

Frequently Asked Questions

Below are some common FAQs on the National Broadband Network (NBN). More can be found at www.nbnco.com.au

Q: Why should we move to fibre?

The Australian Government established the NBN to address three challenges:

1. **Australia's ageing telecommunications infrastructure and the need to provide better service in regional and rural Australia:** Australia's existing copper infrastructure was installed 60 years ago and was not originally designed to deliver broadband. The copper cables in Australia, used to deliver services like ADSL, are not capable of speeds as high as optical fibre. There are also many regional and rural areas in Australia that still do not have access to broadband speeds or prices comparable to those experienced in our cities.
2. **The exponential increase* in data consumption which has quadrupled in the last four years:** History has shown that there has been a clear growth in data usage and there seems to be no indication that this trend will stop. (*ABS, ACCC, OECD)
3. **A level playing field in the retail service market is expected to drive effective competition, better services and lower prices for consumers:** Separating wholesale infrastructure (such as the NBN) from retail broadband sales, allows retailers to focus their efforts on providing more affordable and innovative services.

The NBN is not just delivering speed. It is intended to enable all Australians to gain access to broadband at higher speeds than they can currently obtain, and enable a wider delivery of services for public benefit. For example, the potential of e-health services becomes far greater when 100 percent of all Australian premises have high speed broadband. Similarly, it has the potential to transform access to education for regional and remote students and deliver broad social and economic benefits as a result.

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Q: What is NBN Co's source of funding?

Funding for this important national infrastructure project will initially come from the Government, which is expected to contribute equity of \$27.5 billion over the life of the project. However, NBN Co forecasts that it will be able to pay that equity injection back to the Government with a return over the life of the project. Other funding will come from operational earnings and private debt.

From FY2015 NBN Co intends to begin raising funds through capital markets. NBN Co expects that it will be a top tier major Australian debt issuer and a significant proportion of funding is likely to come from overseas investors. The quantum of debt to be raised from project finance or financial markets is estimated to be \$13.4 billion.

Together the equity and debt funding add to a total funding requirement of \$40.9 billion including funding costs. Capital expenditure will total \$35.9 billion.

Q: Wouldn't it be better to spend money on health and education which are the real priorities for the community?

To improve health, education and other public services, the Government believes we need to upgrade our telecommunications infrastructure to enable services to be delivered online. This is expected to increase efficiency and enable better service delivery outcomes.

The NBN is infrastructure that will enable improvements in health, education, business and Australian society at large. Just like electricity underpins nearly all we do today, high speed broadband will be the foundation for the way we live, work and entertain ourselves in the future.

For example, using high speed broadband it will be possible for doctors to consult with patients in their homes, including in remote areas. Children confined to their homes will be able to participate in classes with teachers in metropolitan centres. Services such as these help overcome challenges including a shortage of professionals in those rural and remote areas and a growing demand for their services. Teleworking is also enabled by high speed broadband to the premises.

In addition to the cost savings it will enable in these sectors, the NBN will also provide a financial return to the Government. NBN Co's business case outlines the timeframe over which NBN Co will repay the Commonwealth's equity funding and provide a return on its investment.

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Q: Won't NBN costs blow out?

The NBN Stage One rollout has come in on time and under budget in Tasmania, and NBN Co has learned a great deal from this project. The NBN's construction is a highly repeatable, scalable building process involving very similar modules as we rollout across the country. There is significant scope for applying continuous improvement methodologies to drive down costs.

Q: How does the Telstra Financial Heads of Agreement assist the NBN rollout?

The Financial Heads of Agreement signed between NBN Co and Telstra in June 2010, if formalised by way of binding agreements, will reduce NBN rollout costs by giving NBN Co access to Telstra's existing infrastructure such as underground ducts, exchanges and transmission. We also expect to reduce the NBN's revenue risk, with the Telstra Heads of Agreement outlining the decommissioning of the copper access network as the fibre network is rolled out.

Q: Why has a publicly owned body like NBN Co been given the job of building the NBN instead of leaving the investment to the private sector?

The Government announced its decision to establish NBN Co in April 2009, after the Government received advice that none of the proposals submitted from interested parties to build a smaller-scale, Fibre-To-The-Node network represented value for money.

It is common for Governments to undertake these kinds of projects. Examples include hydro power, electricity grids, and our road and rail networks. A national approach is the best way to ensure there is a common infrastructure that can underpin services such as health and education.

The Government intends that the NBN will be a high speed broadband network delivering consistent service and will offer a uniform wholesale access price. Once it is up and running, it is forecast to provide the Government a positive financial return.

Q: What is the difference between mobile and fixed wireless?

NBN Co plans to deploy a fixed wireless solution to service premises and businesses that are not scheduled for a fibre or satellite service. Fixed wireless means that the service will be supplied via a fixed antennae at the premises. Premises outside the fibre and wireless footprints will be able to acquire a satellite service.

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The speeds experienced on wireless broadband services depend on a number of factors, including the number of concurrent users in the area and their distance from the centre of the wireless cell.

The reception currently received on a mobile phone should not be used as an indication of what can be expected to be received over the NBN via fixed wireless – they run on completely different networks.

Fixed wireless networks are engineered to meet the speed and service requirements for a known number of users in the coverage area, which means that the bandwidth per end-user has the potential to be more consistent and stable than mobile wireless, even in peak times of use. This is unlike a mobile wireless service where speeds can be affected by the number of people moving into and out of the area.

Q: How will the boundaries for the Second Release Sites be determined?

NBN Co has identified the Fibre Serving Areas (FSA) in which Second Release Sites (SRSs) will be located. Each FSA is currently planned to cover around 38,000 premises. The SRSs will involve passing around 3,000 premises. The exact area to be covered will be determined after further site investigation and discussion with local government, and consideration of key engineering, network design and logistical criteria central to our rollout strategy.

Q: What about installation of cables and wiring?

The equipment or wiring that may be needed inside a premises to connect to the NBN may vary depending on factors like the services required in each room and the equipment the end-user already has.

For most people, a standard connection to the NBN is unlikely to require any major changes to inside wiring or equipment. For example, depending on the existing equipment a customer already has, customers may be able to plug it in as soon as the Network Termination Device (NTD) (the box end-users will use to physically connect to the network) is switched-on.

Alternatively, end-users may choose to upgrade their equipment and/or inside wiring with the aim of making their home or business network faster.

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Q: What does it mean to consent or opt-in? How do I consent/opt-in?

In Tasmania, the State Government has legislated that every premises will be connected to the NBN, unless the owner explicitly opts-out by electing in writing not to have the cable installed after receiving notice of the intention to install connection cable.

At the moment, in the rest of Australia, when the NBN comes to an area, premises owners will receive a consent form and be given the choice to consent to an NBN connection.

There are no costs involved in consenting or opting-in to a standard installation of a NBN connection during the initial rollout.

By completing the consent form, the premises owner gives NBN Co permission to lay a thin piece of fibre from the street to the premises. They are not committing to use the NBN or pay any money.

Once services are switched on in the area, residents will then be free to contact a Service Provider to discuss the right service and pricing plan to suit their needs.

Q: What prices will NBN Co charge?

NBN Co is an open access wholesale provider; this means end-users do not buy services from us. Instead, they are bought from Service Providers such as a phone company or an internet service provider. We provide the network upon which these companies deliver services.

As a wholesaler, NBN Co provides a Basic Service Offering (BSO) over the three technologies; optical fibre, fixed wireless and satellite.

We plan to provide a standard national wholesale access price for the BSO across all three delivery technologies to all areas of Australia.

Retail pricing and service offerings will ultimately be decided by the market, with NBN Co committed to providing open access equivalence to enable retailers to compete and develop more innovative service offerings. On this basis we expect there to be a broad range of prices and plans to meet the needs of home and business customers.

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Q: How fast will the NBN be?

The NBN will enable a Basic Service Offering (BSO) of a minimum peak speed of 12 mbps to all Australian premises, either via fibre, fixed wireless or satellite, depending on where the premises are located. This will provide speeds higher than many urban Australians experience today.

The network has been designed so that it can be easily upgraded over time to enable faster speeds and greater capacity in line with demand.

For example, over the fibre product, the NBN will initially offer speeds up to 100 megabits per second, rising to 1 gigabit per second in 2012, and with the capacity for further upgrades in the future.*

** Speeds actually experienced will depend on a number of factors including retail broadband plan, equipment and in-premises connections.*

Q: Wouldn't it be just as vulnerable to flooding?

We have seen that Mother Nature is very powerful and there are some physical events that may destroy any network. However, one advantage of fibre over copper in a flood situation is that fibre doesn't need to carry an electrical current to operate, like a copper network does. When inundated, an optical fibre line can still carry its digital signals and support a telecommunications service – provided that the electronic devices at the Fibre Access Node (FAN) (which is like an exchange) – and the premises are still operational. NBN Co is paying special attention to flood data in the placement of its FANs, and the Network Termination Device (NTD) in premises should be mounted as high as practically possible.

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