carry out all-optical infrastructure key technology, equipment development and networking

Inside China''s fiber future

Pradeepthi said fiber has become central to China''s connectivity model, noting that “about 99% of China''s fixed broadband subscriptions are already on fiber-optic lines.” Fiber, she

Safeguarding Subsea Cables: Protecting Cyber Infrastructure amid

Subsea fiber-optic cables, a critical information and telecommunications technology (ICT) infrastructure carrying more than 95 percent of international data, are becoming a highly

U.S. and China wage war beneath the waves

Washington, fearful of Beijing''s spies, has thwarted Chinese projects abroad and choked Big Tech''s cable routes to Hong Kong, Reuters has learned. It started out as strictly business: a huge...

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China''s international interactions, requirements on its networks'' ability to provide global services, and both opportunities and challenges in the submarine optical cable industry. Chinese enterprises

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Blockchain technology forms the digital backbone of China''s financial infrastructure strategy, complementing its physical network of undersea cables. While submarine cables control

Advance network innovation and strengthen the construction of new ...

The Company will continuously strengthen the construction of new infrastructure, accelerate the reshaping and renewal of the backbone optical cable network, promote the sharing and upgrade

The Opportunities and Challenges in China''s Optical ...

China''s optical communication industry is poised for significant growth, driven by nationwide technology upgrades, expanding global partnerships, and government support for

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The 50 ms protection switching of the backbone ROADM network is realized, protection against 13 fiber cuts is implemented, and a single-domain WSON network covering the whole

Securing Europe''s Subsea Data Cables

As the contest between China and the United States ramps up and Russia becomes ever more emboldened in its attacks on European infrastructure, Europeans must invest more to leverage

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