

WHY A SINGLE NATIONAL FTTN NETWORK IS NO ANSWER (BUT COMPETITION IS)

Abstract

The government's conviction that there is a 'broadband emergency' has persuaded it to look for a single, national solution, a Broadband Big Bang. No one can provide that kind of solution more easily than Telstra. There are several problems with this. The rapid growth in broadband adoption over the past three years means it is far from clear there is a 'broadband emergency'. Mandating a single technology is overly prescriptive and the particular characteristics of FTTN make it difficult to regulate an incumbent's technology. A single national roll-out risks a significant reduction in competition, whoever wins. This jeopardises the gains consumers have made where competition has emerged in the telecommunications industry. Ultimately, competition will probably only be embedded into the Australian industry by structural change, perhaps along the lines of the extensive facilities-based competition that exists in the United States between telcos and cable companies. Perhaps, eventually, someone will have to bite the structural separation bullet.

Competition is like the air we breathe: largely taken for granted when abundant, immensely beneficial when present and disastrously costly when absent.

Adam Smith, the first systematic champion of competition, understood deeply the nature of competition and the enormous benefits that well-functioning markets deliver to consumers. Conversely, he appreciated the loss to society that comes from monopolies and the abuse of market power.

Competition has been extremely hard to achieve in telecommunications markets, especially Australia's. Each country has a unique set of factors, including history, geographic and market size, settlement patterns and the extent of economic development. The policy puzzle of how to incubate and maintain competition requires a different solution in each jurisdiction. Comparisons between jurisdictions are sometimes instructive and as often self-serving and misleading.

A common feature, however, is that telecommunications has strong natural monopoly characteristics. This requires a robust response by governments to prevent a huge transfer of benefits from consumers to the dominant telco. The highest level of intervention for a government is simply to own the whole industry. This is what the government did until 1992, when Optus Communications was granted Australia's second general telecommunications carrier licence and the era of competition began. The subsequent staged privatisation of Telstra was a further major reduction in the level of intervention in the telecommunications industry.

Australia's current regulatory settings represent a far lower level of intervention than those in the past.

The industry, government and regulators are currently working through the upheavals of privatisation, increased competition and regulatory evolution while at the same time adapting to possibly the largest technological disruptions since the demonstration of the Bell telephone. It is no wonder policy consensus is thin on the ground.

The long, tortured and costly process of building competition in Australian telecommunications culminated in April 2008 with the issue of one of the most important tender documents ever published by the Commonwealth (Conroy, 2008). The outcome of this process will directly and significantly affect the competitiveness and performance of the Australian economy in the global marketplace for a least a decade and probably much longer.

The tender document is the next step in the new government's efforts to answer the question: What policies and regulatory settings will promote the long-term interests of Australian broadband users? In my view, this is a question for which a single, national FTTN network is not the answer.

Regulating for the long-term interests of broadband users requires a balance between lower prices now and more investment in infrastructure in the future so that ever greater bandwidth can be delivered. Lower prices and service innovation are being, and will be, delivered by hungry junior telcos if they are afforded access to the incumbent's infrastructure. Thus access regulation addresses the interests of broadband users in the short term.

Much of the recent rapid increase in broadband adoption can be attributed to unbundled local loop (ULL) regulation that enabled ISPs and telcos to install equipment inside Telstra's exchanges ('DSLAMs') and use its copper lines to link that equipment to customers' premises. This allowed them to offer broadband deals significantly more attractive than Telstra's and kept up the competitive pressure on Telstra.

Telstra argues that it has been forced to provide this access to competitors at prices below its cost of provision, and that regulation of this sort delivers cheap services now, but provides no incentive to invest in new infrastructure offering even higher levels of service in the future. For that, it says, 'regulatory certainty' is required.

But 'regulatory *uncertainty*' might, in fact, be in Telstra's interests, because it is better able to withstand uncertainty than new entrants. Small telcos are investing millions of dollars in exchanges around Australia not because of the uncertainty but despite it. To the extent that uncertainty stops them investing more, Telstra is likely to lose market share to them more slowly. Small telcos worried that Telstra will now win the tender to roll out a national FTTN — a network that will strand their investments in DSLAMs — might stop investing now and wait.

The government is convinced there is a 'broadband emergency'. That political imperative has persuaded it to look for a single, national solution, a Broadband Big Bang. No one can provide a single national solution more easily than Telstra, and it is now clearly the most likely winner of the government's tender.

But the rapid growth in broadband adoption over the past three years means that, in fact, it's far from clear there is a 'broadband emergency'. That means it's far from clear that a single, national FTTN solution is necessary, even if it were desirable for technical or policy reasons. But it is not.

Broadband networks don't have to be based on one technology. Copper, FTTN, FTTP, wireless and satellite will all be optimal in different situations. Mandating a single technology is over-prescriptive. FTTN everywhere will under-perform in high-value markets and be too expensive in low-density markets. True, the government's tender specifies FTTN or FTTP, but this is largely academic in the context of there being a single provider. Telstra will use FTTN where it suits its interests to do so, and one of those interests will be blocking access and competition.

Quite different architectural models can be used for next-generation networks. Some are harder to regulate than others. FTTN will be difficult to regulate because, unlike the copper ULL, it requires very tight integration by access seekers with Telstra's systems and much less capacity for differentiation across the services competing suppliers offer to customers. FTTN is an incumbent's technology.

The fixation on a single national solution plays into Telstra's hands by making the decision 'all or nothing'. In the current tender process, as the decision date closes in, it will be very apparent to the government that choosing anyone other than Telstra represents an enormous policy risk.

But a single national FTTN roll-out risks a significant reduction in competition, whoever wins. Although the tender documents specify 'open access' networks, they do not offer precise definitions of what this means. The government is effectively inviting bidders to set the regulatory environment along with the size of their investment and a swathe of other parameters. The document really raises more questions than it answers.

For example, how should bidders think about the government's \$4.7 billion investment? It is clearly not a subsidy — the government wants a return on its investment. Should the government be viewed by private bidders as a silent partner that will seek 'soft returns'? If so, how soft? Will the government take a lower rate of return to enable the private investor to take a higher one? Will the *quid pro quo* for this be lower wholesale access prices and/or lower customer prices?

After all the protracted pain of the Telstra sale, is the government really buying back into the telecommunications industry? Does it then become a Telstra shareholder? Or is the investment made into a new company and is this some kind of structural separation?

If Telstra does the Big Bang FTTN rollout and the result is lessened competition, it will have won an important battle. The result of this victory will likely be higher broadband prices, lower download caps, slower service innovation and less choice of provider. Some small ISPs and telcos will go out of business — perhaps many.

But this victory will not be a permanent one. The problem will not go away, the wheel will turn again. Broadband users will be at first annoyed, then outraged. Australia will slip back down the international broadband rankings, political

pressure will mount for regulatory change, regulatory uncertainty will rise and again we will be in a situation that is ... just like today.

Where competition has emerged in the telecommunications industry, customers have benefited. But these gains can be lost. Telstra's optimum path through the regulatory landscape is to earn the maximum level of monopoly profits it can get away with. This means it should always be pushing the government almost to the point where it takes decisive regulatory action but stopping just short.

The problem with this outcome is that it creates an ongoing cycle of regulatory uncertainty and conflict. Some of this is unavoidable, but it probably ends up being excessive. Much of it is a negative sum game with consumers and new telcos the main losers.

Ultimately, competition will probably only be embedded into the Australian industry by structural change — perhaps along the lines of the extensive facilities-based competition that exists in the United States between telcos and cable companies. If Telstra were required to divest its interest in Foxtel as a condition of winning the tender, facilities-based competition would be promoted.

Perhaps Telstra should be excluded from bidding for digital dividend spectrum following the migration to digital television. Wireless could provide further structural competition. Perhaps, eventually, someone will have to bite the structural separation bullet. Failing this, the government and ACCC could work closely together to define a clear and enduring access regime instead of asking industry players to do it.

Acting on any of these possibilities will require a firm commitment to competition by government and a willingness to take on the short-term risk of dealing with Telstra's market power and legal artillery. If a newly elected visionary government with a large majority and a commitment to a long-term perspective is not willing to do this, we may be in for a long wait.

Reference

Conroy, Senator the Hon S. (Minister for Broadband, Communications and the Digital Economy) 2008, 'Government Invites National Broadband Network Proposals', Media Release, 11 April 2008.

Simon Molloy is a consultant economist with a focus on network industries and the network economy. He owns no Telstra shares.