

○ AUSTRALIA'S NATIONAL BROADBAND NETWORK

HOW IT CAME TO BE AND WHERE IT MIGHT BE HEADING

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The Australian Government has committed to build a fibre-to-the-premises network serving 90 percent of Australian homes at an estimated cost of \$43b. This article looks at how it came to abandon an earlier plan for fibre-to-the-node network at a fraction of the cost, at how the technical development and rollout plans for the project are progressing, at the political hurdles it must still surmount and at what the Federal Opposition might do should an election derail the Government's plan. The article also examines legislation the government is trying to push through that would drastically restructure Telstra and which it is using this to try and negotiate Telstra's participation in the new network.

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On 7 April 2009 the Australian Labor Government dropped a bombshell on the telecommunications industry.

It announced plans to spend \$43b of taxpayers' money to build a fibre to the premises network that would deliver 100Mbps broadband to 90 percent of Australian homes and provide at least 12Mbps to the remaining 10 percent – many of them in very remote locations – using either wireless or satellite technologies.

That was not what the industry had been expecting. The Australian Labor Party (ALP) went into the November 2007 Federal Election with a telecommunications policy that promised 'a new fibre to the node (FTTN) network...[that] will increase speed to a minimum of 12Mbps', for 98 percent of the population, and for the two percent of Australians in regional and rural areas not covered by the FTTN network, 'improved broadband services'.

The ALP pledged \$4.7b of public money to the project saying: 'This network will help position Australia as a competitive, innovative, knowledge-based economy that can compete and win in global markets'.

After winning the election the ALP stuck doggedly and, many argued, unwisely to this promise. By late March 2009 tenders had been called and received for the FTTN network, the total cost of which was estimated at \$8b or \$9b. The winning bidder, or bidders, were expected to recoup their investment from future service revenue.

By March 2009 all eyes were on Senator Stephen Conroy, the minister for Broadband, Communications and the Digital Economy who was giving every indication that the plan was on track and that an announcement of the winner(s) was imminent.¹

It was against this background of anticipation that Conroy and Prime Minister Kevin Rudd fronted the press on 7 April 2009 to announce that this entire project – on which millions had been spent preparing tenders and paying a panel of experts convened to provide advice – had been scrapped in favour of something much grander.

The 'blame' for this dramatic change was laid primarily on the expert panel and the advice it had provided. To support its change of heart the government released a short extract from the

panel's report. However to this day it has resisted strident calls from the Federal Opposition, and others, to make the full text of the report available.

The panel's report said that the Global Financial Crisis had severely restricted access to funding, that none of the proposals had provided a fully developed project plan, and that none were sufficiently well developed to present a value-for-money outcome.²

WHAT? NO TELSTRA!

However one very significant player, Telstra, was absent from the ranks of bidders evaluated by the expert panel.³ Telstra had put in a 12 page outline of what it said could be achieved under the detailed proposal it had prepared but not submitted 'due to a number of unresolved issues in the Government's RFP'.⁴

Telstra may have thought its was odds on favourite to win the tender, but the Government rejected the proposal on the grounds that Telstra had failed to include a plan for how to involve small and medium enterprises in the building of the NBN, as required by the RFP.

So with Telstra out of the running and no other bids offering value for money, the Government increased the stakes; to \$43b.⁵

A project of such magnitude faces many challenges that can be broadly divided into two categories: the practical and the political. The second is proving far more intractable than the first and could yet derail the whole hugely ambitious undertaking.

On the practical side, the NBN seems to be progressing exceedingly well. The plan as announced envisaged the creation of a government-owned company (NBN Co) to build, own and operate the network as a wholesale open access network. Rollout was expected to take eight years and the Government said it would sell the company within five years of completion but would encourage private investment 'from the time that building of the network starts'.⁶

NBN COMPANY GETTING ON WITH THE JOB

Within a month the National Broadband Network Company had been established and on 25 July the Government named Mike Quigley⁷ as CEO and executive chairman pending the appointment of a permanent chairman.⁸

Since then NBN Co has:

- announced the first five 'test' locations in which it will roll out its FTTP network: a mixture of urban and regional locations designed to embrace the range of environments likely to be encountered in the full scale rollout;
- issued a product consultation paper providing an outline of its product plans for the national broadband network, held a series of industry forums on the paper and published its response;
- issued a request for capability statements from satellite network operators and equipment providers able to deliver its satellite service requirements;
- issued a request for capability statements from companies or consortia to provide detailed design and construction services for the fibre to the premises network.

This in addition to finding offices, recruiting well over 100 people and finding suppliers of the wide range of services needed to run its business operations.

Construction of the 'first release' networks - each serving up to 3000 premises - is scheduled for completion early in 2011. NBN Co will then seek retail service providers to use the new networks to deliver services to end-users.

Even before Quigley had come on board the telecomms industry, on its own initiative, had started the NBN ball rolling through the Communications Alliance – an industry body that traces its origins to the government's 1997 decision to devolve many regulatory responsibilities, in particular the setting of technical standards – which created working groups to develop and propose technical specifications for the NBN.

TELECOMMS INDUSTRY TAKES THE INITIATIVE

Within a month of the Government's April 7 2009 announcement of its \$43b NBN plans Communications Alliance had announced its own plans for a series of industry forums to 'bring the industry together to kick-start [Comms Alliance's] response to the Government's proposed regulatory reforms to facilitate the NBN rollout'.

Comms Alliance said that, as future 'customers' of the NBN, 'the industry [has] resolved to fill the void of information about the scope of NBN Co, its purpose, and how existing service providers will interact with it'. Industry participants – multinational equipment vendors and local companies – committed resources to developing a set of specifications that could be adopted for the NBN.

The Alliance subsequently issued a discussion paper identifying seven work areas: the NBN Reference Model; wholesale services; early stage deployments; end-user premises; technical; operational; and end-user migration and working groups were set up to develop proposals for each of these.

This work has now largely been completed. As NBN Co has ramped up operations its staff have joined the Comms Alliance Working Groups and NBN Co is now well on the way to developing its own network design, products etc.⁹

On 15 March 2010 NBN Co announced plans for a series of industry forums at which it promised to 'set out the scope and purpose of the industry technical and operational development [of the NBN] and outline how the industry will be involved in its development'. At these events NBN Co promised to 'outline how we will work in with other industry forums such as the Communications Alliance NBN project and NBN Co's own consultation and decision making timetable'.

In short, the practical – the technical and commercial – aspect of the NBN is progressing rapidly in a spirit of co-operation between NBN Co and other industry stakeholders. On the political, and regulatory, front the NBN faces multiple hurdles.

TELSTRA: THE SOLUTION, AND THE PROBLEM

The biggest of these remains Telstra. As the owner of the public switched telephone network and by far the largest telco in Australia, Telstra's participation as provider of access infrastructure (ducts for fibre to customer premises), and as user of the FTTH Network to serve its own customers is arguably essential for the project's rollout and commercial viability.

When it announced its \$43b NBN plan the Government was silent on both the need for Telstra's involvement and how that would be secured. Prime Minister Kevin Rudd, however, made it clear that one aim of the project was to break Telstra's stranglehold on access.

He said that the NBN would 'solve once and for all, the core problem created when the previous Prime Minister [John Howard as head of a Liberal/National Party coalition government] privatised Telstra a decade ago without ever resolving the conflict of a private monopoly owning the network infrastructure and dominating the retail market...That decision has blocked competition and investment for a decade. Today, we draw a line under a decade of policy error and neglect'.

Simultaneous with announcement of the \$43b NBN, Conroy released a discussion paper 'Regulatory Reform for 21st Century Broadband' to seek public comment on 'ways to improve telecommunications regulations to make it work more effectively in the interest of consumers and businesses'.¹⁰

It canvassed:

- the full functional separation of Telstra into wholesale and retail units, along the lines of Telecom New Zealand;
- giving the ACCC powers to determine price and non-price terms and conditions under which other service providers access the networks of facilities-based telcos, primarily Telstra;
- requiring Telstra to divest its hybrid fibre coax network (built in the late 1990s and passing some 2.5 million homes in Sydney and Melbourne) and its 50 percent stake in the user of that network, pay TV service provider Foxtel;
- restricting Telstra's future investments in the Australian media and communications sectors.

LEGISLATION TO END TELSTRA'S DOMINANCE

Then, on 15 September, Conroy revealed the full magnitude of the Government's determination to 'fix' Telstra. He tabled in Parliament a package of legislation for telecommunications reforms drafted on the basis of the 'Regulatory Reform' discussion paper and the responses to it: reforms that Conroy said were supported 'by the overwhelming majority of the submissions' received in response to the discussion paper.

Telstra was given an ultimatum: structurally separate or face forced functional separation, limitations on broadband wireless spectrum acquisition and forced divestiture of its HFC network and its 50 percent stake and Foxtel.

If it were to choose an acceptable form of structural separation the minister could waive either or both of the requirements for divestiture, but Telstra would still face limitations on broadband spectrum acquisition.

The third way was structural separation and divestiture of HFC and Foxtel, in which case Telstra would be free to acquire spectrum and able to continue its other business operations as normal. However the legislation also proposed significant changes to the access and competition regimes that would be likely to have an unfavourable impact on Telstra.

Telstra was given a choice of two routes to structural separation: create a new company and transfer its fixed-line assets to that company, or progressively migrate its fixed-line traffic to the

NBN over an agreed period and under set regulatory arrangements, and in parallel sell or scrap its existing fixed line assets.

This latter course could be fraught with hazard as it would move the huge mass of services on which consumers, business, government and national security depend on the new network – a danger that Telstra had in the past been keen to highlight. Creation of a separate company to operate Telstra's PSTN assets should ensure that, technically they would operate much as they do today.

If Telstra did not agree to structural separation the bill provided for enforced functional separation under which Telstra would be required to conduct its network operations and wholesale functions at arm's length from the rest of the company; provide the same information and access to regulated services on equivalent price and non-price terms to its retail business and to non-Telstra wholesale customers; and put in place and maintain strong internal governance structures that provide transparency for the regulator and access seekers that equivalence arrangements are effective.

These would include the establishment of a single wholesale/network unit, separate from its retail business units, and a committee to be known as the Oversight and Equivalence Board reporting to the ACCC and Telstra board.

TELECOMS LEGISLATION STALLED IN THE SENATE

The legislation passed quickly through the House of Representatives and the Government tried but failed to get it through the Senate in November 2009. It was blocked initially by the Coalition's refusal to debate it until the Government released the full expert panel report on the first NBN tender. That hurdle was eventually overcome but the bill was then squeezed out by the highly contentious debate over the Emissions Trading Scheme.

The legislation fared no better in the Autumn sitting that ended on 18 March. The Coalition remains implacably opposed to it, which means that the Government needs the support of the Australian Greens, Family First senator Steve Fielding and independent Nick Xenophon to get the bill through. Xenophon has said he will support the bill. Fielding remains the great unknown.¹¹

The Greens support was also under threat after Conroy initially refused to release an implementation study into the NBN, commissioned at a cost of \$25m from a consortium of McKinsey & Co and KPMG. He has now agreed to do so before the Budget sitting on 11 May, setting the scene for the telecoms reform legislation to be debated in the Budget sitting.

However with only 36 Senate sitting days scheduled to the end of 2010 (from the end of April) and strong expectations of a Federal Election by year end,¹² there remains the possibility that the only progress by election time will be on the practical side of the NBN as NBN Co presses on with rolling out its five release sites and choosing vendors for rollout of the FTTP, wireless and satellite networks needed to fulfil its charter.

The possibility of an election brings the possibility of a change of Government. The Coalition has been a strident critic of the \$43b NBN project ever since its announcement on 7 April 2009, but for most of the past 12 months, concrete alternatives have been conspicuous by their absence from its rhetoric.

FEDERAL OPPOSITION'S ALTERNATIVES TO NBN

Finally shadow communications minister, Tony Smith, addressing the Commsday conference in Sydney on 21 April 2010, gave some indication of what the Coalition would do about upgrading the nation's broadband network should it be returned to power.

He promised that a Coalition Government would not be 'taking the approach of simply tearing up [NBN Co] contracts',¹³ and said: 'The Federal Coalition does not believe that it is the role of government to own – or in this case – build and or buy businesses in areas where the private sector is able to perform the role. You can drive the commercial roll-out of faster, reliable and affordable broadband to many parts of our nation with the right regulatory framework; a framework that protects competition at the retail and wholesale level and also delivers a stable long term environment for network owners, investors and users'.

He added that the Coalition 'believes there is existing infrastructure that can be better deployed – that is the current network of networks – that can be effectively enhanced and utilised to deliver benefits either now or in a short period of time... There are many areas of Australia which are already served by infrastructure which is fully capable of delivering 100 Mbps'.¹⁴

Smith promised to 'prioritise public funding to areas of market failure', saying: 'We will deliver action quickly in under-served areas that deserve and need – thanks to Labor's inaction, better and more affordable broadband as fast as possible'.

He gave every little detail of the Coalition's alternative plans on the basis that 'it is sensible and responsible to release our comprehensive alternative closer to the election when it is less subject to changing circumstances'.¹⁵

NEGOTIATIONS WITH TELSTRA DRAG ON

Meanwhile, in parallel with the Parliamentary processes, the Government has been negotiating with Telstra over its involvement in the NBN, negotiations centred around the sale of access network assets to NBN Co and the price to be paid.¹⁶

Late last year Conroy suggested a deal was imminent, sparking concerns among Telstra's competitors that, absent the big stick of the new legislation, Telstra would be able to get a better deal from the Government. The Government was urged to hold off in anticipation of the imminent passage of the legislation.

Telstra meanwhile called on the Senate to delay debate on the legislation until after it had completed its 'constructive discussions' with Government on the NBN – and until after the completion of the NBN implementation study.

Then, on 18 December, Conroy announced that NBN Co and Telstra had formalised Terms of Engagement that 'includes a preferred model for any agreement which would see a progressive transition from Telstra's copper access network to a fibre to premise National Broadband Network'.¹⁷

Publicly at least, there has been no progress since then. On 19 March Telstra issued a 'NBN Negotiations Update' indicating that an agreement was nowhere in sight.¹⁸ Then on 13 April rumours of an imminent deal caused a spike in Telstra's share price forcing the company to issue a statement saying: 'This rumour is unfounded. As we have previously advised the market in our

ASX announcement of 19 March 2010, negotiations are continuing in relation to NBN. These negotiations remain incomplete and confidential¹.

Meanwhile the Government released on 9 May the \$25m implementation study into the NBN commissioned from a consortium of McKinsey & Co and KPMG. Its conclusions were extremely favourable. After undertaking extensive geospatial modelling it concluded that the FTTH network could reach 93 rather than the planned 90 percent of homes and that the Government's investment would likely peak at around \$26b. Significantly it also concluded that the network could be built and be financially viable even without any agreement being reached with Telstra for access to its ducts and backhaul network.

CONCLUSION

Thus at the end of April 2010, Australia's National Broadband Network Company, and the Government are labouring under massive uncertainties:

- Will Telstra be a collaborator, and if so on what terms?
- If not a collaborator how much of a competitor will Telstra be?
- Will the Government be able to get through legislation that would significantly curb Telstra's power?
- Will there be a change of government that will bring the project to a grinding halt?

These are in addition to the uncertainties inherent in the project around technology options, the enormous logistical challenges of the rollout and the uncertainties of uptake by both retail service providers and end users.

On the positive side, the Labor Government has shown no signs of wavering in its commitment. Unless the forces arraigned against it triumph, all the signs are that, by negotiation or legislation, Telstra and the regulatory landscape in Australia will be changed fundamentally and Australia will get a near-ubiquitous fibre to the home network.

ENDNOTES

¹ On 12 March Conroy told the Senate during Question Time that the announcement was 'just weeks away' and in a doorstep interview after delivering the keynote address to the Australian Telecommunications Users Group annual conference the following day he re-iterated in no uncertain terms the Government's commitment to its pre-election promise, saying: 'This is one of the major election promises of [Prime Minister] Kevin Rudd. He talked about it in his first [pre-election] press conference and he talked about it in the last... This is a core promise and Labor's commitment to nation building'.

² The panel said: 'There has been a once-in-75-year deterioration in capital markets that has severely restricted access to debt and equity funding. As a result all national proponents have either found it very difficult to raise the capital necessary to fund an NBN roll-out without recourse to substantial support from the Commonwealth or have withheld going to the market until they have certainty that their proposal is acceptable to the Commonwealth'.

³ The origins of the \$43b FTTP NBN project can be traced back to mid 2005 when Telstra's newly-appointed CEO, Sol Trujillo – in the job for less than two months – took a secret proposal to the Liberal/National Coalition Government.

On 11 August, just after announcing Telstra's annual results, Trujillo and other senior Telstra executives presented the Government with a proposal for a National Broadband Network that would deliver at least 6Mbps to 98 percent of the population at an estimated cost of \$5.7b over five years, to be jointly funded by Telstra and the Government.

Telstra promised to make access to the new network available to others but wanted the Government to exempt the network from ACCC price setting under the competition regime. The Government said no and told Telstra to follow the rules and submit an 'access undertaking' to the ACCC. Telstra refused and in December 2005 publicly announced that the project was 'on hold'.

Negotiations between Telstra, the Government and the ACCC dragged on for much of the remaining two years of the Coalition Government but went nowhere, much to the frustration of the industry as a whole.

It was into the midst of this stagnation, in the run-up to the November 2007 Federal Election, that the ALP unveiled its telecoms policy and, after being elected implemented its plan for the FTTN NBN Mark 1.

It was widely seen as a means of getting Telstra to build the network it had offered to build for the Coalition Government but on the new Labor Government's terms. It seemed obvious that, no matter how much the Government might try and level the playing field, Telstra was by far the best placed to win any tender.

4 Shortly after submitting its 12-page summary, Telstra held a media briefing at which were displayed the dozen or so binders that it claimed contained the real proposal.

5 The Government gave no detail as to how it arrived at the \$43b figure, why it had settled on the 90 percent FTTH coverage, or the economic justification for such a massive investment, other than vague statements like 'The new network will improve Australia's productivity and economic prosperity, assist the nation's fight against climate change, improve service delivery in the critical areas of education and health and ensure the connectedness of our regions'. Critics of the project immediately seized on these loopholes, and the clamour of their voices shows no signs of abating.

6 The island state of Tasmania is being treated as a separate project with its own NBN Company, part-owned by the Tasmanian Government, largely because it is geographically isolated from the rest of Australia and because the State Government was keen to take an active role – it had submitted a Tasmania-specific proposal for the earlier cancelled FTTN tender.

7 It would have been hard to find anyone better qualified for the job than Quigley; an Australian who started his career as an engineer in the local subsidiary of what became Alcatel and later Alcatel-Lucent. He rose through the ranks and narrowly missed out on the job of running the combined company following the merger of Alcatel and Lucent. Shortly before that he had gained extensive experience in FTTP rollouts as head of Alcatel's business in the US delivering on large contracts for Verizon for its FiOS GPON network.

8 Leading businessman Harrison Young, a former chairman of Morgan Stanley, was appointed chairman of NBN Co on 24 March).

9 There was never any obligation on NBN Co to adopt any of Comms Alliance's recommendations and while it has broadly adopted many of them there are some significant differences. For example Comms Alliance suggested that NBN Co should sell access to its dark fibre PON network in specific areas allowing service providers to light the fibre and sell wholesale access. NBN Co has decided against this.

10 The document was extremely critical of Telstra. It brought together condemnations of Telstra's conduct from numerous players and represented a spectacular failure of the strategy of confrontation with the Government and the ACCC adopted four years earlier by Telstra CEO, Sol Trujillo, and chairman,

- Donald McGauchie, in a bid to loosen regulation. Not surprising, then, that both were gone in a matter of months.
- 11 The *Herald Sun* reported on 2 April '[Fielding] spoke to about 100 Telstra shareholders in Melbourne...[telling] them he would not support forcing Telstra to split into wholesale and retail arms while talks between the telco and the NBN continued. But, under questioning from shareholders, he declined to say what his position would be if the talks broke down. He said the issue was complex and setting a deadline for a deal was 'not helpful'.
- 12 The last possible date for a Federal Election is 16 April 2011.
- 13 Smith did not expect there would be many contracts for the tearing up: 'We do not expect to find that large volumes or irrecoverable work will have occurred by the time of the next election – based upon the slow pace to date'.
- 14 Smith referred to the HFC networks operated by Telstra and Optus, saying: 'Telstra's network passes 2.5 million homes, Optus 2.1 million homes. As both operators have made clear, these networks can deliver 100 Mbps with relatively minor upgrades'. However, both networks, to a very great extent, pass the same homes.
- 15 Smith also gave no details as to what technologies a Coalition government might favour to reach these underserved areas. He said: 'As we go about further developing and finalising our alternative plan we will not seek to drive a particular technology in a one-size-fits-all approach. We will have a broader approach to the use of other technologies, particularly given the vastness of our country and the fast moving technological developments'.
- 16 The extent of the gulf to be bridged was inadvertently revealed by the accidental tabling in the Senate in late October of a confidential report from the ACCC. It showed that Telstra had valued the replacement cost of its customer access network at \$33.03b; made up of a \$15.04b valuation on its ducts and pipes, \$12.30b for the copper, \$1.8b for pair gain electronics and \$3.8b for radio bearer equipment. Under a different valuation methodology, the report showed that the Government had valued the same assets at \$7.96b.
- 17 Conroy said: 'While there are many complex issues still to be resolved before any final agreement is reached, I remain optimistic that both parties can find a mutually acceptable outcome...A model that involves the progressive transition from Telstra's copper access network to a Fibre-to-the-Premise NBN and an acceptable solution to the use of ducts and backhaul infrastructure will deliver structural separation'.
- 18 Telstra said: 'Currently there is a significant gap between Telstra and NBN Co on what each party considers to be an acceptable financial outcome and there are also a range of commercial matters that are yet to be agreed...Telstra is discussing ways in which the gap can be bridged, recognising that the Government has highlighted the national interest benefits of the NBN and reform of the telecommunications industry... Telstra remains engaged with the Government and NBN Co to achieve a timely outcome that is in the interests of the company and its investors'.

Cite this article as: Corner, Stuart. 2010. 'Australia's National Broadband Network: How it came to be and where it might be heading'. *Telecommunications Journal of Australia*. 60 (2): pp. 31.1 to 31.9. DOI: 10.2104/tja100031.