Stephen Rue keynote - CommsDay Wholesale Congress 2023

Opening

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

I would, of course, 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.

And thanks to Grahame and the Commsday team once again.

I would like to commend Commsday for the balanced way they cover the industry. Your contribution to the success of this industry is always significant. Thank you for organising this event and for inviting me to speak.

SAU acceptance heralds a new dawn

I'd also like to thank all our retail partners in the room. Without having you and your companies working in collaboration with us – we would not be able to achieve what we are truly capable of.

It is indeed fitting that so many people from across the industry are gathered here today.

And I'm sure we can all agree that the ACCC's decision to approve **nbn**'s Special Access Undertaking, or SAU variation, signals the dawn of a new era of telecommunications in Australia.

It is without doubt in my mind, a landmark outcome for the entire industry and for the nation.

I'm delighted with this decision and I firmly believe it will help deliver better customer experience of the **nbn** network for everyone.

We acknowledge and appreciate the positive engagement and collaboration from retailers, customer advocacy groups, the government and the ACCC over the last two years.

The SAU heralds a new approach to wholesale pricing that supports faster broadband, increasing demands for data and improved cost certainty for retailers and consumers.

By the end of this year, we will eliminate CVC, or capacity charges, from our highest sped tiers – from 100 Mbps to close to 1 Gbps.

And this will provide greater cost certainty for retailers.

By reducing CVC changes and adjusting data inclusions over the next three years on our entry level and mid-speed tiers – wholesale download speeds from 12 Mbps to 50 Mbps – we will provide high-value products to help smooth the transition to flat wholesale pricing by 1 July 2026.

And the well-defined service standards that have been incorporated into the SAU are designed to establish a benchmark for service quality.

Importantly, our industry can build on this over time as we continue to roll fibre deeper into the **nbn** Fixed Line network and upgrade our Fixed Wireless network.

As you are no doubt aware, we ran a parallel industry consultation process to develop our new Wholesale Broadband Agreement, or WBA5, for rapid implementation.

And last week, we released executable WBA5 contracts to assist retailers in accessing wholesale prices and products from 1 December 2023.

The SAU variation also supports us in maintaining our ability to earn a reasonable return so we can continue to make ongoing investments in the network that are necessary to deliver faster **nbn** speeds and greater data capacity for consumers.

Everyone here today plays a critical role in enabling **nbn** to deliver on the objectives of our business and on our purpose of lifting the digital capability of Australia.

Now the SAU consultation is behind us, we at **nbn** want to work even closer with our retail partners. To serve customers. To drive efficiencies across the industry.

To simplify. To be easier to work with. In fact, to be a brilliant partner for the industry.

By working together, we can ensure that the **nbn** network continues to be resilient, reliable and secure and plays a key role in unlocking new social and economic benefits for households, businesses and communities across the nation.

And to underpin the digital economy, which is fast expanding before our very eyes.

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

First, I want to speak about how the **nbn** network is helping support Australia's fast growing digital demands.

Second, I will speak about how fibre is helping accelerate the digitisation of small, medium and large businesses.

And thirdly, I will speak about how faster **nbn** speeds are delivering enhanced user experience in homes across Australia.

nbn history

As you are no doubt aware, **nbn** is a Government Business Enterprise, owned by the Federal Government, which means we are owned by the Australian people.

We were set up to create increased competition in the retail sector, driving better pricing and better services, for the consumer.

And secondly, to enable economic benefits through driving productivity and global competitiveness, and social benefits by reducing the digital divide and providing people across Australia with access to government services, education, health and connectivity.

We promised the Government and the people of Australia that the initial network roll-out would be complete by 2020. And we delivered on that promise.

And now we're focussed on enabling 10 million premises - or up to 90 per cent of the Fixed Line network - to access the **nbn** Home Ultrafast wholesale speed tier, which is capable of delivering peak wholesale download speeds of 500 Mbps to close to 1 Gbps, and further investing in the network for the future.

Keeping it simple

As the digital backbone of the country, it is critical that we continue to simplify and secure our network.

We have set targets around network simplification and security, including the rationalisation of network management systems, execution of Aggregation 'Point of Interconnect', or POI evolution, and our long-term plan for upgrading the Hybrid Fibre Coaxial, or HFC, network.

We are committed to being a customer-led organisation having a strong focus on enhancing customer service delivery.

As a wholesaler, **nbn** has one channel to market – our retail partners.

Therefore, your experience and success is absolutely critical for **nbn**, our customers and the broader industry.

And pleasingly, we remain on track to meet agreed service levels and we have a real focus on partnering with retailers around proactive assurance and customer and consumer communications.

New capabilities have been developed for field technicians and for the mobility tools they use to improve the experience for consumers and retailers.

This is being further enhanced by an increase in our field workforce, particularly in regional Australia. The **nbn** internal field workforce now makes up about 20 per cent of our entire head-count.

We want to make it easier for you to work with **nbn**, so we are working hard to improve your experience through initiatives like reducing the complexity of our IT systems, removing duplication, streamlining processes and systems, adding automated business processes and reducing average handling times.

By making it easier for you to integrate your processes and your systems, we aim to help reduce your overheads and enable better experience for consumers.

Australia’s fast growing digital needs

Now to my first point on how the **nbn** network is helping support Australia’s digital demands.

As we all know, big data growth is coming with digitisation of the world advancing.

The number of applications is rapidly growing and AI is changing the jobs we do, the way we work and the way we live.

At other forums, I have spoken about the huge growth in data hungry applications - for households and businesses alike - that are coming down the track.

The development and growth of generative AI will accelerate the commercialisation and usage of new applications.

In the telco industry, we like to talk about the build out of new fibre. Or new technologies. Or new data centres. Or the incredible growth in computing power. Or AI, VR, AR, 4K, 8K, etc.

But, it’s the software applications that sit on top of these that really matter.

And those applications are coming down the track at break-neck pace.

Changing the way we live and work and entertain.

Bringing new business models and new medical breakthroughs. Enhancing creativity and innovation and enabling humankind to unlock new capabilities.

Fundamentally for us, it’s all about transporting significant volumes of data.

And as a result, the telco industry is ever more and more essential.

There is no doubt, that many are underestimating the opportunities, and frankly some threats that this brings to our society and our economy.

And we must not.

As an industry, we must be ready to invest, to act, and to provide advice and support to others.

To provide reliable and fast[1] broadband services via retailers to consumers.

*1 Your experience, including the speeds actually achieved over the **nbn**® network, depends on the **nbn**® network technology and configuration over which services are delivered to your premises, whether you are using the internet during the busy period, and some factors outside our control (like your equipment quality, software, broadband plans, signal reception and how your service provider designs its network). Speeds may be impacted by the number of concurrent users on the **nbn**® Fixed Wireless network, including during busy periods. Satellite users may experience latency.*

And to be nimble, innovative and fast to move when consumers need us to do so.

And that's why at **nbn**, we are investing in ongoing upgrades to the network to enable the future for Australia's households, businesses and communities to ensure the nation's ongoing prosperity, competitiveness and prosperity.

We are currently working with Nokia to roll out XGS-PON technology across our fibre network. A technology upgrade that delivers the ability for **nbn** to offer close to ten Gigabit symmetrical speeds.

And the real beauty of XGS-PON - beyond unpacking the speed benefits - is the fact that it is backwards and forwards compatible with GPON Network Termination Devices or NTDs in the home.

The same XGS-PON network upgrade will also provide the 'glassware', if you will, that's ready when we, the market, and customers are ready to make the leap to hyper-speed with 25GS-PON, 50GS-PON and 100GS-PON.

25GS-PON is available today. Admittedly, the NTD is the size of a VHS or Blue-Ray CD player – but that will change. And 50 Gigabit Symmetrical and 100 Gigabit Symmetrical are in Nokia's product roadmap.

This same fibre requires 100 times less power than copper to push each and every bit across the network.

Investing in the network to support future growth

Our current network upgrade program - which includes the roll-out of more than 80,000 kilometres of new fibre - has so far enabled more than 7 million residential and business premises to access wholesale download speeds of 500 Mbps to close to 1 Gbps.

Ongoing upgrades will enable widespread access to peak wholesale download speeds of 500 Mbps to close to 1 Gbps to around 10 million residential and business premises - or 90 per cent of the **nbn** fixed line network - by the end of 2025.[2,3]

Through our Fibre Connect program, we are currently upgrading approximately 5,000 additional premises to FTTP technology every week.

*2. 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 1 Gbps 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.*

*3. NBN Co provides wholesale services to phone and internet providers. **nbn**® wholesale speed tiers available to providers vary depending on the access technology in an end user's area*

This has doubled since August 2023 as more footprint has become available and retailers have completed their processes, enabling them to ramp up volumes of upgrades.

We are extremely focused on driving volumes of Fibre Connect orders. I will have more to say on this later.

I encourage everyone in this room – and, of course, your respective customers - to check out the current address eligible for a full fibre upgrade on our refreshed **nbn** website.

Regional investment

In partnership with the Commonwealth Government, we're further supporting rural and regional communities with a combined investment of $750 million - of which the Australian Government has contributed $480 million - to upgrade our Fixed Wireless and Satellite networks.

We currently have three wholesale Fixed Wireless products in market – a 21/1 product, a 25/5 product and a 75/10 product known as Fixed Wireless Plus.

Through the upgrade program we have announced the introduction of two new wholesale high-speed plans[4] including:

- Fixed Wireless Home Fast, which offers wholesale peak download information rates of 100-130 Mbps and will be available across the Fixed Wireless coverage area;
- And Fixed Wireless Superfast which, offers wholesale peak download information rates of 250-325 Mbps and this will be available across approximately 85 per cent of the Fixed Wireless coverage area.

These two new wholesale higher speed plans are designed to enable **nbn** Fixed Wireless customers to access download speeds more than three times faster than what is currently available – so people can utilise more household devices at the same time for online learning, streaming and gaming.

But the marketplace is constantly changing and we're seeing increasing competition.

*4. These are **nbn®** wholesale speed tiers which NBN Co provides to retail providers. Your experience, including the speeds actually achieved over the **nbn®** network, depends on the **nbn®** network technology and configuration over which services are delivered to your premises, whether you are using the internet during the busy period, and some factors outside our control (like your equipment quality, software, broadband plans, signal reception and how your service provider designs its network). Speeds may be impacted by the number of concurrent users on the **nbn®** Fixed Wireless network, including during busy periods.*

We believe we may be able to deliver even better services to customers so we are considering options that will make available additional products with the potential for even higher maximum wholesale download speeds

Funding our future

We've always been about helping deliver a better Australia. And we have a strong focus on putting more capacity into the network so it is ready and available for consumers when they need it.

The debt we have raised over the last three years via debt capital markets and bank facilities will enable us to repay the outstanding $19.5 billion Commonwealth loan on time by 30 June 2024, and to finance the business ensuring we can deliver upon our business plan.

Raising this debt is a significant achievement when you consider the economic uncertainty affecting the confidence of global markets.

We have built a substantial global investor base in a short space of time, which includes Australia, the U.S., Europe, North America, Japan, and non-Japan Asia.

nbn is now the largest Australian Corporate issuer in the Australian market with $5.2 billion of bonds outstanding.

We have been very active in debt capital markets this calendar year raising approximately $5 billion including: the issuance of European Green Bonds, which successfully raised A$2.1 billion in March 2023; A$850 million in the Australian market in August 2023; and A$2 billion in the U.S. market in late September.

And this strong endorsement from domestic and international investors demonstrates we have the right strategy, momentum, and business case to support our ambitions.

Accenture

This is important as new research, commissioned by **nbn**, reveals that a fast, high capacity and reliable **nbn** network has been a game changer for businesses and households across the nation.

The research, on the economic impact of the **nbn** network across Australia, shows that our network has particularly benefitted households and businesses in remote and regional areas.

This Accenture modelling - which will be released in full later this year - shows that higher average broadband speeds enabled by the **nbn** network have supported the creation of 132,000 jobs throughout Australia in the ten-year period from 2012 to 2022 – or equivalent to a 1 per cent increase in Australia's labour force.

And improvements to Australia's digital capability are expected to generate 88,000 new jobs and support the creation of an estimated 47,000 new businesses by 2030.

This will bring the total number of **nbn**-induced employment opportunities to around 220,000 jobs.

The roll-out of the **nbn** network has been credited with increasing average broadband download speeds on a national scale from 9 Mbps to 53 Mbps.

In 2011, prior to the **nbn** network rollout, only 55 per cent of households in regional and rural communities were connected to home broadband and average download speeds were 7 Mbps.

But according to the research, by 2023 the number of regional and remote households that have chosen to connect to home broadband has grown to 77 per cent, with average advertised download speeds of 40 Mbps.

The research also found that the economic impact derived from increases in average broadband speeds were 16 times greater in remote areas of Australia, and twice as profound in regional areas relative to the impact in major cities.

But it’s not just about economic prosperity. It’s also about how people feel.

We have also commissioned research into the social impacts of the **nbn** network and this will be coming soon.

SSBI

Addressing social inequity was part of the **nbn** policy back in our early days. And this has continued over time and will continue in the fibre roll-out.

We’re proud to support the delivery of the Australian Government’s School Student Broadband Initiative, or SSBI, which has been set up to provide free **nbn** home internet for one year for up to 30,000 families with school aged students who are not connected to services over the **nbn** network.

The first families were connected at the start of the 2023 school year and there are now over 4,000 families signed up.

And this week, Minister Rowland launched a new SSBI national referral centre run by Anglicare Victoria, which families can contact directly to check their eligibility.

So far, the feedback from connected families has been positive, and it is humbling to hear the difference **nbn** enabled broadband is making in the lives of families who need it most.

One parent told us, and I quote: “We haven't been able to afford home internet for some time now due to the cost of living and myself being unable to work due to my children requiring regular medical appointments. I am honestly so speechless and blown away by the kindness and generosity of this scheme and I am truly thankful.”

Another parent told us, and I quote: “My son can now access better learning apps and learning materials especially for his dyslexia without the stress and upset of going over my monthly data allowance on my phone.”

So, it’s truly heartening to know that we are living up to our company purpose to lift the digital capability of Australia.

Fibre support for business digitisation

So now to my second point and how fibre is helping accelerate business digitisation.

And everyone in this room will agree that the way businesses operate has changed dramatically in recent years. Working from home is now considered ‘business as usual’ and businesses need to stay connected with customers at all times.

Broadband is now a key method for connecting staff, and core work functions are moving online to the cloud.

Small businesses, in particular, have an increased appetite for website and online services.

They are demanding a high-speed broadband and premium service experience that is reliable[5], fast and secure.

So I'm proud of our Business **nbn** Fibre Plans on FTTP. These plans provide high quality business broadband at small business prices.

Business customers can receive business connectivity options via their service provider[6] offering maximum wholesale speeds of 250/100, 500/200 and 1,000/400[7], backed up with 24/7 support from our business **nbn** service centre.

Business Fibre incentives for retailers, which we launched in October this year, include rebates so that the effective price is reduced – from $100 to $75 on 250/100; $160 to $100 on 500/200; and $230 to $170 on 1000/400[8].

This gives retailers the opportunity to create a more compelling upsell from residential services for small and medium businesses.

*5. Your experience, including the speeds actually achieved over the **nbn**® network, depends on the **nbn**® network technology and configuration over which services are delivered to your premises, whether you are using the internet during the busy period, and some factors outside our control (like your equipment quality, software, broadband plans, signal reception and how your service provider designs its network). Speeds may be impacted by the number of concurrent users on the **nbn**® Fixed Wireless network, including during busy periods. Satellite users may experience latency.*

*6. Not all providers offer plans based on the full range of wholesale business **nbn**® products, product features and services. Availability of wholesale business **nbn**® products, product features and services depends on the access technology and area. Customers should ask your preferred provider if they offer plans based on these wholesale business **nbn**® products, product features and services in their area.*

7/8. Regardless of the retail service you purchase, the actual maximum wholesale download speeds delivered to service providers will be less than the maximum specified, due to normal equipment and network limitations. The experience, including the speeds actually achieved, depends on some factors outside our control (like customer equipment quality, software, and how each service provider designs its network).

Smart Places

In August 2023, the Australian Government announced a new national target to build 1.2 million new homes over the space of five years from 1 July 2024.

And key to these new developments will be the integration of smart city technology and energy-efficient public amenities, which all require high-speed fibre connectivity.

This comes as new research from IDC Custom Solutions, reveals that the number of non-premises connected in Australia is expected to grow five-fold from 200,000 today to more than one million non-premises by 2030.

Governments are increasingly using Internet of Things, or IoT, data collection and monitoring of remote assets like highways, waterways, tunnels and bridges – and these can be cost-effectively connected to the cloud using fibre connectivity.

nbn Smart Places extends the **nbn** fibre network to a range of eligible non-premises locations such as traffic lights, CCTV, smart poles, digital billboards, and public Wi-Fi access points.

The first deal for Smart Places was signed by WA Water in July 2023 for 170 sites. And letters of offer have now been prepared for a further 18 bids covering 5,600 sites.

Through Smart Places, **nbn** fibre will play a critical role in connectivity solutions for non-premises now and well into the future.

HFC

The vast majority of the Fixed Line network will be able to access our highest speed tiers by the end of 2025, as I said earlier.

That includes the HFC network – which covers around 2.5 million premises – and is already capable of delivering a service based on **nbn**'s Home Ultrafast speed tier.

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

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.

Overseas cable operators are beginning to take the next step in HFC evolution with the introduction of what's called Distributed Access Architecture, or DAA, which is a relatively low-cost way of building more capacity and capability into cable networks.

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.

Bringing this next-level technology into the HFC and exploring the next version of satellite technology will be key priorities for us going forward.

Home of the future

So now to my third point, which is how faster **nbn** network speeds are delivering enhanced user experience and enabling smarter homes.

According to the ACCC, and a recent digital consumer survey, the average household consumes on average 452 gigabytes of data per month to power 22 connected devices.

This compares to just 30 gigabytes of data per month for five connected devices a decade ago.

With data use on the **nbn** network tripling in the last six years, we commissioned our Home of the Future study to find out how Aussie homes are using technologies today, how technology will play an increasing role in homes in a decade from now and gain a clearer understanding of our nation's growing appetite for immersive technologies.

And this research revealed that 45 per cent of **nbn** users surveyed, who had upgraded their speed tier in the past 12 months, have noticed benefits including greater reliability for streaming; 39 per cent reported having more devices running online at the same time with fewer interruptions; and 37 per cent were able to upload and download work files quicker.

Households are increasingly using connected technologies such as security cameras, motion sensors and smart locks to keep households physically safe.

Among those surveyed with home Wi-Fi, 22 per cent already use their broadband for telehealth consultations, and almost 30 per cent said they wouldn’t be able to access healthcare services without their broadband connection.

Almost 32 per cent surveyed, with home Wi-Fi, welcomed the opportunity for technology to play a bigger role in helping elderly relatives enjoy independent living for longer. Motion sensors have been used to notify family members when no activity is detected in a set period of time – potentially indicating a fall.

Enjoying entertainment, live music and live sport was by far the most popular broadband experience among households surveyed at 63 per cent, followed by a desire to connect with loved ones who live far away at 54 per cent.

The research also revealed that 47 per cent of consumers surveyed across Australia want technologies that can help keep their households physically safe; 36 per cent want to reduce their environmental impact and 33 per cent want access to remote health and wellbeing support in their homes.

Home Wi-fi

So, faster **nbn** network speeds are delivering enhanced user experience in the home, and a great Wi-Fi is the key.

Most of us make do with a single router provided by retailers.

However, a single router may not be ideal in large households using multiple connected devices simultaneously. And due to the low power in use, the Wi-Fi connection may be patchy if you have a big house to cover.

Smart households are turning to Mesh Wi-Fi, to improve their user experience by enabling dependable Wi-Fi throughout the home.

The current iteration of Wi-Fi is Wi-Fi 6, and this is faster, more efficient and connects to more devices than older versions of Wi-Fi.

Wi-Fi 6 can potentially deliver speeds as fast as 9.6 Gbps. This higher theoretical speed suggests there’s more bandwidth across your network for multiple devices to share.

This is important – as I've talked to – because many of us are now adding more and more connected devices into our homes.

Essentially, Wi-Fi 6, supported by the types of high-speed **nbn** connections I outlined earlier, should help smart homes full of connected devices to maintain seamless performance.

We're seeing a growing number of modem routers in the marketplace which are compatible with different **nbn** technology types.

And we've also now commercially released 5G capable wireless NTD's, which will provide homes served by our Fixed Wireless network, as I said earlier, with speeds of up to 325 Mbps.

And we're working on plans for these new devices to be capable of enabling multi-gigabit speeds in the near future.

Closing remarks

So in closing, I'd like to reiterate the ACCC's approval of our SAU is great news for consumers and the start of an important era for the Australian telecommunications industry.

By working together, we can support Australia in remaining a productive, socially connected and prosperous nation.

Through our own network investment plan, we are working closely with industry, regulators, all levels of government and local communities to help unlock the social and economic benefits of broadband across our nation.

Data usage continues to grow as more applications are being used concurrently.

But there's a data explosion coming. And it could be soon. So we must all be ready.

We are in a new era. For mankind. And for our industry. So let's work together. For us. But also for Australia.

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

ENDS