The NBN Futures Forum

Discussing the future ownership of

Australia's National Broadband Network

Leith H. Campbell

Honorary Fellow, School of Engineering, University of Melbourne

Murray Milner

Principal Consultant, Milner Consulting Ltd

Abstract: On 31 July 2019, TelSoc held an NBN Futures Forum in Melbourne to outline possible future ownership options for Australia's National Broadband Network (NBN). Following an introduction to the objectives of the forum, four speakers outlined various options for future ownership of the NBN and identified pros and cons for these options. Then the floor was opened for questions from both the local and the wider virtual audience. The resulting conversation provided a useful insight into the range of social, economic, technical and policy issues that need to be considered in order to reach a balanced and properly informed view on the most appropriate future ownership model for the NBN.

Keywords: NBN, public policy

Introduction

On 31 July 2019, TelSoc held an NBN Futures Forum in Melbourne, Australia, to encourage a discussion of the options for future ownership of Australia's National Broadband Network (NBN) after the completion of the rollout to all premises in the country, due by 2021. The NBN is currently being built and managed by a government-owned entity, NBN Co. The legislation setting up NBN Co envisages the eventual sale of the company after completion of the initial rollout and several other steps, with the approval of the Parliament.

The initial rollout is now reaching its final stages. The Minister of Communications has announced (in the video described below) that 9.93 million premises are now "ready for service", out of an approximate total of 11 million. After an area is declared "ready to connect", there is an 18-month "migration window", during which time customers must transition to a

service delivered on the NBN by their chosen retail service provider. Before a sale of NBN Co, legislation requires the following steps to be completed (Gregory, 2018): the Minister of Communications must declare that the NBN has been built and is fully operational; the Productivity Commission must hold an inquiry on matters relating to the NBN and a Parliamentary Joint Committee must consider its findings; the Minister of Finance must make a disallowable declaration that conditions are suitable to sell the NBN and the Parliament does not disallow this declaration. With these steps to be taken, it is then possible to contemplate a sale of NBN Co in 2022 or beyond.

With this timing in mind, TelSoc (the Telecommunications Association Inc., publisher of this *Journal*) aims to promote informed discussion among stakeholders, with a view to building consensus at least among expert opinion and, if possible, in the political sphere on the future ownership of the NBN in the years beyond 2022. The Forum held on 31 July 2019 will be the first in a coordinated series of such events over the next 18 months. The outcomes of all events and supporting documents will all be recorded in this *Journal*.

Options for NBN Ownership

If NBN Co is not to be retained in government ownership, there are several alternative ownership options (Gregory, 2018) depending on to whom NBN Co is sold and whether it is sold as a single entity or in several parts. In parallel with the development of the NBN, Telstra has announced (Irving, 2018) the creation of Telstra InfraCo, a standalone business unit providing telecommunications fixed-network infrastructure. This raises the possibility of merging, by one means or another, NBN Co and InfraCo into a single entity.

The four options for future ownership of NBN Co canvassed at the Forum were:

A. Merging NBN Co and [Telstra] InfraCo into a single wholesale network provider;
B. Retaining NBN Co in Government ownership;
C. Selling NBN Co as a single entity – or, perhaps, the option of selling the urban parts of NBN Co while retaining the less competitive regional parts in government hands;
D. Splitting NBN Co along access technology lines and selling each part.

The fourth option, of splitting NBN Co along technology lines, was first mooted by the Vertigan report (Vertigan, 2014) as a means of promoting infrastructure competition and encouraging private investment. Promoting competition and potential competitive threats to the NBN have been canvassed in previous articles in this *Journal* (McLaren, 2018; Pugh, 2019).

The four options for the future ownership of the NBN represent the most discussed alternatives and the Forum was organized around them. However, this list may not be exhaustive and other options will be explored as they become defined.

The NBN Futures Forum

This first forum was designed to promote discussion of the ownership options, rather than to reach any definitive conclusions. The main presenters were therefore limited to short speeches of 7-10 minutes each, permitting them to outline their option, and leaving time for questions and discussion by attendees, both those physically present and those viewing the forum online.

A video of the complete forum is available on the TelSoc website (TelSoc, 2019).

The Forum was opened by Mr John Burke, who chaired the event. He described the process of discussion and debate to be supported by the forum and urged participants to consider the future of the NBN over the next 10-15 years and what it should be, rather than be diverted by current issues or shortcomings. He suggested that an ideal outcome from the foreshadowed series of forums would be bipartisan support for a future purpose for the NBN and the structural settings that would support that purpose. He summarized statements supportive of the process from the Minister for Communications and the Shadow Minister.

The Minister for Communications, Cyber Safety and the Arts, the Honourable Paul Fletcher MP, had provided a short video introduction in support of the Forum. (Because of technical difficulties, the video was only fully played at the end of the Forum.) In it, he noted that 9.93 million premises were now ready for service and he emphasised the strong focus on delivery that had achieved this result and would continue. He supported the view that it was an appropriate time for discussion on how best to leverage the $51 billion investment in the NBN. He would, he said, be interested in the outcomes of the forums.

Option A. Integrating NBN and InfraCo

This option was outlined by Professor Peter Gerrand. He began by emphasising that, without national policy goals being set for the Digital Society and Digital Economy that the NBN is obliged to meet, its fate will continue to be left to the market. History, he believed, shows that the market has a habit of disappointing many end users. In particular, he suggested that innovative digital businesses need very high speed, symmetric Internet access at affordable tariffs in locations beyond the NBN's FTTP footprint in order to compete in the global economy.

He argued that combining NBN Co and InfraCo into a single "NetCo", could do more to support the digital economy in the long term than NBN Co alone. He described the several possibilities of government or private ownership of NetCo and noted that an important caveat would be that Telstra's ownership of InfraCo would first need to be reduced to a non-controlling level before its merger with NBN Co, if InfraCo were to purchase NBN Co. A major benefit would then be the ability of the merged NetCo to do what a Telstra-controlled InfraCo

would not be expected to do: to support the entry of new competitors to Telstra in the 5G market.

Professor Gerrand has provided a more detailed account of this option, published elsewhere in this issue (Gerrand, 2019).

Option B. NBN remaining in Government ownership

Dr Jim Holmes spoke to this option. He considered that a preference for a particular ownership option should proceed from clearly articulated policy and strategy. He suggested that national inclusion and a universal service obligation were aspects that only a government could do. He described retention in government ownership for the time being as the "least-worst" option. He supported this argument through a comparison table (well received by attendees) showing the key attributes of each of the four options.

Dr Holmes has provided a more detailed description of his argument, published elsewhere in this issue (Holmes, 2019).

Option C. NBN sold as a (single?) entity

Mr Graeme Samuel AC, in speaking to this option, suggested that now was not the time to privatise NBN Co. There was, he said, negative speculation about the value of the NBN, for example relating to wholesale service costing and the potential challenge from 5G. In such an environment, there would be no premium in a sale price. It was necessary to reach a situation of "business as usual", a point with some market stability, including known competition. He felt that this point would be reached in 3-5 years.

The issue, he believed, was not *whether* to privatise but *how* to privatise NBN Co. Effective competition would be key. He suggested that the privatisation of Telstra had breached competition policy by not including either strong regulation or structural separation of Telstra. This historical example highlighted the market problem of vertical integration, something that must be avoided in the future ownership model for NBN Co. He noted in passing that adding InfraCo into the mix would be an inappropriate aggregation of resources and so should be avoided.

In acting on privatisation, the Government, he suggested, should not be seeking to maximize its financial return but, rather, it should act in the best interests of long-term public policy. The long-term interests of end users should be paramount. Any continuation of a universal service obligation should be made transparent. Good policy suggested that NBN Co should not be privatised as a single entity. For example, it may be necessary for some time to keep the regional NBN in government ownership.

Mr Samuel described himself as a strong advocate of the Vertigan principles (Vertigan, 2014). These, he said, represented sound policy, supporting competition and the long-term interests of end users. Competition, he noted, would bring consumer benefits, as well as promoting innovation and reducing the need for regulation.

In summary, he supported competition: infrastructure competition, to the maximum extent possible. This could best be brought about by creating competitive entities through disaggregation of the NBN business. It would also have the effect of reducing the burden of regulation.

Option D. NBN disaggregated by technology and sold

Mr Michael Cosgrave, Executive General Manager, Infrastructure Regulation Division, Australian Competition & Consumer Commission, spoke to this option. He noted that the recommendation to split NBN Co into technology-based businesses had been made by the Vertigan Committee (Vertigan, 2014) and had been supported by the ACCC. This had been the Vertigan inquiry's answer to what would be the most appropriate structure for delivery of future broadband.

He noted that Stephen Rue, NBN Co's CEO, had an opinion piece (Rue, 2019) in that day's *Australian Financial Review*, outlining the objectives for the NBN set by government. Mr Cosgrave summarised these objectives as three-fold: build the network; earn a financial return from the network; provide broadband availability across Australia. These would remain the objectives of the NBN, however it was delivered.

On the timing of privatisation, he suggested that disaggregation along technology lines had been deferred, not abandoned, by the Government. Privatisation is unlikely to occur in the immediate future, allowing time for debate and design of an appropriate competitive framework.

It had been Vertigan's conclusion (Vertigan, 2014) that infrastructure competition should be the basis for future wholesale broadband provision. The ACCC had looked at this issue since 2003 and most recently in 2018: it remained interested in models for infrastructure-based competition. The Vertigan proposal was not necessarily the only means of providing effective competition. For example, fibre technologies could be split from the rest.

The ACCC had also considered a geographic split of the NBN. For the less competitive areas – with access based on satellite or fixed wireless – a privatisation would have the benefit of making any subsidies (for example, for a universal service obligation) transparent.

An aggregation of NBN Co with Telstra InfraCo to create a NetCo would raise questions of competition and about likely future upgrades of current access technologies.

On the question of competition from 5G, Mr Cosgrave considered the jury was still out. He noted that Andy Penn, Telstra's CEO, at a National Press Club address that very day (Duke, 2019) would say that competition from 5G would be only at the margins.

Questions and discussion

Questions and discussion from those attending in person and online followed the introductory speeches.

Was the ACCC wrong to recommend 121 Points of Interconnection (PoIs) for the NBN?

> Mr Cosgrave emphasised that this was a government decision, albeit one based on advice from the ACCC. He described the ACCC as having made a balanced compromise between three competing options: 8-12 centralized PoIs; a hybrid model for transmission competition; and a Telstra-supported proposal for 600 PoIs. The compromise reached was 121 PoIs following detailed analysis of these options.

Given that fibre to the premises has much lower operating costs and higher reliability, leading to greater operating profits in areas served by FTTP, is a uniform national price only possible if NBN Co remains a single entity?

> Mr Samuel claimed to be unpersuaded by the need for a uniform national wholesale price. He suggested that improved prices would come from competition between wholesale providers and he would support any means of maximizing competition.

Is the continuing ownership by Telstra of pits and ducts a barrier to disaggregation of NBN Co or future wholesale competition?

> Mr Samuel considered that the mixed ownership of infrastructure could be a financial advantage, not the disadvantage generally assumed. He did not see that the Telstra ownership of pits and ducts would support the creation of NetCo, if the need for competition would later lead to disaggregation of the business.

> Professor Gerrand disagreed. He believed that the ownership by Telstra InfraCo of the pits and ducts supported the merger with NBN Co to create NetCo, which could be justified in terms of meeting national goals for digital equality and providing some competition to future "NBNs", such as 5G. He did not support infrastructure competition created artificially; instead, he believed that forms of competition should naturally occur, as, for example, from other technologies. He noted the example of a very fast train line, which may have no direct competition from other train lines but was considered beneficial because it supported national infrastructure goals. Mr Samuel thought the analogy with a train line was not valid, because it would always face multimodal competition, such as from buses and planes.

Are there national security implications in a sale or disaggregation of NBN Co, considering that now retail service providers are required to coordinate security issues with Government?

Mr Samuel argued that security was sometimes used as a reason for not taking economically rational decisions. The industry collectively needed to focus on cyber risk, just as the banks did.

The Vertigan recommendation of horizontal disaggregation of NBN Co had been made in 2014, but since that time there have been new developments for the delivery of broadband, such as the introduction of 5G and new low Earth orbit satellites. Do these developments change the view of disaggregation recommended by Vertigan?

Mr Cosgrave remarked that there would always be technological changes that could change the competitive positions. He noted that, in the NBN rollout, there had been some change in the mix of access technologies, with HFC being used for about 400,000 fewer premises than had been earlier envisaged. He questioned, however, how fundamentally the new developments affected the competitive landscape. He noted that 5G was already competing at the margins, but he remained cautious about competition from wireless technologies because of the enormous amounts of data currently being carried on fixed networks. He recognized that this was current thinking and may change over time.

Dr Holmes thought the question raised a fundamental issue. He was concerned that a structural separation based on current technology and technology forecasts could lock the new entities so formed into the technologies associated with their initial assets more than would be desirable. Technology forecasts would always be changing. If a separation by technology was to be contemplated, it could only be planned at the end of the initial rollout.

Mr Samuel claimed that the Vertigan recommendations were not dependent on fixed proportions of each technology. Instead, separation by technology was just a means for starting competition which would evolve over time as new technology innovations entered the market.

Dr Murray Milner from New Zealand, where a broadband policy has been seen to be successful, was invited to make some closing remarks. He suggested that there had been three critical factors in New Zealand's success: structural separation of Telecom NZ to create Chorus as a wholesale provider; a degree of geographic wholesale competition; and a separation of urban and rural rollouts. He noted that there were 10 Gbps services in operation today, much faster than any service currently delivered on the NBN. He remarked that it was very difficult

to compete with fibre-to-the-premises solutions, unless some other service attribute is required, such as mobility.

Conclusion

This was the first of a planned series of forums on the topic of future ownership of the NBN. As such it was never intended to lead to definitive conclusions on the preferred ownership model. Instead, it was intended to start a conversation that would lead to better understanding of the options available and their pros and cons. This the forum did very well, with four different points of view presented followed by a robust discussion through audience participation. It was clear from the presentations and discussion that all the options considered would require more elaboration before it would be possible to make definitive judgments between them.

Two areas for further exploration that arose from the first forum were:

- What role does the NBN play in supporting a digital economy and digital society, including the long-term interests of end users and the role of competition?
- How will the changing technological landscape, including 5G (and perhaps 6G) and developments in fixed access, affect the value and competitive position of the NBN?

These and other topics will be the subject of future forums over the period 2019-2020.

References

Duke, J. (2019). 'Incredibly damaging for the NBN': Telstra boss warns 5G disruptors will take customers. *Sydney Morning Herald*, 31 July. Retrieved from https://www.smh.com.au/business/companies/incredibly-damaging-for-the-nbn-telstra-boss-warns-5g-disruptors-will-take-customers-20190731-p52cda.html

Gerrand, P. (2019). NBN Futures: The option of merging NBN Co with InfraCo, as a Benefit to the Digital Economy, *Journal of Telecommunications and the Digital Economy*, *7*(3), September. DOI: 10.18080/jtde.v7n3.198

Gregory, M. A. (2018). Australian Wholesale Telecommunications Reforms, *Journal of Telecommunications and the Digital Economy*, *6*(2), June, 1-34. DOI: 10.18080/jtde.v6n2.155

Holmes, J. R. (2019). Getting the NBN Infrastructure We Need, *Journal of Telecommunications and the Digital Economy*, *7*(3), September. DOI: 10.18080/jtde.v7n3.199

Irving, W. (2018). Establishing a standalone infrastructure business unit. *Telstra Exchange*, 20 June. Retrieved from https://exchange.telstra.com.au/establishing-standalone-infrastructure-business/

McLaren, G. (2018). What Now for Australia's NBN? *Journal of Telecommunications and the Digital Economy*, *6*(4), 31-62. DOI: 10.18080/jtde.v6n4.162

Pugh, N. (2019). The Wireless Threat to Fixed Broadband Services. *Journal of Telecommunications and the Digital Economy*, *7*(1), 7-19. DOI: 10.18080/jtde.v7n1.178

Rue, S. (2019). Don't lose sight of NBN Co's goals, *Australian Financial Review*, 31 July. Retrieved from https://www.afr.com/companies/telecommunications/don-t-lose-sight-of-nbn-co-s-goals-20190730-p52c6i

TelSoc. (2019). NBN Future Forum: Encouraging Debate on NBN Ownership Models. Retrieved from https://telsoc.org/event/national/2019-07-31/nbn_future_forum

Vertigan, M. (2014). *Independent cost-benefit analysis of broadband and review of regulation.* Department of Communications, 14 August. Retrieved from https://www.communications.gov.au/sites/g/files/net301/f/NBN-Market-and-Regulatory-Report.pdf