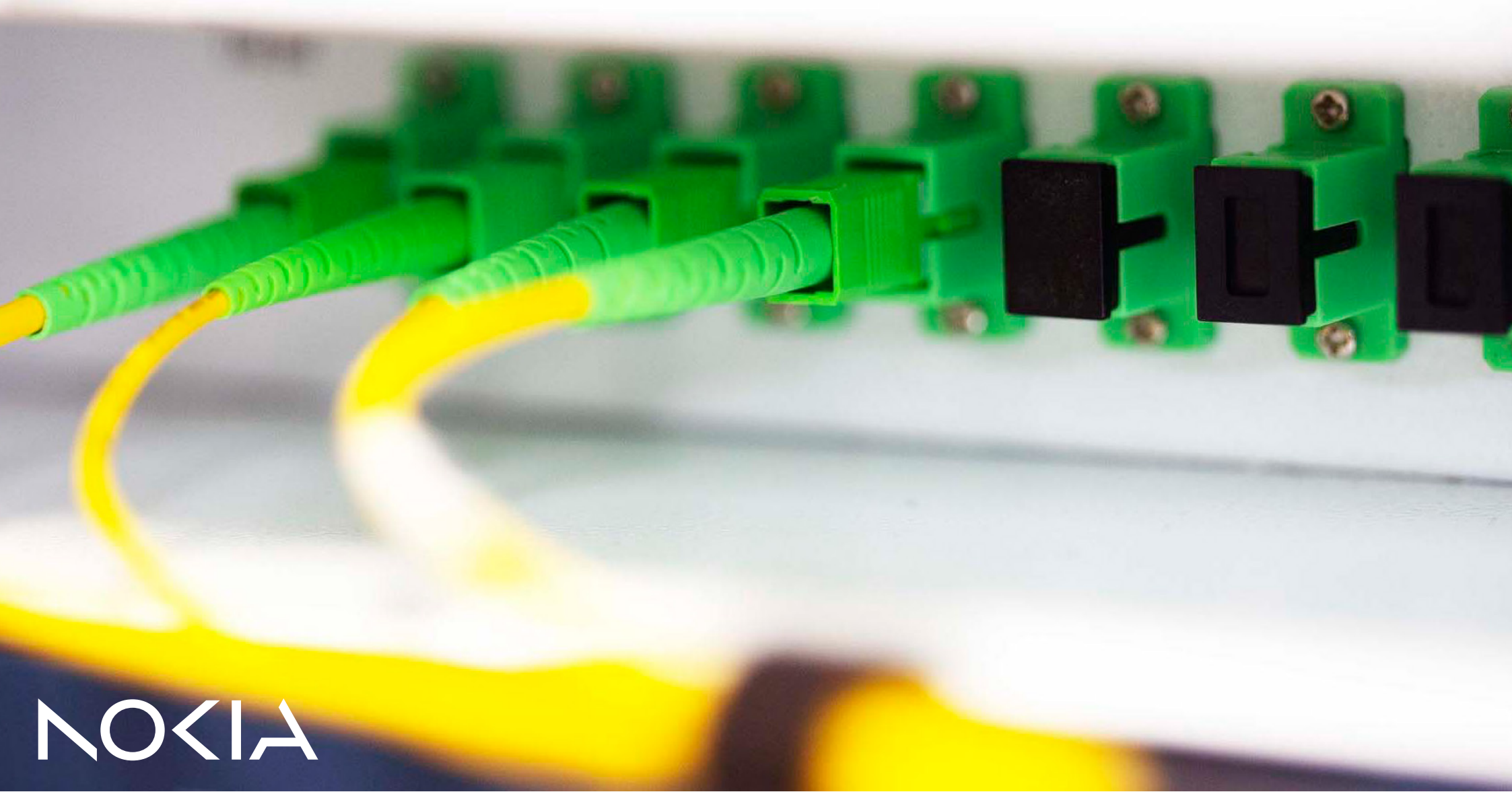


Multi-PON



NOKIA

XGS-PON is taking off. Whether you're planning your fiber broadband migration from GPON, or you've already started, **Multi-PON** can help.

Multi-PON enables a smooth migration from GPON to XGS-PON and beyond by supporting multiple technologies on the same line card, at the same time.



PON co-existence

Efficient migration from GPON to XGS-PON relies on the fact that these technologies operate at different wavelengths. This means they can be delivered on the same fiber optic cable, using a co-existence element to combine their signals.

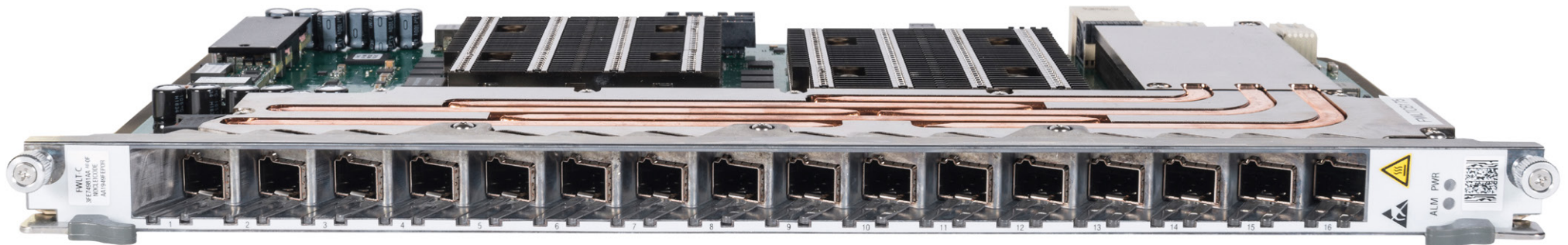
Traditionally, external co-existence devices have been used which are separate from the OLT (fiber access node). This is efficient for low volume migrations as you can move quickly with low upfront costs.

However, it quickly becomes cumbersome as you scale, with the additional co-existence equipment rapidly piling up. This results in more re-cabling work, more visits to the central office, and higher OPEX to store, operate and maintain the equipment.

For massive deployments, this approach becomes a big challenge.

Multi-PON

A Multi-PON solution allows you to mix of GPON and XGS-PON users on the same PON port. It consists of Multi-PON optics plugged into a Multi-PON line card. The Multi-PON optics combine two wavelengths (GPON and XGS-PON) on an embedded co-existence element on a single optical module. Multi-PON line cards support various PON technologies on each port: GPON, XGS-PON, Multi-PON (both GPON and XGS-PON) and even 25G PON.



GPON



XGS-PON



GPON & XGS



25G PON

Multi-PON, multi-benefits

Less equipment: one Multi-PON card instead of three (GPON + XGS + external co-existence element)

Lower OPEX: 60% smaller footprint in the central office, lower power consumption

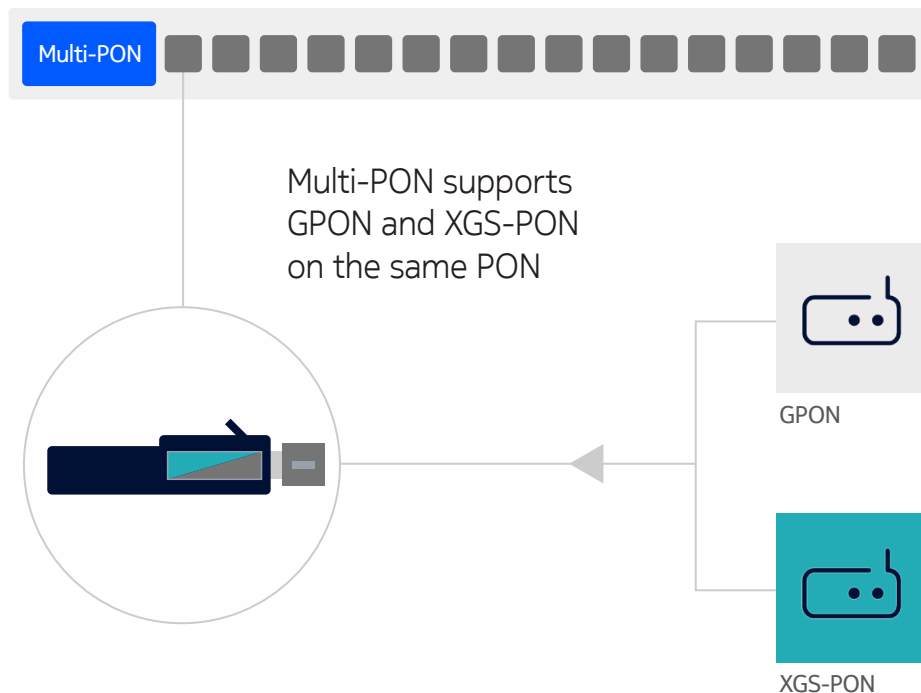
Easier migration: less installation and re-cabling

Pay-as-you-grow: as Multi-PON supports various PON technologies, you can choose when you want to make a move without changing the line cards in the OLT



Migration strategy

Multi-PON allows you to continue deploying GPON while being instantly ready for XGS-PON. Existing GPON users maintain their GPON services and, when it's time to upgrade, it's done remotely via the OSS, without needing additional manual work, re-cabling, new cards or other equipment. The upgrade only affects users that need to be migrated; the rest remain on GPON, even if they share the same PON. This is very efficient if you plan to migrate in the near-term.



For mid- to long-term migrations, Multi-PON provides a pay-as-you-grow path. Initially, Multi-PON cards can be equipped with more cost-efficient GPON optics. You can continue with GPON services and, when an upgrade is needed, replace the GPON optics with Multi-PON optics and users can be switched to XGS-PON.

For greenfield deployments where you want to jump straight into XGS-PON, a Multi-PON line card delivers a high-density, high-capacity solution. You can deploy XGS-PON optics from the start, which are more cost efficient because no co-existence element is needed.



Multi-PON: move quickly to market with new services, keep costs under control and keep service disruption to a minimum

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As a B2B technology innovation leader, we are pioneering the future where networks meet cloud to realize the full potential of digital in every industry.

Through networks that sense, think and act, we work with our customers and partners to create the digital services and applications of the future.

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