

# Points in reply to submissions by Optus, Internode, PIPE and AAPT on Telstra's DCTS exemption applications for CBD/Metro IEN and tail transmission—PUBLIC VERSION

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## 1 Introduction

My name is Michael Smart. I have previously filed a statement in connection with Telstra's 21 December 2007 applications for exemption from the DTCS declaration of inter-exchange and tail-end transmission in certain exchange service areas.<sup>1</sup> My experience and qualifications are set out in that statement and will not be repeated here.

I have been shown submissions from Internode, AAPT, PIPE and Optus that respond to the December 2007 applications.<sup>2 3 4 5</sup> These submissions raise a number of issues that are pertinent to the economic analysis of competition and the LTIE for the DTCS over which exemption has been sought. I have been asked by Mallesons Stephen Jaques to respond to these economic issues.

My responses are organised as follows. First, I explain the economic significance of new empirical evidence which sheds further light on the strength of existing competition in inter-exchange transmission and other services that may depend on it. Second, I respond to specific criticisms Optus has made of my earlier statement. Third, I identify errors of economic interpretation that underlie the statements made by Internode and AAPT.

## 2 Significance of new empirical evidence

Since my December 2007 statement was completed, I have become aware of new information that sheds further light on the strength of current competition in inter-exchange transmission and other services that may depend on it. This new information is discussed below under three headings:

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- <sup>1</sup> Statement of Michael Smart of CRA International on the economic considerations for Metro and CBD domestic transmission capacity service exemptions, submitted to ACCC on December 2007.
  - <sup>2</sup> Optus submission to ACCC on Telstra's December 2007 exemption applications for tail end and inter-exchange transmission capacity services, April 2008.
  - <sup>3</sup> Letter from Pipe Networks to ACCC regarding Telstra's transmission exemption applications, 14 March 2008.
  - <sup>4</sup> "Telstra's Transmission Exemption Application – Submission by Internode."
  - <sup>5</sup> Submission by AAPT Limited and PowerTel Limited to the ACCC in response to the discussion paper 'Telstra's transmission exemption applications,' February 2008.

1. analysis of the extent of clustering of ESAs,
2. the relationship between the number of IEN fibre owners at a Telstra exchange and the number of non-Telstra DSLAM owners there, and
3. interdependency between tail-end transmission and inter-exchange transmission.

## 2.1 Clustering analysis

I am instructed that Market Clarity's analysis of the number of IEN fibre owners in each of the band 1 ESAs and the band 2 ESAs in NSW established that each fibre owner included in the count possessed fibre that crossed at least one ESA boundary. It is important, in my view, to establish the presence or absence of interconnections between ESAs that contain competing IEN fibre owners because the essence of an inter-exchange transmission service is the ability to deliver transmission across a network. The existence or otherwise of competing metropolitan IEN networks is a matter that should be determined empirically.

Given the fact that Market Clarity has not specifically identified the owners of IEN fibre in each ESA, I have found it necessary to evaluate the competing network connectivity issue in the following manner. I assessed the possibility that some ESAs which Market Clarity determined to have 3 or more IEN fibre owners are geographically isolated from the other ESAs with 3 or more IEN fibre owners in the same metropolitan area. Geographic isolation would be suggestive of a lack of connectivity.

Geographic adjacency is necessary, but not sufficient to guarantee connectivity. Demonstration of adjacency of ESAs that each have 3 or more IEN fibre owners is suggestive, although not conclusive of connectivity. Where a cluster of ESAs has many common borders, the ESAs may all be interconnected even if only a subset of these borders have physical fibre connections spanning them. In other words, ESA 1 may be adjacent to ESA 4, but not physically connected across the common border, yet ESA 1 may be connected to ESA 4 via a chain of connectivity involving ESA 2 and ESA 3 as intermediaries. This type of indirect connectivity becomes more likely the larger the number of common borders among a given number of ESAs.

It does not matter, in my view, if the 3 IEN fibre owners in one ESA are not the same 3 IEN fibre owners present in an adjacent ESA. As long as they are capable of interconnecting at low cost (as adjacency suggests they would be), the fact that there are 3 or more potential connecting partners in the adjacent ESA means that any refusal to connect on the part of one fibre owner would likely be defeated by the competition from other owners.

To test for network contiguity, I developed a computer program that was able to determine the extent of clustering of adjacent ESAs that each had 3 or more IEN fibre owners, based on Market Clarity's fibre owner counts and information provided by Telstra on which ESAs geographically border which other ESAs. Further information on the computation algorithm and the input data can be provided upon request.

My findings are as follows. There are 82 band 1 or band 2 ESAs in the greater Sydney area that each have 3 or more IEN fibre owners and that form part of a cluster of contiguous ESAs.

This finding suggests that any party wishing to procure IEN transmission services that cover all or any subset of these ESAs would be able to negotiate commercial terms with at least 3 sets of IEN fibre owners. This ability relies on competitive facilities investment to date, and is not dependent in any way on continued IEN transmission declaration in these ESAs.

## 2.2 Competing IEN fibre and DSLAM competition

Several submissions have questioned the appropriateness of the 3-competitor rule for IEN and tail-end transmission fibre. For example, Optus notes (par. 3.4) that *“the presence of three or more fibre operators somewhere in a given ESA is not necessarily sufficient to constrain the price of DTCS on a route between two points.”*

The relationship between the number of fibre competitors in an ESA and the level of competitive ULLS and LSS entry can be established empirically. The table presented below was compiled by matching the number of IEN fibre owners connected to the Telstra exchange in each ESA to the number of active ULLS or LSS providers at that exchange in July 2007. Only band 1 and band 2 ESAs in NSW are shown. The data sources are the Market Clarity report on IEN fibre owners, and Telstra’s DSLAM tracker database described in the statement of [Telstra employee, name withheld] from 9 July 2007.

[Table C-I-C]

Each cell of this table contains the number of Telstra exchanges for which the number of IEN fibre owners is equal to the number in the leftmost column, and the number of ULLS or LSS entrants in July 2007 was equal to the number in the top row. The

number in the rightmost column is the weighted average number of ULLS or LSS entrants for all exchanges with a given number of IEN fibre owners.

For example, the number [C-I-C] on the last row of the table means that

[Equation C-I-C]

It can be interpreted as the average number of ULLS or LSS entrants active at exchanges that have 6 IEN fibre owners.

This table shows that exchanges with more IEN fibre owners have more intense ULLS or LSS entrant activity. The average number of ULLS or LSS entrants active increases as the number of IEN fibre owners increase until there are more than 5 IEN fibre owners. This relationship between number of IEN fibre owners present at a Telstra exchange and the number of DSLAM entrants there can be presented graphically. The quadratic curve of best fit has a high correlation coefficient;  $R^2 = 96\%$ .

[Chart C-I-C]

This table and chart establish a strong correlation (although not necessarily causation) between the number of IEN fibre owners at an exchange and the amount of competitive activity in ULLS and LSS there—a link between IEN fibre entry and downstream competition.

While this information alone is insufficient to prove causation, it does appear logical that the presence of multiple owners of IEN transmission infrastructure would facilitate competitive entry into ULLS and LSS. A ULLS or LSS entrant would be more confident installing a DSLAM and enlisting customers at an exchange if it owns its own backhaul infrastructure or if it is in a position to bargain with several IEN transmission providers for backhaul services.

In my view, these results support a hypothesis that the presence of competing IEN fibre owners provides more confidence than declaration alone. If declaration were the key facilitator of DSLAM investment at an exchange, then the extent of DSLAM investment at a given exchange would be independent of the number of IEN fibre owners present there.

A similar table is presented below for the change between July 2006 and July 2007 in the number of ULLS or LSS entrants as a function of the number of IEN fibre owners at the exchange.

[Table C-I-C]

This table could be interpreted as an indication of the growth rate in the number of ULLS or LSS competitors at an exchange as a function of the number of IEN fibre owners. These growth rates are lower for exchanges with less than 2 IEN fibre owners.

This analysis supports the hypothesis that competition among IEN fibre owners at a Telstra exchange facilitates competition among providers of services that rely on ULLS or LSS. In my view, it is IEN fibre owner competition, and not DTCS declaration that achieves this downstream competition.

### **2.3 Interdependency between IEN and tail transmission services**

The ACCC's April 2004 Review of the declaration for the domestic transmission capacity service found (p. 5) that there was then a concern that there were economies of



scope between the CBD inter-exchange transmission service and the CBD tail service that would be undermined by exemption of the CBD IEN.

The Commission's reasoning (pp. 27-28) is quoted below, with a commentary after each paragraph on developments since 2004.

ACCC view in 2004:

*“Information obtained by the Commission in the context of its inquiry into the scope of the local carriage service (LCS) and from its most recent infrastructure survey indicates that there are numerous carriers that operate fibre rings within the CBDs of the main capitals (Sydney, Melbourne, Brisbane, Adelaide and Perth). Many of these have relatively few customer connections and therefore are likely to be characterised by a degree of excess capacity. This would tend to suggest that there are a number of competitors capable of offering inter-exchange local transmission in these areas.”*

Commentary on position in December 2007:

The Market Clarity CBD buildings fibred report dated December 2007 documents the large number of customer connections to the CBD fibre networks of many non-Telstra carriers. In fact, these non-Telstra connections outnumber the Telstra connections by a ratio of 2 to 1 nationally.

ACCC view in 2004:

*“Based on this information, the Commission's draft view was that it would give consideration to removing inter-exchange local transmission in the five major CBDs from declaration. The Commission qualified this by noting that there was some uncertainty as to whether it would be worthwhile for an access provider to supply this as a discrete service in the absence of threshold number of tail transmission services also being provided. It would also be necessary for an access seeker to establish a POI at each local exchange to be able to purchase this service from alternative suppliers.”*

Commentary on position in December 2007:

The worthwhileness of carriers providing a discrete IEN transmission service is demonstrated by the high correlation between ULLS and LSS entrant activity and IEN fibre entry (see s1.2 above). IEN transmission can be and is used as backhaul for ULLS and LSS services, as well as for mobile base stations. It does not depend on a dispersed array of tail transmission services to feed it.

ACCC view in 2004:

*“For areas outside CBDs, the Commission is not convinced that there is sufficient alternative inter-exchange infrastructure to warrant any change in the declaration in these areas.”*

Commentary on position in December 2007:

The Market Clarity IEN fibre report documents the substantial competitive investment that has taken place outside of CBD ESAs, particularly among band 2 ESAs.

ACCC view in 2004:

*“Information collected by the Commission following the draft report indicates that access seekers that require this service would generally purchase it from the same supplier they use to purchase a CBD tail service from. This is in recognition of the economies of scope involved in purchasing the services together, which means that only one rather than two POIs are utilised to get from the customer transmission point to a second CBD exchange when a second provider was used instead (assuming a return to the access seeker's network at the second exchange). The Commission considers that this proposition would not be viable when only a small number of end-customers are supplied, which is feature of new entrant competition in the CBD transmission market.”*

Commentary on position in December 2007:

A large number of end-customers is now supplied. This scope economy argument is likely overemphasised in the present competitive environment. The presumption that IEN transmission is exclusively used to complement tail-end transmission is also inaccurate. There is presently a variety of sources of transmission traffic other than declared tail-end transmission, including ULLS and LSS DSLAMS, data centres, and mobile base stations.

ACCC view in 2004:

*“Moreover, despite the existence of several optical fibre rings in the CBDs of the main capitals, it is not clear to the Commission that these interconnect with all of Telstra's CBD exchanges and would be readily available to use on a wholesale basis. This means that these rings would require supplementation to provide coverage to all of Telstra's that access seekers are likely to require access to.”*

Commentary on position in December 2007:

The current high degree of interconnectivity between third party-owned fibre rings and Telstra exchanges is documented in the Market Clarity IEN fibre report. The existing third party rings should provide access seekers the non-Telstra access they might require in the ESAs for which exemption has been sought.

ACCC view in 2004:

*“Furthermore, given that the Commission does not intend to remove the CBD tail service from declaration (for reasons outlined in the next section), it would be concerned that removal of this service could create a bottleneck that could be used by Telstra to undermine competition in the CBD transmission tail market. That is, by denying access to this service it could undermine the usefulness of access seekers utilising Telstra's CBD tail transmission service.”*

Commentary on position in December 2007:

The existence of three or more independent IEN fibre owners in each of the ESAs for which exemption is sought ensures that exemption would not result in CBD IEN transmission becoming a bottleneck that might undermine competition in the CBD transmission tail market. Furthermore, the evidence presented by Telstra strongly supports the view that the CBD transmission tail market is also competitive for those CBDs over which exemption has been sought.

ACCC view in 2004:

*“It is considered that, like with tail-end transmission, the ongoing declaration of this service is necessary to enable competition to continue to develop in the supply of downstream retail markets, and help serve as a stepping stone to greater facilities based competition over time. These considerations have led the Commission to the view that removing inter-exchange local transmission in the five major CBDs from declaration could damage competition, and therefore would not be in the LTIE.”*

Commentary on position in December 2007:

The foregoing material has demonstrated that declaration is no longer necessary to enable competition to develop. Declaration is not promoting competition, but maintenance of declaration may incline some players to buy rather than build fibre tails to high cost CBD buildings because they expect the regulated DTCS price to those buildings to be set lower than the cost of providing the service. In this respect as well as others, continued declaration will distort competition, investment and the efficient operation of networks.

### 3 Optus

The Optus submission (par. 1.9) lends some qualified support to the Telstra exemption applications for IEN DTCS. Nevertheless, it raises three issues of an essentially economic character to which I respond here. They are:

1. market definition issues;
2. criticisms of my payback analysis for CBD fibre tails; and
3. the efficiency of multiple carriers having fibre tails in a CBD area.

Each of these issues is discussed in under separate heading below.

### **3.1 Market definition issues**

Optus objects to the geographic market definition adopted in the Telstra application, which equated each ESA to a distinct geographic market for tail-end transmission and for IEN transmission.

With regard to the IEN geographic market, Optus submits that each IEN market must be limited to a single route between two exchanges. Such a restrictive market definition is unnecessary and impractical. It is impractical because each pair of exchanges would constitute one or more IEN markets (more than one if there were redundant routes connecting the exchanges) leading to a profusion of markets that might conceivably need to be examined. It is unnecessary because each carrier typically operates an interconnected network linking all of its exchanges or POPs. The relevant issue is whether the exchange or POP in a given ESA is capable of being connected to the rest of the ESAs in Australia. Rather than defining the market as the link between ESA1 and ESA2, it is most helpful, in my view, to define the market as the link between an ESA and the rest of Australia—however that connection might be achieved.

With regard to the tail-end transmission geographic markets, Optus submits that a separate geographic market must be defined for each end user address. If that address is served from more than one POI, then it would give rise to more than one geographic market. Quite apart from the intractability of analysis for approximately 10 million Australian end user address markets, this suggested approach overlooks the numerous opportunities for supply-side substitution that render it inappropriately narrow.

Optus' justification for ignoring supply-side substitution is based on a quotation (par. 2.13) from a report to the European Commission by Dr. Padilla. Subtle but important differences have been pointed out already between the views of Dr. Padilla and the ACCC Merger Guidelines.<sup>6</sup> The Merger Guidelines do not take such a restrictive approach to supply-side substitution possibilities.

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<sup>6</sup> “Domestic transmission capacity service exemptions—response to Optus submission,” CRAI, 27 March 2008, pp. 10-11.

The existence of declared ULLS makes competitive supply of tail end services of 2 Mbps bandwidth possible to all end user addresses where the length of the copper loop is sufficiently short to support that ULLS deployment class—shown in my earlier report to be a majority of end user addresses in the proposed exemption areas. The treatment of the class of end users in a given ESA as a single geographic market is logical for these tail-end transmission services.

The CBD fibre tail end payback analysis presented in my earlier report shows the realism of supply-side substitution opportunities and, more importantly, the extent of competitive building of fibre to CBD buildings demonstrates that this type of substitution is occurring on a large scale.

### 3.2 Optus criticisms of the payback analysis for CBD fibre tails

Optus criticises the payback period analysis in my earlier report on five grounds:

- my reliance on the Lordan cost estimates,
- my failure to take account of demand and revenue forecasts,
- my treatment of costs other than access fibre costs,
- my use of the Telsyte transmission prices, and
- my failure to take account of non-price issues.

I address each of these criticisms in turn below.

#### Lordan cost estimates

The Optus confidential submission says that the analysis presented in the Lordan report underestimated these costs (par. 4.9). Contrary to Optus' claims, however, Mr Lordan's cost estimates for individual buildings in Melbourne were significantly higher than the cost estimates presented by Optus.

Optus states (par. 2.18 of the Confidential Optus submission) that in a costing exercise it has carried out recently, the cost of construction of access fibre infrastructure to buildings in the Melbourne CBD was in the range of [start C-I-C] \$ [end C-I-C] to [start C-I-C] \$ [end C-I-C]. Mr Lordan estimated that the cost of constructing access fibre to the most expensive building in the Batman ESA in Melbourne was \$490,000, assuming the necessity of constructing new conduit. For the Exhibition ESA the equivalent cost was \$366,000 and for Lonsdale it was \$165,000.

The cost information provided by Optus does not invalidate the use of the Lordan cost estimates in my payback period calculation. The Lordan cost estimates are higher, so my payback period calculation is conservative. Mr Lordan's 75th percentile costs for the Melbourne CBD range from \$100,000 for the Lonsdale ESA to \$216,000 for the Exhibition ESA. This range is quite similar to the cost range cited by Optus, although

higher. If anything, the cost information provided by Optus supports the figures used in my payback period analysis.

Optus presents a comparison of its own cost estimates and those derived from the Lordan report on a per metre basis in order to support its conclusion that Mr Lordan's unit cost rates are too low. I have read Mr Lordan's reply to the Optus criticisms of his costing analysis which responds to these claims. I note that Mr Lordan does not accept the validity of a per metre comparison of costs nor does he accept Optus' conclusion about his unit cost rates.

Optus also criticises the Lordan cost estimates on the ground that they do not take into account business customers' requirement for redundancy of network infrastructure (Optus par. 4.11(f)). Mr Lordan stated that his cost estimates did not allow for the installation of alternative fibre infrastructure to provide redundant infrastructure (Lordan 23 July 2008 statement, par. 4.26). My payback period analysis compared the costs of installing non-redundant fibre tails with Telsyte prices for transmission tail services. I understand that the Telsyte prices were for non-redundant fibre transmission tails. Therefore, in my opinion, it is valid to perform a payback period analysis of the type presented in my earlier report. The prices and costs employed are comparable because they are for services meeting the same specifications. Optus' criticism does not invalidate the payback analysis method or the conclusions.

### **Demand and revenue forecasts**

Demand and revenue forecasting assumptions are implicit in my reliance on the Telsyte prices for my payback period analysis. Any more detailed forecasts would necessarily be site specific. I did not attempt to use site-specific demand and revenue forecasts for two reasons. First, it would be impractical to do so given the large number of unknown variables. I did rely on information provided by Telsyte on the statistical distribution of prices in each metropolitan centre in order to gauge the effects of this uncertainty. Second, it would be inappropriate to base analysis of a policy decision such as the exemption question on site-specific analysis.

### **Costs other than access fibre**

Costings for fibre termination equipment are provided in the 24 July 2008 statement of [Telstra employee]. At the exchange, Telstra generally uses OMS1664 equipment to terminate fibre tails. The approximate installed cost of an OMS1664 is [C-I-C]. It has capacity to serve up to 504 E1 (2 Mbps) streams. Assuming full utilisation, the average cost per 2 Mbps tail would be [C-I-C]. I consider this amount to be immaterially small in comparison to the costs of installing a fibre tail, and this conclusion would not change even if the utilisation of the OMS1664 equipment were less than full.

According to [that] statement, Telstra generally uses OMS840 equipment to terminate a fibre tail at the customer premise. The approximate installed cost of an OMS840 is [C-I-C]. It has capacity to serve up to 4 E1 (2

Mbps) streams. Assuming full utilisation, the average cost per 2 Mbps tail would be [C-I-C]. Again, this amount is small in comparison to the costs of installing a fibre tail. Such a small difference would make only a marginal difference to the payback period analysis contained in my earlier report. This conclusion would not change even if the utilisation of the OMS840 were less than full.

### **Telsyte prices**

Optus makes the point (par 4.12 (d)(i)) that a competitor's entry decisions will be based on its expectation of post-entry prices, rather than pre-entry prices. In principle, I agree with that point. The Telsyte prices on which I relied have exhibited a strong downward trend over the period from 2003 to 2007. In my view, that downward trend is likely to have been driven by facilities-based competition from other fibre owners in CBD and metropolitan areas. There is evidence of substantial and growing competitive fibre tail-end connection activity in the major CBDs of Australia. Given these points, it is my opinion that the Telsyte prices represent post-entry prices, and may therefore validly be used in the type of payback period analysis I presented in my earlier report. Note that I did not rely on Telstra's CBD tail-end transmission prices for my payback analysis, but rather market-wide prices in an environment of vigorous facilities-based entry.

Optus makes the further point (par 4.12(d)(ii)) that in many CBD buildings Telstra can deploy low bandwidth services over existing copper at lower cost than delivery over fibre. That may well be so, but the continued declaration of ULLS ensures that any other carrier can do so as well. In short, the technology option that Optus points to is not the source of any competitive advantage for Telstra, given the ULLS declaration. That was an issue I analysed at some length in my December 2007 report in connection with the use of ULLS to provide 2 Mbps tail-end services in metro areas.

### **Non-price issues**

Optus states (par 4.12(e)) that I did not take account of potential barriers to entry other than price. Optus mentions planning approvals and the challenge of obtaining access to ducts, customer buildings, road space, etc. My understanding is that carriers such as Optus hold rights to access telecommunications facilities such as ducts and Telstra exchange buildings by virtue of legislation. With regard to the other non-price impediments Optus mentions, the only asymmetry Telstra might hold with regard to planning approvals, etc. is a first-mover advantage. However, the Facilities Access regime under the Telecommunications Act 1997 is designed, to my knowledge, to overcome these incumbency advantages. I am not convinced by Optus' submission that these non-price issues represent any material barrier to entry. The extent of actual competitive fibre tail construction in the CBDs of Sydney, Melbourne, Brisbane and other capital cities suggests that these barriers cannot be substantial.

## **3.3 Efficiency**

In its further analysis of CBD fibred buildings, Optus asserts that CBD fibre tails represent a natural monopoly, that competitive overbuild to date may represent inefficient duplication, and that an access regime over CBD fibre tails is required to



ensure efficient use of the network. Optus' submissions in this regard should not be relied upon for several reasons.

### **Supposed ubiquity of Telstra-fibred CBD buildings**

Optus asserts that Telstra's network is already connected to every (or almost every) CBD building (par. 4.19). No evidence is provided by Optus in support of this claim. However, information recently provided by Mr Brett Scott of RP Data Commercial<sup>7</sup> shows this claim to be incorrect. Mr Scott was asked to undertake a count of the CBD buildings in the precise areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, and Canberra which were surveyed by Market Clarity in its fibred buildings report. A comparison of Mr Scott's CBD building counts and the Market Clarity count of the number of buildings fibred by each carrier reveals the following points of fact.

Telstra has fibre connections to only [C-I-C] of Sydney CBD buildings, [C-I-C] of Melbourne CBD buildings, [C-I-C] for Brisbane, [C-I-C] for Perth, [C-I-C] for Canberra, and [C-I-C] for Adelaide. In light of these facts, it is quite incorrect and misleading for Optus to state (par. 1.7) that *"In CBDs the proposed exemption [for Tail-end DTCS] would stifle competition and return the vast majority of buildings to monopoly service provision."* Telstra does not have a monopoly, and the vast majority of CBD buildings are not fibred by Telstra.

Non-Telstra fibre connections to CBD buildings, excluding Optus who declined to participate in the Market Clarity survey, are more numerous than Telstra fibre connections in Sydney, Melbourne, Brisbane, Perth, and Canberra. For Adelaide, the non-Telstra fibre connections ([C-I-C]) are slightly less numerous than the Telstra connections ([C-I-C]).

Contrary to the impression left by the Optus submission, Telstra does not have fibre connections to even a majority of CBD buildings, let alone the 100% market share claimed in paragraph 4.19. Telstra's share of the building fibre connections that do exist is less than 50% except in Adelaide. The total number of non-Telstra CBD building connections exceeds the number of Telstra connections by a 2 to 1 ratio nationally. Obviously, fibre-optic connection to CBD buildings is not a monopoly in fact.

Optus' argument for continued declaration depends on the premise, now shown to be incorrect, that Telstra's network is already connected to every (or almost every) CBD building (see par. 4.19). Optus states that Telstra does not face problems other carriers face in connecting to CBD buildings and enjoys a significant first mover advantage. However those statements depend on the disproven premise that Telstra already has

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<sup>7</sup> "RP Data Commercial – Telstra Building Counts Project," May 2008.



100% CBD connection. In light of the actual sub-40% Telstra connection rate and the larger number of non-Telstra connections, the asymmetry between Telstra and other carriers is not sufficiently great to justify continued declaration of CBD Tail-end DTCS.

### **Does declaration prevent duplication of tail infrastructure?**

Optus contends further (par. 4.24) that continuation of the current DTCS declaration is necessary to ensure efficient use of the network and, by implication, to prevent inefficient duplication. The problem with this contention is that the current level of competitive build has occurred while the DTCS declaration was in force—the access regime has not prevented duplication.

### **Optus preference to buy rather than build high-cost CBD tails**

Optus notes its preference to rely on DTCS instead of its own fibre to serve high-cost CBD buildings, in order to minimise production costs (par. 4.25). If Optus did indeed expect DTCS prices to be cost reflective at the individual building level, then it should be indifferent between constructing fibre or purchasing DTCS from Telstra for high cost and low cost buildings alike. Optus' preference for DTCS for high cost buildings suggests an expectation that the DTCS price will be lower than the cost. In other words, an expectation of regulatory error in favour of the access seeker may be motivating this choice. If so, that is an argument against continued declaration.

### **Summary on efficiency**

In summary, Optus' theoretical arguments in favour of continued declaration over CBD tail transmission contain a number of unstated assumptions that are contradicted by practical experience to date and the pattern of actual competitive infrastructure rollout. Telstra does not have ubiquitous fibre connections to CBD buildings, as asserted by Optus. Consequently, Telstra's first-mover advantage is exaggerated by Optus. It seems implausible that CBD building connection is a bottleneck, given the large extent of competitive entry. While Optus claims that duplication is inefficient, Optus and many other commercial firms are continuing to do it on a large scale for presumably cogent reasons. An efficiency justification for the current DTCS is untenable—declaration has failed to prevent duplication. The concern that fear of a post-entry price war might deter new building connections appears unwarranted in light of the large extent of new connection activity that continues to take place.

The more likely explanation of all of these observations is that:

- the barrier to entry for new CBD fibred buildings is low;
- duplication of building connections serves some valid commercial rationale (including, possibly, security of supply through multiple transmission tail providers and the ability of building tenants to negotiate better transmission prices);
- continued declaration will likely perpetuate pricing anomalies under which DTCS prices to high cost buildings are sub-cost-reflective; and

- efficiency will not be harmed by the removal of declaration over CBD transmission tail services where there are 3 or more fibre infrastructure owners.

## 4 Internode

The Internode submission contains two points which deserve commentary from an economic perspective: promotion of a particular competitor rather than promotion of competition, and the appropriate degree of geographic granularity for market definition.

### Promotion of competition or a particular competitor?

The Internode submission makes the mistake of equating its own competitive success with the effectiveness of competition in the markets in which it operates. Internode clearly perceives that its own business model would be threatened by the exemptions Telstra seeks. However competition law exists to protect the competitive process, rather than individual competitors. Competition is efficient precisely because it ensures that the proponents of inefficient business models are supplanted by more efficient proponents.

Internode's current business model appears to depend heavily on regulated access to Telstra transmission assets. There is no evidence in Internode's submission that it has explored alternative business models that do not depend on regulation. An efficient competitor that is responsive to changing industry conditions would be expected to be vigorous in exploring alternatives. The industry is changing substantially, as Telstra's submissions and supporting material demonstrate. Telstra's transmission assets have been replicated in all of the areas over which exemption is sought.

If it is Internode's argument that regulation of DTCS should be maintained so that its own current business model can be perpetuated, then that argument runs counter to the intent of competition policy, which is to protect the competitive process rather than individual competitors or their historical business models.

If it is Internode's argument instead that regulation of DTCS should be maintained because without it downstream competition would be harmed, then that argument runs counter to the empirical evidence presented by Telstra and the submissions of other carriers, such as PIPE, Optus (at least as far as IEN transmission in CBD and metro areas is concerned) and AAPT (at least as far as CBD IEN and tail-end transmission is concerned).

### Appropriateness of Telstra exemption area—geographic dimension

In replying to the ACCC question on the appropriateness of the geographic dimension of the Telstra proposed exemption area, Internode makes an erroneous statement concerning market definition for antitrust purposes. Internode's statement that "*there is insufficient competition amongst owners of fibre optic infrastructure to break the*

*geographic dimensions down to individual ESAs*” appears inconsistent with standard practice in market definition. Normally, the finer the geographic disaggregation of markets, the more difficult it is to establish the sufficiency of competitive activity because there will normally be fewer competitors in a small geographic area than there are in a larger one. If anything, a more granular geographic market definition would be conservative.

## 5 AAPT

The AAPT submission makes three mistakes of economics:

- It claims that competition is not a function of the number of competitors;
- It claims that price regulation based on a cost model will deliver superior build/buy signals to a competitive market; and
- Like Internode, it equates the survival of its own particular business model with the effectiveness of competition.

AAPT makes the incorrect statement (par. 10) that, “*Effective competition is not a function of the number of competitors in a market ...*” While the number of competitors is not the only factor in effective competition, it is undeniably a factor of primary importance. An error of this sort calls into question AAPT’s analysis of competition in the relevant markets.

AAPT places considerable weight on the Commission’s DTCS cost model (pars. 15 & 16) stating, in effect, that if the price is correct then the build/buy decisions will be correct. There is in fact considerable doubt over the robustness of the Gibson-Quai model being constructed for the Commission. The very reason for preferring competition to cost of service regulation is that the latter is prone to errors that may significantly distort investment and render operations inefficient.

AAPT appears to be arguing for the preservation of its current Telstra-centric business model despite the existence of opportunities to use alternative infrastructure platforms. At the same time, AAPT does not display interest in pursuing an investment strategy of the type being pursued by PIPE networks. One would expect an efficient competitor to actively investigate partnering or investment opportunities that arise in a rapidly changing transmission market. A firm that elects not to innovate should not rely on competition laws, in the form of continued DTCS declaration, to insulate it from competitive pressure from those that do.