

Cambodia Large Core Fiber Optic Upgrade Version



Overview

CFOCN Proposes Underground Fibre Optic Cable Expansions In 9 This latest initiative from CFOCN follows the company's installation of extensive fibre optic.

Key Takeaways

Cambodia is upgrading its fiber network from GPON to XGS-PON, enabling multi-gigabit speeds up to 10 Gbps and preparing for future 25G PON deployments.

Network Upgrade Overview

Cellcard, Cambodia's telecom provider, has partnered with Nokia to modernize its residential fiber broadband network. The upgrade involves migrating from GPON to XGS-PON technology, using Nokia Lightspan Optical Line Terminals (OLTs) and the Altiplano Access Controller. This modernization allows multi-gigabit internet speeds of up to 10 Gbps, significantly improving network reliability, scalability, and efficiency while supporting high-bandwidth applications such as gaming, streaming, Augmented Reality (AR), and Virtual Reality (VR) .

Key Components and Capabilities

- Nokia Lightspan OLTs: Upgrade the fiber network to XGS-PON, supporting up to 10 Gbps and enabling future evolution to 25G PON .
- Altiplano Access Controller: A cloud-native platform providing advanced network automation, SDN control, and service visibility, allowing Cellcard to optimize broadband access services and reduce operational costs and power consumption .

- Coverage Areas: Deployment spans Phnom Penh, Siem Reap, and other major cities, ensuring high-speed, low-latency connectivity across key urban centers .
- Broader Fiber Infrastructure Expansion

Cambodia's fiber network has doubled from under 20,000 km in 2020 to over 40,000 km in 2025, reflecting rapid infrastructure growth. The country has two established submarine cable systems and a new cable connecting Cambodia to Hong Kong is underway. International bandwidth has increased to nearly 900 Gbps, while terrestrial cross-border bandwidth has tripled to over 1.7 Tbps, providing redundancy and supporting growing demand for high-speed connectivity .

Future Readiness

The XGS-PON upgrade positions Cambodia for next-generation broadband services, including 25G PON, and ensures the network can handle increasing data consumption and emerging applications. The combination of high-speed fiber, cloud-native network management, and expanded international connectivity makes Cambodia's broadband infrastructure more resilient, scalable, and capable of supporting advanced digital services .

This upgrade represents a major step forward in Cambodia's digital infrastructure, enhancing both residential and business broadband experiences while preparing the country for future high-capacity, low-latency applications.

Article Content

CFOCN Proposes Underground Fibre Optic Cable Expansions In 9

This latest initiative from CFOCN follows the company's installation of extensive fibre optic cable networks in urban

New Cambodian Carrier Backbone Fiber Switch

Phnom Penh, Cambodia – February 13, 2025 – In a significant move to enhance Cambodia's digital infrastructure, Nokia and

WCFO Expands Cambodia Fiber Optic Cable Capacity Amid AI

Hong Kong manufacturer WCFO announces plans to build a new factory in Cambodia, aiming to roughly double local

Cellcard to upgrade fiber network in Cambodia to XGS-PON

Nokia has announced that CAMGSM, commercially known as Cellcard, will upgrade its fiber network in Cambodia by

Nokia and Cellcard upgrade residential fiber broadband network in

The upgraded network will enhance broadband services, enabling support for high-speed applications like augmented

Fibre-optic cable links region's data networks

They are China-based Cambodian Fiber Optic Communications Network Co, a local firm called Telcotech and Viettel

Nokia and Cellcard upgrade residential fiber broadband network in Cambodia

Cellcard uses Nokia's Lightspan and Altiplano solutions to automate and increase the performance of its residential

The Future of Fiber Optic Technology in Cambodia

With the completion of the submarine fiber optic cable network set for 2024, Cambodia is on the brink of a digital

Fiber-optic communication

An optical fiber patching cabinet. The yellow cables are single-mode fibers; the orange and blue cables are multi-mode fibers:

NOKIANEWS

Phnom Penh, Cambodia – Nokia today announced that CAMGSM PLC, commercially known as Cellcard, will migrate its fiber

Cambodia: Fiber Optic Communication Network Project

The objective is to support the development of both the fiber backbone network and the metro network in Cambodia.

Nokia and Cellcard upgrade residential fiber broadband network in Cambodia

Cellcard deploys Nokia's next-generation XGS-PON solution, providing multi-gigabit broadband access to homes and

fiber-optic cable | Open Development Cambodia (ODC)

China Unicom Group, one of the country's largest telecommunications operators, will build Cambodia's first state-owned submarine

Chuan Wei to build Cambodia's first 100G fiber-optic network

Alcatel-Lucent (Euronext Paris and NYSE: ALU) says it will supply the equipment necessary for Chuan Wei to deploy

Fiber Optic Cambodia

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

