



An International Perspective on Australia's NBN

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Realising Our Broadband Future



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Department of Broadband,
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Canada 

Overview

- Australia's NBN: background info
- Changing the nature of competition
- Broadband as infrastructure
- Unanswered questions
- What could work elsewhere?

April 2009 NBN Announcement



Kevin Rudd: 'Superfast national broadband network is the most ambitious, far-reaching infrastructure project undertaken by an Australian government.' Photograph: Adek Berry/AFP/Getty Images

The Australian government today launched an ambitious plan to make [Australia](#) one of the world's most wired countries in a massive project to extend [broadband internet](#) access across the country.

- \$43 billion AUD investment (public/private)
- FTTP to 90% of premises, up to 100 Mbps
- Fixed wireless or satellite to remaining 10%, up to 12 Mbps
- 8 year rollout plan

“We are fixing two real and pressing problems:

- the need for better, faster broadband services through building a better network; and
- the structural problems that plague the sector and prevent genuine competition.”

December 2010 Update

- 93% fibre, 4% fixed wireless, 3% satellite
- fibre to communities with more than 1000 premises
- more than 12 M hh in fibre footprint by 2021 completion
- \$27.5B from government in equity funding
- open access, wholesale only
- uniform pricing/cross-subsidies



Corporate Plan 2011 – 2013

17 December 2010

Current Status

- 3 Tasmanian sites operational since late 2010
- 5 mainland sites operational as of Sept 2011
- Commercial offerings began Oct 2011
- Construction schedule to connect next .5 M
hh
- Ongoing debates about pricing, uptake
- Political opposition to NBN, does FTTP make sense?

NBN Objectives

#au20

National Digital Economy Strategy

Leveraging the National
Broadband Network
to drive Australia's
Digital Productivity

- “The NBN will provide reliable, ubiquitous, high-speed broadband to all Australian premises”
- “Enabling infrastructure for the digital economy”
- Provide “improved access to business and job opportunities, health, education and government services”
- Drive productivity, better connect Australia

Cast of Characters



Enormous change in industry, e.g.

- June 2011 agreement between gov't and incumbent Telstra (approved Oct 2011)
 - \$9B for decommissioning copper and HFC networks, NBN Co to use Telstra infrastructure
 - Telstra to structurally separate
- Reform of telecoms regulation
 - ACCC consultation on Telstra's structural separation undertaking (industry forum Nov 4)
- Legislation to reform USO
- Convergence review

Competition and the NBN

- Competition seen as the driver of investment in broadband infrastructure
- OECD on Australia (2010): “It would be preferable to maintain competition *between technologies* in the broadband sector and, within each technology, between Internet service providers.”
- NBN: enables retail level competition on single network

Competition and the NBN

- Nature of competition changes
- Competition on *services*, not on *infrastructure*
 - Avoids duplication of infrastructure

- *Any* qualified service provider can use the network
- Removes entry barriers
- Potential to increase competition
- May change role of ISPs



Competition and the NBN

- Outcomes are important
 - Choice, affordability, innovation
 - Effective use of broadband to realise benefits for citizens
- Does shift to services-based competition change outcomes?
 - Deeply entrenched positions, many international incumbents oppose this approach
 - Key question: can service-based competition deliver reliable, high quality broadband?

Broadband as Infrastructure

- Facilities-based competition delivers patchy infrastructure, un- or underserved areas
 - Unlikely to serve all premises
 - No uniform platform for service delivery
- Trans-sector services
 - Integrated, coordinated approach to healthcare, education, smart grid, e-government, etc.
- Managed/IP-based services
 - Not just about speed: need quality, security
 - Extends benefits of broadband

With FTTP, Broadband > Internet

“While many people use the terms interchangeably, the internet is not the same thing as broadband. In fact, you can use a broadband link to receive many different services which are completely unrelated to the internet, such as videoconferencing, security monitoring and health monitoring services.

The internet is a collection of networks and computers all joined together using the same basic communications technology. A *broadband* service is simply a fast, always-on way of linking your premises to the internet and other services.

Think of the internet as a city. Broadband is the highway leading there.” *National Broadband Network: A Guide for Consumers (ISOC & ACCAN)*

Key Differences

- Competing on services, not on building infrastructure
- Single high quality infrastructure facilitates service delivery, enables IP-based services
- Option for multiple service providers, changing business models

Size of government investment

- Is it warranted? How to answer this question?
 - Opportunity costs?
 - Cost-benefit analysis?



Electricity



Transportation



Education



Health



0.5% – 1.5%

On average, a cost savings of between 0.5% and 1.5% in each of the four sectors over ten years resulting directly from the new broadband network platform could justify the cost of building a national point-to-point, fibre-to-the-home network.

Achieving anticipated benefits

- Rationale for government investment in broadband is based on realisation of broad societal benefits
- Uptake/effective use are key
 - Shift from engineering-centric approach to citizen-centric
- Mechanisms for enabling managed services delivery? How to actually develop and roll out trans-sectoral services?

What about Wireless?



- Wireless is a competing infrastructure
- Australian mobile carriers are upgrading mobile networks

Introducing 4G...

Telstra's Next G network has now upgraded with 4G capability.

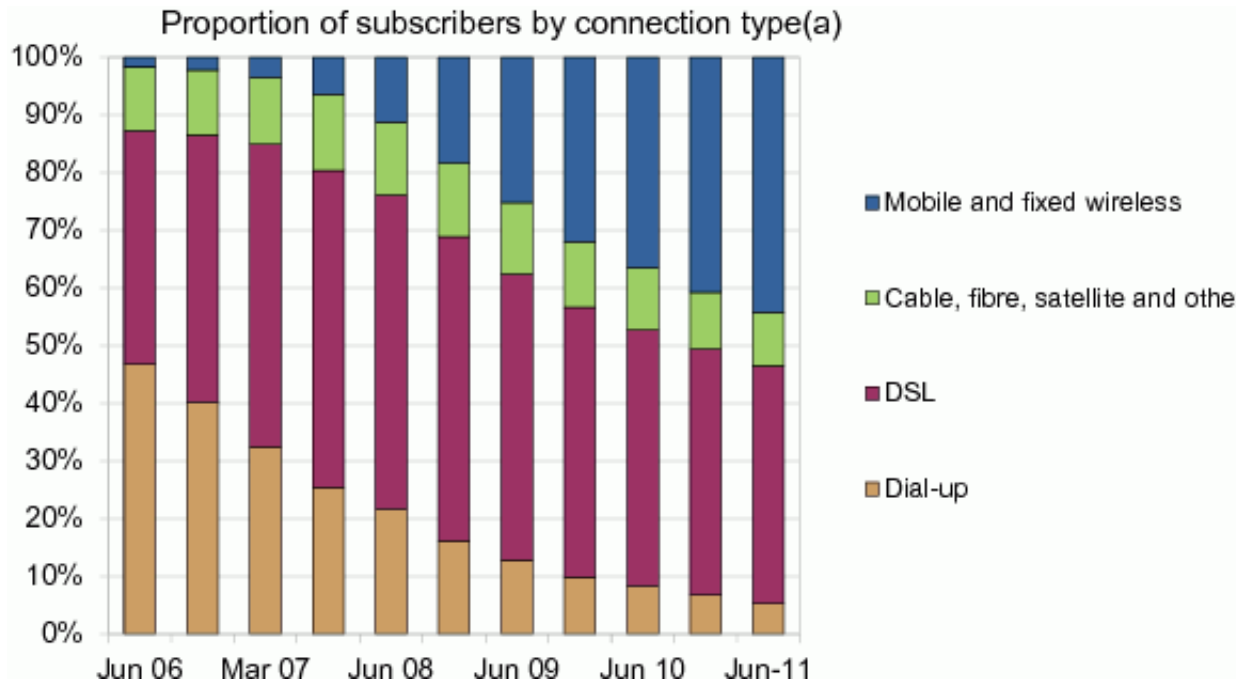
Customers in 4G coverage areas can enjoy typical download speeds from 2Mbps to 40Mbps. And when you're not in a 4G area, you'll be automatically switched to our leading 3G network. Right now it's only available on your laptop, but in the future 4G will power all your devices¹.

The new mobile broadband device offers typical download speeds up to ten times faster than those currently claimed by 3G competitors when in Telstra 4G coverage areas.



Faster, more furious
downloads

Give the People What They Want?



- Is *infrastructure* limited to fixed line?
- If objective is providing better broadband, why not a wireless overlay? (add-on, not a substitute)

Questions about the NBN

- Is this a good investment?
- Will service-based competition deliver desired results?
- What is needed to fully develop a broadband-enabled service economy?
- What is the role of wireless broadband?

Lessons for other NGN projects?

- Vision and strategy needed to guide government action
- Leadership is key
- Takes time to achieve results
- Recognition that broadband can do more than provide internet access
 - Set objectives beyond speed targets

Thank you

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