Questions about 'Next Gen' Broadband Inspired by Australia's NBN

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Two objectives today

- Overview of NBN progress to date
  - Big picture view
- Discussion of (a few) questions raised by the NBN case

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Australia's NBN

http://www.nbn.gov.au/sites/all/files/TVC/overview.html

Did You Catch Those Details?

April 7, 2009

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 investment (public/private)
- FTTH to 90% of premises, up to 100 Mbps
- Fixed wireless or satellite to remaining 10%, up to 12 Mbps
- 8 year rollout plan

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Rudd, K. (2009). New National Broadband Network. http://www.minister.dbcde.gov.au/media/media_releases/2009/022

Need for Regulatory Reform

- Department of Broadband Communications and the Digital Economy (2009). *National Broadband Network: Regulatory Reform for 21st Century Broadband Discussion Paper*.

- National Broadband Network Companies Bill 2010 and Telecommunications Legislation Amendment (National Broadband Network Measures—Access Arrangements) Bill 2010 – (*not passed*)

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http://www.dbcde.gov.au/__data/assets/pdf_file/0006/110013/NBN_Regulatory_Reform_for_the_21st_Century_Broadband_low_res_web.pdf.

http://www.dbcde.gov.au/__data/assets/pdf_file/0003/125895/Explanatory_notes-NBN_Companies_Bill_2010_and_Telecommunications_Legislation_Amendment_Bill_2010.pdf. (accessed 15 May 2010)
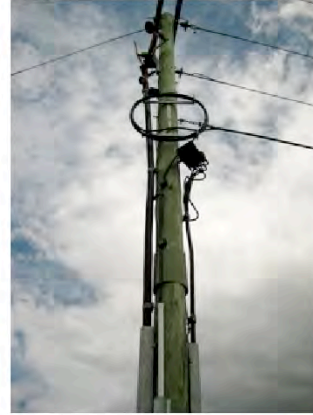
9+ months later…

nbn TASMANIA

- NBN Tasmania Ltd
  - Network will go live in 3 towns in TAS in July, $100M invested
  - Plans to connect 100K households

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Photos by Catherine Middleton, December 2009.

Lower left: Pavement cut where fibre connecting Aurora Energy's Cambridge Data Centre with pilot site at Midway Point, TAS.

Right: Aerial fibre installation near Cambridge Data Centre.

NBNCo Limited — 14 months later...

- NBN Co Ltd (www.nbnco.com.au)
  – 'GBE', 150 employees, $212 million in government funds
  – Planning open access wholesale fibre network, layer 2 bitstream access
  – 6000 km backbone under construction
  – 5 mainland test sites soon underway
  – Consultation with industry & community
  – etc...

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Quigley, M. (2010). Testimony at Public Hearing: Senate Select Committee on the National Broadband Network, Canberra, 15 April. http://www.aph.gov.au/hansard/senate/commttee/S12976.pdf. (accessed 10 May 2010).

NBN Co Limited (2009). NBN Co Consultation Paper: Proposed Wholesale Fibre Bitstream Products. http://www.nbnco.com.au/content/upload/files/NBN001_concept_paper_final.pdf. (accessed 31 January 2010).

NBN Co Limited (2010). *NBN Co Response to Industry Submissions — Proposed Wholesale Fibre Bitstream Products*. Sydney: NBNCo Limited. http://www.nbnco.com.au/content/upload/files/Response_to_Industry_Submissions/NBN_Co_response_to_consultation_submissions.pdf. (accessed 5 May 2010).

See also Comms Alliance NBN site: http://commsalliance.com.au/Activities/nbn

Implementation Study

- McKinsey & Company and KPMG (2010). National Broadband Network Implementation Study – released May 2010, 546 pp., $25M
- Asked to advise on implementing NBN policy
  - Government 'plan' to date = media release + 8 page glossy brochure
- Concludes plan is feasible, approx. cost $43B, fibre to 93%, wireless to 4%, satellite to 3%, can go ahead without Telstra

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McKinsey & Company, & KPMG (2010). National Broadband Network Implementation Study. http://data.dbcde.gov.au/nbn/NBN-Implementation-Study-complete-report.pdf

See also Given, J. (2010). Inside Conroy's Implement. http://inside.org.au/inside-conroys-implement/

So far, so good?

- "where faith and politics take over"?
- About politics...

> "The coalition will not go ahead with the National Broadband Network, avoiding the creation of a $43 billion white elephant."
>
> Tony Abbott

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Faith and politics quote: Given, J. (2010). Inside Conroy's Implement. http://inside.org.au/inside-conroys-implement/. (accessed 16 May 2010).

Abbott image: http://media.stylespress.com/auscon/people/tony-abbott-400x586.jpg

Abbott, T. (2010). *Votes and Proceedings Hansard, Thursday 13 May 2010*. Canberra: House of Representatives. http://www.aph.gov.au/hansard/reps/dailys/dr130510.pdf. (accessed 16 May 2010).

Senate committee also recommends cancelling the project: Senate Select Committee on the National Broadband Network (2010). *Fourth Interim Report*. Canberra: Commonwealth of Australia. http://www.aph.gov.au/Senate/committee/broadband_ctte/interim4-report/index.htm. (accessed 20 May 2010).

More about politics: Enter PM Gillard

And some good news from the departing PM: "**Agreement between NBN Co and Telstra on the rollout of the National Broadband Network**"

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Gillard image: http://static.guim.co.uk/sys-images/Guardian/Pix/pictures/2010/6/24/1277412532177/Julia-Gillard--005.jpg

One agreement, 3 press releases:

1. Rudd, K., Tanner, L., & Conroy, S. (2010). Agreement between NBN Co and Telstra on the Rollout of the National Broadband Network. http://www.minister.dbcde.gov.au/media/media_releases/2010/060.

2. Telstra (2010). Telstra Signs Financial Heads of Agreement on NBN. http://www.telstra.com.au/abouttelstra/media-centre/announcements/telstra-signs-financial-heads-of-agreement-on-nbn-1.xml. (accessed 21 June 2010).

3. NBN Co Limited (2010). NBN Co and Telstra Reach Heads of Agreement. http://www.nbnco.com.au/publications-and-announcements/latest-announcements/doc/nbn-co-and-telstra-reach-heads-of-agreement. (accessed 27 June 2010).

So:

? Reduced likelihood of electoral defeat

✓ In-principle deal with Telstra

✓ Implementation plan confirming feasibility

✓ Rollout proceeding under NBN Co

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NBN as Next Gen model?

- Role of government investment?
- Role of competition?
- Role/evolution of ISPs

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Noam: Telecom 1.0 to 3.0

- "Selling Telstra is actually about completing the transition from telecommunications being provided by a government department, the Post Master General, to telecommunications being provided by a multitude of nimble private sector interests" Communications Minister Coonan (2005)

- "many of the competitors that entered the openly competitive telecoms business were just as enthusiastic about the federal government's April 2009 announcement of a big plan for a public private partnership to build and operate an open access fibre national broadband network. This would be a new kind of monopoly fixed line network. The state would be in charge. It would not be Just Another Network, vulnerable to the creative destruction of a competitive market, but a Network for the Ages." Given (2009)

Noam, E. M. (2010). Regulation 3.0 for Telecom 3.0. *Telecommunications Policy, 34* (1-2), 4-10.

Coonan, H. (2005). Connect Australia: Future Proofing the Nation. *Sydney Papers, 17* (3-4), 140-151.

Given, J. (2009). Bothering About Broadband – Review Essay. *Media International Australia, 132*, 118-132.

Is a $43 B investment a good idea?

- Probably won't be $43B, but NBN Co CEO says "at least $26B"
- Price of structural separation, 'taming' the incumbent?
- How to evaluate cost-benefit for this sort of 'nation building' exercise?
- Was there evidence of market failure to warrant massive intervention? Pressing need for network to support gov't apps?

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NBN Co head Quigley quoted in Battersby, L. (2010, 28 June). Telstra Looks to Life after Fixed Phone Lines. *Sydney Morning Herald*. from http://www.smh.com.au/business/telstra-looks-to-life-after-fixed-phone-lines-20100627-zbzs.html

What about competition?

- Is facilities-based competition for next gen infrastructure dead?
  - Open access networks instead of separate cable/ telco fibre? What about wireless? (both/and)
- What does it mean to compete in an open access network?
- Current structure sees NBN Co monopoly over passive and active layers, other models elsewhere – what makes sense? at what time? (phased competition?)

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What about ISPs?

- Is internet service provision becoming a commodity?
- Will everyone eventually simply have a seamless internet connection?
- If objective of competition was to differentiate and innovate, is this required when we've implemented the 'end game' solution?
- Other services, changing industry structure?

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There are many more questions.

To be continued…

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