



National Press Club Bill Morrow keynote address

Wednesday 16 September

Good afternoon.

I would like to thank the National Press Club for inviting me here today. I consider it a privilege and an honour to address such a distinguished audience.

It's always nice to be back in Canberra because there is never a dull moment here, there always seems to be something going on that becomes the talk of the town and the start of this week was no exception.

Flying in yesterday, I jumped into a Taxi, and said to the cabbie "*wow – there is a lot happening here in Canberra...*"

The cabbie looks me in the eye through the rear view mirror and said, '*That's right mate,...Floriade is on...*'

Even after three and half years of living here, I continue to learn things about this beautiful country and yesterday's lesson taught me to never underestimate Australia's premier flower show....

So while I am on the topic of beautiful things, I must admit flying in knowing I was going to be in front of you all is quite different than my usual visits where I face a panel of inquisitive Senators who seemed convinced there is something evil lurking within... and they are determined to find it.



I honestly don't mind as we are entrusted with a lot of tax payer money and there should be a high level of scrutiny. My intent is to provide the factual information and make sure there are no misunderstandings or incorrect perceptions. Occasionally, I will be warned to not take a political side but my response is always the same:

I am not a politician and I can't even vote in this Country.

My role is very clear and that is to run nbn and deliver on the statement of expectations set by the government, regardless of who is in power. In this role, I am exposed to the different opinions, preferences, and needs expressed by so many.

I've spent a great deal of time listening to the views of Ministers, Senators, and MPs from all sides of politics, one thing is very clear:

There might be heated debate about the best way to go about building the **nbn™** network, but all sides of politics are absolutely agreed that **Australia needs better broadband.**

Every politician, every mayor, every business owner, every householder we talk to understands that internet connectivity is the key to a new part of our economy that has yet to fully evolve.

How we get there, and which model we use, is indeed hotly debated but whichever way you look at it – and whichever model you choose – the nbn is an unprecedented challenge in a great number of ways. It's an enormous engineering project that is also fundamentally re-casting the competitive landscape of one of our major sectors. And of course, we're doing this in a period of exponential technological change.



It's certainly not the **smallest assignment I've ever had....**

I do actually get the question pretty regularly of why did I join nbn. Perhaps some people are really asking why I've insert myself into something so heavily criticised and politically charged. I get this question the most from the employees of **nbn** and I love being asked this because it allows me to remind our people of what we're a part of.

I tell them that, quite genuinely, we are **changing the digital face of a nation.**

It's rare that you get to work on something that has the potential to impact every family and business in a country. Even more so, to be a part of moving a country from one of the most underdeveloped broadband markets across the developed world to one of the best.

Imagine our country having universal high speed access to every home and business, imagine a competitive retail market operating on a level playing field creating products that are tailored to virtually every individual need , and imagine the opportunities that will emerge because of this digital foundation.

That's why I leapt at the opportunity and why thousands of others have chosen to be a part of this.

In the next five years, every home and business in the country will have access to high speed broadband – and the lion's share of these will be up and utilising the **nbn™** network. That's eight million families, schools, hospitals and workplaces with a connection.

With so many connected, this creates a natural digital demand and this



demand will be followed by an increase in digitally delivered supply. Think of this supply in the form of easier to access health services, more broadly available educational services, and more opportunity across every sector, and more potential for every business to expand its market reach.

The benefits are limitless and this is why **there is broad support and areas to which we all agree.**

First, we all agree broadband is not a luxury, it is a vital service that if everyone is connected, our nation as a whole will be better off, both socially and economically.

Broadband access should be viewed in the same light as water and electricity flowing through every building across our land, and the service should be expected to meet the needs of today and have an evolutionary path to meet that of tomorrow.

Secondly, we all agree the nbn™ network will go a long way to closing the divide between the city and regional Australia. There is a deep cultural tradition with the bush, its rural towns, and farming. And of course with the people of these communities. The fortunes of our country are linked to the land. Most of us live in cities, and Australians always have, but the land provided a lot of the prosperity – and still does.

Despite the unique size of Australia and the sparseness of our population, this country has the resource, and the collective will, to build a network that guarantees an upgrade in connectivity to every single home.

Every home. This is something we should be proud of.

The historical trend has been towards depopulation of regional areas. People



move out of small towns to larger towns and to the big cities because that's where the jobs are.

But what happens when a small country town has telecommunications links as good if not better than a capital city?

The need to travel to work lessens. This means we can re-imagine how, and where, we want to work and live.

Better connectivity gives us the potential to reverse the decline of regional centres, and instead allow for a re-population outside of cities and urban sprawls.

And third, we all agree the nbn™ network will help drive retail competition.

Competition drives innovation. And innovation is on the minds of leaders at every level and in every industry.

How we socialise, learn and entertain ourselves will continually change before our eyes. This will present challenges for current businesses, and an almost limitless playground for innovative thinkers to create services, products and, importantly, jobs, that don't exist now.

And these jobs are on top of the 15,000 jobs directly at **nbn** or with our construction partners.

Now innovation and new business opportunities are just some of the outcomes that we can expect once we have created a new digital market place.

To do that, we must first create sufficient consumer demand. Once we have



created the demand, then it can be met with the supply of new digital offerings.

It's clear, politics aside, that to create that demand we need to level the playing field and allow universal access. And this was best achieved through the structural separation of the industry to create a **wholesale only provider** – **nbn**.

The decision was ambitious and hard to put into action, but it was the right decision.

In a lot of ways, the ambition of the nbn network does make it unique globally.

Now, what also makes Australia unique globally is the debate that continues to rage (in political and technology circles, at least) about the very architecture of the nbn.

This is the debate that pits one broadband delivery model against another.

In the red corner is the original **nbn** model – which delivers fibre to nearly every home and is based on the premise that it's better to accept the higher cost and additional time to build and have the upside in capacity when the greater demand comes.

In the blue corner is the multi-technology mix. This is the model that accelerates the completion at a lower cost while leaving the upgrade to when the demand begins to approach capacity. It leverages the telecommunications networks that have already been built – such as the copper telephone lines and the pay-TV cables and upgrades them to deliver fast speeds and to carry even greater amounts of data.

And there are other possibilities too.



Which is better? All of them have their merits. At the end of the day, it comes down to how much you're prepared to spend, how long you want to take to build it, and when you think users would be willing to pay for speeds only achieved with fibre.

The current SOE drives our objective and that is to enable every Australian to have better broadband by 2020 at the least possible cost- and to do that by whatever means necessary. No-one has dictated that we use one technology or another. The ingredients in that mix are up to me and my employees. We're technology agnostic.

Now some of the commentary around this goes so far as to suggest that Australia is turning its back on the world by no longer going down the path of an all-fibre build – this is simply false.

Yes, there are a couple of countries going down an all-fibre route but these are typically very small markets like Singapore and Hong Kong that have high density factors. You can't equate those markets with Australia.

If you look at comparable markets across the world, from larger Asian countries like Japan and Korea to the biggest European markets in Germany and the UK and even back to my home country of the United States, You will see them taking the exact same approach that we are taking with a range of technologies.

In Asia we have seen operators in Taiwan and South Korea deploy advanced



new technologies on existing copper networks inside apartment buildings – that’s exactly the same approach we have taken with Fibre to the Building.

In sprawling London and Munich suburbs the likes of Openreach and Deutsche Telekom have deployed the same Fibre to the Node(FTTN) networks we are about to launch – because doing so enables them to connect end-users quickly and cost effectively.

That’s before we even get to HFC where back in the United States we are going to see operators deploy 1Gbps connections on new cable technology within the next year – on cable networks similar to those here.

These countries are taking this approach of leveraging existing assets and re-igniting them with new technology because it enables them to deliver great services far quicker and more cost effectively than building new networks over the top of them.

And ultimately, it means more people will be able to enjoy the benefits of fast broadband far sooner.

The **nbn™** network we are building will see the vast majority of Australians be able to get a connection of at least 50 megabits per second.

Over a half of Australians will have the potential speeds of **up to a gigabit per second.**

This is due to new technology that allows us to supercharge our existing



infrastructure. These new technologies were not around when nbn was founded, and some are fresh from global R&D labs this year.

Now at the moment, there is little demand for products beyond 25 megabits per second. Whole families can be online at the same time, people can stream video.

Importantly, consumers can have confidence, they will have the choice to buy broadband products with higher speeds as their use changes.

More on consumers' minds, quite rightly, is "when do I get the **nbn?**"

The good news is we are making progress. We have been increasing the size of the network, and accelerating the build to a rate not seen before.

This is all while enhancing our relationship with our customers, the service providers, overhauling the agreements with our construction partners and designing the systems and processes for a company that is only six years old.

When I first started, we had 600,000 homes that could connect. Now, for more than 1.3 million homes, **the nbn™ network is real.** For nearly 100,000 **Tasmanians it's real.**

And for 100,000 West Australians and for nearly 250,000 thousand Queenslanders, **it's real.**

I was in Tasmania a few weeks' ago. This is the state that will be the first to be fully covered by the nbn network. As of last week, 50% of Hobart is now able to order a service.



In the next three years, the job will be complete. Every Tasmanian home or business will be able to order an nbn service.

There are great examples of whole communities adopting a new mindset after connection to the **nbn**TM network.

Ipswich in Queensland is a historic town, with a proud tradition in mining dating back to the 1800s. The community, about an hour from Brisbane, has embraced their connection to the **nbn**TM network.

The town has a broad digital policy and a number of successful high tech companies competing in global markets. The local council is now in the process of converting the old fire station into a start-up incubator to see more local ideas turn into world leaders.

The town's digital inclusion policy and creativity led to it being named among the top seven Intelligent Communities of 2015 across the globe.

A little further south, Coffs Harbour is home to a number of connected businesses. The company "**Janison Learning**" develops software in its offices on the Coffs Harbour jetty, with its team of young coders working away in their board shorts, up until it's time for a stroll across to the beach for a surf. They have doubled their workforce to 60 people in the past 12 months, and have plans to hire another 20. It's a great example of smart business operators who want the choice to stay where they began - yet still grow their



businesses globally. And they are doing it with local, high tech jobs.

And closer to where we are today, Gungahlin in the ACT has the strongest sign up rate of any location in the nbn network. It's an area experiencing growth for a range of reasons, including infrastructure, with a fresh influx of new families.

There are many more stories. As we build momentum, and capitalise on our learnings and progress, the reality of a connection to the nbn network will reach further and further across the country.

There are a number of important developments this month alone in terms of the build of the **nbn**[™] network.

Next week, we will officially launch our Fibre to the Node product. The launch is a key milestone that will see our retail providers begin developing their offers to consumers. We were excited about the recent, final approval for our revised deals with Telstra and Optus. These were the last of the building blocks to fall in place. We are currently in the planning stage for two million FTTN premises, with millions more to come as we head towards the year 2020.

What is also about to happen at the end of September, is something very exciting for rural and remote Australia – and something that symbolises, most perfectly, the inclusiveness that the nbn will bring to the nation.



On the 30th of September, French Guiana time, we will blast the first of two nbn satellites into space. It's not every day that a country gets to launch its own, custom-built satellite.

And, there has never been a communications satellite like this before. It has more capacity and the most advanced technology ever launched into orbit. It will beam broadband across remote Australia, transmitting back and forth between 10 ground stations.

The **nbn** satellite, named Sky Muster, will be the first of its kind – in the world. It will hold this title for a little while, until we get its stable mate, the second **nbn** satellite, into orbit as well.

It will be a proud moment. And we know for people on stations or in remote townships – it cannot come soon enough.

It will connect kids to their online schools with more reliability than they have ever known. It will connect farms to their export markets.

It will mean a big leap forward in closing the digital divide.

While we move ahead with these milestones, a lot more work is of course ahead – **if we are to create a true digital market place as I described earlier.**

And as the network reaches further across Australia, the dividend can be a reality for more families and businesses – and, we expect, we will start to see



a new era of innovation. Three million more jobs are expected to be created by 2030, with growth from both existing occupations and evolving work related to connectivity and innovation.

We hear a lot about **digital disruption**. What I'm excited about is the potential for the nbn to create a seismic **digital eruption** – an innovation-led economic impetus that not only helps Australia maintain its high standard of living but enables us to lift it even higher.

No-one knows this better than our new Prime Minister.

He's spoken many times of the fact that convergence and globalisation offer much more competition, but they also offer us much more opportunity.

At the end of the day, the **nbn** will be the backbone of the digital economy.

It's the policy settings, its industry, and its individuals that will drive the innovation that is critical to our economic prosperity.

Entrepreneurs are hard to keep down, and their success can be infectious – spurring others to put their ideas to the test. Yet having the conditions right, and the barriers to entry low, are vital so the creative embers have enough oxygen to glow into a full flame.

Innovation is front of mind for us at **nbn**. When we are done, Australians will have an independent wholesale network operating one of their most vital pieces of infrastructure, with regulated wholesale pricing regardless of where you are on the continent. This means a new chapter for our retail market. **nbn** doesn't retail any services – our success is linked to the success of our retail providers.



Encouragingly, we are already seeing increases in competition for retail customers, and this will only escalate as the network kicks into gear for more and more regions.

It's particularly encouraging in some regional areas. Our Fixed Wireless network uses towers to deliver broadband to receivers installed on customers' roofs. It is delivering reliability and speed so far unseen before in these parts of the country. And, importantly, we are delivering the same regulated, wholesale products in the regions as we are in cities.

What's great for people is the retail providers are now moving in. Take the NSW community of West Wyalong. Those around the town can visit our service maps on the website, and choose from a list of more than 40 providers for their fixed wireless connection.

Forty providers offering services in a regional area. It's this level of **choice** that people outside of cities have never seen before, and hopefully something we will see more and more of as the network gets built to more and more places.

We are also always exploring ways to increase competition, talking to retail companies, regulators, and, importantly, communities in regional Australia.

The backbone of our network is divided into 121 geographies – each served by a “hub”. These hubs are connected by an all-fibre network – the **nbn's** high speed data freeway if you like.

Retail service providers then link to these hubs to provide services to that area. They can do this by either building their own fibre connections, or buy a connection from a few of the existing providers. This is commonly called backhaul.



Now, by virtue of Australia's size, about 40 of these hubs are more expensive for retailers to connect to – due to the distance for the backhaul.

What's on our minds is whether this will present a **barrier to entry** that might limit retail offers, and in turn limit **choice**.

If this turns out to be the case, there are a number of options we could explore to boost competition however before we do anything nbn – our **preference would be to see the market respond**. We are working with others who see a market opportunity by solving for this remote regional point of entry. At the end of the day, it's about levelling the playing field and ensuring there is a low barrier to entry and we would hope the markets will do just this.

But it is very clear, we have work ahead of us. The path to eight million connected homes and businesses will require exponential growth and a rapid scaling of our business and the industry.

We are confident we have the plan, we know the risks and we know the way to see us achieve our targets. We have confidence in our build experience to date and the newly proven record of meeting our numbers.

It won't be without difficulty, but this is a unique project – both in the size and scale.

But the pay-off is ahead of us too. For 10 per cent of the country, it's already possible. **We are hard at work to make it real for the next 90 per cent.**

We have seen what an **nbn mindset** can do to a town or a community, and we are all going to need this mindset if we are make the most of what will be Australia's Broadband Network.



The mindset of re-imagined work and lifestyle, and a re-casting of the boundaries between the city and bush, and Australia and the rest of the world.

And to that, I say, as I'm sure most of the community will say with me – **Bring It On.**