



Australia's  
broadband  
network

# TELAUSTRALIA'S BUSINESS GUIDE TO THE NBN

## WE ANSWER YOUR NBN QUESTIONS.

What will happen to my phone  
system when the nbn arrives?

What happens with my eftpos & hicaps?

What happens with my fax?

What happens with my alarm?

# A MESSAGE FROM TELAUSTRALIA'S MANAGING DIRECTOR TO THE BUSINESS OWNER

You may be aware that the National Broadband Network (NBN) is rolling out in Australia. We are sending you this guide because your area has recently been connected, or is about to go live on the NBN.

The NBN is the Australian Government's new High Speed data network. The NBN will change the way that phone and data services are delivered in Australia for years to come. It's probably the biggest technological change for Australian business since the advent of the internet.

Like most businesses, your phone and data connections are critical to you. It's important to understand how the NBN roll out will effect you so you can prepare for the change in a structured way. Failing to plan your transition carefully may cost your business with downtime on business critical phone and data services.

It's important to understand there is no "do nothing" option. The good news is that with some decent advice, you can make the transition with next to no disruption to your business.

By reading through this guide you should get a rudimentary understanding of the steps to take and the pitfalls to avoid in transitioning your business to the NBN.

Of course, if you need further help, Telaarustralia is here to help, with obligation free consultations available.

Yours Sincerely

**Tony Dunphy**  
*Managing Director*

**1**

The change to the NBN is mandatory.

There's no avoiding it.

**2**

18 months after your site is declared ready for NBN service, your Copper PSTN Phone Lines and ADSL Internet services will be cut off.

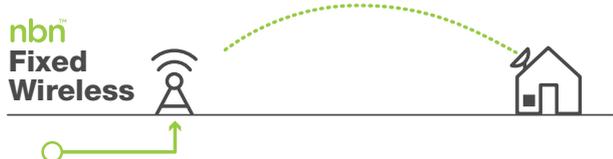
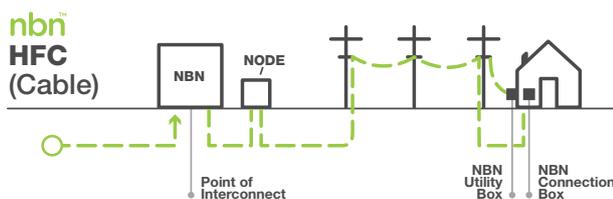
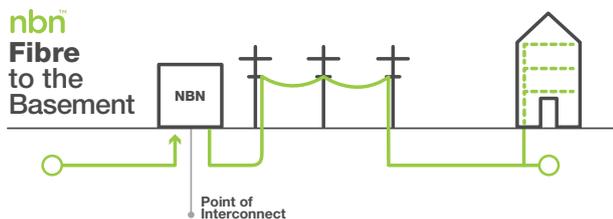
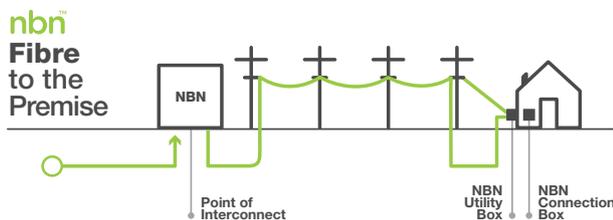
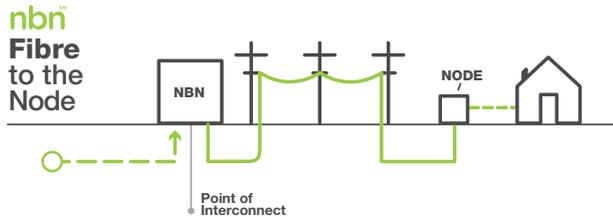
**3**

Changing to the NBN will mean you will need to check that your Phone System, Fax, Alarm and Eftpos are NBN compatible.

## TYPES OF NBN CONNECTIONS

The NBN is rolling out now and is in most cases a residential grade service. This means that there is no real guarantee around the quality of service.

Business Grade internet services will be available by around 2018, but they will be substantially more expensive than standard Residential Grade services.



NBN co. is also experimenting with newer technologies, looking for cheaper delivery methods and also for technologies that deliver faster speeds.

The technologies that are currently being trialed are not available at this stage.

### FIBRE TO THE NODE (FTTN)

This is the most common connection which is delivered to a cabinet (The Node) near your property. Then the section from the cabinet to your premises is delivered using the same copper phone lines that you use now for your phone and Internet.

### FIBRE TO THE PREMISES (FTTP)

Most of the politics was around this delivery method, which was scrapped as being too expensive. This means that businesses in the original roll-out received Fibre right into their premises. This is a superior service to FTTN.

### FIBRE TO THE BASEMENT/BUILDING (FTTB)

This is mainly used for delivery of NBN into high rise and high density building sites.

### HYBRID FIBRE TO THE PREMISES (HFC)

These NBN services are being delivered in areas that had pre-existing Telstra and Optus Fibre internet services. Basically, the NBN will take over ownership of these fibre cables and use them to deliver NBN services.

### FIXED WIRELESS

Some of the delivery methods are for rural and remote areas only, such as **Fixed Wireless** and **Sky Muster Satellite** services. These are significantly slower services than FTTN, FTTP FTTB and HFC. In these areas the Telstra PSTN copper services will not be withdrawn.

## WHEN WILL NBN BE AVAILABLE?

You can enter your address on the NBN website and it will give you a timeframe as to when your site will be Ready For Service (RFS).

[www.nbnco.com.au](http://www.nbnco.com.au)

You will receive a letter from NBNco advising that your site is RFS.

## WHEN DO I HAVE TO CHANGE TO THE NBN?

**You have 18 months after your site is declared ready for service before you have to change or risk losing your business phone numbers.**

We have seen some really shoddy advice given in relation to this point. Some of the outright lies we have been informed of:

### Customer Lisa was advised....

*"If you don't pre order NBN you will lose your numbers when the NBN is activated"*

### Customer Ms Jane MC was advised...

*"It's a statutory requirement that we (unknown phone company) visit you and interview you before changing to the NBN"*

Both of these statements are nonsense and you have up to 18 months before you have to make the change. Of course our view is that most businesses will want to change over as soon as the NBN is available.

## HOW MUCH FASTER WILL THE NBN BE THAN MY ADSL?

On the NBN you should get a significantly faster web experience than with ADSL.

There are 5 speed tiers on the NBN:

NBN TIER SPEED		
TIER	DOWNLOAD	UPLOAD
1	12 Mbps	1 Mbps
2	25 Mbps	5 Mbps
3	25 Mbps	10 Mbps
4	50 Mbps	20 Mbps
5	100 Mbps	40 Mbps

**It's important to note these are maximum speeds, and actual speeds will depend on factors including distance from the exchange or the node, the quality of the router you are using and the contention ratio on your service.**

Contention ratio is the number of users that are using a link. You may wonder why some budget providers can offer unlimited services for \$60, while companies like Telstra charge \$100 for the same service.

While there are probably higher margins on the Telstra product, you can be certain the budget provider will be cramming as many customers onto the link as possible. The more users the greater the chance of choking the service speeds.

## WHAT WILL THE NBN COST?

**A Tier 5 NBN connection with 250gb of data will be around \$100 a month with a quality provider.**

Cheaper options are available on the lower speed tiers with less data allowance. Many business will have lower overall costs, as they wont have to pay as much in phone line rental.

## HOW DO PHONES WORK OVER THE NBN?

**Because the copper phone and ADSL services will ultimately be cut off, for most businesses changing to the NBN will mean a change of phone call technology.**

It's worth understanding the available call technologies that are in use now.

### PSTN PHONE LINE

This is the standard Telstra copper phone line used by most businesses for voice calls, and also used for ADSL internet services. PSTN is not NBN Compatible. PSTN & ADSL services will be cut off 18 months after your site is declared Ready for NBN Service.

### ISDN

ISDN is not NBN Compatible but will not be cut off when the NBN arrives. ISDN is a more traditional option if you would prefer to remain on a "Telstra" phone line.

ISDN phone lines will not be removed with the NBN roll out, so they remain as an option if you are not comfortable with VoIP. ISDN is more expensive than SIP trunks.

### SIP TRUNKS

SIP Trunks are an NBN compatible Digital Phone Line. Most people will have heard of VoIP. A SIP trunk is a Digital Business Grade VoIP line and you will see this referred to below.

A SIP Trunk is one of the cheapest methods of making phone calls. SIP Trunks connect to the outside world via the modem, rather than over a copper phone line.

Instead of paying \$40-\$55 per phone line, a SIP trunk costs \$10 per line, or around \$60 with unlimited calls.

### HOSTED OR VIRTUAL PBX ARE NBN COMPATIBLE

Hosted PBX is a VoIP Phone system where the engine of the system is hosted in the cloud. The only equipment on site are the handsets and a switch.

These systems run over an Internet connection so are the perfect solution at a NBN site.

A Hosted PBX has approximately the same call and rental costs as a SIP trunk, with unlimited call plans of \$50 per month or PAYG rentals at \$10 per handset month.



## WHAT HAPPENS WITH OUR PHONE SYSTEM ON THE NBN?

**We are hearing horror stories of customers at NBN sites being informed (conned!) that they must replace their phone system and signing up to ridiculous 60 month contracts for enormous sums of money.**

While some phone systems will need to be replaced, most of them can be modified to carry SIP trunks at a fraction of the cost of a replacement.

Using a SIP Trunk Adapter costing under \$1000, could save you a fortune and converts your PBX into a digital system. It's a bit like a set top box used for Digital TV that converts a digital signal to analogue for older systems.

**However, there will be some Phone Systems that are just too old and may need to be replaced.**

In the event that you do need a new phone system, please do us a favor and don't go paying any more than \$200-\$300 per handset. We have seen recent quotes from very big companies that have been ridiculous. For example, one recent quote for a 7 handset system was priced at \$12000 over 60 months.

### 1 Modify your existing Phone System with an IP card

An IP card is a card that slots into your Phone System that allows the Phone System to use SIP trunks for calls. These would be available for most Phone Systems that are less than 5 years old, and the cost to add in a card will vary by system, but typically is \$1000-\$1500.



### 2 Add Adapter Hardware to your Phone System

An ATA is an Analogue Telephone Adapter. It converts a VoIP call to an Analogue signal the same as that delivered by a PSTN Phone line. The ATA sits outside the phone system and allows the existing phone system to use VoIP.

ATAs can be a cost effective method of adapting your existing (and some older) Phone Systems for use with SIP trunks. The cost will vary but a typical 4-8 Line ATA should be under \$1000 installed.



### 3 Add an ISDN card to your existing Phone System

You can convert your existing PSTN Phone numbers to ISDN2. This means your voice service continues to be delivered over a copper line on the Telstra network.

The cost for an ISDN BRI card will vary dramatically depending on brand, model and age of the phone system, but would start at around \$1000 and up to \$3500 installed. Its worth noting that ISDN will be withdrawn as an option some time around 2020.

### 4 Install a new NBN Phone System.

An NBN Hosted PBX is designed to carry calls over the Internet from the outset. These systems come with a range of benefits over traditional systems that include portability to other site's systems. Costs for a new Hosted PBX system are around \$200-\$300 per handset.

## CAN WE KEEP OUR BUSINESS PHONE NUMBERS WHEN THE NBN COMES?

Yes.

All of the suggested solutions below allow you to keep your existing phone numbers.

## WHAT HAPPENS WITH OUR EFTPOS & HI CAPS?

**Eftpos & Hi Caps terminals using a fixed line can be run over the NBN by connecting to the UniV port on the NBN router.**

The UniV port is an analogue port the same as PSTN. There are only 2 Univ Ports on your router or termination unit, so if you need more than 2 terminals this may not be an option for you. If you require more than 2 terminals, an ATA may be the best option for you. ATAs are available with up to 16 ports.

Eftpos & Hi Caps terminals using a data connection can be run over the NBN by connecting to a data port on your router.

The other option for Eftpos is to ask your Eftpos provider about a 3G/4g option, and circumvent the NBN altogether.

## WHAT HAPPENS WITH FAX?

**For many businesses, a fax machine is still critical to their operation.**

Similar to an Eftpos Machine, A fax machine can be connected to the UniV port on your termination Unit or Router. This is a fairly simple solution.

Again, remember there are only 2 Univ Ports, so if you need more than 2 analogue devices then you should consider an ATA.

## WHAT HAPPENS WITH ALARM?

**Our advice when it comes to alarms is to contact your alarm provider.**

We are finding many alarm companies are advising to change to 3G/4G alarm systems that are immune from power and internet outages.

If you have an analogue alarm, it may be compatible with the UniV port on your router/termination unit. However, it is important to seek advice from your alarm provider. Analogue Alarm devices can also run over an ATA, but again we ask that you confirm with your provider.

## SUMMARY

**So now you have the basics of how the NBN roll out may affect your business.**

It's nothing to be worried about as long as you don't wait until the last minute to take action.

The best option is to talk to one of Telaarustralia's highly experienced and Australian based team. We can cut through all the jargon and techno babble that is part and parcel of the NBN, and provide you with a simple and easy to follow NBN implementation plan.

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For a limited time  
Telaarustralia is offering  
business owners a  
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We will help you set out the things you need to do, in the order they need to take place so your NBN transition is painless and you have a plan to work to.

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