

## Submission to the Regulatory Reform for 21<sup>st</sup> Century Broadband review

Only minimal regulatory reform of the network boundary is required to address:

- promoting greater competition across the industry, including measures to better address Telstra's vertical integration, such as functional separation
- addressing competition and investment issues arising from horizontal integration of fixed-line and cable networks, and telecommunications and media assets
- introducing more effective rules requiring telephone companies to make connections and repairs within set time-frames.

The following applies to address horizontal integration but also impacts vertical integration, and indirectly connection and repair time-frames.

The network boundary is a nominal demarcation point between carrier-owned and customer-owned cabling and equipment. The boundary of a telecommunications network is determined by section 22 of the Telecommunications Act 1997 ('the Act'). Relevant passages in the Act include the following text fragments:

- (1) For the purposes of sections 20, 21 and 30, the boundary of a telecommunications network is to be ascertained in accordance with the regulations.
- (2) Regulations made for the purposes of subsection (1) may deal with a matter by reference to any or all of the following:
  - (a) ...
  - (b) ...
  - (c) ...
  - (d) the terms of an agreement between a carrier and a customer of the carrier, where the agreement is entered into for the purposes of those regulations;
  - (e) the terms of an agreement between a carriage service provider and a customer of the provider, where the agreement is entered into for the purposes of those regulations.
- (3) Subsection (2) does not, by implication, limit subsection (1).
- (4) If no regulations are in force for the purposes of subsection (1), then, for the purposes of sections 20, 21 and 30, the boundary of a telecommunications network is:
  - (a) in a case where a telecommunications network is used to supply a carriage service to an end-user in a building by means of a line that enters the building - the point agreed between the customer and the carrier or carriage service provider who operates the telecommunications network, or, failing agreement:
    - (i) ...
    - (ii) ...
    - (iii) ...
  - (b) in a case where a telecommunications network is used to supply a carriage service to an end-user by means of a satellite-based facility that transmits to, or receives transmissions from, the point where the end user is located--the outer surface of the satellite-based facility; or

- (c) in a case where:
- (i) a telecommunications network is used to supply a carriage service to an end-user; and
  - (ii) paragraphs (a) and (b) do not apply;
- the outer surface of the fixed facility nearest to the end-user, where the facility is used, installed ready for use or intended for use to supply the carriage service.

The network boundary is not always consistent:

- if a customer on their property connects their computer to an appropriately configured Telstra Next G<sup>TM</sup> capable mobile phone to provide broadband connectivity (e.g. Nokia handset and Nokia PC Suite), Section 22 (4) (c) of the Act applies. In this case the network boundary will be the outer surface of the nearest applicable Telstra fixed facility and can be many km from the customer's property boundary.
- when a customer utilizes a Telstra Wireless Broadband USB Modem with their computer to provide broadband connectivity, Section 22 (4) (c) of the Act applies and the network boundary will be the outer surface of the nearest applicable Telstra fixed facility. Again it can be many km from the customer's property boundary.
- if a customer utilizing a Telstra Wireless Broadband USB Modem then physically connects their computer to the Telstra's ADSL Broadband service using a USB modem (e.g. D-Link DSL-200) attached to another USB port, there are now two network boundaries. One network boundary associated with a Telstra mobile tower that maybe many km from the customer's property and the other on the customer's property at the first telephone socket or NTD.

Given the location of a Telstra Next G<sup>TM</sup> tower may be on the same property as a Telstra exchange, it is conceivable the Wireless Broadband and ADSL Broadband network boundaries are located simultaneously on properties at both ends of a customer's Public Switched Telephone Network (PSTN) line. Fortunately, addressing the widely spaced network boundaries between a carrier and customer has the side effect of addressing horizontal and vertical integration and indirectly connection and repair times.

To correct the anomalies with the location of the network boundary by regulation, plus address the identified horizontal and vertical integration issues, the customer's network boundary shall be located at the carrier's exchange (parent) building, mobile tower, or satellite facility.

Changes to customer ownership of telephones, cabling and the definition of the network boundary have all occurred over the years without triggering a liability or provision of compensation to the carrier by government or customers. With appropriate regulation using Section 22 (1) of the Act the network boundary can be consistently applied across all technologies (ADSL / Hybrid Fibre Coaxial Cable / Fibre to the Node / PSTN / Satellite / Wireless) without financially impacting carriers.

The network boundary is not a definitive boundary of cabling and equipment ownership (section 47 of Schedule 3 of the Act applies). Carriers may own cabling or equipment on the customer's side of the network boundary and non-carriers may own facilities on the carrier's side of the network boundary. A process to address issues of ownership on the customer's side of network boundary is outlined below.

Obviously determining the current net value of a customer's connection is of interest. Unlike its predecessors Telstra does not publish the closing net book value of customer fixed access assets of interest i.e. cables and ducts as they are hidden in the general heading of Communication Assets. Historically telephone exchanges, switching, transmission, and other fixed classes of communication

assets have a higher 'at cost' value than customer cabling. Telecom Australia (Telstra's predecessor) originally published the breakdown of this asset information in the Annual Reports. The Australian Telecommunications Commission (Telecom Australia), Fifth Annual Report, Year Ended 30 June 1980, Table 1 Summary of Transactions Affecting Fixed Assets 1979-1980 allows a calculation of a very crude approximation of ~30% for customers' cables and ~10% for ducts and conduits. This gives a crude approximation for the current, average net book value for customer cables and ducts of 40% of (\$22,849M + \$231M) or \$9,232M using the communication assets net book values from the 2008 Telstra Annual Report.

Cable and the associated communications infrastructure has a finite life and is subject to depreciation through the Australian taxation regime until it has no net value. Currently the Australian Taxation Office's Taxation Ruling TR2008/4, 'Effective lives (Asset Categories) Table B as at 1 July 2008' specifies for 'Cables and Wires, Underground' a life of 50 years. Currently the Australian Taxation Office's Taxation Ruling TR2008/4, 'Effective lives (Industry Categories) Table A as at 1 July 2008' specifies for 'Telecommunication Services, Backbone network assets: Conduits' a life of 40 years.

Fibre to the Premises to be implemented over eight years by the National Broadband Network (NBN) will cause obsolescence of the majority of carrier, customer telecommunication cabling and as it has emerged relatively recently it should be classed as unpredictable obsolescence. Relevant text from the Australian Taxation Office's Taxation Ruling TR2008/4 are:

57. There are two types of obsolescence – that which can be predicted at the time the asset is first used (predictable) and that which emerges later (unpredictable). Clearly, unpredictable obsolescence cannot be taken into account when making an estimate of effective life. The Commissioner would only take obsolescence into account if it can be predicted with a high level of certainty across a majority of users.
58. Taxpayers faced with predictable obsolescence that impacts only on their business may choose to work out the effective lives of the assets themselves rather than adopt the effective lives determined by the commissioner.
59. In addition, taxpayers can work a new effective life under section 40-110 of the ITAA 1997 when facts emerge (for example, unpredictable obsolescence) during the life of the asset that mean it must be scrapped before its originally estimated life has ended.

Therefore Telstra should be able to claim accelerated depreciation for in excess of \$9,000M over the eight year implementation phase of the NBN. As this accelerated depreciation provision impacts government revenue it also represents an additional cost for the NBN.

To address ownership of assets on the customer side of the network boundary:

- if the lead-in cable to a property has exceeded its lifetime currently calculated for depreciation purposes and has no net value (or less than a nominal amount e.g. \$10.00) to the carrier, the ownership of the customers ADSL/HFC Cable/PSTN line from the revised network boundary would be transferred to the property owner.
- if the lead-in cable to a property has not exceeded its lifetime calculated for depreciation purposes, the Carrier would be the owner of the cable on the customer's side of the network boundary. The Carrier would have the option to claim depreciation on the asset while it continues to hold ownership. The customer could have the option to purchase their cable from the carrier at current net value.
- if a carrier is unwilling to sell or transfer cable and ducts into the NBN, when a conduit or duct exceeds its lifetime currently calculated for depreciation purposes and has no net value to the carrier, ownership should be transferred to the relevant local government authority (Council,

Shire, etc). As these are assets on public land cost of maintenance and provision for upgrades to a customer's property would be a rateable item.

- if a carrier attempts to game the system by not claiming depreciation or extending the depreciation life of a cable or duct past the eight year NBN implementation phase then an application could be submitted to the regulator or administrative tribunal for an immediate transfer.
- when individual customer cables share a multi-pair cable/HFC cable or fibre, ownership is shared. Maintenance costs are equally divided between cable pairs, fraction of the resource used, or possibly a bandwidth equivalent.
- the customer owns the cabling records and maintenance history.
- the customer should receive a yearly report of the Carrier's current net value of the customer's cable, projected duration of carrier ownership, plus the actual maintenance costs expended for their cable connection.

This ensures a carrier does not suffer a financial loss with the administrative change to the network boundary. Given an eight year life for assets on the customer side of the network boundary due to the NBN the transfer of ownership will dovetail into the implementation phase. For rental or leased properties the telecommunications connection would be handled like a standard utility connection with the customer responsible for the account unless the landlord makes an alternative contractual arrangement.

Aerial cables are more vulnerable to damage and inherently less reliable than underground cables in conduits or ducts. In the early to mid 20<sup>th</sup> Century telephone lines were aerial while the current practice in the 21<sup>st</sup> Century is underground. Local government authorities have planning approval responsibly for reticulation of services and specification of telecommunication conduit and duct work for all new and existing subdivisions. Therefore a relevant local authority is the appropriate level of government to determine when aerial cabling is acceptable. All new or replacement lead-in cables (fibre, HFC and PSTN) to a customer's property shall be underground if there is an existing underground PSTN lead-in cable installation, even if not currently active. Therefore all cables (broadband, HFC, etc.) shall be underground unless there is planning approval granted by the relevant local government authority for each aerial cable installation.

Under current regulations the Open class of registered Cablers under the Australian Communications and Media Authority(ACMA), Cabling Provider Rules (CPR) are permitted to work up to the network boundary on private and public property. Depending on experience they will require recognition of prior learning, or additional training (endorsements) in technical (cabling records and associated systems, carrier's technical requirements, etc.) plus Occupational Health and Safety (gas in pits, sharps, etc.) fields. The Restricted class of registered Cablers can only perform a limited range of cabling work on a customer's premises and would not be impacted by the change in network boundary definition.

The following applies to address vertical integration. The network boundary is not a boundary of competition - in principle, there are no boundaries to competition under the Telecommunications Act 1997. The customer would have the choice of maintaining a relationship with their existing carrier if the carrier chooses to be a retail service provider, or sign a service contract with any other retail service provider in a contestable retail market.

For ADSL/HFC Cable/Fibre to the Premises/PSTN customers the retail service providers would place maintenance/supply contracts with any wholesale network infrastructure (customer cabling) provider. To ensure a competitive market a retail service provider would be barred from providing the services of

a wholesale service provider and vice versa. Existing carriers could transfer their current wholesale network infrastructure (customer cabling) into the National Broadband Network, if unacceptable there could be the option to spin off an independent wholesale entity, a divestment sale, or alternative commercial solution. A company or individual would not be permitted to exercise control over both retail and wholesale entities. A retail service provider, officers, directors, etc would be barred from holding positions in a wholesale entity and vice versa.

Consistently defining the network boundary at the telephone exchange, mobile and satellite facilities plus establishment of retail and wholesale markets under the Telecommunications Act 1997 or its successor would address the issues of:

- promoting greater competition across the industry, including measures to better address Telstra's vertical integration, such as functional separation
- addressing competition and investment issues arising from horizontal integration of fixed-line and cable networks, and telecommunications and media assets

Currently the individual retail or small business customer have little power to affect connection and repair times. There is an imbalance in power between the carrier and this class of customer as the carrier effectively sets the terms and conditions of any supply contract. Moving to a retail/wholesale market enables the retail suppliers to use their market share to shop in the wholesale market for the best terms and conditions. By relying on market competition it moves from a regulatory framework to commercial pressure to address:

- introducing more effective rules requiring telephone companies to make connections and repairs within set time-frames.

Regards,