

Stephen Rue keynote - Commsday Summit 2023

Opening

Good morning, it's great to be here with you all today.

I'd like to start by acknowledging the Traditional Custodians of the various lands on which we work today and any First Nations' People participating in this event.

We pay our respects to their Elders past, present and emerging, and recognise and celebrate the diversity of First Nations' People and their ongoing cultures and connections to the lands, skies, and waters across Australia.

Thanks to Tim Webster for opening today's event. As a sports lover, I have enjoyed your sports journalism in particular over many years. And of course, thank you to Grahame and the Commsday team for putting on such an important event and for inviting me to speak.

As I have done in the past, can I once again commend Commsday for the balanced way they cover the industry. Your contribution to the success of this industry is always very significant.

I'm delighted that **nbn**'s Fibre Connect upgrade took out the Best Fibre Network Operator last night at the Edison Awards.

We do live in a period of unprecedented pace of change for humankind. And as current leaders of the telecommunications sector in Australia, we therefore have the privilege, but also the responsibility, to together respond urgently to these changes.

And that is what I want to focus on today.

SAU Variation

But first, I must comment on the **nbn** SAU Variation process.

So, firstly, we absolutely agree that Australia does need 'an efficient, reliable and affordable national broadband network to be a world-leading digital economy.'

And we also recognise that 'this process has now been running for two years and everyone in the industry would like regulatory certainty'. It feels like a long time because it most definitely has been. But we have come a long way.

We're also confident - and hopeful – that this latest consultation process will be run in a 'streamlined manner' – and we can 'move to a final decision in the most timely manner possible'.

This, of course, is an iterative process.

And as an industry, we have made good progress, and I respect and recognise Commissioner Brakey's comments at this conference yesterday when she called out many positive initiatives that **nbn** has proposed. In particular, she noted that our initiatives, and I quote: "could bring significant improvements in terms of the competitiveness and efficiency of **nbn** markets."

The very reason **nbn** was established in the first place was to improve wholesale broadband services across the country, while also enabling the provision of reasonably priced services to consumers and businesses via Retail Service Providers on a non-discriminatory basis.

The reason we exist is to help level the playing field in the Australian telecommunications industry, enhance competition and innovation and provide greater choice for consumers across the country.

And all of this in the service of improving economic welfare and social equity for all Australians.

And I'm pleased to say that we are achieving this important goal. We have vibrant competition in the Australian market – the sort of competition that does not exist to the same extent in most places in the world. That is great news for customers.

And it is great to see not only the proliferation of pure play telcos of every shape and size, but I also welcome the new, diversified players into this market with the likes of CBA and AGL.

Our proposed SAU Variation is intended to deliver greater cost certainty, simplicity and value for this vibrant industry.

We know that a sustainable long-term pricing framework will not only support the industry, but also meet the future digital needs of all Australians.

And we know that **nbn** needs to be able to maintain its ability to earn a reasonable return if we are to make the continued investment in the network that is necessary

to support Australia's rapidly growing digital economy, and indeed, underpin the extreme acceleration of technology advancement.

As outlined by Commissioner Brakey yesterday:

- **nbn** has reset the value of the regulatory loss account (or ICRA) to \$12.5 billion and closed it to further 'losses' which will provide more certainty over allowable revenues and costs to retailers. This reduction of the ICRA, from \$44 billion to \$12.5 billion is significant. And it is important because it enables us to set lower wholesale prices in future years than may otherwise have been the case if it were seeking to recover from RSPs, and in turn from end users, all costs associated with building and operating the network – this is a tremendous outcome for consumers and helps deliver affordable services in the future.
- We've also agreed to move towards a simpler pricing structure;
- We have built in mandatory stakeholder consultation on every regulatory proposal development in the future, and introduced a Low Income Digital Inclusion Forum – the importance of which I can't stress enough;
- And we have brought the service quality and pricing nexus together under the scope of our revised SAU Variation proposal.

The ACCC found that **nbn**'s proposed increases in AVC pricing of the standard 50 Mbps wholesale service is reasonable.

And it also found it would be reasonable for the cost of wholesale offers to progressively, yet responsibly, increase in nominal terms for the medium term and for CVC charges to be phased out over the first regulatory cycle, as we have proposed.

The history behind why **nbn** was created is important, and context is important. It reminds us that we have come a long way in a little over decade. As we sit here today, the **nbn** is built, with 8.5 million connected premises, competition is thriving, and broadband has never been more important in the lives of Australians.

And we are in the unique position of an entire country with access to broadband, but as all of you know, we need to keep investing to meet demand and to keep the network operating as Australians expect it to do.

We have been prudential and judicial in considering and applying all these significant concessions and variations. And together, in totality, they are designed to provide greater cost certainty to retailers; to provide regulatory certainty to the industry; to enable **nbn** to upgrade its network while affording a reasonable opportunity for **nbn** to achieve a standalone investment grade credit rating, which is a long-term expectation of Government Business Enterprises.

So, as you are aware, **nbn** operates in a rapidly evolving competitive environment.

Our network investments are designed to keep ahead of national data demand and help unlock social and economic benefits for the nation by pushing fibre deeper into communities and extending Fixed Wireless and Satellite coverage and capabilities.

There will be more time and space to debate these important issues.

And as I've said, this is an iterative process.

But now is the time for us to pull together as an industry and work closely in finalising an SAU Variation that meets the needs of the whole industry and the needs of consumers as well.

And during the next round of consultation, we will continue to listen to the feedback provided by the ACCC, Retail Service Providers, consumer advocacy groups and other interested parties, with a view to withdrawing the November 2022 SAU Variation and lodging an amended SAU Variation proposal in early June.

As you may have seen yesterday, the ACCC published a letter we wrote to them in March, offering to make a range of material changes to the Variation we lodged in November. This demonstrates our commitment to respond to issues as they arise, and to arrive at a position that balances the needs of all parties.

And provided this revised SAU Variation is accepted, we will seek to implement these important changes through our new Wholesale Broadband Agreement – which is being developed in parallel.

This will enable the delivery of new wholesale prices, additional data inclusions and agreed benchmark service standards to our consumers and the industry.

I believe we are now in the home straight and close to resolving the remaining outstanding issues.

It's important that retailers have certainty.

And it's important that the economics of the entire industry - **nbn** and retailers - stack up.

And I'm sure we can all agree that the future is digital – and we will need more capacity in every way. We have to jointly look at this not only from an industry or consumer perspective, but also from the lens of the Australian people, our economy, our ability to compete globally - the transition from the old to the new - which digital connectivity enables.

It's in the entire industry's best interests that **nbn** is suitably funded and resourced to allow us to scale capacity and deliver a fast, resilient and reliable network for all our consumers, now and into the future.

Three key issues

So, I'd like to turn to the other key issues that I want to talk to you about.

First, I want to speak about the unprecedented pace of change we are seeing across humankind and its environment that have widespread implications for telecommunications in Australia and around the world.

Second, I will speak about the opportunities that digitisation presents for our nation, our industry and the Australian economy.

And thirdly, I will speak about the importance for **nbn** and our industry to work closely to ensure homes, businesses and communities across the nation can make the most out of the critical infrastructure asset that is high speed broadband.

Unprecedented pace of change

So to my first point around unprecedented pace of change. 12,000 years ago, humans started producing food and changing the environment in a period called the Agricultural Revolution, slowly moving human society from hunting and gathering to agriculture and settlement.

And the Scientific Revolution, which occurred 500 years ago, changed thinking and understanding of humans on physics, on chemistry and biology, leading to many new inventions and new manufacturing processes, and ultimately over time to the Industrial Revolution.

But it was only less than 40 years ago that the internet began being used by consumers around the world, only 25 years ago that Google was founded and only 16 years ago that the iPhone was unveiled.

This Fourth Industrial Revolution is fundamentally changing the way humans interact, the way we live and work, the way our healthcare and education is delivered, the way we entertain, and the way society, politics and the economy works.

As each historical revolution occurred, the pace of change was faster than the last. But make no mistake about this Fourth Industrial Revolution.

The pace of this change is extraordinary. Way faster than anything we have seen before, with huge implications for humankind. The development of AI and large language models will accelerate change even further.

Let me say this another way. We are no longer seeing linear change but compounding rates of change only accelerating.

Adding to this the global economy currently is facing increasing risks from conflict in Europe and recent changes in international relations.

This geopolitical uncertainty casts a shadow on global businesses and has led to economic instability.

Coupled to this are the enduring challenges of the global COVID-19 pandemic and the increased prevalence of extreme weather events, an outcome of the environmental impact of the First and Second Industrial revolutions.

So, this unprecedented pace of change for humankind means that business leaders, policy makers, regulators, educationalists and healthcare providers amongst others are needing to adapt, and fast. And so too for our industry. Our priorities need to respond. And quickly.

Digitisation

And that leads nicely on to my second point. And that is the need for our industry to seize the opportunities presented by digitisation.

As I have just said, seismic changes are taking place in our economy, our society and the way we run our businesses. These fundamental changes are both reliant on and being driven by our accelerating digital economy.

Think data analytics, virtual reality, home security, new entertainment and streaming applications.

Think video conferencing, new social media platforms, big data and cloud applications.

Think machine learning, online healthcare, medical and food production.

Think 4K and 8K TV platforms, gaming and educational innovations. Sports production and delivery is being transformed.

And importantly, with the worldwide roll-out of fibre and 5G, together with massive investment in technology innovation, think of all those applications that have not yet been developed, but will be.

As an industry, we must embrace this change, and use it to our advantage.

We know that with greater connectivity and access comes great opportunities in sectors like health, tourism, agriculture, manufacturing and education.

But to support this, we need to foster cities and communities where the value and adoption of digital tools, skills and technologies is the norm for households and businesses.

This is not just about providing the speeds and services that businesses need to stay connected and productive.

It's also about providing the network infrastructure that will meet future needs and allow businesses to compete and to innovate in global markets.

It's for these reasons that we are continuing to invest in, and evolve, our network now at **nbn**.

In just six years, data volumes have tripled across Australia. And the growing need for broadband will reach even higher levels over the next decade as the internet continues to transform how we live and work, and even how the infrastructure within our cities communicates.

And to drive productivity that has been largely stagnant for many decades, the business community will embrace digitisation like never before.

Sustainability

The digital world also has a part to play in climate change response.

Not just in digitising new modern energy transmission networks, but also by creating new job opportunities within communities impacted by job losses as the grid migrates from old technologies to newer clean energy technology.

And, of course, climate change means we as an industry have to ensure our networks are resilient to climatic conditions.

This provides opportunities to think more about how energy and telecoms are intertwined.

At **nbn**, we are making our network more energy-efficient and making positive changes to how we source the energy that powers and sustains our network.

Exiting copper allows the **nbn** network to offer a better customer experience.

And a fibre network is also a greener network.

Fibre is inherently more capable of delivering faster upload and download speeds. But it is also more energy-efficient and resilient to physical climate risks, and generally more reliable than **nbn** network connections containing copper.

So, as we roll out new fibre deeper into the network, not only are we delivering faster speeds and greater energy-efficiency, we're also making the network and the customer services it carries, more reliable and resilient.

Making the most of broadband

So, unprecedented pace of change and opportunities from digitisation leads to my third point. And that is the importance of ongoing network and technology investment for productivity and societal benefits.

So, according to global comparisons, Australia is lagging behind, with a median country fixed broadband speed of 53 Mbps.

However, these comparisons provide a view that is not truly representative of Australia's actual broadband capabilities.

They only measure download speeds of the plans customers have chosen in a given country – rather than network quality or capability.

And they do not take into account geographical factors or even the ubiquity of broadband availability.

These comparisons do not measure the national investment in infrastructure that **nbn** has made in further enabling gigabit speed and a greater consumption of data.

In Australia, we have 12 Mbps and 25 Mbps plans. Other countries have entry level speeds of 100 Mbps or 200 Mbps.

By comparison, in the U.S. a proposed increase from 20 Mbps to 100 Mbps in the national standard has been mooted for minimum broadband speeds.

And in New Zealand, 300 Mbps plans account for 68 per cent of residential users - reflecting a previous decision to bestow 100 Mbps users with higher speeds.

So, we're on the right track. We've made the changes that have us on a trajectory for around 10 million Australian premises to become gigabit capable within three years.¹

Last December, we announced a deal with Nokia to deploy the latest Optical Fibre Terminal technology that gives us a path to enabling 10G, 25G, 50G fibre to the home and beyond.

1 Regardless of the retail service you purchase, the actual speeds delivered by NBN Co's highest wholesale speed tiers of 500 Mbps to close to 1000 Mbps will be less than 1 Gbps due to equipment and network limitations and the peak information rate may fall anywhere in this range. In addition, the HFC Home Ultrafast bandwidth profile downstream service provided to retail providers is a ranged profile with a maximum sustained information rate of 750 Mbps. Reference to speeds are not end user speeds; they are wholesale layer 2 peak information rate bandwidth provided to retail providers.

*An end customer's experience, including the speeds actually achieved over the **nbn**® network, depends on some factors outside our control (like equipment quality, software, and how your retail service provider designs its network) and the NBN Co technology used for your connection. An end customer's experience, including the speeds actually achieved over the **nbn**® network, and configuration over which services are delivered to their premises, whether they are using the internet during the busy period, and some factors outside of NBN Co's control (like their equipment quality, software, chosen broadband plan, signal reception, or how their provider designs its network).*

*2 Conditions, eligibility criteria and costs will apply. Eligibility criteria is expected to include, among other things, being designated by NBN Co as a simple premises (e.g. standalone premises or Single Dwelling Unit (SDU)) and once the program is available for an eligible premises, placing an order for an **nbn**® powered plan based on an eligible wholesale speed tier. Additional costs may apply to retail service providers, who may choose to pass this charge onto their customers.*

So we're not stopping at gig capability. We need to, and are, thinking beyond that.

Investing in the network to support future growth

So, right now we're working hard to encourage the migration from Fibre-to-the-Node (FTTN) and Fibre-to-the-Curb (FTTC) to Fibre-to-the-Premises (FTTP) to further enable gigabit speed for households and businesses across the nation.

Some RSPs are already starting to push ahead with this, and we're seeing real results.

This early take-up is encouraging, but we need more retailers to step up and start pushing the case for higher speed tiers for their consumers. And not just over fibre. But in the HFC network also.

More than 8.5 million homes and businesses are connected to the **nbn** network, which equates to about 20 million people relying on the network every day.

We now have 21 per cent of consumers on a 100 Mbps plan or higher - up from 15 per cent just twelve months previously.

But the **nbn** network was conceived as a superfast network – and to us – that means enabling more consumers to upgrade to FTTP with close to gigabit residential speeds,¹ selling HFC customers onto our higher speed tiers, and enabling beyond gigabit speeds through **nbn** business grade fibre.

Currently, 50 per cent of the entire network is capable of providing speeds close to 1 Gbps. This is up from 38 per cent at the end of 2021.

And the vast majority of the Fixed Line network will be able to access our highest speed tiers by the end of 2025. And that includes over HFC.

HFC

Our HFC network – covers around 2.5 million premises – and is already capable of ordering a service based on **nbn**'s Home Ultrafast speed tier.²

Our HFC product is powered through cable technology known as DOCSIS 3.1, in both downstream and upstream.

*1 Customer experience on **nbn**® residential full fibre, including speed, depends on your internet provider, plan, equipment quality and if you use the internet at peak times.*

*2 Regardless of the retail service you purchase, the actual wholesale speeds delivered by **nbn**®'s highest wholesale speed tiers of 500 to close to 1000 Mbps will be less than 1 Gbps due to equipment and network limitations and the peak information rate may fall anywhere in this range. In addition, the HFC Home Ultrafast bandwidth profile downstream service provided to retail providers is a ranged profile with a maximum sustained information rate of 750 Mbps. Reference to speeds are not end user speeds; they are wholesale layer 2 peak information rate bandwidth provided to retail providers. An end customer's experience, including the speeds actually achieved over the **nbn**® network, depends on some factors outside our control (like equipment quality, software, and how your retail service provider designs its network) and the **nbn**® technology used for your connection.*

And this technology significantly improves the spectral efficiency of the HFC network and allows **nbn** to use higher range spectrum to make it future-ready into the next decade.

HFC as a technology has a lifespan beyond this decade. It is the dominant access technology in North America, and likely to remain so through this decade.

They are also being developed as very high speed networks. For instance, in the USA:

- Comcast currently offers download speeds of up to 2Gbps across about 20 per cent of its HFC footprint and plans to offer these speeds to 50 million premises by 2025.
- And Charter currently offers speeds of 2 Gbps to select areas, with plans to offer 10Gbps download speed to 35 per cent of its footprint by 2025, and 5Gbps to 50 per cent of its footprint.

Overseas cable operators are also now beginning to take the next step in HFC evolution with the introduction of what's called Distributed Access Architecture, or DAA, which enables more spectrum to be used more efficiently.

This is a relatively low-cost way of building more capacity and capability into cable networks.

So, **nbn** will be looking to embrace DAA in coming years, with the option of upgrading DOCSIS 3.1 to DOCSIS 4.0 in the future.

Regional investment

And that's just the Fixed Line network.

In partnership with the Australian Government, we're investing a further \$750 million on the **nbn** Fixed Wireless network to enhance coverage and deliver faster speeds for regional Australia.

This will include the deployment of 5G millimetre wave technology to help deliver faster speeds across the network, including in the evening. A wholesale peak information rate of 100-130 Mbps downlink will be available to 100 per cent of our Fixed Wireless coverage area.

And for 85 per cent of the expanded Fixed Wireless footprint, they will be able to order services with a wholesale peak information rate of between 250-325 Mbps downlink - which is up to three times faster than currently available on **nbn** Fixed Wireless services.

Our Fixed Wireless infrastructure sites will have their coverage enhanced and their footprint coverage will be expanded by up to 50 per cent, enabling approximately 120,000 former satellite-only premises to access **nbn** Fixed Wireless services.

We recently announced the first 24,000 homes and businesses across regional Australia that are now eligible to access the Fixed Wireless network for the first time.

This in turn has a flow on effect for our remaining satellite customers to free up capacity and increase performance on that service.

With data growing at an exponential rate, now is the time for Australia. As I said earlier, we're on the right path. But we need to hurry up.

By upgrading our networks, we are providing consumers and retailers with the opportunity to fully embrace the digital changes occurring.

Faster speeds improve customer experience. They allow them to embrace applications, work from home better, run their business better, connect better, entertain better.

Australia needs to catch up with the world. So let's seize the moment.

Closing remarks

So in closing, I encourage the industry to recognise the unprecedented pace of change and the opportunities of digitisation.

And our combined efforts should also ensure that Australia remains a productive, socially connected and prosperous nation.

Through **nbn**'s own network investment plan we will work closely with industry, regulators, all levels of government and local communities to help unlock the benefits of broadband.

This is not just for metro locations, but importantly in rural and regional Australia as well.

We remain committed to increasing the availability of higher speeds with more reliability for all premises across the nation and offering direct fibre infrastructure for Australian businesses.

Our goal is to support the nation's growing digital needs by making ongoing investments in the network to ensure it is future-ready and is an essential foundation for the smarter cities and regions needed to meet the opportunities and challenges ahead.

Together with 5G, this should help people embrace the changes being experienced and benefit from all that digitisation offers.

So, thank you for your time, and I look forward to continuing to work with you all.