

CommsDay Wholesale Congress – Sarah Humphreys speech as part of the nbn Showcase

Thank you, Jo.

Hi everyone.

My name is Sarah Humphreys and I'm **nbn**'s General Manager, Integrated Prioritisation Planning within the Networks team.

And the theme I'm going to be talking about today is how the **nbn** network is evolving to support growing customer demands.

I'll get to that shortly. For now, I want to talk to you about my dad.

Vaughan Humphreys had a successful career in the oil and gas industry for the best part of 50 years.

He retired not too long ago, and since then, he's done a remarkable job of driving my mum and my sisters and I nuts.

Not only is he unable to sit still, but as a former civil engineer, he has planning, designing, building and evolving in his DNA.

It's a common tale: one of my sisters secured a completely functional three-bedroom house in the suburbs, something she viewed as 'set and forget'.

Who can blame her – it's the perfect low-maintenance house to raise her two young boys.

What my dad saw, however, was an ongoing project.

Not one that lasts a few weeks, but something that requires regular attention and upkeep, sometimes with surprise drop-ins with his toolbox in hand.

There's your little touch-ups that no one notices alongside the bigger, more obvious changes, like the new ensuite he installed, or even the ninja gym in the backyard that I admit is a bit of a sight, but it does keep my nephews active and out of trouble.

Even so, this will need to evolve as they grow.

Earlier today you heard from Anna Perrin who talked about the fibre upgrades that are rolling out across the **nbn** network in addition to enhancements in fixed wireless and satellite technology.

And on top of that, there are continual improvements being made behind the scenes so that the **nbn** network can reach its full potential.

Much like my sister's three-bedroom house in the 'burbs, we at **nbn** cannot afford to become complacent.

Because we're not dealing with just two youngsters, but more than 20 million people in over 8.6 million homes and businesses throughout Australia.

Shortly you're going to hear from my colleague Rob Joyce, but to give you a teaser, based on existing trends and forecasting we expect data use to at least triple by 2030 driven by consumer and business use cases.

Since pre-Covid levels in 2019, data usage over the **nbn** has grown more than 40%.

The average monthly download for **nbn** connections across Australia is now around 445 gigabytes. And it's hard to believe we're now starting to talk in terabytes!

We now have three quarters of a million homes using terabytes of data on the **nbn** network – that is, premises downloading more than a terabyte monthly.

In catering for this terabyte demand, our network investment means that 7.1 million homes and businesses can access close to 1 Gbps speeds today, and by Dec 2025, this number will increase to 9.9 million homes.

Building on this foundation, longer term we are progressively deploying next generation network equipment across our footprint with support from our technology partners.

By doing so, the **nbn** network will become a smarter and more scalable network in an era where it's not just about speed, but performance and sustainability too.

Here are some of the examples of the work we're doing to support the fibre investment that Anna has highlighted.

First, we are evolving our Fibre to the Premises network. From April 2024, we will be one of the first fibre operators globally to implement a new Nokia platform which will enable the **nbn** network for multi-gig residential and business services with a lower cost and greener solution for meeting data growth.

This next generation platform will allow us to cater for a range of coexisting GPON & XGSPON services and provides a pathway to 50G speeds over time.

The platform also includes modern web scale software which has enhanced automation and security features. And watch this space because there's some exciting news up ahead.

We're evolving and modernising our HFC network.

In early 2024, work will begin to introduce new HFC Plant components by upgrading equipment in hundreds of segments, and a rollout of Distributed Access Architecture will commence later that year.

This will enable multi-gig services on the HFC footprint, which has been up to 1Gbs capable since July last year.

We're enabling improved wholesale download speeds in the fixed wireless footprint from a maximum today of 75Mbps up to 250Mbps and also extending the range of the fixed wireless network with the aim of making it possible for up to 25% of the existing satellite footprint to access the new fixed wireless plans by the end of 2024.

Just like the foundations of a house, the **nbn** is underpinned by the core network consisting of the Transport Network and the Aggregation network.

We are evolving the Aggregation network by upgrading our core equipment at Point of Interconnects across Australia over a multi-year program. We are one third of the way through with plans to complete the program in 2025.

This supports the growing customer demand well into the next decade and provides scalable 100Gb connectivity for RSPs.

Equally, we are commencing the evolution of the Transport network which carries data between all **nbn** sites by upgrading critical network components and key systems between now and 2030.

While many people are transforming their lives with automation in the home – fortunately my dad hasn't started making my sister's home a smart home! – there are parallels with our vision to create an intelligent, self-healing **nbn** network; one that leverages automation and (as we've heard from Jo) uses AI to improve network reliability and the customer experience.

As we look towards the end of this decade, we expect demand for 5, 10, 25, 50 Gigabit, network speeds, and I find it exciting that the network we are continuing to evolve can support these speeds in the future.

There will always be more work to do and change and challenges to navigate along the way, but I'm proud to acknowledge that there's a clear pathway in **nbn**'s sights to light up these fast speeds for Australians.

Perhaps I'm more like my dad than I care to admit, because when I view the **nbn** network – I see an ongoing project that must evolve and scale as our digital needs change and grow.

For more on how our connected lives will be transformed in coming years, I'll now pass on to Rob Joyce. Thank you.