



**Submission by ihug Limited on the Draft Determination
on the Application for Determination for Access to and Interconnection with
Telecom's Fixed Pdn Service 'Bitstream Access'**

Introduction

Ihug Limited has been providing internet services to New Zealanders for more than ten years. Our parent company iiNet Limited (NZSX: IIN) is Australasia's third largest internet service provider and the entire iiNet Group currently have over 620,000 subscribers using broadband, dial-up and telephony products in New Zealand and Australia – over 130,000 of which are broadband customers.

In October last year we chose to accept the terms of Telecom's commercial UBS product in order to make growth of our business possible - this did not mean that we were satisfied with all the terms of the offering. We had a major issue with the lack of higher speed UBS products which resulted in an application for our own determination. Telecom eventually addressed this issue satisfactorily in relation to residential customers however we are still waiting for an acceptable solution for business customers.

As such, ihug welcomes the opportunity to comment on the commission's draft determination. We are extremely satisfied with most aspects of the draft and look forward to a final determination which closely resembles it.

We would however like to respond to the questions submitted in the draft and make a number of general comments. We would also like to state that although pleased with the overall content of the draft, the questions could have been communicated more clearly to ensure that submissions are able to add maximum value to this process.

We hope that this submission will help improve the terms of the regulated bitstream product and in turn lead to increased broadband penetration in New Zealand so that our country can meet world standards. We have already invested considerably in the New Zealand broadband market and we are committed to making a major contribution to the development of this market through both appropriate leveraging of the country's existing infrastructure and hopefully in future deployment of our own.

Consolidated List of Questions

Q1 To what extent should the relevant wholesale product market be more broadly defined than bitstream only? In particular, please comment on the preliminary view that ADSL, cable, fibre and FWA-based broadband access services should be included in the same market.

We deem it inappropriate for the relevant wholesale product market to be more broadly defined than bitstream only. Currently, Telecom's ADSL is the only broadband access medium available on a virtually nationwide basis. The other broadband access alternatives mentioned here are niche services - primarily servicing the business market. Some of these alternatives are high cost, for example, fibre; and others have performance issues, for example, wireless. There are also issues with service providers, such as ihug, gaining access to some of the other privately owned broadband access platforms.

Q2 Bearing in mind the pricing referred to in the determination, to what extent are symmetric and asymmetric broadband services substitutable?

For many customers - especially businesses and other heavy users - a symmetrical service is far more beneficial than an asymmetric service. While it is acknowledged that ADSL is inherently asymmetrical, and therefore likely to be of lower value to customers than a symmetrical service, ihug believes it should not be arbitrarily constrained further than the natural limitations of the technology. The difference in value to customers is dependent on the degree of asymmetry, that is, 128kb/s upstream can be deemed acceptable when matched with a 256kb/s downstream, however when matched with upstream speeds of 1Mbps and above it is far from suitable.

Q3 To what extent is Telecom's commercial UBS pricing geographically differentiated?

To our knowledge, Telecom's commercial UBS pricing is not geographically differentiated. As such we were surprised by Telecom's reference to metropolitan and non-metropolitan wholesale product prices in paragraph 57. Ihug currently resells the commercial UBS service and are charged the same price for all geographical locations (Table 2 has the correct nationwide pricing). It may be that Telecom has confused its commercial UBS pricing with Jetstream resale, which does in fact differ in pricing depending on whether the location is competitive or non-competitive. Telecom also charges a geographically variable backhaul with their commercial UBS product but we understand that, unfortunately, this is outside the scope of this determination.

Q4 Comment is sought on the preliminary assessment of competition in the defined market, in particular in relation to the competition criteria listed above.

As implied by our response to question one and giving due consideration to the competition criteria listed in paragraph 102, ihug does not believe that there is any significant competition in the nationwide broadband access market. This is especially so in relation to the residential market. We consider the Commerce Commission's analysis in this area to be thorough and agree with their conclusions.

Q5 What are the potential instability risks that might arise from the provision of a bitstream access service with unlimited downstream speed to the maximum technical capacity of the DSLAM, and a 128kbps upstream speed?

There should not be any instability problems with a non-rate-limited downstream and a 128kbps upstream. However, a 128kbps upstream will effectively limit the download speed to 4.5Mbps, under ideal conditions. Our experience offering DSL service through our own DSLAMs in Australia is that there are no instability issues when offering downstream speed as fast as the combination of line and the technical capability of the DSLAM can handle. As such, we believe that this should also be the case in New Zealand.

Q6 Would the nature of the service described above effect the provision of data streams on the network at OSI layer 2?

It is our understanding that the rate limits of the current commercial UBS service apply at OSI layer 2 and are such that the effective IP access upstream speed is 128kbps (with the effective IP access downstream speed specified by the chosen plan - currently 256kbps, 1Mbps or 2Mbps). Although these rate limits are applied at OSI layer 2 to our knowledge they are engineered so that the OSI layer 3 speed is the correct specified speed. We would be happy for the same approach to continue with the regulated Bitstream product.

Q7 Do the suggested criteria appropriately measure the key service parameters necessary to assess whether the network performance of the bitstream service is consistent with the characteristics of the bitstream used by Telecom to supply its Jetstream services?

The criteria suggested in Appendix A are generally acceptable to ihug except that we would like to see the following improvements:

- contention ratio no worse than 20:1
- jitter no worse than 100ms
- packet loss no worse than 1%.

The current commercial UBS service does not meet the Appendix A criteria, especially in relation to latency, as acknowledged by Telecom in paragraphs 242 and 243 and this needs to be resolved.

Q8 Do the parties agree that the ITU definitions for the parameters are the appropriate definitions to use as the basis for measurement of key parameters?

Ihug agrees that the ITU definitions for the parameters are the appropriate definitions to use as the basis for the measurement of key parameters.

Q9 Does Telecom seek to recover the additional costs necessary to turn interleaving off for individual ports?

Telecom will no doubt try to recover this cost. However, even if a real cost is proven, we do not believe it is appropriate, nor do we believe this cost would be significant based on the experience of our current ADSL service operations in Australia.

Q10 Does the 'Wholesale Jetstream & UBS Line check Toolkit' currently collect this information?

Currently, the line check toolkit only allows us to confirm whether the line has ADSL capability or not - we are not given any indication of when ADSL may be available in that area. Ihug would like to be able to access this information in the future.

Q11 TelstraClear request that the other non-price terms of Decision 497 should apply to the supply of the wholesale bitstream service and backhaul service. What additional non-price terms do the parties consider should be included?

It would have been helpful to have these proposed non-price terms detailed in this draft determination however we assume that this question refers to the non-price terms listed in Appendix 4 of Decision 497. These terms are not entirely suitable for 2nd tier carriers - especially the "conditions of providing service" - nor have they been accurately reflected in the current Telecom Wholesale Services Agreements (WSAs). Service levels were not adequately covered in Decision 497 and remain a problematic area with the current Telecom WSAs. Telecom appears to hold the attitude that service level agreements should be as lax as possible and even then, are only a 'best endeavours' guide with no penalties for failing to meet them.

Other Key Issues

MARKET DEFINITION AND COMPETITION ASSESSMENT

We are pleased that the Commerce Commission has recognised that there is one national market for UBS with extremely limited competition and therefore UBS is a service that must be provided to wholesalers nationally.

PRICING OF THE UBS SERVICE

The Commerce Commission's approach to flat-priced, non-rate-limited downstream service is pleasing. However we are adamant that this same principle be applied to upstream service. There should be no arbitrary limiting of either direction, apart from that dictated by the limits of the technology and the quality of the line. Furthermore, these limits must improve as technology improves, as with ADSL2 and ADSL2+.

If it is intended that UBS become a viable alternative to full local loop unbundling and a means of achieving acceptable broadband penetration in New Zealand's somewhat backward market, we believe the price is too expensive. Our experience employing our own DLSAMs in Australia has shown us that the economics of doing so are considerably more attractive than the proposed UBS pricing.

We would also like the volume discounts from the current commercial UBS product to carry over to the regulated product, as we believe discounts for higher volumes would encourage additional growth.

SUNDRY CHARGES RELATED TO THE UBS SERVICE

It is encouraging that Telecom has already followed one of the recommendations from this draft determination by voluntarily reducing the churn fee to a smaller supposedly cost-based fee.

Despite being excluded from the determination, backhaul charges and terms remain an issue. TelstraClear are obviously comfortable with this - given the extent of their own backhaul network - however they may find that there are still backhaul-related fees that Telecom will attempt to charge, most significantly, their UNI URSA change charge. Whenever different URSA are mapped to different ATM backhaul or interconnect links Telecom now charge a not insignificant \$2000 per request, plus \$1.05 for every customer moved. We believe this charge is excessive.

While Telecom's current commercial UBS backhaul charges are not entirely unreasonable, the requirement to connect to an entirely different set of URSA from the currently defined interconnect handover points is disagreeable. It is desirable to have these matched in order to avoid having to build or lease entirely separate transmission infrastructure.

NON-PRICE TERMS

Ihug would be satisfied if the regulated Bitstream product met the performance criteria outlined in Appendix A but with the following improvements:

- contention ratio no worse than 20:1
- jitter no worse than 100ms
- packet loss no worse than 1%.

At the very least UBS must not in any way perform more poorly than the current retail Jetstream product.

We do not see interleaving as an issue of concern provided that Telecom is required to meet the performance criteria in Appendix A. However, it is preferable to have an option to 'turn it off' on a per-customer basis. This would become essential if Telecom did not meet the latency criteria.

UBS provisioning performance must, at the very least, meet the same standards as retail Jetstream. Telecom claims that this is the current situation however ihug's experience is different. Improvements need to be made to Telecom's current wholesale provisioning process before parity is achieved. We hope that the promised introduction of Telecom's "eOR" will improve this situation, however it must also allow for the electronic transference of files between the systems of the service provider and Telecom.

We are happy with the Commerce Commission's recommendations relating to future bitstream availability in new areas and also their service transferral recommendations.

A significant issue with the current commercial UBS product is Telecom's stated provisioning rule of 24kbps per customer. To date Telecom have not been prepared to provide any detail as to how this provisioning rule is applied but we believe that it does not meet the definition of the bitstream access service: "the service requires a downstream throughput rate for data traffic sent to the end-user that must:

- (i) not be less than 32 kbps; and
- (ii) have an average of not less than 256 kbps.

We would like to ask how a product can be sold as 2Mbps when it is limited to 24kbps?

UBS user sessions should be delivered over L2TP, as is the situation with the commercial UBS product. However the L2TP should be transported over Ethernet and not ATM as it is currently. [We understand the Xtra Jetstream service is already delivered using far more cost effective GigE.]

The L2TP sessions should also be distributed across multiple LNSs on a "round robin" or "weighted round robin" basis to provide redundancy. This can be done via Radius. With the current commercial UBS product there is no redundancy.

The most significant limitation of the current Bitstream definition is the 128kbps upstream limitation. We acknowledge that this has been defined by regulation however we see it as the most critical constraint limiting the existence of a competitive broadband market in New Zealand - which in turn restricts us from reaching worldwide broadband standards.

A handwritten signature in black ink, appearing to read 'David Diprose', written in a cursive style.

David Diprose
GM Networks
Ihug Limited