

**Optus Supplementary Submission to  
Australian Competition and Consumer Commission**

**on**

**Telstra's December 2007 Exemption Application for Fixed Line  
Services in the Optus HFC Area**

**(Public version)**

**May 2008**

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## **1. Introduction**

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- 1.1 In December 2007 Telstra made an application under section 152AT of the TPA to the ACCC seeking an exemption from the supply to Optus of a number of fixed line services to customer premises within 75 metres of Optus' HFC network in Sydney, Melbourne and Brisbane.
- 1.2 In March 2008 Optus made a submission in response to that application as well as to the ACCC's January 2008 discussion paper.
- 1.3 Optus now wishes to submit further information relevant to Optus' investment incentives, to the exemption's impact on the supply of wholesale services and to Optus' use of its HFC network and Telstra's fixed line network.
- 1.4 The following subjects are covered in the section on investment incentives:
  - (a) **CiC** Optus' HFC network;
  - (b) Optus' pay TV business;
  - (c) criteria for rollout of the Optus DSLAM network; and
  - (d) costs of connection to commercial premises;
  - (e) Optus' DSLAM investment.
- 1.5 The section on the exemption's impact on the supply of wholesale services is concerned with the potential for supply of wholesale services on Optus' HFC network.
- 1.6 The section on Optus' use of the HFC network and Telstra's fixed line network is concerned with the number of MDUs passed by the HFC network.

## 2. Investment Incentives

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- 2.1 The ACCC has requested submissions on the related questions of whether Optus' access to the declared services within the HFC footprint has discouraged its investment in its HFC network; and whether granting the exemption would significantly affect Optus' incentives to invest in its own infrastructure.
- 2.2 Optus considers that access to the declared services within the HFC footprint has not discouraged investment in its HFC network, and granting the exemption would not significantly affect Optus' investment incentives. Optus now submits further information relevant to these contentions, and submits that: **CiC**
- (a) Optus' DSLAM network rollout deliberately avoided HFC-serviceable addresses. Optus serves customers via DSLAM if they reside in addresses unserviceable by HFC. Such customers would not have been served via HFC even had Optus' DSLAM network never been built; and
  - (b) supply of services to commercial premises via HFC has never been economically feasible, even before the ULLS became a commercially viable supply option in 2003;
  - (c) the exemption creates a disincentive to investment since it raises the risk that operators' investments in DSLAM infrastructure may be stranded.

### Optus' HFC network

- 2.3 **CiC** In its earlier submission, Optus noted that in 2002, it had to write down the value of the HFC network by almost \$1.4 billion. **CiC**

### Optus' pay TV business

- 2.4 One of the key factors **CiC** is Telstra's anticompetitive overbuild of the HFC **CiC**.
- 2.5 The revenues from pay TV are critical to the profitability of cable networks. **CiC** Internationally, pay TV has typically been highly profitable. The success of cable companies in other jurisdictions has been driven largely by subscription television services.<sup>1</sup>
- 2.6 **CiC** Overseas cable operators can rely on solid revenues from their pay TV businesses to justify making significant investments in their HFC networks.
- 2.7 The differences between the situation of Optus pay TV and that of overseas operators may be traced to a number of factors, including:

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<sup>1</sup> For example, Cable TV accounts for 43% of Canadian operator Rogers Cable's total revenue whilst home phone revenue only accounts for 12% and internet (including DSL) accounts for 17%. Rogers Cable, corporate fact sheet, second quarter 2007

- (a) pay TV penetration in Australia;
- (b) Telstra's overbuild of the Optus HFC network; and
- (c) the cost of content.

#### *Pay TV penetration in Australia*

- 2.8 Pay TV penetration in Australia is low by international standards, at approximately 27% to 29% of households passed, compared to 62% in the US and 65% in Canada. In 2003, Australia had 1.5 million cable TV subscribers. By contrast, in 2003 Canada had 7.5 million and the US with approximately 15 times Australia's population had 44 times the number of cable subscribers, at 66 million.<sup>2</sup>
- 2.9 The explanation for the relative failure of pay TV in Australia to achieve high penetration may relate to the strength of free-to-air TV in this country, which is both protected by strong anti-siphoning provisions and relatively well-resourced. The anti-siphoning legislation keeps selected sports content of high community interest on the free-to-air networks which reduces the impact of what would otherwise be a key driver of pay TV take-up.
- 2.10 Low penetration makes it difficult for Optus to achieve the economies of scale necessary to make a pay TV business profitable. This situation has been exacerbated by competition with Telstra / Foxtel for pay TV subscribers.

#### *Telstra's overbuild of the Optus HFC network*

- 2.11 An important explanation for the success of many overseas cable operators is the fact that in many jurisdictions those operators were given geographical exclusivity, or at least the incumbent telephony operator was prohibited from entering the cable market. Such restrictions are significant, because incumbent telephony operators are likely to have the incentive to overbuild cable operators even where such infrastructure investment would not be profitable of itself (since such an overbuild can protect the incumbent's monopoly profits in telephony).
- 2.12 A non-exhaustive list of jurisdictions where restrictions on incumbent operators' involvement in Pay TV were imposed is set out at Appendix H.
- 2.13 By contrast in Australia where there were no such restrictions, Telstra was able to overbuild the Optus HFC network and enter into an arrangement for the supply of pay TV services on terms that were highly advantageous to Optus' main pay TV competitor (Foxtel), which was half owned by Telstra. Telstra's actions **CiC** reduced the number of customers available to Optus, reduced achievable scale of the Optus HFC network, increased the rate of customer churn and indirectly raised the costs of content relative to overseas jurisdictions. **CiC**

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<sup>2</sup> OECD Communications Outlook 2007, p.186.

- 2.14 Further details on Telstra’s overbuild of the Optus HFC network are set out at Appendix I.
- 2.15 A key issue in the current proceedings is the question of why Optus has not found it economically feasible to continue to make significant investments in its HFC network, in particular the investments necessary to make unserviceable homes including MDUs serviceable. Professor Martin Cave raises this issue in the statement prepared for Telstra on [Dec 2007], in which he states:

*“...[Optus’] behaviour recorded above is highly unusual...[Optus’] business policy ...has the effect of eliminating over 35% of the customers in its service area ...from being serviced by HFC. This may reflect the fact that it does not find it profitable to make the investments necessary to supply these customers with its own loops...”*

- 2.16 Optus notes that these matters were addressed several years ago by Professor Martin Cave, who was retained by Optus to support Optus’ s.46 case against Telstra on the basis that Telstra’s overbuild of the Optus HFC network was predatory conduct, intended to weaken or eliminate Optus as a competitor. Telstra’s overbuild explains why Optus “does not find it profitable to make the investments necessary to supply these customers with its own loops” which in turn explains Optus’ “highly unusual” behaviour in supplying customers who are unserviceable by HFC via unbundled Telstra loops instead.

#### *The cost of content*

- 2.17 Content is a significant cost to any pay TV business. CiC

#### **Criteria for rollout of the Optus DSLAM network**

- 2.18 Optus wishes to address the incorrect perception that it serves customers via DSLAM-based services which it would otherwise serve via HFC. Optus submits that in fact its DSLAM network rollout was deliberately designed to avoid HFC-serviceable addresses. The customers served via DSLAM are customers who reside in addresses unserviceable by HFC and these customers would not have been served via HFC even had Optus’ DSLAM network never been built. On this basis, Optus concludes that access to the ULLS within the HFC footprint has not discouraged its investment in HFC.
- 2.19 This argument can be best understood if one considers the following:
- (a) the chronology of the network rollout and unserviceability decisions;
  - (b) the criteria for the rollout of Optus’ DSLAM network; and
  - (c) Optus’ ongoing sales policy.
- 2.20 First, however, we provide information on the footprint of the two networks.

### *Footprint of the Optus HFC network and the Optus DSLAM network*

- 2.21 The incorrect perception that that Optus serves customers via DSLAM-based services which it would otherwise serve via HFC may arise as a result of the apparent overlap of the HFC network and Optus' DSLAM footprint, both of which serve customers in metropolitan Sydney, Melbourne and Brisbane.
- 2.22 Optus refers the Commission to the high level coverage maps at Appendices A, B and C of this submission. These coverage maps show geographically the overlap of HFC in each city (Sydney, Melbourne and Brisbane) with Telstra ESAs in which Optus has installed DSLAMs.
- 2.23 In these coverage maps:
- (a) The orange lines show the location of the HFC network (including both serviceable and unserviceable addresses); and
  - (b) The yellow shaded area shows the TESAs which Optus has installed DSLAMs (also indicated by title of TESA in red).<sup>3</sup>
- 2.24 As indicated in the coverage maps, the overlap between Optus' HFC footprint and many Telstra ESAs is only partial. For example in Sydney suburbs such as Chatswood, Mosman and Manly, the Optus HFC network footprint overlaps with only half or less than half of the TESA.
- 2.25 In viewing these high level coverage maps, it is crucial to bear in mind that unserviceable premises are not identified. It follows that the actual coverage of the HFC network is significantly less than the apparent coverage.

### *Chronology*

- 2.26 Optus' HFC network was rolled out in the mid 90s in residential neighbourhoods in Sydney, Melbourne and Brisbane. Optus' DSLAM network was rolled out much later, between late 2005 and 2008.
- 2.27 The key serviceability decisions for the HFC network were made well before the rollout of the DSLAM network. For example, as discussed above the decision not to serve commercial premises was taken in 1999. As discussed in Optus' previous submission, MDUs were judged to be unserviceable on the basis of commercial analysis undertaken in April 2000.
- 2.28 This is a key point to understanding the relationship between the HFC network and the DSLAM network. At the point when the rollout of the DSLAM network began in 2005, a settled understanding had emerged within Optus that large numbers of premises within the HFC footprint were unserviceable by HFC.

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<sup>3</sup> The yellow shaded areas should not be taken to indicate ULLS coverage, since this is affected by pair gain systems and distance limitation, i.e. ULLS is not serviceable outside 4.5 km from the Telstra exchange.

*Criteria for the rollout of Optus' DSLAM network*

- 2.29 The rollout of Optus' DSLAM network was deliberately designed to avoid Optus' HFC customers. In fact the rollout targeted Optus customers who were at the time "off-net", that is, Optus customers who were supplied with resale services provided entirely over Telstra infrastructure. Optus installed its DSLAMs in Telstra ESAs based on the number of off-net customers Optus had within the ESA. That is, Optus built scale using resale services, then migrated the resale customers to its DSLAM network.
- 2.30 The criteria for the rollout are illustrated in the table provided at Appendix F, which is an extract from a data-file produced in 2005 and which contains data on customer numbers used in planning Optus' DSLAM rollout. The ten exchanges listed in the table are among the ESAs which were deemed highest priority for Optus' DSLAM rollout. These ESAs were selected for installation of DSLAMs because they had a large number of off-net customers available for migration.
- 2.31 The "end-point" of the table is the column listing the number of customers to migrate to the DSLAM network.<sup>4</sup> Inspection of the table reveals that the number of customers in this column was arrived at through a process of elimination. In identifying ESAs suitable for DSLAM rollout, Optus began by taking the total number of homes in the ESA.<sup>5</sup> The first step was to eliminate HFC-serviceable addresses.<sup>6</sup> The second step was to identify the number of current non-HFC customers.<sup>7</sup> The next step was to eliminate customers in addresses outside the 4km serviceability range for DSL. The number of resale voice customers and the number of bundled voice and DSL customers in the ESA were then identified, and estimates made of the number of these customers at the migration date. Finally, the latter estimated numbers were summed to give the number of customers available for migration to DSLAM-based services in each ESA.
- 2.32 A key point to take from this process is that in establishing the suitability of ESAs for DSLAM installation, HFC-serviceable addresses were eliminated from consideration. It follows that where Optus has installed DSLAMs in ESAs which overlap with the Optus HFC footprint, those ESAs must have contained large numbers of premises unserviceable by HFC – premises which the DSLAM rollout was intended to reach. Conversely, Optus has not installed DSLAMs in ESAs overlapping the Optus HFC footprint which did *not* contain large numbers of premises unserviceable by HFC.
- 2.33 To make this more concrete, consider the following Telstra ESAs. **CiC**

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<sup>4</sup> Column entitled "Estimated LAR customers to migrate (sum of bundle and stand alone. LAR stands for local access resale.

<sup>5</sup> Column entitled "Total\_NoOfHin"

<sup>6</sup> Column entitled "HSD". HSD stands for high-speed data.

<sup>7</sup> Column entitled "Non HSD Customer"

*Optus' ongoing sales policy.*

- 2.34 To complete the discussion in this section, Optus notes that its policy of preferring to serve customers by HFC where serviceable rather than DSLAM did not end with the rollout of the DSLAM network. Even after the network rollout, as noted in Optus' previous submission, Optus has consistently maintained an internal Business Rule to maintain the preference for HFC service over DSLAM services.
- 2.35 The way this works is that when Optus receives an order from a customer, Sales staff enter the customer address and if applicable, phone number into the Sales IT system. The IT system then calls the existing serviceability database to establish whether the address can be serviced for the Optus HFC products (OTV, LAT, HSD). The serviceability information in this database was originally determined by "street walks" carried out by Customer Field technicians to determine if homes could be serviced.
- 2.36 As a result of this Business Rule, where HFC is available for supply to a customer, that customer will be supplied with services provided over the HFC network and not via the ULLS or resale products.

**Costs of connection to commercial premises**

- 2.37 With regard to commercial premises, Optus submits that Optus' access to ULLS within the HFC footprint has not discouraged its investment in its HFC network since supply to commercial premises was not economically feasible even before the ULLS became a commercially viable supply option in 2003.
- 2.38 **CiC** Since 1999 none of the above factors changed; in fact the situation has become worse as many business districts have begun to move overhead cables underground. This creates prohibitively expensive lead-in costs.
- 2.39 Although the ULLS was declared in 1999, it did not become commercially viable until late 2004. The commercial viability of the ULLS depended on a number of factors including the price of equipment, achievable scale and the regulated price (set at \$22 in October 2003).<sup>8</sup> Optus notes that **CiC** 1999 is well before the ULLS became commercially viable. Further, resale services are not a profitable supply option. **CiC** It follows that Optus' lack of supply to commercial premises is unrelated to Optus' access to the declared services within the HFC footprint.
- 2.40 Further, Optus submits that the exemption would not cause it to begin serving large corporate and government customers via the HFC network. The HFC was designed as a consumer network and the network was laid out in residential neighbourhoods. **CiC** Large corporate customers are generally located in CBDs and business parks, which have no HFC coverage. The exemption would not alter this situation, since where Optus serves a corporate customer by building network infrastructure in these areas, the appropriate technology is fibre to the premises.
- 2.41 Optus concludes that granting the exemption would not significantly affect Optus' incentives to invest in its own infrastructure.

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<sup>8</sup> ACCC (October 2003), Model Price Terms and Conditions Final Determination

## Optus' DSLAM investment

- 2.42 In its previous submission Optus noted that the exemption would create a disincentive for investment affecting both Optus and other carriers based on the fear that any investment in new networks or network extensions would cause them to lose access to Telstra's fixed line services in accordance with the precedent set by this exemption application (since it discriminates against carriers that have made an investment in infrastructure).
- 2.43 In addition to the above, Optus also wishes to highlight a separate disincentive for investment affecting both Optus and other carriers based on the more general fear that investments made in DSLAM infrastructure may be stranded by regulatory changes such as exemptions.
- 2.44 Optus notes that its HFC network overlaps at least partially with approximately 150 ESAs. Optus submits that the economics of each of the DSLAM investment in each of these ESAs would be damaged to some degree by the exemption, since it would reduce the number of customers available for service. The degree of damage would vary from ESA to ESA.
- 2.45 Optus estimates that the average cost of investment for installation of DSLAM racks and cards in a new exchange ranges from **CiC** (for an exchange with one rack) to **CiC** (three racks). This does not include all backhaul costs,<sup>9</sup> or the need for additional upgrades such as air conditioning (which is occasionally required). The size of Optus' investment at risk as a result of this exemption is significant, at **CiC** and the value at risk would be significantly greater if regard were had to future revenues foregone (which would be earned on Optus' DSLAM investment if the exemption did not proceed).

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<sup>9</sup> This includes the access transmission system cost, i.e. the first hop between Telstra exchange and Optus site. However, it does not include the fibre build cost

### 3. Impact on Supply of Wholesale Services

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- 3.1 The ACCC has requested submissions on the question of the relevant markets that would be affected by the granting of the exemption.
- 3.2 In addition to its impact on retail market competition (discussed in Optus' previous submission), Optus considers that the exemption would reduce competitive tension in the supply of wholesale services in Sydney, Melbourne and Brisbane, since it would limit Optus' ability to provide a competitive wholesale offering via its DSLAM network.
- 3.3 Telstra has attempted to play down the exemption's impact on wholesale service provision by claiming that Optus would respond by offering an HFC-based wholesale product.
- 3.4 Optus has no wholesale product available on its HFC network. Even if such a product was available, however, it would not reduce the impact of an exemption on wholesale service provision for two main reasons.
- 3.5 First, the HFC network is unlikely to be an attractive option for wholesale customers because the operational processes required to be carried out in order to connect a new HFC customer are significantly more costly and time-consuming than for a DSL customer. Connection of new HFC customers requires a truck roll so that an Optus technician can install customer premises equipment and cabling at the customer's premises. By contrast, connection of a new DSL customer can be carried out via a relatively simple process at the local exchange. Comparative cost estimates are set out at Appendix A.
- 3.6 Second, the HFC network will never be a complete solution for wholesale customers as a result of its limited coverage. Not only is the HFC network coverage limited to selected suburbs of Sydney, Melbourne and Brisbane, but also, as discussed in Optus' earlier submission, a large proportion of end user addresses (including almost all multi dwelling units) are unserviceable via Optus' HFC network. It follows that if Telstra's exemption application was granted, Optus' wholesale customers would see their addressable premises reduced by a significant proportion. **CiC**
- 3.7 As a result of the exemption, Telstra would either:
  - (a) not supply Optus with the ULLS; or
  - (b) supply the ULLS to Optus at significantly higher prices.
- 3.8 Either way, Optus' wholesale service would not be attractive to Optus' wholesale customers.
- 3.9 Clearly the exemption would limit Optus' ability to provide a competitive wholesale offering and reduce competitive tension in the supply of services in Sydney, Melbourne and Brisbane.

#### **4. Use of the HFC Network and Telstra's Fixed Line Network**

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- 4.1 The ACCC has requested submissions on the question of the extent to which Optus currently uses the Telstra fixed line network within the non-serviceable areas of the Optus HFC network footprint (ie. those 36 per cent of homes passed but not serviced by Optus' HFC network).
- 4.2 In its earlier submission, Optus stated that of the 2.2 million homes passed by the Optus HFC network, around 0.8 million homes are classified as "unserviceable", including approximately 0.5 million homes in MDUs. The information provided earlier represents the most comprehensive information held by Optus on the number of homes passed by the HFC network and is consistent with Optus' internal records.
- 4.3 However, the original data on which these records were based was collected some years ago and so might not be accurate as to the current situation, since new estates have been built in recent years. As a result, the number of homes that are passed by the Optus HFC network may exceed 2.2 million. To update the figures however, a new network walkout would be necessary which is likely to cost around \$2-3 million.
- 4.4 Based on a sampling exercise in a limited geographical area of the Sydney network from 1996-2003, we believe the number of MDUs passed by the network is likely to have increased, particularly in suburbs near to rail lines.
- 4.5 Optus notes that the growth in new addresses passed by the HFC is likely to be dominated by the growth in the number of MDUs. The number of homes passed by the Optus HFC network will now exceed 2.2 million, however, the number of unserviceable addresses will also have increased significantly since Optus generally does not serve MDUs through the HFC network.

## **Appendix A: HFC and ULLS Connection Cost Estimates**

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[Provided separately]

## **Appendix B: Wholesale Interface Cost Estimate**

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[Provided separately]

## **Appendix C: Optus HFC footprint and DSLAM footprint in Sydney**

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[Provided separately]

## **Appendix D: Optus HFC footprint and DSLAM footprint in Melbourne**

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[Provided separately]

## **Appendix E: Optus HFC footprint and DSLAM footprint in Brisbane**

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[Provided separately]

## **Appendix F: Customer Numbers for DSLAM Rollout**

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[Provided separately]

**Appendix G: Optus HFC coverage within the Chatswood TESA**

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[Provided separately]

**Appendix H: Restrictions on Incumbent Involvement in Pay TV**

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[Provided separately]

## **Appendix I: Telstra's Overbuild of the Optus HFC Network**

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[provided separately]

## **Appendix J: Optus' Pay TV Product**

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[Provided separately]