The Internet Society of New Zealand Inc
(known as InternetNZ)

INTERNETNZ'S SUBMISSION IN RESPECT OF THE COMMERCE COMMISSION'S DRAFT DETERMINATION OF THE TELSTRACLEAR UBS APPLICATION

Public Version

(Note: there is no Restricted version)

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1 InternetNZ and its Role in the Industry

1.1 InternetNZ (www.Internetnz.net.nz) is a not-for-profit, Incorporated Society that represents wide ranging views of the Internet community. Our vision is to see the Internet as open and uncapturable, offering high performance and unfettered access for all. Our mission is to protect and promote the Internet in New Zealand.

1.2 Membership to InternetNZ is open, at a nominal fee, to any person or organisation, and includes web designers, academia, public information groups, Internet users and many Internet Service Providers. InternetNZ also represents the New Zealand Internet community on some global Internet organisations. Our membership has been instrumental in the development of the Internet in NZ and continues to be closely involved with the operation, governance and promotion of the Internet. InternetNZ is the delegated authority to manage the .nz domain name space.

1.3 Our key objectives include the promotion of competitive provision of Internet access and services, to facilitate the development of the Internet, and to promote widely and generally available access to the Internet in New Zealand. InternetNZ acts to fulfill its objectives to the advantage of the local Internet community as a whole, not to advantage individual persons or organisations who may be members.

1.4 InternetNZ has gathered input for this response from members, Internet Service Providers and other interested parties.

1.5 While the submissions are made in the name of InternetNZ, the Society is reflecting the interests of internet stakeholders ranging from ISPs to end-users, although we have consulted most extensively with ISPs (particularly those that have the commercial UBS service). Thus, the

submissions can be taken as reflecting the views and submissions of Access Seekers generally.

1.6 On that basis, InternetNZ substantially supports and welcomes the draft determination. It notes that a final determination in similar terms will provide a marked improvement as against the commercial UBS offering. New Zealand continues to languish near the bottom of OECD countries for broadband uptake, even based on a relatively limited definition of broadband (including the limitation of the regulated service to 128kbps). The determination is a major step toward improvement of that position, and therefore fulfilment of s.18 outcomes.

2 Introduction

2.1 The major providers are self-evidently incurring very considerable time and cost in relation to determinations such as this. InternetNZ (despite the fact that it represents substantial and diverse internet stakeholder interests) cannot come anywhere near to matching this level of input. That is regrettable, but difficult to overcome. It is within those constraints that these submissions are provided. Thus, lack of or minimal comment cannot be taken as support for particular positions. For example, it has not been possible to provide extensive submissions on market analysis, despite the industry view that the Commission has correctly decided that there is a national market. Nor has it been possible to provide submissions, beyond relatively high level, on the pricing model, even though the industry considers a single price point approach is correct, but it remains of the view that the single point prices for residential and commercial specified in the draft determination have the access provider still obtaining monopoly rents.

2.2 InternetNZ views with considerable concern the regulated restraint to a 128kbps upstream service. However, it recognises that, for the purposes of this submission, it has no choice but to accept that this cannot be changed on this determination.

3 "Real time network capability"

3.1 That wording of course is a feature of the regulated service. The expression has been subject to considerable debate as to its meaning including with regard to the surrounding materials such as the explanatory statement made on the introduction of the service into the Schedule.

3.2 However, on any analysis and definitional approach, the service, by reason solely of its 128kbps limitation, is not in the *"real time network capability"* league. It is not necessary to get into refined analysis of the definition. For that reason, it is not necessary for the regulator to restrain the quality of the service any further to meet the requirements of the Act. Thus, the approach of allowing for an unrestrained service (bar the 128kbps limit) is appropriate.

3.3 Particularly noteworthy is that the policy objective behind the 128kbps restraint is achieved solely through the restraint. That objective, as set out in the unbundling report, is to provide market conditions within which Telecom is still incented to develop its NGN.

3.4 This service is far removed from carrier grade quality. Even if there could be symmetrical DSL, or something closer to symmetrical, it would still not be carrier grade or some other *"grade"* such as *"business"* or even *"internet"*, whatever that means.

3.5 For reasons noted below, the quality of service, as prescribed by the metrics in Appendix A, falls well short of normally acceptable Internet quality of service.

4 Market definition and competition assessment

4.1 InternetNZ supports the conclusion that there is a national market in which the provider faces limited competition. For the reasons noted in the introduction, the Society will not provide detailed submissions. However, it notes that Telecom's own universal national pricing of DSL services is particularly telling. Further, carving out a limited number of geographical areas (eg: ESAs) introduces a level of granularity which uses market analysis tools and methodologies beyond what is desirable or appropriate in practice. The market analysis is too blunt an instrument to go to that level of detail.

4.2 The technical constraints on competing services (eg: FWA), and the clear distinction between this market and the higher end business market, rightly point to the Commission's conclusion.

5 Initial pricing principles

5.1 For the reasons noted above, this is an aspect on which, if time and cost were no object, InternetNZ would wish to make extensive submissions. This reflects views, at an anecdotal level, that the proposed pricing has Telecom obtaining monopoly rents, leading to the position where Access Seekers struggle to be able viably to sell UBS-based products. However, it is anticipated that InternetNZ will make submissions in response to the submissions by TelstraClear and Telecom.

5.2 Assuming the single price point is set at the appropriate level (and the issue as to different retail and business price points is resolved), InternetNZ's consultation with ISPs and others indicates considerable support for the Commission's approach. This will enable innovative solutions that are not tagged to particular Telecom offerings. It will increase competition and lead to a degree of simplicity in implementation of the regulatory regime. That is all to the benefit of end-users, thereby achieving section 18 outcomes. The single price point conclusion also reflects the reality that Telecom is supplying Access Seekers with a pure unbundled bitstream service, and it is for the Access Seekers to provide value added services.

5.3 Given the single price point principle noted above, Access Seekers cannot understand why there would be different price points for business and residential respectively. Taking a principled approach, there should be no difference[1], and the price ought to be set at the level of the residential unbundled bitstream service, for that best reflects the "raw" service. The position would be different if there are differences between residential and business such as quality of service, OSS, etc. However that appears not to be the case. Telecom is delivering a pure unbundled bitstream service with, in theory, adequate OSS.

5.4 Additionally, if the distinction remains, there will continue to be demarcation issues as to what are business and residential connections respectively, as there are today. What of the common situation where a small business operates out of home for example? Such confusion does not assist the wider take up of ADSL-based Internet services.

6 Churn Fee

6.1 Access Seekers of course welcome Telecom's voluntary drop in the churn fee from around $100 to $36.42. However the Society notes:

6.1.1 The Commission in its determination expects that the parties would negotiate a churn fee **below** the maximum of $36.42;

6.1.2 InternetNZ and Access Seekers are not in a position to make submissions or to enter negotiations, given they do not have the information about Telecom's actual costs of reassigning customers. In the absence of that information being provided, the Commission should determine the churn fee.

7 Speed Configuration

7.1 The simplicity and principle of an unrestrained and single price point service is admirable, and fully supported by InternetNZ.

7.2 Question 5 raises the question of whether unlimited downstream speeds, coupled with 128kbps upstream speeds, present potential instability risks.

7.3 Knossos in their report conclude that this will not be the case, in the sense that the service is no more unstable than if the upstream link had faster speeds (Knossos report para 72-74).

7.4 If however, for argument's sake, there is some instability, this is not instability that impacts on parties other than the Access Seeker itself (and in turn, its end user customer). In other words, this is a choice that the Access Seeker can make. No doubt the Access Seeker will rate-shape or otherwise constrain the service to its end user customer

[1] The distinction between residential and business appears also to be inconsistent with the draft determination at paragraph 76.

so that the service is not unstable (or is not unduly unstable). The key point is that this has no adverse impact on other Access Seekers nor upon Telecom: the Access Seeker can choose.

8 Service Equivalents

8.1 The metrics in Appendix A of the Determination are a key focus of the Knossos report. The regulated service has a service delivery point at the trunk (exchange) side of the ATM switch nearest to the DSLAM. The use of "network interconnection point" and the like in the metrics should be clarified, by the way, as being that service delivery point.

8.2 The regulated service is only part of the overall UBS service, and what is called "backhaul" in fact has significantly more components than just transport components such as fibre. That is so even if the access seeker provisions some of the aspects of the service independently of Telecom. See para 3 to 9 of the Knossos report. It is essential to understand the overall service before addressing the component which is the regulated service. For example any change in contention ratio will generally be effected outside the bounds of the regulated service itself (para 7 Knossos Report).

8.3 Knossos raise a number of concerns about the metrics, and then summarise suggested alternatives at para 63-71 of their report. The issues and concerns can be summarised as follows:

8.3.1 Key performance parameters must be met 95% of the time, but that is far too much uncontrolled time, illustrated by the ability of the access provider to breach the relevant metric for 72 minutes every day (and each day that could be in the peak time for Internet usage). (paras 11 and 12). The 95% does not fit anyway with the 99.3% service availability metric (para 12).

8.3.2 For the reasons fully set out by Knossos at paras 13-28 and 58-62, any metric based on contention ratios is problematic. Also for the reasons noted by Knossos in those paragraphs, a contention ratio that is suitable for JetStream customers does not necessarily produce the same user experience for customers of another access seeker. Therefore, contention ratios can be flawed in achieving equivalency of service, when, at first sight they have the opposite effect. Knossos have however recommended a contention ratio metric, assuming one is to be used, which minimises these deficiencies (para 64).

8.3.3 The packet loss metric (even without the 95% factor) is far too high, as Knossos demonstrate at paras 30 to 37 and should be, at most 1% not 3%. With each of these metrics, we are dealing only with a short part of the overall Internet experience (to and from end user and the first ATM switch). Metrics and service levels would typically cover many more

components of the Internet service and still be considerably tighter than the metrics proposed for the more limited regulated service (that is, only that part of the Internet service between the end user and the first ATM switch).

8.3.4 In relation to packet loss, take, as an example, the Knossos calculations in their diagram at para 31. Telecom could provide the service at a level which has downstream speeds at around, in theory, say 5 Mbps. Yet it is entitled, under the packet loss metric, to deliver the traffic in effect at only 1.8 Mbps (that is for 95% of the time: for the remaining 5% it doesn't even have the >3% packet loss commitment). And this is assuming only local traffic. The 1.8 Mbps drops to 0.29 Mpbs for international traffic (down from 2.4 Mbps).

8.3.5 Latency should be <50ms in both directions (para 38-45 and 67). Jitter should have the same value (para 46-47 and 65).

8.3.6 Knossos deal with upstream and downstream metrics at paras 48-50 and 68-69.

8.3.7 "Service Availability" has some issues around definition and implementation and Knossos suggest a solution (Para 55-57 and 71).

8.4 It is apparent that the use only of these metrics, or some variation on them, may not achieve the appropriate quality of service. The draft determination emphasises what Telecom accepts: *"....the underlying network performance of the bitstream service should be consistent with Jetstream, and that the retail customers of access seekers should not experience any difference in non-network service aspects such as fault repair and provisioning."* (Draft determination, para 239).

8.5 The Commission goes on to note that *"Telecom should be required to provide regular reporting on key service parameters to ensure consistency of service is achieved. Transparency of such information will enable an access seeker to identify whether consistency is being achieved...."* (Draft determination, para 244). An audit process is therefore established (Para 245-252).

8.6 InternetNZ strongly supports that approach in the determination, with its focus on transparency, audit, and consistency/equivalency of service. The comparison between (and equivalence of) the service to JetStream customers and access seekers' customers is key, not fulfilment of certain metrics (which, as noted above, are problematic and in any event produce service level obligations which are far too low). The solution (noted also by Knossos at para 51) is to either:

8.6.1 Audit for equivalence of service, or

8.6.2 Audit for equivalence of service and use, solely as a supporting set of metrics (which are subordinated to the equivalence audit) a tightened version of Appendix A.

8.7 The Commission can determine the categories of metrics which would be audited for equivalence (and they are likely to include the Appendix A categories of metric. For example, rather than auditing for whether packet loss is less than 3%, audit for whether Jetstream customers' packet loss is better, worse or the same as that for access seekers' customers. Likewise in relation to non-network aspects such as time for fault repair, fault provisioning, etc. InternetNZ submits that such audit and monitoring is critical to the success of UBS.

9 Interleaving

9.1 Consistent with the approach in the determination of providing a raw unbundled bitstream service which can be configured as the Access Seeker chooses, InternetNZ supports the choice given to the Access Seeker to switch interleaving on or off. As Knossos note at para 54 of their report, this is not just a simple *"on-off"* choice. There are other choices, for which provision should be made in the final determination.

9.2 InternetNZ inquiries indicate that many Access Seekers will choose to leave interleaving on in most instances, in view of overall improved performance. But the choice should be theirs to make. In doing so, there would be no adverse impact on other participants.

10 Operational Support

10.1 Knossos note at para 77 the *"Heath Robinson"* approach to provisioning and OSS in relation to the commercial UBS service. Inevitably there will be teething issues for a new service such as commercial UBS. However, Telecom's approach to providing OOS continues to be low-tech and problematic.

10.2 Dealing adequately with OSS is not just a matter of having sophisticated electronic processes in place in the long term. Further, as Telecom point out, some processes will not be made electronic anyway (or if they are, less robust processes might be used in some instances in view of practical and commercial constraints).

10.3 With that as background, there are practical steps which should be taken quickly to meet short term needs (beyond those currently applicable). A clear and sufficiently rapid timetable should be specified for appropriate short term/long term OSS solutions.

10.4 InternetNZ is particularly concerned that the Commission is largely leaving OSS to resolution via the TCF. The shocking and self-evident delays in resolving number portability demonstrate the potential problems. Simply leaving this to the TCF is not enough. There are all the signs that, even though the TCF is now more actively engaged in

number portability, resolution of both for local and mobile portability is a long way off. Thus, more needs to be done to resolve this issue for OSS.

10.5 InternetNZ acknowledges that there are complex issues involved in the implementation of OSS, both technical and commercial. These are appropriately resolved in the first instance between the access provider and the Access Seekers. But, left as suggested in the determination, resolution of these issues could be delayed extensively. Therefore InternetNZ submits that there should be a combination of the following:

10.5.1 A clear timeframe for resolution of design and other issues, followed by implementation (both for long term and short term solutions);

10.5.2 A quick ability to go back to the Commission in the event that there are unacceptable delays;

10.5.3 Ideally, a clearer indication from the Commission as to applicable principles at this stage.

10.6 Such an approach is unlikely to require the Commission to delve into the technical and commercial detail. The Commission's role is a *"backstop"* role. More likely is that it will encourage the parties to get on and sort things out more quickly. To do otherwise bears all the risks apparent from the number portability debacle.

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