



## COMMERCE COMMISSION

### **Draft Reconsideration of Decision 582**

Draft decision under section 59 of the Telecommunications Act 2001 ('the Act') in the matter of applications by ihug Limited and CallPlus Limited for reconsideration of Decision 582:

**IHUG LIMITED  
TELECOM NEW ZEALAND LIMITED  
CALLPLUS LIMITED**

**The Commission:** Douglas Webb

**Summary of Application:** ihug Limited and CallPlus Limited each separately applied for reconsideration of Decision 582 relating to the price of the regulated bitstream service supplied by Telecom to ihug Limited and CallPlus Limited.

**Date of Decision:** 21 February 2007

**CONFIDENTIAL MATERIAL IN THIS REPORT IS CONTAINED IN SQUARE  
BRACKETS**

## LIST OF TERMS AND ABBREVIATIONS<sup>1</sup>

<b>ADSL</b>	Asymmetric Digital Subscriber Line
<b>ATM</b>	Asynchronous Transfer Mode
<b>Bitstream Access</b>	An asymmetric digital subscriber line enabled service (and its associated functions including the associated functions of Telecom's operational support systems) that enables access to and interconnection with that part of Telecom's fixed PSTN that connects to an end-users building (or in the case of commercial buildings the buildings distribution frames) to Telecom's first ATM data switch or equivalent facility other than a DSLAM. This is the service referred to as "access to, and interconnection with Telecom's fixed PDN" in subpart 1 of part 2 of Schedule 1.
<b>Backhaul</b>	A wholesale service linking Telecom's point of presence providing the bitstream access service with the access seeker's point of interconnection.
<b>Data Cap</b>	The upper limit for a broadband plan's allocated or standard speed data traffic. It is normally expressed in terms of gigabytes consumed during a defined period. Depending on the customer's plan traffic over this cap may be charged for or carried at a slower speed.
<b>DSLAM</b>	Digital Subscriber Line Access Multiplexer
<b>GB</b>	Gigabyte
<b>IP</b>	Internet Protocol
<b>ISP</b>	Internet or Independent Service Provider
<b>KB</b>	Kilobytes
<b>Kbps</b>	Kilobytes per second
<b>MB</b>	Megabyte
<b>PDN</b>	Public Data Network
<b>PSTN</b>	Public Switched Telephony Network
<b>UBS</b>	Unbundled Bitstream Service
<b>VP</b>	Virtual Path
<b>WARP</b>	Weighed Average Retail Price

---

<sup>1</sup> Where a term or abbreviation is defined in the Telecommunications Act, the statutory definition is adopted for the purposes of this list.

## **CITED COMMISSION DECISIONS**

### **Decision 582**

The bitstream access decision of 22 June 2006 made by the Commission in respect of an application by ihug and CallPlus for the designated access service 'access to and Interconnection with Telecom's fixed PDN'. The determination is available at:

<http://www.comcom.govt.nz//IndustryRegulation/Telecommunications/Wholesale/WholesaleDeterminatons/ContentFiles/Documents/CallPlus-ihug%20UBS%20PUBLIC%20determination0.pdf>

### **Decision 568**

The access decision of 20 December 2005 made by the Commission in respect of an application by TelstraClear for the designated access service 'access to and Interconnection with Telecom's fixed PDN'. The determination is available at:

<http://www.comcom.govt.nz//IndustryRegulation/Telecommunications/Wholesale/WholesaleDeterminatons/ContentFiles/Documents/Bitstream%20Determination%20Decision%20568.pdf>

## **EXECUTIVE SUMMARY**

1. This draft decision relates to applications by ihug and CallPlus for reconsideration of the pricing terms of Decision 582. Decision 582 set both price and non-price terms for the supply of a wholesale bitstream service by Telecom to ihug and CallPlus.
2. The Commission has decided to amend the pricing terms of Decision 582 in light of the major changes in Telecom's retail broadband plans since that Decision was made.
3. The Commission has developed a revised pricing methodology which takes into account current market conditions. This model uses the retail minus pricing principle and takes account of the relative take up of Telecom's retail plans, and the cost of providing ISP services.
4. The Commission requires Telecom to undertake analysis prior to making any future change to its retail broadband offerings, and if necessary to take steps to ensure that the margin between the planned retail prices and the regulated bitstream price is sufficient to cover Telecom's avoided costs saved, and that an equally efficient access seeker could compete using the regulated service as determined by Decision 582 and this reconsideration.
5. This draft decision provides an illustrative calculation of the bitstream access price as at 22 June 2006. That calculation does not capture the effects of the changes to Telecom's retail broadband plans announced in October 2006. The final decision will include an updated price based on the then current relevant input data. The Commission will consult on the relevant input data.

## INTRODUCTION

6. The Telecommunications Act 2001 (as amended by the Telecommunications Amendment Act (No 2) 2006) (“the Act”) regulates the supply of telecommunications services in New Zealand.
7. The Commerce Commission has a range of responsibilities under the Act, including the power to reconsider earlier determinations, should certain criteria be met. A Party to a determination can apply to the Commission for a determination to be reconsidered.
8. This draft decision relates to ihug Limited’s (ihug’) and CallPlus Limited’s (‘CallPlus’) applications (“the Applications”) for reconsideration of Decision 582 on the price of the bitstream service supplied by Telecom New Zealand Limited (‘Telecom’) to ihug and CallPlus.
9. In preparing this draft decision, the Commission has considered the Applications and comments provided by Telecom.
10. Bitstream is a circuit provided by Telecom between an end-user’s premises and the parent ATM switch or equivalent facility. This service is used by a competing telecommunications provider to deliver retail broadband services. A telecommunications provider must supply other components including national and international transmission, connection to the Internet and ISP services.
11. Confidential information cited in this draft decision is used subject to the confidentiality order of 30 January 2007 which relates to the Applications and was made under section 15(i) of the Act and section 100 of the Commerce Act 1986 (“the Order”). A copy of this Order is available on the Commission’s website. Telecom’s restricted information is denoted as [ ] and has been extracted from the public version of the draft decision. Telecom’s restricted information may only be accessed by the other Parties in accordance with this Order.

### *Commission process and timetable*

12. The Commission invites submission from interested parties on this draft decision by 7 March 2007. Any confidential material in the submissions should be identified in accordance with the Order.

### *Address for submissions*

13. Submissions should be copied to interested parties and sent to:

[neville.lord@comcom.govt.nz](mailto:neville.lord@comcom.govt.nz)

Commerce Commission  
PO Box 2351, Wellington

Enquiries: (04) 924 3670  
Fax: (04) 924 3700

## THE APPLICATIONS

14. On 11 December 2006, ihug filed an application with the Commission for reconsideration of Decision 582. On 13 December 2006, CallPlus filed an application with the Commission for reconsideration of Decision 582. Decision 582 sets both price and non-price terms for the supply of a bitstream service by Telecom to ihug and CallPlus and expires on 22 June 2008.
15. ihug considers that there have been material changes in the products and services in the relevant market since 22 June 2006 when Decision 582 was issued and has sought clarification on interpretation and application of the pricing principle used in the Decision.<sup>2</sup> The application did not specifically request reconsideration of the non-price terms of Decision 582.
16. ihug considers that these changes in the market have led to changes in the pattern of demand and have impacted the avoided costs saved by Telecom. ihug submits that as a result no equally efficient operator can compete with Telecom in the provision of retail broadband services. ihug requested that the Commission reconsiders the price terms of Decision 582 under section 59(1)(a) and (b) so that it achieves long term benefits for the end-users of telecommunication services.
17. CallPlus requests the Commission to reconsider the price issues of Decision 582 in accordance with section 59(1)(a), (b) and (c) of the Act. CallPlus considers that there have been material changes in the products, services, price and non-price terms in the relevant market since 22 June 2006.<sup>3</sup> CallPlus argues that Decision 582 was made on the basis of information that was false or misleading in a material particular.<sup>4</sup> In addition, CallPlus requests that the Commission clarifies the pricing methodology used in Decision 582 to take account of changes in the non-price terms, other commercial terms, and other movements such as customers changing their broadband plan.<sup>5</sup> CallPlus sought a reduction in the price of the UBS service, an amendment to the price adjustment mechanism and backdating of the revised pricing.<sup>6</sup> CallPlus requested that the Commission reconsider Decision 582 in accordance with section 59(1)(a), (b) and (c). CallPlus did not seek a change to the 16% avoided cost saved discount.

---

<sup>2</sup> ihug, *Application under section 59(1) of the Telecommunications Act 2001 for Reconsideration of Decision 582*, 11 December 2006, para 1.

<sup>3</sup> Callplus, *Application under section 59 of the Telecommunications Act 2001 for reconsideration of Decision 582*, 13 December 2006, para 6.1, 12

<sup>4</sup> *Ibid*, para 6-2

<sup>5</sup> *Ibid*, para 13

<sup>6</sup> *Ibid*, page 1

18. On 11 December 2006, the Commission sought written comment from Telecom and CallPlus on ihug's application.<sup>7</sup> On 13 December 2006, the Commission sought written comment from ihug and Telecom on CallPlus' application.<sup>8</sup>
19. On 15 December, the Commission received Telecom's submission<sup>9</sup> in respect of the ihug application. CallPlus chose not to submit on ihug's application.
20. On 20 December, the Commission received Telecom's submission in respect of the CallPlus application. ihug chose not to submit on CallPlus' application. Telecom's submission included an alternative method for calculating the price of the UBS service.
21. On 22 December, the Commission advised the Parties that it would reconsider Decision 582 and that it would consider the Applications together.

---

<sup>7</sup> Letters from Neville Lord (Commerce Commission) to Debra Blackett (Telecom) and Michael Wigley (on behalf of Callplus), 11 December 2006

<sup>8</sup> Letters from Neville Lord (Commerce Commission) to Debra Blackett (Telecom) and Michael Wigley (on behalf of Callplus), 11 December 2006

<sup>9</sup> Telecom, *Comments in respect of the Application by ihug Limited for reconsideration of Decision582*, 15 December 2006

## FRAMEWORK FOR THE DETERMINATION

22. The Commission's power to reconsider Decision 582 arises under section 59 of the Act.

23. At the time the Applications were received, section 59 read:

### **59 Reconsideration of determination**

- (1) Subject to subsection (2), the Commission may at any time, on the application of a party to a determination, revoke or amend the determination or revoke the determination and make a further determination in substitution for it if the Commission considers that—
  - (a) there has been a material change of circumstances since the date on which a determination was made or last reconsidered; or
  - (b) a determination requires clarification in any material respect and is not agreed to by all persons affected by the determination; or
  - (c) the determination was made on the basis of information that was false or misleading in a material particular.
- (2) A determination may not be reconsidered if an appeal is pending in respect of the determination.
- (3) In reconsidering a determination, the Commission must follow the same process that was followed for the initial determination.
- (4) To avoid doubt, a determination continues to have effect and is enforceable pending its reconsideration under this section.
- (5) The Commission must give public notice of a revoked or amended determination or a revoked and substituted determination.

24. The Telecommunications Amendment Act (No. 2) 2006 came into effect on 22 December 2006 and amended section 59 to exclude subsection (1)(b). As the Commission was considering the Applications before that date, the Commission has applied the version of section 59 that was in force prior to the coming in force of the Telecommunications Amendment Act (No. 2) 2006 when assessing whether to reconsider Decision 582.

25. In all other respects, the Commission has considered the Applications in the context of the Act as amended by the Telecommunications Amendment Act (No. 2) 2006.

26. Once the Commission is satisfied that one or other of the qualifying criteria in section 59 apply, the Commission may:

- revoke the determination; or
- amend the determination; or
- revoke the determination and grant a further determination in substitution for it.

### Section 59(1)(a): Material Change in Circumstances

27. Under section 59(1)(a), the Commission may reconsider Decision 582 if the Commission considers that there has been a material change of circumstances since the determination was made or last considered.
28. Section 59(1)(a) requires the Commission to compare the circumstances (including all facts, matters and conduct relevant to the determination) as they existed at the date of the determination to the circumstances as they existed at the time a reconsideration is being considered.<sup>10</sup> The Commission must determine whether the change in circumstances is material and, therefore, justifies intervention under section 59.
29. Telecom submits that ihug's application does not identify particular material changes in circumstances on which it relies.<sup>11</sup> Telecom notes that since Decision 582 was issued, it has changed its suite of retail broadband products.<sup>12</sup>
30. Telecom submits that CallPlus' observation that "market developments" have led to a "material change of circumstances" is vague and that it cannot reasonably be expected to respond to this allegation without further indication as to what "market development generally" are being referred to.<sup>13</sup> Telecom argues that developments in the broadband market of the type which occurred in October 2006 were contemplated in Decision 582 and CallPlus does not provide any factual basis for its assertions that there have been material changes to products, services, price and non-price terms, and material changes to the market.<sup>14</sup>
31. Since Decision 582, Telecom has made a number of changes to its retail broadband plans, effective from 26 October 2006 including:
  - The introduction of the new Go Large plan which has an unlimited data cap;
  - All plans no longer have downstream speed restrictions. Plans are offered at "full speed", i.e: the maximum connection speed that the customer's line allows; and
  - The new Go Express plan has no upstream speed restrictions.
32. The weighted average retail price (WARP) mechanism in Decision 582 takes the imputed retail price in Decision 568 (\$33.18) and applies an adjustment for the change in retail prices or customer connection numbers that occurred between the date of Decision 568 (the TelstraClear Determination) and the date of Decision 582. Subsequent changes in the WARP are applied in the quarterly price adjustments or when retail price changes occur.
33. The pricing methodology in Decision 582 (via the WARP adjustment) captures changes in Telecom's retail plan prices and weights each plan according to its number

---

<sup>10</sup> *Re Media Council; Re AGL Cooper Basin Natural Gas Supply Arrangements* (1997) ATPR 41-593.

<sup>11</sup> Telecom, *Comments in respect of the Application by ihug Limited for reconsideration of Decision 582*, 15 December 2006 2006, para. 2.

<sup>12</sup> *ibid*, para 7

<sup>13</sup> Telecom, *Comments in respect of the Application by CallPlus Limited for reconsideration of Decision 582*, 20 December 2006, para. 38.

<sup>14</sup> *ibid*, para. 40.

of customer connections. The intent of the WARP was to ensure that changes in retail prices would flow through into changes in the wholesale price, such that the margin continues to reflect downstream costs. However, in its current form, the WARP does not capture any changes made to other ‘non-price’ attributes of Telecom’s retail plans including increases in data caps or the introduction of new plans with unlimited data caps.

34. Telecom’s October change to the role of data caps is not reflected in the quarterly WARP adjustments. The consequence of this is that the bitstream access price calculation methodology under Decision 582 no longer is capable of meeting the Commission’s objectives of reflecting an efficient wholesale price. It would not reflect possible increases in data costs resulting from the changes to the data caps.
35. The Commission considers that the October price changes represent a material change in circumstances under section 59(1)(a) of the Act. Accordingly, the Commission has decided that it will exercise its discretion under section 59(1)(a) to amend that price calculation methodology.
36. As section 59(1)(a) of the Act provides the Commission with the jurisdiction to reconsider Decision 582, the Commission does not need to consider whether or not the conditions for 59(1)(c) which relates to whether the original determination was made on the basis of information that was ‘false or misleading in a material particular’ have also been met.

#### **Section 59(1)(b) Clarification**

37. In Decision 489 on an application by Telecom for reconsideration of a determination, the Commission said that clarification is appropriate:
 

... where, for instance, a determination is silent on a point that becomes relevant to the terms applying to the parties’ ongoing dealings with one another, or where the parties identify an ambiguity that needs to be resolved in order to apply the determination to their ongoing dealings ... reconsideration ... cannot extend to amplification of, or amendment to, the reasons for the outcomes directed in a determination.
38. The Applications assert that Decision 582 require clarification in a material respect. ihug considers that clarification of the initial price is required due to material changes in the market. ihug and Callplus both consider that clarification of the WARP mechanism is necessary. Callplus also argues that clarification is required to remove the backhaul component from the price.
39. In response to the ihug application, Telecom submits that section 59(1)(b) does not apply because there is no question or aspect of Decision 582 that needs to be clarified in order for the parties to apply it to their ongoing dealings. Telecom argues that there is nothing in Decision 582 that needs clarifying and considers that this is demonstrated by the fact that Telecom has calculated two adjustments to the price using the updated methodology in Decision 582 and both adjustments have been approved by the Commission.<sup>15</sup>

---

<sup>15</sup> *ibid*, para 14, 30

40. Telecom also considers that CallPlus' reference to section 59(1)(b) is not a request for clarification in accordance with section 59(1)(b) and is simply a request for amendment. Telecom argues that no issue falls under section 59(1)(b) in this instance.
41. The Commission considers that section 59(1)(b) does not apply in this case. As the current pricing methodology in the determination has been used for two approved quarterly adjustments to the bitstream access price, it is not necessary for the determination to be clarified in any material respect.
42. The applicants' requests for clarification of the WARP mechanism and deduction of the backhaul prices are both requests for specific amendments to the formulae used in determining the bitstream price, rather than requests for clarification of the formulae used, and as such do not fall under section 59(1)(b).

### Sections 18 and 19

43. In conducting the reconsideration, section 19 directs the Commission to consider the purpose set out in section 18 and the additional matters. Section 19 states:

- i. **Commission and Minister must consider purpose set out in section 18 and additional matters**

If the Commission or the Minister (as the case may be) is required under this Part or any of Schedules 1, 3, and 3A to make a recommendation, determination, or a decision, the Commission or the Minister must—

- (a) consider the purpose set out in section 18; and
- (b) if applicable, consider the additional matters set out in Schedule 1 regarding the application of section 18; and
- (c) make the recommendation, determination, or decision that the Commission or Minister considers best gives, or is likely to best give, effect to the purpose set out in section 18.

44. Section 18 states:

#### **18 Purpose**

- (1) The purpose of this Part and Schedules [1](#) to [3](#) is to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.
- (2) In determining whether or not, or the extent to which, any act or omission will result, or will be likely to result, in competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand, the efficiencies that will result, or will be likely to result, from that act or omission must be considered.
- (3) Except as otherwise expressly provided, nothing in this Act limits the application of this section.
- (4) Subsection [\(3\)](#) is for the avoidance of doubt.

## BACKDATING THE PRICE CHANGES

45. When reconsidering the price terms of a Decision, the questions of whether any change in bitstream pricing should be backdated, and if so how, arise. Callplus' application and Telecom's responding submission, both recognise that the reconsideration could result in backdating. ihug's application did not comment on this issue.
46. In its submission on ihug's application Telecom argues that any reconsideration should only be backdated to the date of the change of circumstances giving rise to the need to reconsider the determination, and not to the date of Decision 582.<sup>16</sup>
47. CallPlus suggests several possible dates for the backdating to take effect including 22 June 2006 which is the date that Decision 582 was issued, October 2006 when the Decision was "implemented" or another date prior to the release of the reconsideration which the Commission determines.<sup>17</sup>
48. The question of backdating of determinations was addressed in the Court of Appeal judgment in *Telecom v Commerce Commission and TelstraClear*<sup>18</sup>. The Court held that a price review determination relates back to the date of the initial determination and that the Commission can backdate the price payable under a pricing review determination.
49. The changes to the bitstream pricing methodology described below will change both the initial price determined in Decision 582 and the subsequent quarterly price adjustments. As the consequence of this reconsideration is to change the wholesale prices payable to Telecom for the bitstream service, the Commission considers that the new pricing methodology described below should take effect from the date of that Decision. Consequent changes will be made to the subsequent quarterly price adjustments.
50. The Commission considers that this choice of the effective date of the change in pricing methodology is consistent with the *TelstraClear*<sup>19</sup> decision, and best gives, or is likely to best give, effect to purpose set out in section 18.

---

<sup>16</sup> Telecom, *Comments in respect of the Application by ihug Limited for reconsideration of Decision 582*, 15 December 2006, para 19

<sup>17</sup> Callplus, *Application under section 59 of the Telecommunications Act 2001 for reconsideration of Decision 582*, 13 December 2006, page 1

<sup>18</sup> Unreported judgment (CA 75/05, 25 May 2006)

<sup>19</sup> *ibid*

## **INITIAL PRICING PRINCIPLE**

51. The initial pricing principle for the bitstream access service removes those costs avoided by Telecom when supplying the bitstream access service from the retail price of bitstream as imputed by the Commission. These avoided costs relate to the retail functions that Telecom will not provide to the end-user of the bitstream service. These functions include national and international data transmission, billing, and customer service.
52. An equally efficient competitor should be able to use the bitstream access service to effectively compete with Telecom in the provision of retail broadband services. The access price should also be robust to any changes in Telecom's avoided costs over time. The pricing methodology in Decision 582 was designed with this objective in mind, but has limitations in reflecting the effects of changes in Telecom's retail plans, including changes to the data caps.

### **Background to Decision 582**

53. The starting point for the Decision 582 bitstream price was the price calculated under Decision 568. That price was derived through a process of imputing a retail price for bitstream and deducting the avoided retail costs and followed a series of steps as follows:
  - identify comparable services to bitstream access;
  - deduct ISP service charges;
  - remove the effects of bundle pricing;
  - apply a linear regression to remove the effects of data transmission to arrive at an imputed bitstream price;
  - remove the retail-related costs saved discount.
54. Decision 568 also set out the Weighted Average Retail Price (WARP) mechanism to be used to periodically update the bitstream access price. The WARP mechanism reflected future changes in the distribution of customer connections, and changes in the retail prices, of the relevant Telecom broadband plans.
55. Decision 582 adopted the bitstream access price calculated under Decision 568 and updated that price using the WARP mechanism.

### **Need for a New Pricing Approach**

56. In October 2006, Telecom introduced the Go Large plan. That plan represents a change in the price structure of Telecom's retail plans. The plan does not have an explicit data cap, and end-users are able to download as much data as they are able to with no additional costs incurred. The WARP mechanism captures changes in listed retail prices, and in the distribution of customer connections in relevant plans, but it does not allow for changes in the plans' data caps or customer usage.
57. The Commission considers that the approach used for this reconsideration should be robust and consistent with the key principle that the bitstream access price reflects the

costs avoided by the access provider. In particular, this will include the ability to incorporate the changes in downstream costs resulting from changes including increasing data caps on Telecom's plans, and to reflect this change in the wholesale price. This requirement demands the use of a different pricing methodology than that in Decision 582.

58. The Commission has considered several options for calculating the bitstream price including:
- re-running a regression of the data caps periodically with the new plans as in Decision 568, but adjusted for changes in the inputs to the imputation;
  - Telecom's latest approach (discussed below) which produces multiple bitstream prices and measures data costs using actual usage;
  - a uniform bitstream price which is calculated using actual usage to measure data costs.
59. In Decision 582 the Commission noted the limitations of the first approach of linear regression<sup>20</sup>. These include being overly sensitive to the introduction of new retail plans such that a decrease in the price of a higher end plan could lead to an increase in the imputed access price. Decision 582 noted that this limitation could be gamed by an access provider, and could lead to an unduly volatile wholesale price.
60. The Commission considers that an approach with such sensitivity to changes in input factors, which do not reflect changes in costs, is not sufficiently robust for this reconsideration.

### **Telecom's proposed pricing approach**

61. Telecom has argued that, if the Commission considers that the Decision 582 pricing methodology should be amended, the appropriate way of doing so is to adopt a revised version of the WARP method contended for by Telecom in relation to Decision 582. The new approach largely follows the same steps as in earlier submissions, but has several changes.<sup>21</sup> This approach deducts the cost of national and international data transmission on a plan-by-plan basis calculating the cost using actual usage, rather than data caps.<sup>22</sup>
62. The suggested changes relate to the re-arrangement of the order of the steps in the pricing process, the removal of certain steps, and the addition of new steps. For example, previously Telecom calculated an average retail price (between the two plans Telecom considered comparable) at the beginning of the imputation process. This is now done as the final step in Telecom's proposed imputation process, and Telecom submits that all plans with a 128Kbps upstream speed, rather than the previous two Telecom plans, are comparable.

---

<sup>20</sup> *Decision 582*, 22 June 2006, para 176-182

<sup>21</sup> Telecom, *Comments in respect of the Application by CallPlus Limited for reconsideration of Decision 582*, para 9-32.

<sup>22</sup> *Ibid*, para 24.

63. Telecom submits that an adjustment to the retail prices used in the pricing mechanism is required to capture overage revenue.<sup>23</sup> Telecom submits that for retail plans such as Basic which has a charge for excess usage, the retail price used in the WARP calculation should include the average overage revenue billed. Telecom argues this is necessary because “overage revenues are an important part of the economics of being able to provide such plans at low per-month prices”.<sup>24</sup>
64. The Basic plan is the only comparable plan with a two part pricing structure – the base price plus overage charges. Other comparable plans have a throttle applied once the monthly data cap has been reached. While an overage adjustment based on actual usage may reflect the true retail price an end-user is paying for the Basic Plan, there are issues associated with what that ‘true’ retail price is.
65. For example, assume that on average end-users on the Basic plan download 0.3GB – 0.1GB more than their data cap. The *retail* charge associated with this would be<sup>25</sup>  $\$0.02 * 100\text{Mb} = \$2$ . Accordingly, the retail price that is charged on average would be  $\$29.95$  (plan rental) +  $\$2$  (average overage revenues) =  $\$31.95$ . This total price (including overage) for the Basic plan would be used in the price imputation.
66. However, overage is a charge for national and international data transmission, which is a cost factor that is removed from the price of the bitstream service. Accordingly, an access seeker can purchase and supply their own national and international data transmission, and has the option of marketing plans with overage charges that compete against Telecom’s Basic plan. Therefore, the Commission considers that overage revenue should not be included when calculating the imputed retail price of bitstream.
67. Telecom submits that a deduction should be made for backhaul costs along with the broadband-specific costs of running an ISP, as an alternative to the Commission’s approach of deducting  $\$8.89$  for ISP costs.<sup>26</sup> The broadband specific costs were included in the ISP service charge of  $\$8.89$ . Telecom submits that it is inappropriate to make a further deduction for ISP broadband-specific costs additional to the  $\$8.89$ .<sup>27</sup>
68. Telecom also argues that the avoided data costs of the Go Large plan are different due to the enforced data usage patterns for customers on that plan. The adjustment is required to allow for the lower data costs that result from the traffic management rules applied to that plan.
69. Traffic management rules which may decrease data transmission costs are not unique to the Go Large plan. Customers on Telecom’s Go and Go Express plans are slowed to dial-up speeds when they exceed certain usage thresholds. While traffic management rules may result in differing costs of data, use of an average data cost across all plans is likely to accurately reflect the costs of data.

---

<sup>23</sup> Revenue on plans where an end-user has exceeded his or her monthly data cap, and can purchase additional data.

<sup>24</sup> *Ibid*, para 18.

<sup>25</sup>  $\$0.02$  is the cost per MB.

<sup>26</sup> *Ibid*, para 21.

<sup>27</sup> *Ibid*, para 23.

70. Telecom submits the bitstream price should be adjusted by the capacity of an ISP's handover link. This would result in different prices for each ISP depending on their capacity at the handover link. Telecom proposes that capacity at an ISP's handover link should be imputed out of the bitstream price and a separate capacity based charge is necessary to the bitstream service that is linked to the size of an access seeker's handover link.<sup>28</sup>
71. Telecom also submits that ISPs with a greater proportion of high usage customers use more than their proportionate share of the capacity of the virtual path containing the bitstream service and proposed that the per user capacity of the ISP's handover link be used as a proxy for usage of the VP.<sup>29</sup>
72. The virtual path containing the bitstream access service operating between the end-user DSLAM and handover ATM switch is dimensioned on a collective basis across all broadband providers using a particular DSLAM. ISPs interconnect with the handover ATM switch by either supplying their own national data transmission service or purchasing it through a supplier.
73. The Commission understands that all end users (whether they are Xtra Broadband, WBS, or UBS) in a VP share the capacity collectively and that high usage customers in a shared VP are not assigned higher priority or allocated a greater share of capacity than low usage customers. For example, if there are 50 users connected to a DSLAM who have been allocated 50kbps during peak periods, the VP would be 2500kbps of capacity. The VP is therefore sized based upon allocated capacity (which is a cost driver) at peak times per user. On this basis, the cost of the VP is related to the total number of customer connections, rather than the customers' utilisation of the capacity. Accordingly, high usage customers do not directly increase the cost of the peak capacity.
74. Those ISPs who require (and presumably pay for) a higher handover throughput per customer do so as a separate business decision. In particular the capacity of an ISP's handover link is not necessarily linked to its customer's average usage and could reflect other attributes of an ISP's customer profile. For example an ISP may specify a higher capacity handover link to provide an improved service which attracts high value business customers. As such the cost of providing the higher capacity handover link should be recovered from the charge for the link and not the regulated bitstream service.
75. The regulated bitstream service does not have different capacity variants, and all wholesale customers receive the same product. Having different prices for different ISPs for the same service is contrary to Decision 582 which specified a uniform wholesale price for a common regulated bitstream service. Neither applicant specifically sought review of this aspect of Decision 582.
76. In addition using the speed of the handover link as a factor in the pricing of the regulated UBS service is effectively an increase in the price of higher speed handover

---

<sup>28</sup> Telecom, *Comments in respect of the Application by CallPlus Limited for reconsideration of Decision 582*, 20 December 2006, para 28, p. 9.

<sup>29</sup> Telecom, *Comments in respect of the Application by CallPlus Limited for reconsideration of Decision 582*, 20 December 2006, para 27, p. 9.

links. Hence introducing price discrimination for the regulated wholesale bitstream service based on the wholesale customer's specifications for the handover link could, via increasing the cost to an ISP of providing a premium service, constrain an ISP's ability to compete for premium customers with Telecom.

77. The Commission considers that Telecom's proposed pricing approach has several limitations in estimating the retail prices and the avoided costs saved. These include the introduction of multiple bitstream prices for homogeneous services which link the bitstream price to services not within the scope of this reconsideration. The Commission remains of the view that a uniform wholesale price is likely to best give effect to the promotion of competition for the long-term benefit of end-users.<sup>30</sup>
78. However, the Commission does agree with some aspects of Telecom's proposed pricing model and has incorporated these into the Commission's new pricing methodology.

---

<sup>30</sup> Commission, *Decision 568*, para 329, p. 65.

## **NEW PRICING METHODOLOGY**

79. The Commission has developed a new pricing methodology for calculating the bitstream price which takes account of changes in market conditions, including the introduction of plans with unlimited data caps. The new methodology adopts a revised approach to both calculating the cost of data and making the ongoing quarterly adjustments.
80. This approach uses many of the imputation steps set out in Decision 568, and applies other adjustments similar to those in the WARP mechanism applied in Decision 582. It replaces the use of a linear regression to remove the costs of national and international data transmission with a two step process which:
- Removes the costs of data usage on a per plan basis;
  - Weights comparable plans by their customer connection numbers;
81. In Decision 582, the WARP mechanism was used to make ongoing adjustments to the bitstream price, which had been separately calculated. This approach is replaced by the use of a single formula which is updated and re-run quarterly.
82. Another benefit of this approach is that changes in other parameters, such as the level of toll spend (which influences the allocation of the calling discount) can be accommodated each quarter.

### **Comparable services**

83. Decision 582 treated all Telecom's Internet-grade plans with an upstream speed of 128 kbps as comparable services.<sup>31</sup> The Commission remains of this view.
84. Any new services introduced after Decision 582 and having an upstream speed of 128 kbps are to be used in the pricing methodology.
85. The retail prices of Telecom plans that bundle calling, tolls, ISP services, and broadband, are also used for the purposes of the price imputation.

### **Remove ISP charges**

86. The Commission did not consider ISP charges for the purposes of the WARP mechanism applied in Decision 582. In Decision 568 the Commission removed an ISP charge of \$8.89 to reflect the retail component relating to ISP services.<sup>32</sup> Telecom submits that this charge should be based upon Telecom's internal costs of these activities.
87. The ISP charge of \$8.89 was removed in Decision 568 based upon a visible retail charge associated with provision of ISP services. That charge was available before regulatory proceedings using that figure, and as such is likely to have accurately reflected the costs involved. That ISP charge was independent of how access seekers

---

<sup>31</sup> Commission, *Decision 582*, 22 June 2006, Para 174, p. 36.

<sup>32</sup> Commission, *Decision 568*, 22 December 2005, Para 376, p. 73.

supplied national and international data transmission services for end-users, and accordingly has not had an adjustment to the charge for the cost of backhaul services.

88. Accordingly, the Commission rejects Telecom's argument that removing both an ISP charge and the cost of national and international data transmission would lead to double counting. The ISP charge of \$8.89 remains the appropriate figure to reflect the avoided cost of providing ISP services.

### **Remove the effects of bundle pricing**

89. In Decision 568 the Commission removed a tolls discount based upon the discount being spread across three services: ISP services, toll services, and Telecom's Jetstream service (now rebranded as Xtra Broadband).
90. Telecom repeated previous comments about which services should be part of the services determining apportionment of the bundle discount.<sup>33</sup> Homeline was not included as one of the services as it is unlikely that an equally efficient access seeker would be able to profitably provide the Homeline service as a stand alone service.<sup>34</sup>
91. The Commission remains of the view that ISP services, toll services, and Xtra Broadband are the correct services to apportion the bundle discount in the imputation process.

### **Data transmission charges**

#### *Removal of data transmission charges*

92. In Decision 568 the Commission applied a linear regression to remove data transmission charges from Telecom's retail services. This was considered the most appropriate method available at the time. It stripped out the costs associated with data caps but was not sensitive to actual usage within those caps.
93. Telecom has previously criticized the use of a regression-based approach and has proposed an alternative methodology. Telecom considers that its new approach is more robust and will capture any changes in downstream costs such as those relating to the costs of national and international bandwidth.<sup>35</sup>
94. Telecom's proposed price calculation removes national and international data costs based on actual usage, rather than the data caps. For this step Telecom proposed:<sup>36</sup>

“The price per Gigabyte is calculated for prevailing rates for national and international backhaul (priced in \$/Mbit/s) and a calculation of the number of Gigabytes per month which are transmitted for each Mbit/s. The resulting price per Gigabyte is multiplied by the number of Gigabytes for each plan which are actually used rather than the allocated number before throttling or overage applies. By using Gigabytes used, as opposed to Gigabytes permitted under the relevant plan, the Commission can avoid any issue that arises with Telecom's Go Large plan, which has no data cap. Also the method becomes more responsive to changes in customer behaviour as the usage is re-

<sup>33</sup> Telecom, Comments on the CallPlus Application for reconsideration, 20 December 2005, para 17, p. 6.

<sup>34</sup> Commission, *Decision 568*, 22 December 2005, para 379, p.74.

<sup>35</sup> Telecom, *Comments on CallPlus application for reconsideration*, 20 December 2006, para. 33.

<sup>36</sup> Telecom, *Comments on CallPlus' application for reconsideration*, 20 December 2006, para. 24.

measured each quarter. This step imputes out the price paid by an ISP for the data it supplies to its end users and is analogous to the backhaul deduction which imputes out the prices paid by an ISP for backhaul.”

95. Removing the costs of data transmission by usage rather than data caps will lead to a more robust pricing model and has a number of advantages over the previous regression and WARP approach in Decision 582. It is likely to be closely aligned with the network-related costs avoided by Telecom, as it is based on actual data usage rather than potential data usage (data cap). It also disconnects Telecom’s broadband marketing and consumer profiling from that of the ISP in relation to data caps. The data usage based pricing approach captures the new Telecom Go Large plan which has no data cap. It can also be used to adjust and recalculate the bitstream price every quarter or when changes occur to Telecom’s retail plans.
96. The Commission agrees with Telecom’s proposed approach to calculating data costs based on actual usage and prevailing market rates. Each plan would have an average usage per connection figure and an average cost per connection (usage x cost/GB) which would be removed from its price as part of the imputation process to produce a separate price (net of data costs) for each plan. As noted earlier the Commission does not consider it necessary to subsequently make a downward adjustment to the data costs for the Go Large as Telecom proposes.
97. In this draft decision a placeholder of \$1.50 (excl GST) has been used for the price of a GB of data transmission. This number is used for illustrative purposes only and shall be replaced by the actual cost in the final decision. The Commission invites submissions from the Parties on the cost of national and international data usage.

*National and international data transmission backhaul component*

98. The Applicants argue that an additional deduction needs to be made to remove transmission costs under the regression approach.
99. The principle used to assess whether certain costs should be deducted from the retail price is whether the cost is avoided by the access provider as a result of providing the regulated bitstream access service.
100. The Commission has considered whether the adjustment proposed by the Applicant to allow for ‘backhaul costs’ is necessary. Interconnect links are not required where Telecom provides retail services, as Telecom is delivering the retail service over its own network (i.e. there is no interconnection required with any other network), and these costs are not avoided when Telecom moves from supply of the retail service to supply of the wholesale service.<sup>37</sup> The result is that interconnect link costs fail the test for a cost deduction under the retail-minus pricing principle.

---

<sup>37</sup> These costs are incremental costs that must be incurred in order for the access seeker to be able to utilise the wholesale service.

### **Avoided costs saved discount**

101. ihug submits that market changes which have occurred since Decision 582 result in the discount not reflecting the cost of the retailing function.<sup>38</sup> ihug's application did not specifically address if and how these changes affected the 16% avoided costs saved retail-related discount.
102. CallPlus does not seek a review of the avoided costs saved discount.<sup>39</sup>
103. The avoided costs saved discount removes the retail-related functions Telecom avoids by providing a wholesale service. This deduction is applied to the imputed retail price after the national and international data transmission costs have been subtracted.
104. The Commission does not consider that adequate justification has been supplied by ihug for a review of the level of the avoided costs saved discount. Accordingly, the discount remains at 16%.

### **Weighting Telecom plans by customer connection number**

105. The WARP mechanism applied in Decision 582 weighted each retail price point by the number of customer connections. Although there may be some exceptions, most residential and SME premises will have a single customer connection.
106. Use of subscriber numbers would likely skew the results of a WARP calculation towards business users with multiple connections, rather than being representative of the total population of end users on Telecom's plans. Use of customer connection numbers should provide a more accurate representation of how plans should be weighted.
107. Telecom agrees with weighting of plans before any other adjustment is made at this point in the calculation,<sup>40</sup> though it is unclear whether Telecom has in mind weighting by customer connection numbers or subscriber numbers.
108. The Commission concludes that weighting the prices of Telecom's plans by customer connection number provides an adequate proxy for the changing customer connection distributions and likely make up of associated overall downstream costs faced.

### *Migration of customers between plans*

109. There is ongoing migration of users between Telecom plans. Examples of this include (but are not limited to) customers migrating to new plans from grandfathered plans; customer migration to existing plans from grandfathered plans; and customers migrating to access seekers from Telecom. In addition to migration, as new promotions and sales drives occur, changes in the distribution of customers among Telecom's plans will change weightings.

---

<sup>38</sup> ihug Limited, *Application under Section 59 (1) of the Telecommunications Act 2001 for reconsideration of Determination 582*, 11 December 2005, para 1(e), (g).

<sup>39</sup> CallPlus Limited, *Application under Section 59 of the Telecommunications Act 2001 for reconsideration of Determination 582*, 13 December 2005.

<sup>40</sup> Telecom, *Comments on CallPlus' application for reconsideration*, 20 December 2006, para. 26, p. 9.

110. Migration and new connections are likely to have a number of effects on the total connection numbers for plans over time. A consequence of this is that the bitstream access price (being weighted by pricing and connection numbers) is likely to change as a result.
111. Where customers migrate from a grandfathered plan to a new plan, for consistency those customers will be weighted by the price of the plan which they have been migrated to. Similarly, when a customer on a current plan migrates to a different plan, the price of the plan the customer is connected to at the end of the period will be the one that is used when applying weightings.

## CALCULATION OF THE BITSTREAM ACCESS PRICE

112. The Commission has prepared a worked example for illustrative purposes of the new pricing methodology. This example does not show the effects of the changes to Telecom's retail broadband plans in October 2006.
113. As at June 2006, Telecom offered the retail plans summarized in Table 1 which shows the associated data cap, usage and distribution of customer connections.

**Table 1: Telecom's Retail Broadband Plans, June 2006**

Retail plan	Retail Price (no calling)		Retail Cap (GB)	Actual usage <sup>1</sup> (GB)	Customer connections	
	incl GST	excl GST			(#)	(%)
Basic	\$39.95	\$35.51	0.2	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Go	\$49.95	\$44.40	1	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Discover	\$49.95	\$44.40	1	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Explorer	\$59.95	\$53.29	5	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Adventure	\$69.95	\$62.18	10	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Navigate	\$69.95	\$62.18	10	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI

<sup>1</sup> Actual usage figures are illustrative only, and are based on limited data previously provided by Telecom<sup>41</sup>. Actual data for each quarter would need to be sought from Telecom.

### Calculation of the imputed retail price

114. The initial steps calculate the imputed retail price. The first step selects comparable plans as in Decision 582. The second step removes ISP service charges from the retail prices and the third step removes the bundled discount offered by Telecom. The results from these steps are shown in Table 2.

### Removal of data costs and retail related avoided costs saved

115. The next steps remove from the imputed retail prices, the costs saved by Telecom when supplying the wholesale bitstream service. Table 3 outlines the calculations for the removal of these costs.
116. To remove the data transmission costs for each plan, a per-GB cost estimate is applied to the average level of usage on each plan. The per-GB estimate of \$1.50 (excl GST) used in the Table 3 is a placeholder, selected for illustrative purposes, and will be replaced with an actual cost in the final determination.
117. Next the retail-related avoided costs are removed using a 16% discount<sup>42</sup> to calculate each plan's bitstream access price. These prices are then weighted to produce the

<sup>41</sup> This includes data provided by Telecom in 2006 in response to a section 98 request dated 7 June 2006

<sup>42</sup> Refer to the previous section for an explanation of the 16% discount for retail-related avoided costs.

uniform weighted average bitstream price, which is the regulated price for bitstream access.

118. This modelling approach captures downstream costs associated with data (by usage) in Telecom’s retail plans. The introduction of the Go Large plan with no data cap is likely to have led to an increase in Telecom’s costs for national and international data transmission. If downstream costs increase which are not part of the regulated service, this will result in a decrease in the bitstream price. For example, if usage increased across Telecom plans, but the retail prices remained unchanged, the increased usage would most likely lead to an increase in the avoided cost component, and hence the bitstream price would fall.

**Table 2: Allocation of bundled discount**

Retail plan	Retail Price (no calling)		Standalone prices			Total standalone price	Bundled price  (total standalone less toll discount)	Imputed retail price <sup>1</sup>
	incl GST	excl GST	Broadband (retail less ISP)	ISP	Tolls <sup>43</sup>			
Basic	\$39.95	\$35.51	\$26.62	\$8.89	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Go	\$49.95	\$44.40	\$35.51	\$8.89	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Discover	\$49.95	\$44.40	\$35.51	\$8.89	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Explorer	\$59.95	\$53.29	\$44.40	\$8.89	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Adventure	\$69.95	\$62.18	\$53.29	\$8.89	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Navigate	\$69.95	\$62.18	\$53.29	\$8.89	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI

<sup>1</sup>The imputed retail broadband price is calculated by taking the bundled price as a percentage of the total standalone price, and applying that percentage to the standalone broadband price.

**Table 3: Removal of avoided costs (illustrative purposes)**

Retail plan	Imputed retail price	Data Costs		Retail costs @ 16%	Bitstream Access Price
		Actual usage (GB)	Data costs (@\$1.50/GB)		
Basic	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Go	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Discover	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Explorer	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Adventure	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Navigate	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI	[ ] TCNZRI
Weighted average					<b>\$27.44</b> (excl GST)

<sup>43</sup> This figure is the same as the tolls figure used in Decision 568, and is for illustrative purposes only.

## **ADDITIONAL REQUIREMENTS**

### **Mechanism for Recovery of Overpayments**

119. For the period between 22 June 2006 and the date of public notice of the final reconsideration, the Commission requires that the Parties refund or pay any net over or under payments pursuant to the initial price as at 22 June 2006. All net payments must be paid within 30 days of the date of public notice of the final reconsideration.
120. Interest on the net refund or underpayments shall be calculated using the 90 day bank bill rate as at the date of the final reconsideration.

### **Analysis prior to the introduction of changes to Telecom's plans**

121. In developing a retail minus pricing model, it is not feasible for a regulator to envisage all future changes that an access provider may make to its retail products. This problem is compounded when the access provider is not restricted in making changes to its retail products, and thus could game the regulatory pricing model.
122. To minimise such risks, the Commission requires Telecom to perform analysis prior to launching new retail broadband products or making price changes to existing retail broadband plans. The analysis should demonstrate that the margin between the planned retail prices and the regulated bitstream price is sufficient to cover Telecom's avoided costs saved, and that an equally efficient access seeker could compete using the regulated service as determined by Decision 582 and this reconsideration. This analysis must include allowance for any price or non-price changes, and the introduction or take-up of any new retail products or plans.
123. Should this analysis indicate that either (i) the margin between the planned retail prices and the regulated bitstream price is insufficient to cover Telecom's avoided costs saved, or (ii) that an equally efficient access seeker could not compete, using the regulated service as determined by Decision 582 and this reconsideration, then the price of the regulated bitstream service must be adjusted to address the relevant issues within the context of Decision 582 and this reconsideration.
124. Telecom is required to forward a copy of the analysis and details of any changes to the price of the regulated bitstream service to the access seekers by the time that the change has been publicly announced.
125. The Commission anticipates that the Parties would be able to commercially resolve any differences over how the regulated price is adjusted. Should the Parties not be able to reach agreement within 30 days of Telecom providing the access seeker with a copy of the analysis, then the Commission will on the request of any Party decide on how the regulated price is adjusted.

## **AMENDMENT OF DECISION 582**

126. The pricing methodology set out above will, if adopted in the final decision, replace the WARP methodology applied in Decision 582 with effect from 22 June 2006.
127. The analysis outlined in the section on Additional Requirements will, if adopted in the final decision, amend Decision 582 with effect from the date of the final decision.

DATED this      day of February 2007

Douglas Webb  
Telecommunications Commissioner