



Media release

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New fibre tech takes nbn to 10 Gigabits

NG-PON2 points way to 10 Gigabits nbn™ speeds

nbn has partnered with Nokia to trial new fibre technology NG-PON2 which could help **nbn** deliver symmetrical speeds of 10 Gigabits per second (Gbps) to its Fibre-to-the-Premises (FTTP) end user premises – ten times faster than the current top FTTP speeds of 1Gbps.

The trial is a further demonstration of the company's focus on providing technology to meet today's demands while ensuring a strong path of development and upgrades to meet Australia's future data demands.

A future deployment of NG-PON2 could also benefit end users connected to retail services over **nbn's** Fibre-to-the-Basement (FTTB) and Fibre-to-the-Curb (FTTC) networks – through new technologies such as G.fast or XG.FAST – and could also provide extra capacity in the fibre that supports **nbn's** HFC and Fixed Wireless networks.

During trials in Melbourne NG-PON2 delivered extraordinary peak trial lab speeds of 102Gbps* – generated from 40Gbps symmetrical speeds on Time and Wavelength Division Multiplexing (TWDM-PON) technology, 10Gbps symmetrical on XGS-PON and a further 2.5Gbps on **nbn's** current Gigabit Passive Optical Network (GPON) technology.

The rollout of the **nbn™** access network sets the scene for the biggest transformation to Australia's telecommunications industry involving retail service provider network upgrades and the establishment of a network of networks to bring fast broadband to all Australians.

nbn is currently offering wholesale maximum speeds of up to 1Gbps to retail service providers and expects its current GPON-based FTTP network will be available to up to 2.5 million premises by 2020.

NG-PON2 is the next generation fibre technology standard that will, over time, augment the GPON technology currently offered to retailers selling services over the **nbn™** Fibre-to-the-Premise (FTTP) network.

Using new TWDM technology which supports between 4-8 wavelengths on a single fibre, NG-PON2 is expected to deliver initial symmetrical speeds on FTTP up to 10Gbps and potentially well beyond as the technology develops.*



nbn Chief Technology Officer, Dennis Steiger, said:

*“Our successful trials of NG-PON2 technology with Nokia is another example of our ongoing commitment to continually develop the capabilities and speed of the **nbn**[™] network.*

*“With more than 2 million homes now receiving services from their chosen retailer over the **nbn**[™] network and nearly 5 million able to order a retail service, the rollout is continuing at pace while we also have a very sharp focus on the future.*

“The NG-PON2 trials we have conducted with Nokia have shown us the huge potential this very exciting technology has in terms of helping us deliver on future consumer demand for data at speed.”

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Notes to Editors

The “102Gbps” headline rate comes from aggregate downstream / upstream rates:

- GPON 1.0G down / 1.0G up = 2G aggregate +
- XGSPON: 1 x 10G down / 10G up = 20G aggregate +
- 4x TWDM-PON: 4x 10G down / 10G up = 80G aggregate +
- 2.0 + 20 + 80 = 102 Gbps

* **nbn** provides services to its wholesale customers, telephone and internet service providers, and does not provide services directly to end users. These speeds were achieved by end users in the context of a trial and are not necessarily reflective of the speeds that will be experienced by end users. End user experience including the speeds actually achieved over the **nbn**[™] network depends on the technology over which services are delivered to their premises and some factors outside our control like equipment quality, software, broadband plans, signal reception and how the end user’s service provider designs its network.

^ We’re designing the **nbn**[™] network to provide these speeds to our wholesale customers, telephone and internet service providers. Your experience including the speeds actually achieved over the **nbn**[™] network depends on technology over which services are delivered to your premises and some factors outside our control like your equipment quality, software, broadband plans, signal reception and how your service provider designs its network.