

N B N

What ?

When ?

Cost ?

Current National Data Network

- Mixture of systems
 - **Mainly Copper wire into Homes, Commercial Premises**
 - **If using ADSL, speeds 2 – 10 Megabits per second**
depending upon distance to Exchange and copper network quality
 - **Some have Telstra or Optus Coaxial cable, up to 100 Mb/s**
limited network, older technology, shared access can limit speeds
 - **Remote areas – expensive Satellite access**

National Broadband Network

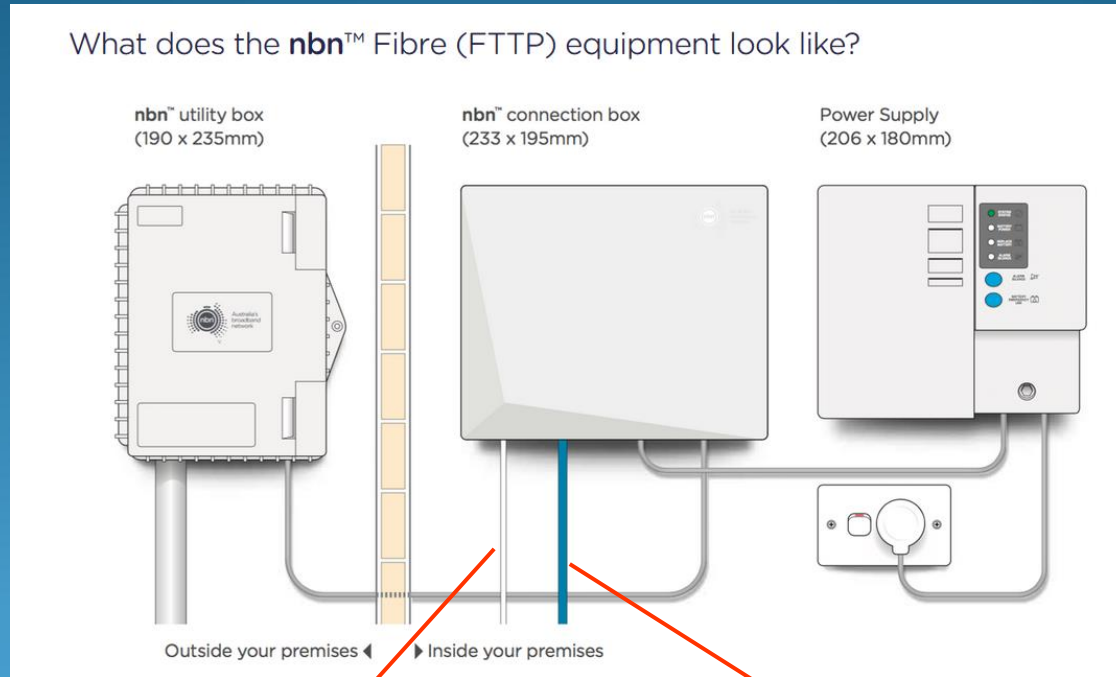
- Australia wide Network, using new Fibre Optic technology
 - to totally replace older Microwave (now Fibre ?) and Copper network
 - Originally all FttP - Fibre to the Premises or (FttB), expensive
 - Compromise FttN - Fibre to the Node (in Street), or Fixed Radio
 - Takeover Telstra and Optus(?) cable networks
 - Remote areas - new lower-cost Satellite access, subsidised ?
- Recently announced - FttC (Curb) / FttDP (Distribution Point)

Six Connection Offerings

- **FttP – Fibre to Premises (original concept, all premises),** 26%
- **FttN – Fibre to (street) Node / Pit, existing street Copper**
- **FttB - Fibre to Building, Node in Building then existing Cu** } 44%
- **HFC - Hybrid Fibre Coax (Telstra / Optus / PayTV coax)** 30%
- **Fixed Wireless – Antenna Dish to local tower** minimal %
- **Sky Muster (satellite)** minimal %
- **or new FttC / FttDP - Fibre to Curb (or Distribution Point / Pit) ? ? ?**

Fibre to Premises

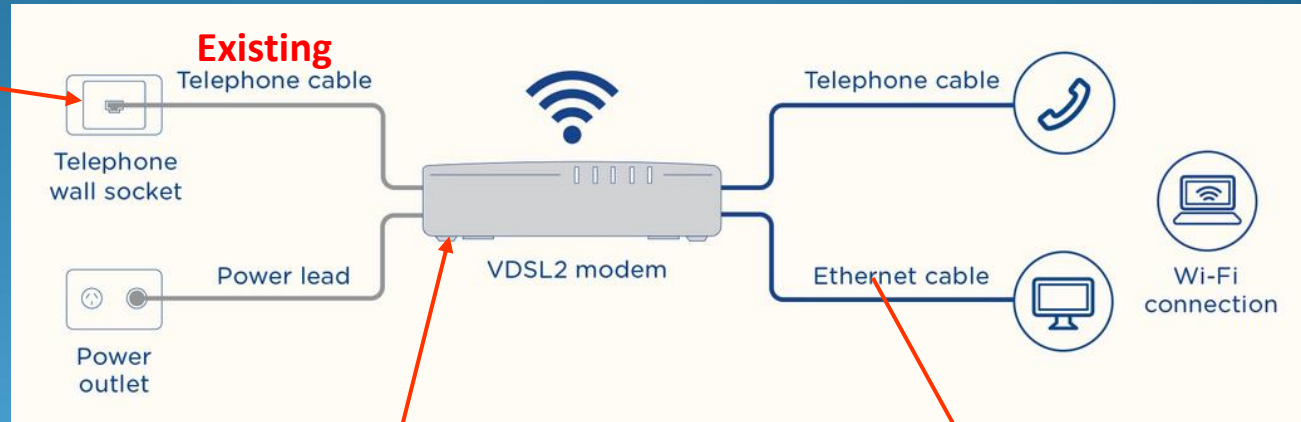
What does the **nbn**TM Fibre (FTTP) equipment look like?



To Analog Alerting Systems ?

To Internet Router, VOIP

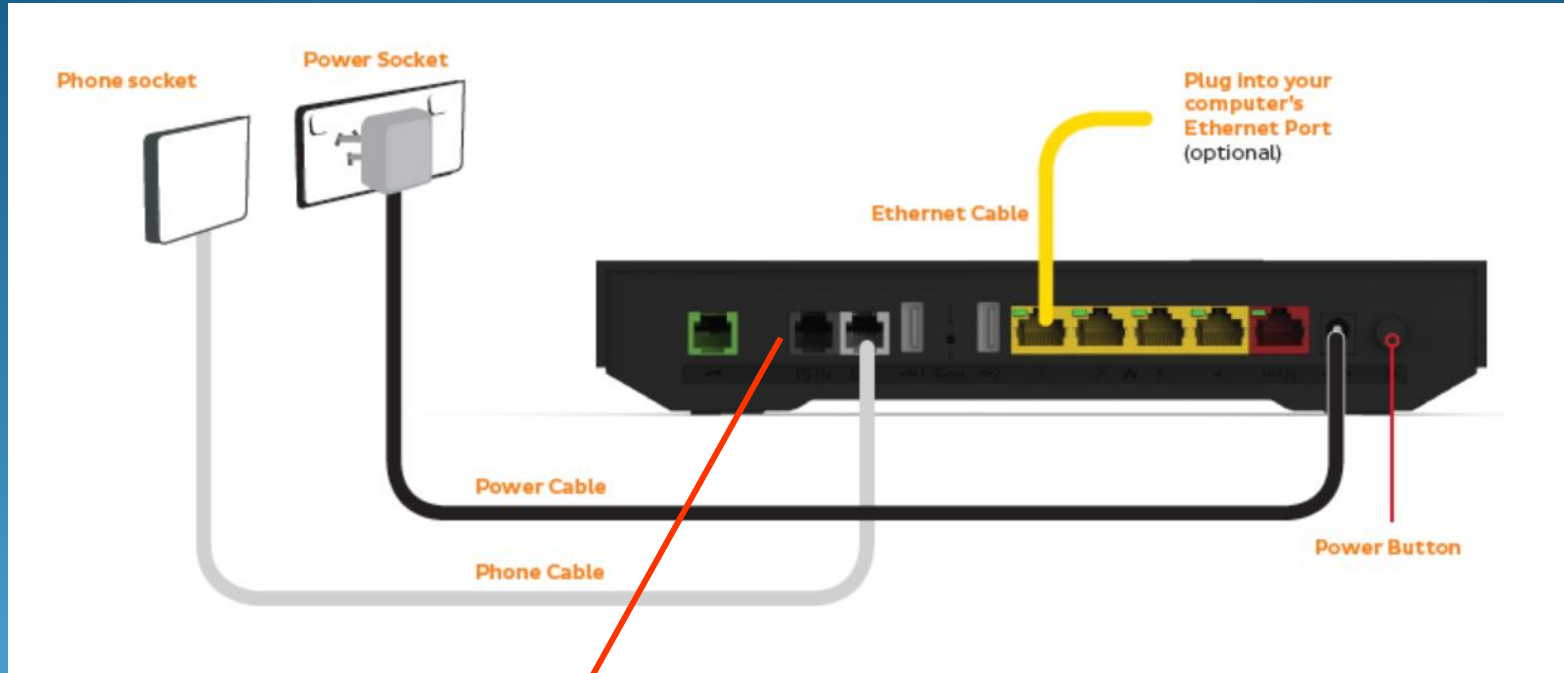
Fibre to Node (or Curb) - for most people



Different Modem - may have WiFi & Multi Ports
(negotiate with ISP . . .)

To PCs etc

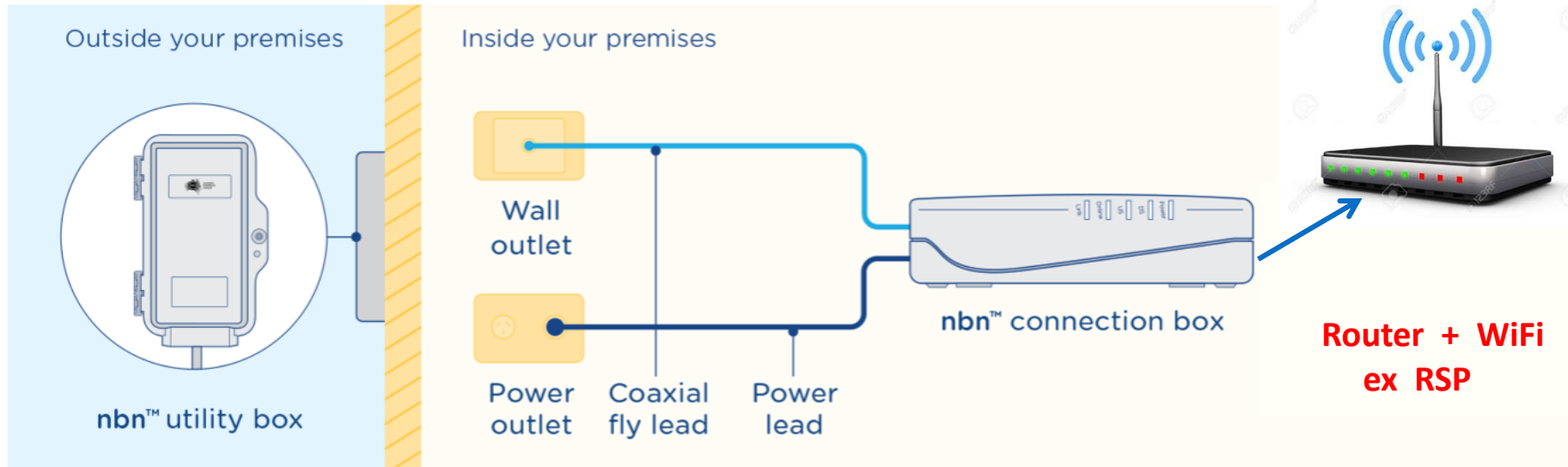
Fibre to Node - Setup similar to ADSL



To Analog systems ?

Hybrid Fibre Coax – ala Telstra/Optus cable

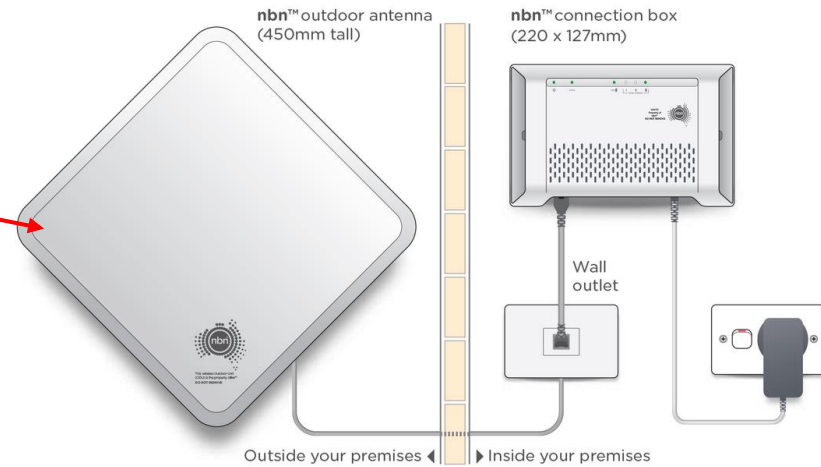
Installation without pay TV service:



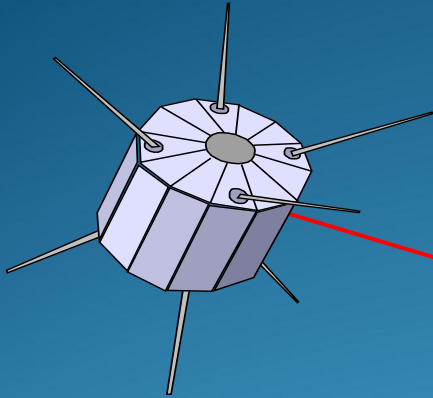
Fixed Wireless - up to 14 kms



What does the **nbn**™ Fixed Wireless equipment look like?

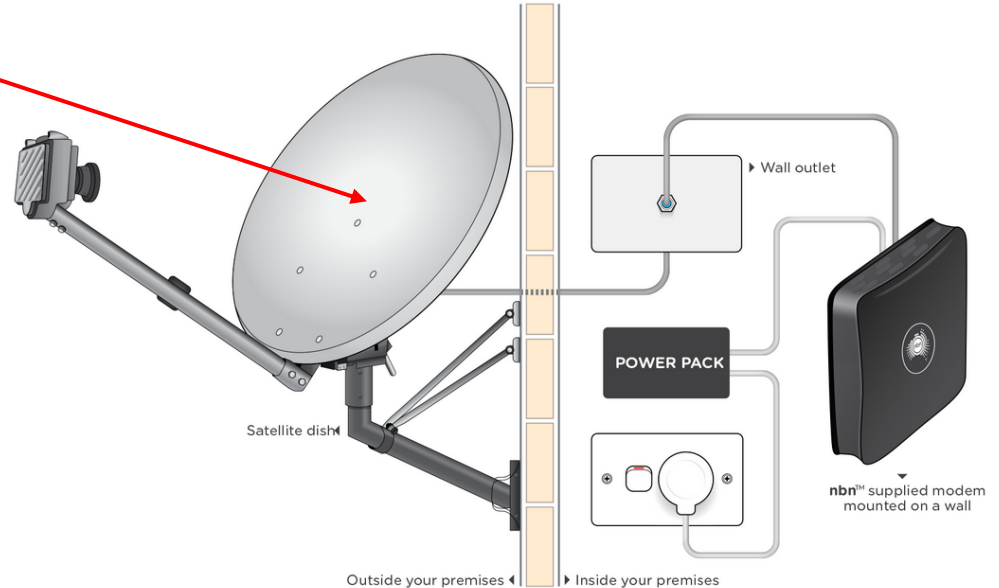


Sky Muster (Satellite)



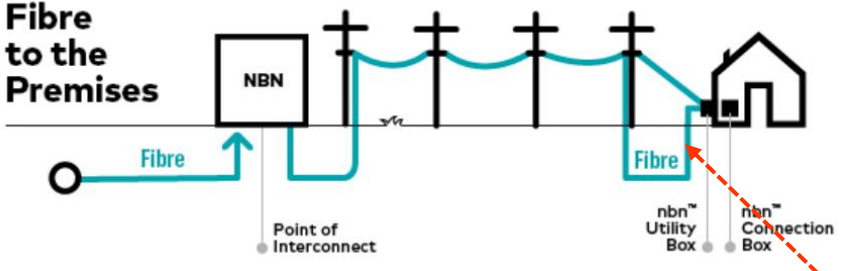
Planned for 400,000 homes or businesses in rural areas, including Norfolk, Lord Howe Island etc – within satellite footprint.

What does the **nbn™** Sky Muster™ supplied equipment look like?

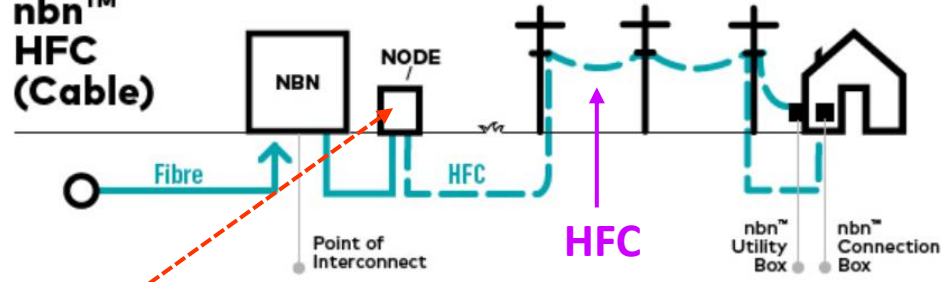


The satellite dish may alternatively be mounted on your roof or gutter.

nbn™ Fibre to the Premises



nbn™ HFC (Cable)

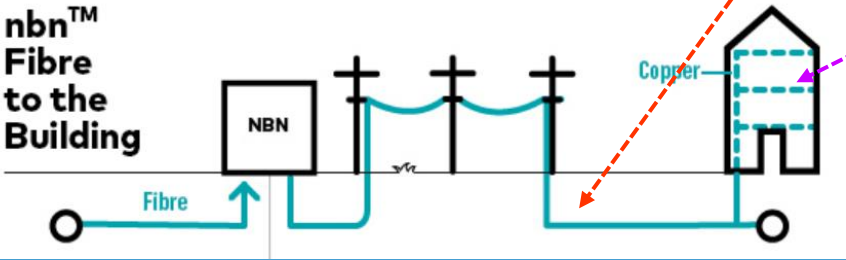


Method Summary

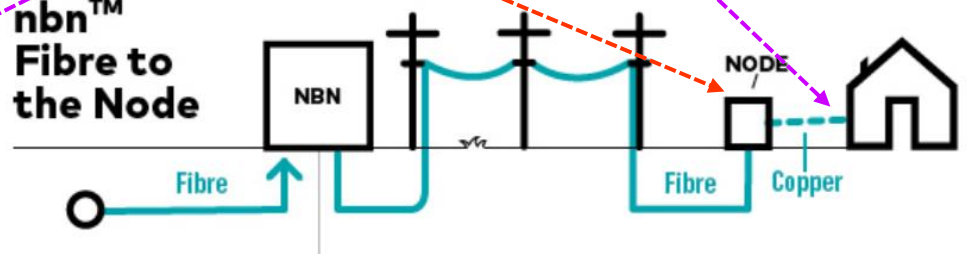
Fibre

Copper

nbn™ Fibre to the Building



nbn™ Fibre to the Node

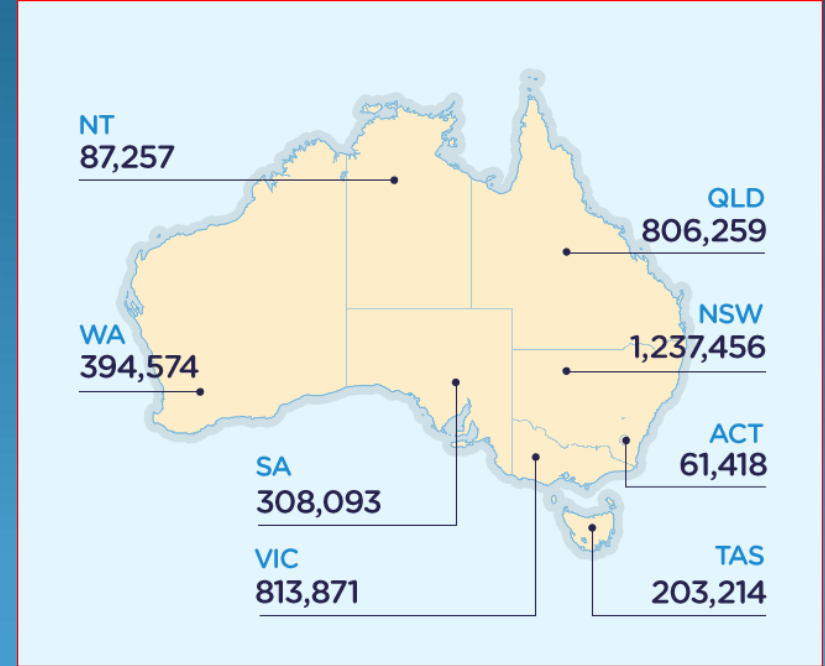
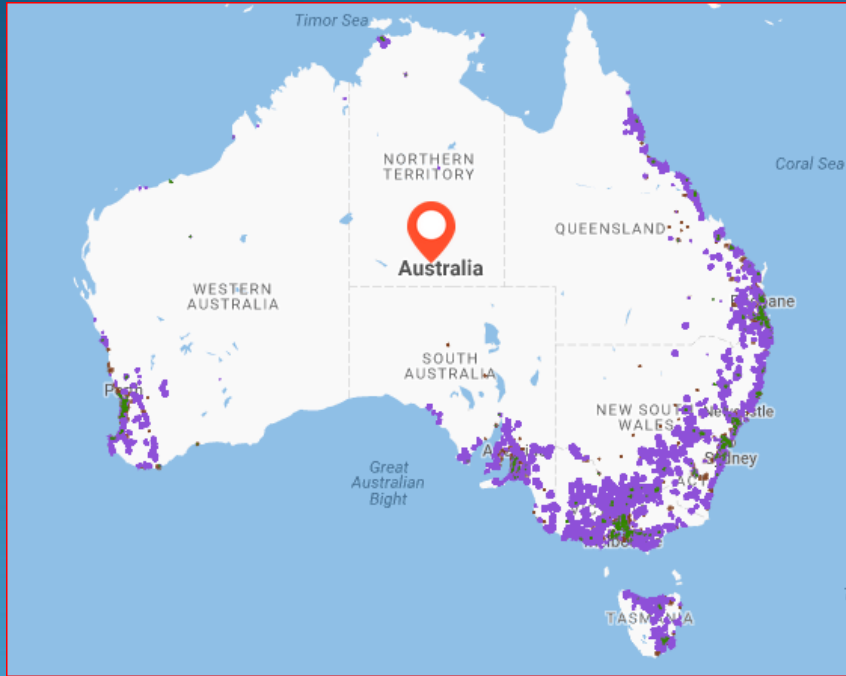


What option for me ?

The multi-technology principles mean that most households and businesses:

- already served by the Optus or Telstra Hybrid Fibre Coaxial (HFC) cable networks, will receive fast broadband over an **upgraded HFC** network; **Query Optus ?**
- where the **nbn**[™] fibre-to-the-premises (FttP) network has been deployed or is in advanced stages of being built, **will remain part of the FttP rollout**;
- where the **nbn**[™] fixed wireless or satellite networks are earmarked for deployment, will remain part of the Fixed Wireless or Satellite rollout.
- **All other areas are likely to receive fast broadband over fibre-to-the-node (FttN, FttC)** and for multi-dwelling units such as apartment blocks, fibre-to-the-building

Where ?



Started in Tasmania 2010 – end 2016 = 4 million (1/3rd) - all Australia by 2020 !

When - for me ?

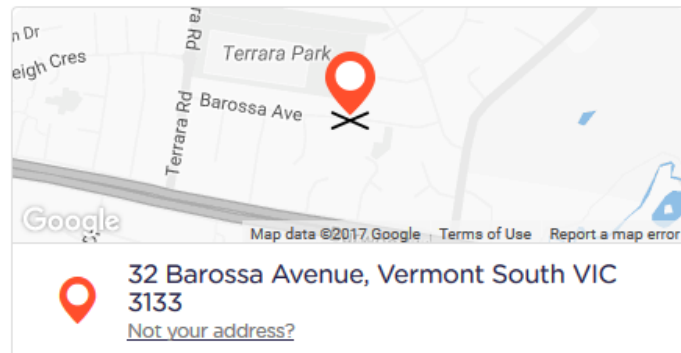
Need to use NBN website to find out by specific address

The rollout of the nbn™ network is planned in this area

Planned availability: **Apr-Jun 2017***.

You can check your address again at any time or register and we will keep you informed with regular updates.

Register now for updates



Impact ?

- 18+ months conversion period (after service available !)
 - **Confusion re Installation cost – at initial time, vs delayed**
 - **Negotiate with Retail ISP for Package (NBN is a wholesaler)**
 - **Existing packages may not be transferable**
 - **Older technology eventually turned off, with due warnings**
 - ****** Optus network - - - - 6 weeks ?? !! ******
- Special Handling
 - **Auto dialler for Medical, Security, Fire alarms monitoring**
 - **NBN needs 230v Mains Power to operate, UPS battery backup ?**
 - **Alternate backup access – mobile phone ?**

EXCLUSIVE

MARCH 10 2017 - 11:46AM

Optus threatens disconnection to sign up NBN customers and fast-track HFC cable shutdown



Adam Turner



1,167 reading now [Show comments](#)

Optus is ignoring the NBN's 18-month switchover commitment and threatening to cut off cable customers within weeks, using strongarm tactics to sign them up as Optus NBN customers before they can consider changing provider.

Optus is calling its cable broadband customers in newly NBN-ready areas and threatening both telephone and broadband disconnection in 30 days – including the permanent loss of their home phone number – if they don't migrate from Optus cable to the NBN network. The calls come before those customers have received a "Ready For Service" letter from the NBN indicating they can sign up with their internet service provider of choice.

Customer Costs ?

- Initial Costs
 - **NBN technician ?** if not FFTN (using existing phone lines)
 - **New Modem / Router - negotiate with Retail ISP**
 - **Modem setup – if not DIY . .**
- Ongoing costs – ex ISP
 - **Monthly package depending Speed, Data & Phone allowances**
 - **Download speeds – 12 Mbits / sec (ala DSL) , 25, 50, 100 Mb/s**
 - **Associated Upload speeds - 1, 5, 20, 40 Mb/s**
 - **HFC = max 100 DL / but only 1 Mb/s UL !**

TPG plans - 12 / 1 Mb/s

S	M	SL	EXTRA BUNDLE	XXL
10GB Data ²	100GB Data ¹ 50GB Peak + 50GB Off-Peak	UNLIMITED Data	UNLIMITED Data	UNLIMITED Data
Pay As You Go Calls	Unlimited Local Calls Unlimited Standard National Calls	Pay As You Go Calls	Unlimited Local Calls Unlimited Standard National Calls	Unlimited Local Calls Unlimited Standard National Calls
			Unlimited 3'1300 Calls	Unlimited National Calls to Mobiles
			100 International Minutes	Unlimited International Calls to 11 Countries + 500 Minutes to India
Wi-Fi Modem	Wi-Fi Modem	Wi-Fi Modem	Wi-Fi Modem	Wi-Fi Modem
\$29⁹⁹ PER MONTH	\$49⁹⁹ PER MONTH	\$59⁹⁹ PER MONTH	\$69⁹⁹ PER MONTH	\$79⁹⁹ PER MONTH
Minimum charge \$159.94 Critical Information Summary (N)	Minimum charge \$179.94 Critical Information Summary (N)	Minimum charge \$189.94 Critical Information Summary (N)	Minimum charge \$199.94 Critical Information Summary (N)	Minimum charge \$209.94 Critical Information Summary (N)

Higher Speeds: 25/5 Mb/s +\$10, (50/20 +\$20), 100/40 +\$30

iiNet (Westnet) basic plans

\$59.99 – \$89.99

basic & boost download speeds

\$99.99 – \$119.99

max download speeds

250GB



basic download speeds
up to 12Mbps*

Pay as you go calls



\$59.99 per month

**Liimitless
Data**



basic download speeds
up to 12Mbps*

Pay as you go calls



\$69.99 per month

**Liimitless
Data**



boost download speeds
up to 25Mbps*

✓ Includes local and standard
national calls



\$79.99 per month

**Liimitless
Data**



boost download speeds
up to 25Mbps*

✓ Included calls
local & standard national calls
calls to Australian mobiles



\$89.99 per month

Optus Offerings . . .

- Basic NBN 12/1, Unlimited Data \$ 80 /m
- Speed Upgrade to 100 / 40 \$ 30 /m
includes AU Mobile and Fixed Line Calls
- **\$110 /m**
- Fetch TV Entertainment (35 channels) \$ 30 / m
adds most International calls
- Total / month \$140 /m
maybe \$20 less if Optus Mobile phone allowed

• **However, currently (nearly same functions) = \$ 81 /m - to be negotiated !**

Telstra Plans – C

HELLO IM FROM TELSTRA

	Foxtel from Telstra																			
M	HOTTEST ENTERTAINMENT BUNDLE	Telstra																		
\$90 PER MONTH FOR 24 MONTHS	\$99 PER MONTH FOR 24 MONTHS	\$120 PER MONTH FOR 24 MONTHS																		
500 GB	1000 GB																			
Min cost \$2160	Min cost \$2565	Min cost \$2880																		
Speed boosts Enjoy base speeds of up to 25 Mbps or upgrade with a speed boost	Speed boosts Enjoy base speeds of up to 25 Mbps or upgrade with a speed boost	Speed boosts Enjoy base speeds of up to 25 Mbps or upgrade with a speed boost																		
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HOW MAY I HELP YOU

Telstra Home Phone Plans

XS

WORKS ON NBN

HOME PHONE BASIC



Local calls
30c per call



National calls to
standard fixed
lines

Capped at \$3 for the
first 3 hours per call,
7pm to midnight



Calls to standard
Australian mobiles

Calls to Telstra mobiles capped
at \$3 for the first 20 minutes
per call, 7pm to midnight.

Starting at :

\$25.95

per month

S

WORKS ON NBN

HOME PHONE LOCAL



Local calls
Unlimited



National calls to
standard fixed
lines

Capped at \$2 for the
first 3 hours per call,
anytime



Calls to standard
Australian mobiles

Capped at \$2 for the first 20
minutes per call, anytime.

Starting at :

\$40.00

per month

M

WORKS ON NBN

HOME PHONE NATIONAL



Local calls
Unlimited



National calls to
standard fixed
lines

Unlimited



Calls to standard
Australian mobiles

Capped at \$2 for the first 20
minutes per call, anytime.

Starting at :

\$50.00

per month

L

WORKS ON NBN

HOME PHONE PINNACLE



Local calls
Unlimited



National calls to
standard fixed
lines

Unlimited



Calls to standard
Australian mobiles

Unlimited

Starting at :

\$85.00

per month

NBN Obligation

To provide low-cost phone-only service no higher than existing low-cost 'pensioner' Telstra service

Government Guarantee . .

VoIP Prices

No rental charges only hardware pricing and callcosts.

- \$0.00 Rental**
No more paying for line rentals, with Telecube VoIP we don't limit you to lines. Make and receive as many simultaneous calls as your hardware and internet connection can handle.
- \$0.00 call costs between extensions**
Talk between your extensions free. Extensions can be in different buildings, different states or even other countries. Transfer calls and talk between extensions at no cost.
- \$2.95 per month for DIDs**
If you need a standard number for the POTS users to call you on.

Call Costs

Destination	Rate
All national calls	12.1c per call
Mobile calls	13.2c per minute (1 second increments and no flagfall)
13/1300 number calls	33c per call
Common international destinations	Less than 4c per minute

Low Cost Phone Only Alternatives

Need to compare all costs

- - - Initial Setup, HW
- - - Calls Profile
- - - Telecube example . .



MyRepublic

TECH INSIDER

This ISP will offer unlimited data at maximum NBN speed for \$60 per month

A Singaporean ISP is entering the Australian market with a single product — unlimited data and the highest speed for \$59.99 per month — claiming it is the first ISP “purpose-built” for the NBN.

MyRepublic, which made its name in Singapore selling 1Gbps broadband plans for under \$50 monthly, will launch in Australia on November 15.

The plan will have no data limit and provide the fastest speed available in the customer’s location. The NBN’s fastest tier is 100Mbps.

SuperFast

\$59.99/month

Minimum Cost \$720.88
(over 12 months)



UNLIMITED DATA

up to **100MBPS** down
up to **40MBPS** up



- Unlimited downloads
- Optimised for streaming
- Home Phone included
- \$1 Wi-Fi Hub+ Modem

Aussie Landlines

+\$10/month



- Unlimited Local Calls
- Unlimited National Calls

All of Aussie

+\$20/month



- Unlimited Local Calls
- Unlimited National Calls
- Unlimited calls to standard Australian Mobiles

International Plus

+\$30/month



- Unlimited Local Calls
- Unlimited National Calls
- Unlimited calls to standard Australian Mobiles
- Unlimited calls to 40 countries

Summary

- NBN is coming – like it or not !
- Will replace existing “wired” system (unless -> all mobile)
- Check NBN site to find dates for your address
- See if immediate equipment install -> lower cost ??
- Explore various ISPs – and negotiate

Questions ?

