



The World is Watching: Investigating the NBN Approach to Next Gen Broadband

Catherine Middleton

Canada Research Chair

Ryerson University, Toronto, Canada

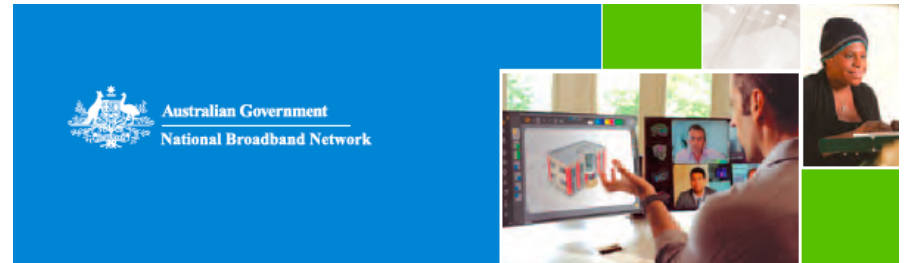
Communications Policy & Research Forum

November 2011

What is this presentation about?

- Focus is on next generation broadband as infrastructure
- Argument that this is the central mechanism for realising value/benefit from Australia's NBN
- Identification of disconnect between NBN as infrastructure and NBN as fast internet

NBN Quick Facts



National Broadband Network:
Progress update August 2011

- Objectives:
 - Improved broadband for all Australians
 - Reshape telecommunications industry
- NBN Co:
 - GBE to build and operate open access wholesale broadband network, \$27.5B in government equity
 - 93% of premises connected with fibre, 4% with fixed wireless, 3% with satellite, uniform pricing
 - Will use Telstra's infrastructure in building network, Telstra will move customers onto NBN

Criticism of the NBN Approach

- Size of government investment is unprecedented, unwarranted
- The NBN is anti-competitive
 - NBN Co as a new monopolist
 - Buying off Telstra and Optus, shutting down HFC broadband reduces competition
- Facilities-based competition is the preferred approach for deploying next generation broadband
- No demand for FTTP, faster internet services

What is different about the NBN?

According to DBCDE (August 2011 update):

- Supports high-speed download and upload services
- Stability and reliability of service
- Australia-wide coverage

“The NBN will be a significant piece of Australian *critical infrastructure* that will underpin the provision of a range of essential services to the Australian community.”

December 2010 Statement of Expectations

Defining Infrastructure

“Public infrastructure underpins the well being of society by enabling activities that provide public benefit. Whether it is ensuring public access to safe drinking water, or facilitating the transportation of goods and people, public infrastructure serves to create the conditions necessary for a functioning economy.”

Infrastructure Canada (2006)

Research Note: Productivity and Infrastructure

– A Preliminary Review of the Literature

The NBN as Infrastructure

- “Trans-sector” approach to service delivery, sharing infrastructure, building synergies, resulting in:
 - “investments [that] can yield major multiplier effects that benefit healthcare, education, energy efficiency, environmental protection, public safety, civic participation and economic growth”
Broadband Commission for Digital Development, quoted by HoR Standing Committee on Infrastructure and Communications

The NBN as Infrastructure

This is the counter-argument to encouraging competing facilities to develop faster broadband

- Uniform and ubiquitous
- High quality service
- Enables seamless access to internet *and* other services
- Allows multiple service providers to serve single premise

The NBN as Infrastructure

- Long term vision
 - 30-50 year project, upgradeable
- Whole is greater than the parts
- Not about the network, but about the services it enables
 - “The magic is above layer 2.” *John Stanton, CommsAlliance to HoR committee*

The Challenge...

- Is there a case for building a ubiquitous, uniform digital infrastructure?
- Is the public sector investment justified?
- To realise benefits, must get widespread take-up, use of broadband infrastructure
 - Take-up and use is dependent on services, applications
 - Most people buy services/functionality, not technical specifications

Meeting the Challenge

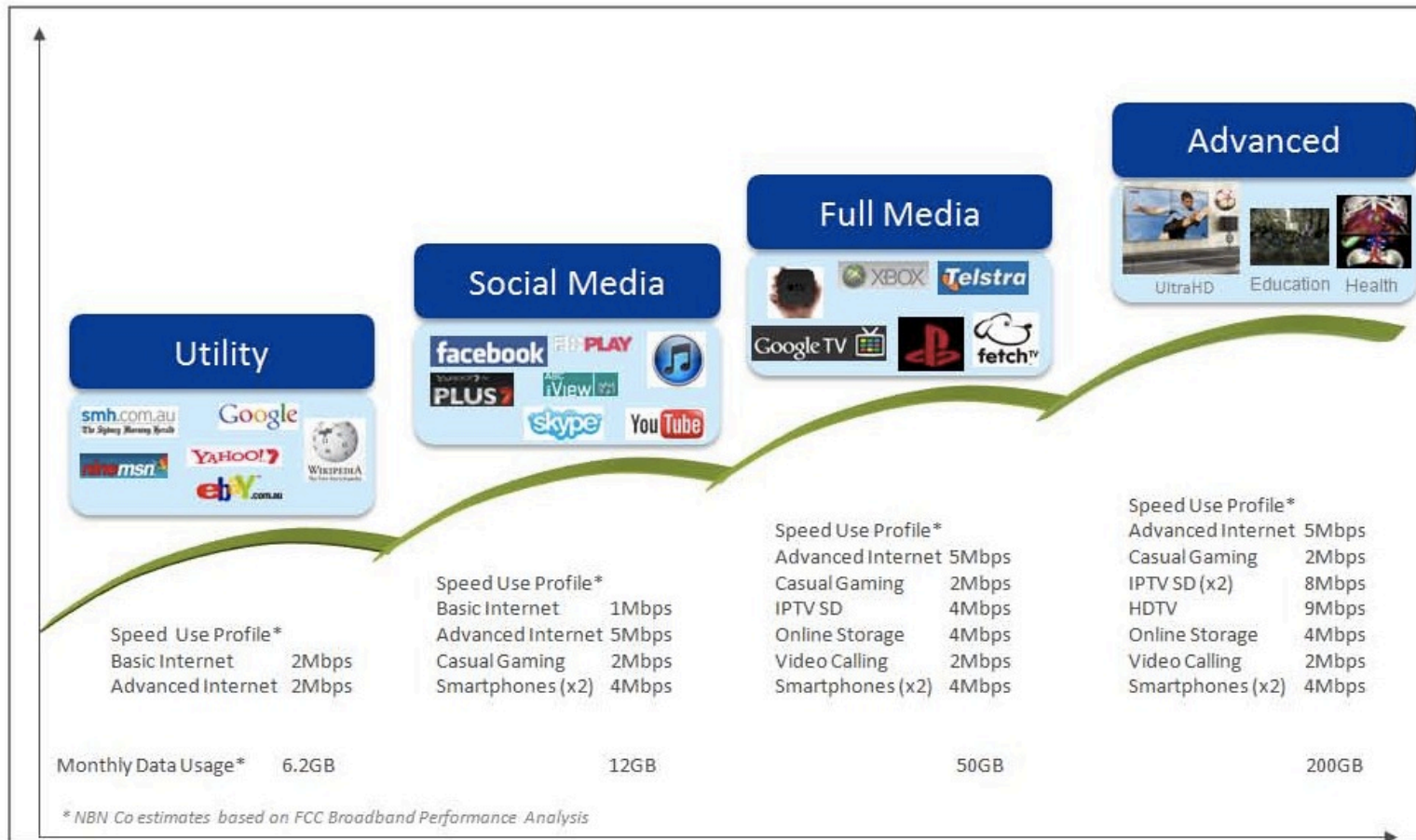
- Development of services, including IP-based, managed services
 - e.g. Alberta SuperNet used extensively for video-conferencing, tele-health
- Government as anchor tenant
- Business model(s) for access to services that are not delivered through an internet connection/RSP
 - e.g. ISOC-AU/ACCAN NBN Guide for Consumers

Infrastructure or Fast Internet?

- Government objective is to connect all Australians to broadband infrastructure
- *But* current approach seems to focus on selling faster internet
 - Limited demand for faster internet in and of itself
 - Faster internet *can* be delivered by various technologies, including HFC, VDSL/FTTN
 - Demand for faster internet largely driven by video

NBN Co perspective?

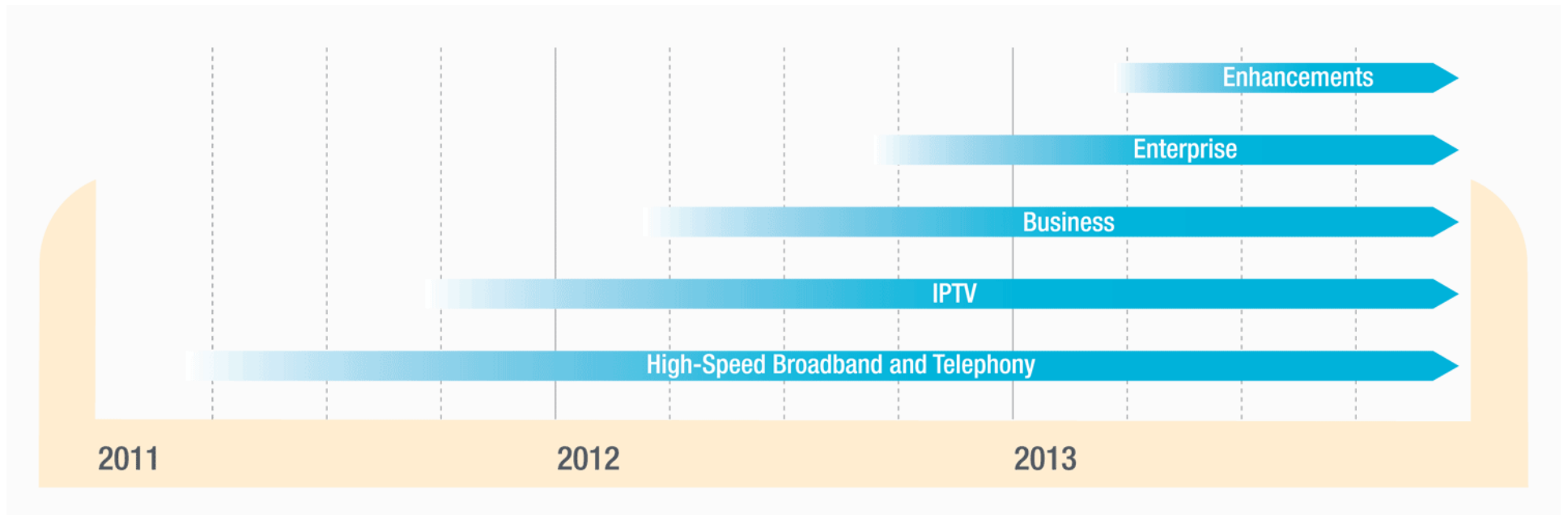
Exhibit 9.25: Broadband Use Cases⁴⁹



Source: NBN Co adapted from FCC, OBI Technical Paper No4 and September Meeting Commission 2009, ITIF, CSMG

Corporate plan, December 2010

NBN Co Product Release Roadmap



<http://www.nbnco.com.au/our-network/product-roadmap.html>

Infrastructure & Fast Internet

- How to judge the success of the NBN?
- Short term outcome likely to be households using the NBN for fast video, entertainment
 - Is that a bad thing?
 - Spill over effects...?
- How to get from fast internet to infrastructure?
 - Is this what justifies massive public sector \$\$?
 - How to realise the vision of national infrastructure?

Outcomes to Justify NBN Approach?

- Massive government investment results in robust, reliable, ubiquitous national broadband infrastructure
- Infrastructure is available to, used by multitude of service providers to deliver valuable services
- NBN as enabler of social, economic benefits, not just a pipe for fast entertainment
- Unanswered question is: How to get there from here?

Thank you

- catherine.middleton@ryerson.ca
- [@catmiddleton](#)
- www.broadbandresearch.ca