

CommsDay Wholesale Congress

Ohnmar McDonald speech as part of the nbn Showcase

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CHECK AGAINST DELIVERY

Thank you Bec.

Hi Everyone, my name is Ohnmar McDonald and I am the Executive General Manager of Network Engineering at nbn.

Already today you have heard how nbn is delivering uplifted speeds, working as a collaborative with our retail service providers – many who are in this room today - and how nbn is building a future ready network which will enable Australia to do great things in the future.

Today nbn network currently carries more than 80 per cent of Australia's data traffic and we recognise that when it comes to reliability, every second counts.

It's our privilege to operate this critical national infrastructure so it's about ensuring Australians are equipped with the reliable and resilient network it needs to support the nation's rapidly growing data needs.

Australia is experiencing an explosion in data consumption that is being driven by increased demand for high-definition streaming, online gaming and the number of connected devices using data intensive applications.

Today, the average Aussie household consumes on average 497 gigabytes of data per month to power on average 22 household devices.

We expect this to grow to 33 devices per household in just the next two years and 40 devices, on average, by the end of the decade.

In the last six years alone, data volumes have tripled across Australia. And we know the growing need for broadband will reach even higher levels over the next decade as the internet continues to transform how we live, work and learn every day. This makes the nbn network crucial for everyone across the country.

Slide 1

Now you would've already heard about our extensive fibre upgrade program around the country. Today, I'm here tell you more about the exciting upgrades in our HFC network which provides services to around 2.5 million homes and businesses right across the country.

Not only are we making investments in fibre, we are also making prudent investments into our HFC Network which will meet current and future

customer demand for high-speed services and the increased volumes of data whilst improving the reliability of the network.

As an engineer, I'm particularly excited about our future plans to upgrade our HFC network - with the next generation technology of Distributed Access Architecture or DAA as you might know it, which is a really cost-effective way to augment the network.

Our future DAA upgrade is designed to deliver fibre-like speeds and improve network performance by driving fibre deeper into the network, digitising the analogue backhaul and therefore, further reducing the analogue Radio Frequency or the RF part of network.

The DAA deployment in conjunction with our Plant Modernisation program in both the upstream and downstream will provide us with the smarts and forensic network intelligence in the outside plant so we can have better visibility to proactively monitor the network for degradation and impairments which will improve the reliability and resilience of our network so that we can deliver an even better experience and enable us to better serve your customers.

Slide 2

Now I'm especially proud to tell you about a live field trial we organised on Monday of this week, to demonstrate the future potential for multi-gigabit speeds on the live HFC network.

No doubt you read about this successful demonstration in yesterday morning's edition of CommsDay.

But if you missed it, I'm really excited to report that we were able to demonstrate a wholesale download speed of 8.7 Gbps and upload speed of 1.5 Gbps in the live Production HFC network.

Apart from the DOCSIS4 Cable Modem, all the network components used in this demonstration are currently already in our production network or are planned to be deployed into the network in the years to come.

This trial truly showcases the potential for fibre-like speeds - in both the upstream and downstream direction - being unlocked for millions of customers in the future.

The demonstration involved the deployment of CommScope's latest DOCSIS 3.1® DAA node, the next generation of Amplifiers, both of

which are in our planned roadmap for deployment and that was paired with a new generation DOCSIS 4 Cable Modem.

This new equipment digitises the HFC optical node out in the street and modernises the legacy amplifiers with these new generation of amplifiers which can use all of the new Spectrum which we have inherited from the end of co-existence with Telstra Bigpond and Foxtel broadcast channels.

All of this in conjunction with nbn's deep fibre deployment and the new DOCSIS 4 Cable Modem, will enable us to increase the capacity, improve the performance, resiliency and reliability of the HFC network, whilst also having a sustainability advantage with a reduction in power consumption right across the network.

This new generation of hardware leapfrogs the technology we use today. They're equipped with real-time network telemetry and when coupled with AI and Machine Learning analytics, will provide us with much better visibility of what's happening in the network and allow us to identify the impairments early and pinpointing the issue to the exact part of the network and enabling our field technicians to resolve the network impairments before it impacts the customer's service.

This will mean that we can improve the reliability and performance of the HFC network to ensure the best possible customer experience and that

can really make the difference between a happy and an unhappy customer.

Now as we successfully demonstrated on Monday, DAA unlocks the potential to deliver multi-gigabit speeds both in the upstream and downstream direction.

And these fibre-like higher speeds will comfortably meet customer traffic demand and the expected higher speed tier products well into 2030 and beyond.

We are working towards the next step in our HFC evolution with the introduction of DAA, which will allow us to not only build more capacity in the network cost effectively, but it will improve our capability to operate and maintain the HFC network so customer can not only have fibre like high speeds but most importantly, the reliability.

As you can imagine, the upgrade of the entire network will be a long journey but we're continuously challenging ourselves on ways that we can minimise the impact the customers during these upgrades.

Our HFC network is already powered through DOCSIS 3.1 technology, in both the downstream and upstream and we are now on our DAA journey, and with the next generation of equipment we're deploying, we have the option of upgrading from DOCSIS 3.1 to DOCSIS 4.0, which has a

further potential to unlock bandwidth capacities well in excess of 10G similar to those of our Fibre to the Premises (FTTP) technology.

Deeper fibre deployment has many benefits and this trial truly showcases that HFC can meet the future needs of the customers from both a speed and reliability perspective.

Reliable and resilient infrastructure is critical to make Australia 'future-ready' for data hungry applications on the horizon, such as Artificial Intelligence, Augmented Reality and Virtual Reality and with these future upgrades, I'm happy to say that the future HFC network will be ready to meet the demands of all of our customers.

Thank you and I'll now pass on to Andrew Walsh who will talk about all things New Developments and how fibre connectivity is now an option for IoT and Smart Infrastructure.

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