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REGULATING SERVICE PROVIDERS' ACCESS TO AN FTTN NETWORK

Abstract

To date, the major deployments of FTTN or its fibre-rich cousin, Fibre to the Premises, have been driven by clear government policy (Republic of Korea, Japan) or competitive pressure from cable television companies (US, Netherlands — planned). Without these pressures, the business case for deploying FTTN is uncertain. The additional revenues from higher-speed internet access are likely to be slight, and new revenues from pay television are uncertain and likely to develop only over the medium term. The business case for investing perhaps A$9 billion or more for an extensive FTTN deployment in Australia is therefore weak. National governments, however, see many benefits in widespread deployment of high internet access speeds and may provide incentives for FTTN deployments if competitive pressures are absent. This article explains some of these incentives in the Australian context, especially the steps taken so far to regulate access to the fibre networks proposed by Telstra and the so-called G9 consortium.

Telecommunications companies around the world are planning or building fibre-rich networks to provide broadband services for business and residential customers. In Australia, the proposals are to build a Fibre-to-the-Node (FTTN) network for the suburbs and major regional centres delivering at least 6 Mbps downstream (towards customers). An FTTN network would extend optical fibre to within about 1 kilometre of all customer premises.

While this investment is planned by 'traditional' telecommunications companies, it has a media component. Customers are apparently unwilling to pay sufficiently more for higher speed internet access alone to justify the investment in an FTTN network. Hence other incentives are needed. One potential source of extra revenue is pay television, and expanded pay TV choices are likely when an FTTN network is introduced.

Another issue is whether providers of content, applications and services other than the network owner will have access to the network and customers on a fair and reasonable basis, and on the same terms as the network owner. Sharing the fruits of an investment with competitors can be a major disincentive for investment in the first place.

To date, the major deployments of FTTN or its fibre-rich cousin, Fibre to the Premises, have been either driven by clear government policy (Republic of Korea,

Japan) or by competitive pressure from cable television companies (the United States, the Netherlands — planned).

If strong government encouragement or competitive pressure is absent, the business case for deploying FTTN is uncertain. The additional revenues from higher-speed internet access are likely to be slight and new revenues from pay television are uncertain and likely to develop only over the medium term. The business case for making the significant investment — perhaps A$9 billion or more for an extensive FTTN deployment in Australia — is therefore weak.

On the other hand, national governments see many benefits in widespread deployment of high internet access speeds and may provide incentives for FTTN deployments if competitive pressures are absent. The Australian prime minister has described it as 'nation building for the twenty-first century' (ABC, 2007). Incentives could take the form of subsidies, public–private partnerships (co-investments), soft loans and regulatory changes. We consider some of these incentives in the Australian context.

Telstra's FTTN proposals for Australia

In August 2005, Telstra proposed a National Broadband Plan to cover 99 per cent of urban and suburban premises and 94 per cent of rural premises. The network was described as Fibre to the Node and would deliver download speeds of 6 Mbps initially. Telstra proposed to spend A$3.1 billion with a contribution from the government of A$2.6 billion (Telstra, 2005: 32ff).

Telstra offered wholesale access to this network, but sought relief from the special telecommunications provisions of the competition law. Essentially, it wanted to ensure the new network would not be 'declared' as a service by the Australian Competition and Consumer Commission (ACCC), the Australian competition regulator. Declaration would make the network subject to open access provisions at regulated prices. In addition, Telstra asked that the new network should be exempt from the operational separation requirements that already required it to operate its network wholesale business separately from its other business units, such as retail.

The government referred the proposal to the ACCC for comment. In subsequent discussions, it appears Telstra modified its initial proposal to a more modest one for a rollout past four million homes and businesses in five Australian cities but with enhanced download speeds of up to 24 Mbps. Telstra estimated the cost at A$4 billion (Telstra, 2006a). In return, it wanted what it termed 'regulatory certainty' and the ability to gain 'reasonable commercial rates' of return on the capital invested.

Telstra's argument was that it would invest its capital to maximise its returns. If the return on its investment in an FTTN network would be capped by regulation below the returns it could gain elsewhere, it would invest in other projects. The ACCC's view was that there should be 'incentives for investment' and that an appropriate access arrangement for competitors could only be determined by 'public scrutiny and due process' (ACCC, 2006a).

In August 2006, Telstra broke off negotiations with the ACCC over a suitable access regime, citing irreconcilable differences over accounting for costs in hard-to-service areas (Telstra, 2006b). Telstra claimed the issue was government policy that prices should be uniform across Australia; the implication was that Telstra should be able to recover some of the cost of hard-to-service areas from the prices it would charge for FTTN services. The ACCC had doubts about Telstra's assessment of the costs involved.

Telstra has offered no further large-scale FTTN proposals since its discussions with the ACCC but has indicated that it will seek to provide an FTTN network at some future time. In the meantime, it has been upgrading its ADSL offerings to provide downstream rates of 8 Mbps and, potentially, 20 Mbps for premises within 2.5 kilometres of an exchange.

The G9 Alternative for FTTN

As an alternative to Telstra's FTTN proposal, a group of nine competitors ('the G9') formed a consortium to offer a nationwide FTTN network. The competitors created a company, FANOC Pty Ltd, as the proposed operating company for their proposal.

In May 2007, FANOC presented the ACCC with a draft special access undertaking for third-party access to its wholesale network. FANOC took the view that it would be a structurally separated wholesale provider of bitstream and telephony services for all service providers, charging regulated prices for its services. The special access undertaking was FANOC's proposal on the price and non-price terms under which it would be regulated. It would operate for 15 years from the date of first services.

FANOC proposed what it called a hybrid fibre-twisted pair (HFTP) network, otherwise known as an FTTN network, offering:

- a basic access telephony service, based on IP;
- standard broadband services (Ethernet layer 2) at 1.5 Mbps, 6 Mbps, 12 Mbps and 24 Mbps;
- other broadband services in the future, as its customers may require.

The initial network would use ADSL2+ with potential future upgrades to VDSL over the copper lines that would still be required to connect customers' premises to the fibre nodes.

FANOC was to be only a wholesaler of services and would supply no retail services. It would be structurally separated from a second company, SpeedReach, to which all access seekers could belong and which would oversee FANOC's investment decisions.

In December 2007, the ACCC issued a draft decision on the special access undertaking, concluding the proposed service specifications were broadly in line with existing regulatory requirements. Access seekers would get access to the lowest layer possible, permitting detailed control of the bitstream by third parties. The ACCC, however, was concerned about some quality-of-service and telephony issues that would require further resolution.

To set prices for access to the fibre, FANOC suggested a cost-based approach. It proposed to set the access prices for the first three years and then provided a formula by which future prices could be set. The formula included levels of investment and takeup of services. The ACCC noted that the formula was particularly sensitive to FANOC's depreciation schedule and could result in large changes in the prices for broadband access services over the life of the special access undertaking. It also noted that the parameters for the pricing formula were not all transparently known or verifiable. These matters led the regulator to reject FANOC's price terms with the comment:

> the ACCC cannot be satisfied that the [Special Access Undertaking] will result in access prices that promote competition or efficient use of and investment in infrastructure (ACCC, 2007: 98).

The ACCC left open the possibility that the price terms could be amended *in principle* to provide for efficient outcomes, noting that it lacked the legal power to undertake audits or reviews to provide greater certainty about the values in the pricing formula. FANOC's proposal for setting the Weighted Average Cost of Capital (WACC) was also rejected.

FANOC's pricing formula included a cost to be paid to Telstra for access to the copper loop. It suggested a range of values, but there was no agreement with Telstra about it. This would be a major source of potential commercial and legal dispute if the FANOC proposal were implemented.

Under the non-price terms of its undertaking, FANOC proposed to operate as a fully structurally separated entity, with oversight by another entity that would be open to all access seekers. The ACCC concluded that this arrangement would still leave a degree of vertical integration that might give FANOC an incentive to distort competition in downstream markets (ACCC, 2007: 133). The oversight mechanism was not considered sufficient, and a further proposal to strengthen it by permitting ACCC arbitration was thought by the ACCC to be beyond its existing powers.

FANOC has since withdrawn its special access undertaking in light of the government's new offer to support a National Broadband Network.

An Australian National Broadband Network

The present Australian government's plan for improving broadband services in Australia was set out in the ALP's March 2007 *New Directions for Communications, A Broadband Future for Australia — Building a National Broadband Network* (ALP, 2007). The major elements are:

- an FTTN National Broadband Network providing broadband services of at least 12 Mbps to 98 per cent of Australian households;
- competitive assessment of private sector proposals;

- regulatory reforms to facilitate the rollout of a pro-competitive open access network providing equivalent access charges and scope for access seekers to differentiate product offerings; and
- government support of up to A$4.7 billion.

Tenders for this network were called on 11 April and close on 25 July 2008. It will be operationally deployed progressively over five years.

The government is therefore committed to some form of open access regime in return for its investment in the network. Although it is not specified explicitly, some form of structural separation (to separate the FTTN network from retail service providers) would also seem to be preferred. We have noted above that the structural separation proposal for FANOC did not meet with the ACCC's approval. Only very rigorous structural separation would therefore seem to be acceptable unless there is major regulatory change.

The National Broadband Network poses a regulatory challenge for the government and the ACCC. On the one hand, competition in services will need to be supported and promoted through an access regime open to all service providers. On the other hand, the private sector investors, who are likely to invest a sum in the range of A$5–9 billion over five years alongside the government's $4.7 billion, must be able to gain a sufficient return on their investment to make it attractive. If structural separation is a requirement, then the investment *cannot* be supported by retail services such as pay television. It can only be supported by a sufficiently highly regulated wholesale price for access.

Conclusion

Widescale deployment of FTTN requires substantial investment. No commercial entity will undertake it without some suitable incentive. If this incentive does not come from expected commercial returns and imperatives, then it must come from regulatory change or government financial support.

We have seen a range of proposals for Australia. Telstra's initial proposal would have provided an access regime for other service providers but a privileged position for Telstra. It was not the most extreme possibility of a completely closed network. This would probably not have been acceptable given the need for some government support. The fibre networks being built in the United States are generally closed but they are competing against existing cable TV networks. The ACCC was unable to find a compromise position with Telstra that would have led to the investment while supporting competition.

As an alternative, an open access regime has been proposed by FANOC, an entity intended to be structurally separated from its owners and users. While the ACCC rejected FANOC's proposal on a number of grounds, the general concept appeared to be acceptable. Whether a substantial investment would have gone ahead and been successful is now moot.

We now have a government package of incentives that includes a substantial investment and the possibility of regulatory change. Exactly what mix of investment

levels and regulatory relief will prove attractive to investors will shortly be tested in the government's tender process. Whatever the outcome, it will affect the telecommunications and media landscape in Australia for a long time to come.

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