The nbn™ effect

Damon Cavalchini - nbn local manager, Southern Queensland
The ‘nbn™ effect’
Measuring the economic and social impact of continent-wide access to broadband

Research found that by 2021 there could be...
- Up to 148k new digital jobs
- Up to 80k new businesses created
- Up to 47k additional working from home

nbn™-connected regions are seeing rate of growth in the digital economy jobs sphere almost 5x the national average

$10.4bn
The predicted impact of nbn™ on the GDP by end of rollout

We’re investing to achieve the change Australia deserves

Drawing on data from both the 2016 Census and a bespoke national Ipsos survey

Source: Connecting Australia (2017) AlphaBeta
Why switching to the nbn™ access network can be the catalyst for transformation
Why you need to **plan** now before disconnections commence

*Migrating voice services can take six months or more*

You can imagine the challenges of doing business without these critical services, even for a month.

*Migrating phone & broadband services is rarely automatic*

You’ll need to arrange new services before your disconnection date or risk losing access to your critical services.

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### Act now

We recommend you start planning the migration to the **nbn™** access network as soon as it becomes possible to do so.

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*Disconnection dates vary and not all Special Services will be disconnected – whether a service will be disconnected, and the timing of disconnection will depend on factors including the type of Special Service, when the **nbn™** broadband access network is available, which **nbn™** access technology is available and whether Telstra has issued a BAU product exit in respect of a Special Service. To find out if your services will be affected, and applicable disconnection dates, contact your phone or internet service provider.*
Why we need to talk about business nbn™ services

- business nbn™ wholesale plans
- business nbn™ Fibre upgrade options
- Dedicated business connection and resolution team
- Optional enhanced Service Level Agreements
Connected small business

Australian SMBs that have reached advanced levels of maturity compared to basic

- 8x more likely to create jobs
- 1.5x more likely to grow revenue
- 1.4x more revenue per employee earned
- 7x more likely to export
- 14x more likely to innovate
- Have a more diversified customer base

Digital customer experience

- 38% prefer to conduct transactions online than by phone or face-to-face
- 93% use the internet to research products and services at least once a year
- 24/7 - buy what you want, when you want
- Pay how you want, where you want

Source: Ernst & Young - 2016. Digital Australia: State of the Nation (2015-16)
Why you need to think what’s important in your business

The size of your plan determines how much data can move through your connection.

- We call these Traffic Classes
- Both Traffic Class 1 and Traffic Class 2 have “committed” data rates for upload & download
- Traffic Class 4 does not offer committed information rates (everyday internet)

Different applications can be “tagged” as requiring different performance priorities
What you need to do before your phone services are disconnected

1. Identify any Services due for disconnection
   Your adviser can identify these services. Speak to them ASAP to confirm which services are at risk of disconnection

2. Speak to a provider that supports business grade services
   Stress to them you desire to switch these services to the nbn™ broadband access network as soon as possible

3. Prepare to switch
   Your provider will need to switch your special services to the nbn™ access network, so plan and ensure you’re ready for the switch
## Traffic classes to suit data, voice and internet

<table>
<thead>
<tr>
<th>Traffic Class 2</th>
<th>Traffic Class 1</th>
<th>Traffic Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Best suited to data &amp; applications</strong></td>
<td><strong>Best suited to multiple voice lines</strong></td>
<td><strong>Best suited to internet browsing</strong></td>
</tr>
<tr>
<td>➢ Committed Information Rate (CIR)</td>
<td>➢ Committed Information Rate (CIR)</td>
<td>➢ Peak Information Rate (PIR)</td>
</tr>
<tr>
<td>➢ Sensitive to Frame delay variation (FDV/jitter) and frame loss (FLR)</td>
<td>➢ Provides low bit rate low frame delay/loss</td>
<td>➢ “Best effort” data/internet access</td>
</tr>
<tr>
<td>➢ Symmetrical Downstream and Upstream Data Speed</td>
<td>➢ Symmetrical Downstream and Upstream Data Speed</td>
<td>➢ Asymmetrical Downstream and Upstream per Speed Tier</td>
</tr>
<tr>
<td>➢ Intended for real time video and business applications</td>
<td>➢ Intended for Voice Over Internet Protocol (VoIP) services</td>
<td>➢ Intended for general internet browsing and downloads</td>
</tr>
</tbody>
</table>

- **Traffic Class 2**: Best suited to data & applications
- **Traffic Class 1**: Best suited to multiple voice lines
- **Traffic Class 4**: Best suited to internet browsing

- **Video conferencing**
- **VPN**
- **Virtual reality**
- **Data recovery**
- **Collaboration**

- **Traffic Class 2**
  - Video conferencing
  - Colleagues

- **Traffic Class 1**
  - Landline phone

- **Traffic Class 4**
  - Internet access
  - Data exchange

- **Data recovery**
- **Colleagues**
Choosing the right access technology

1. Understand what type of nbn™ connection type you are scheduled for.
2. Discuss what your business voice, data and application bandwidth needs are.
3. Decide if you might need to change to one of the nbn™ Fibre to the Premise option.
List of business providers

To check whether your business is eligible to connect to services over the nbn™ broadband access network, you need talk to a phone and internet provider about a solution that suits your needs.

Providers that sell dedicated business nbn™ products and services

If your business has advanced application or support requirements, talk to a business provider. Ask them about the retail solutions based on wholesale business nbn™ products and services available at your premises.

The providers below offer one or more wholesale business nbn™ products, product features or services.

<table>
<thead>
<tr>
<th>Provider</th>
<th>Contact Information</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPT</td>
<td>13 88 77</td>
<td><a href="#">Visit website</a></td>
</tr>
<tr>
<td>Commander</td>
<td>1300 451 326</td>
<td><a href="#">Visit website</a></td>
</tr>
<tr>
<td>Exetel</td>
<td>1300 365 835</td>
<td><a href="#">Visit website</a></td>
</tr>
<tr>
<td>Harbour ISP</td>
<td>1300 366 169</td>
<td><a href="#">Visit website</a></td>
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<tr>
<td>Macquarie</td>
<td>1800 004 943</td>
<td><a href="#">Visit website</a></td>
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<tr>
<td>Optus</td>
<td>1300 850 927</td>
<td><a href="#">Visit website</a></td>
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<tr>
<td>Tasmanet</td>
<td>1300 792 711</td>
<td><a href="#">Visit website</a></td>
</tr>
<tr>
<td>Telstra</td>
<td>1800 179 852</td>
<td><a href="#">Visit website</a></td>
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<tr>
<td>TPG</td>
<td>13 42 02</td>
<td><a href="#">Visit website</a></td>
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<tr>
<td>Vodafone</td>
<td>1300 655 132</td>
<td><a href="#">Visit website</a></td>
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<tr>
<td>Vodaphone</td>
<td>1300 161 625</td>
<td><a href="#">Visit website</a></td>
</tr>
<tr>
<td>Wideband</td>
<td><a href="#">Visit website</a></td>
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## Establishing world-class network technology

### Fibre-to-the-Premises (FTTP)
- Deploys fibre optic cable all the way to premises. Available in a variety of existing locations as well as most large new developments, and to end users who can select FTTP through the Technology Choice program.
- Premises ready for service: 1.7m
- Premises ready to connect: 1.7m
- Premises activated: 1.2m
- Current wholesale products: Up to 1Gbps/400Mbps
- Potential upgrade path: NG-PON2
- Potential mid-term upgrade path: peak-speed

### Fibre-to-the-Node/Basement/Curb (FTTN/B/C)
- Deploys fibre into neighbourhoods and then makes use of the existing copper into the premises.
- Premises ready for service: 4.0m
- Premises ready to connect: 3.8m
- Premises activated: 2.1m
- Current wholesale products: Up to 100/40Mbps
- Potential upgrade path: G.fast, G.mgfast
- Potential mid-term upgrade path: peak-speed

### Hybrid Fibre Coaxial (HFC)
- Leverages existing networks of fibre and coaxial cable to deliver broadband services into the premises.
- Premises ready for service: 1.4m
- Premises ready to connect: 0.5m
- Premises activated: 0.4m
- Current wholesale products: Up to 100/40Mbps
- Potential upgrade path: Full Duplex DOCSIS 3.1
- Potential mid-term upgrade path: peak-speed

### Fixed Wireless
- Largely targeted at regional communities and provides the means for fast broadband to extend to Australians outside the reach of the fixed-line network.
- Premises ready for service: 0.6m
- Premises ready to connect: 0.6m
- Premises activated: 0.2m
- Current wholesale products: Up to 50/20Mbps
- Potential upgrade path: Optimising utilisation of current spectrum holdings
- Potential mid-term upgrade path: Future capability being explored

### Sky Muster™ satellite
- Among the world’s largest and most advanced communication satellites. The satellite service allows the nbn™ network to reach remote areas.
- Premises ready for service: 0.4m
- Premises ready to connect: 0.4m
- Premises activated: 0.1m
- Current wholesale products: Up to 25/5Mbps
- Potential upgrade path: Next Gen VSAT
- Potential mid-term upgrade path: Future capability being explored
Technology Choice: find the right solution to suit your business

- nbn recognizes that some businesses may be interested in changing their connection from what is originally being provided via the nbn™ access network rollout to an alternative access technology.

- You can talk to your phone and internet service provider about a higher priority service based on a wholesale business grade product to minimise downtime and offer you a better level of speed – particularly for your mission-critical applications.

- You should also engage your phone and internet service provider about whether you need more phone lines, bandwidth and data, and or an enhanced Service Level Agreement (eSLA).

- Keep in mind that nbn is a wholesaler - you will need to speak to your phone and internet service provider about a plan or package that works best for you and your business.