Intelligent Access with universal NG-PON

We are entering a new era of fixed broadband, the era of Intelligent Access. To keep up with a rapidly changing market, we need to make networks faster, better and smarter.

The last few years have seen an explosion in ultra-broadband technologies and services. Businesses and even many residential customers now take for granted downstream broadband speeds of hundreds of megabits per second, with gigabit and multi-gigabit services being offered in many markets. But operators are also turning their attention to high bandwidth upstream and symmetrical bitrates to increase revenues, get more value from the network, and decrease costs and risk.

Enter next-generation PON (NG-PON).

Business services are a high-revenue opportunity. But businesses need high bandwidth both downstream and upstream. Overlaying NG-PON on an existing GPON network to serve 20% of business users gives a 15% faster return on investment.

With the imminent arrival of high-bandwidth 5G mobile services, NG-PON is perfect for mobile backhaul. CAPEX is reduced by up to 50% when using an existing fiber access network for mobile backhaul.

Fixed network operators are deploying thousands of micro-nodes to boost the capacity of their legacy networks. These nodes must be backhauled and aggregated with sufficient capacity to maintain service levels. With the continuing growth of data consumption, NG-PON will be required to backhaul 128 users by 2020.
Nokia universal NG-PON

But whenever you upgrade your network, you need to choose technologies that will let you deliver competitive services and generate a good return on investment. You also need to balance short- and longer-term thinking. A wrong choice today could lead to an expensive forklift upgrade in the future. Our universal NG-PON solution gives you the flexibility to overcome these challenges. The solution uses common hardware (the same platform and same line card) where different optics can be plugged in to serve different optical network units (ONU): from GPON to XG-PON, XGS-PON to TWDM-PON. This makes the network evolution simple, flexible and efficient.

Evolve your network with universal NG-PON

1. Start with your current GPON network. Keep your existing Nokia ISAM FX platform and outside plant.

2. Add universal NG-PON with XGS-PON optics to provide dual rate bandwidth: symmetrical or asymmetrical bit rates (10/10 or 10/2.5 Gb/s).

3. Add TWDM-PON optics to provide 4x10/10 Gb/s.

Generate more revenue
- Deliver more speeds and services
- Support symmetrical bitrates

Get more value from the network
- Improve operational efficiency
- Use the existing plant

Decrease cost and risk
- Share infrastructure and resources
- Avoid technology and platform lock-in

Ready for more? Check out our brochure Nokia universal next-generation PON.