

Consultation paper on issues relating to Chorus' proposed changes to the UBA service

Date: 4 September 2014

Introduction

1. On 14 May 2014 Chorus announced that it intended to introduce new commercial UBA services (the Boost variants).¹ As part of the introduction of the Boost variants, Chorus also proposed making the following changes to the regulated UBA service:
 - 1.1 Capping aggregate throughput at the handover point based on a formula of 300kbps per end-user connection, which is shared between those users; and
 - 1.2 Withdrawal of VDSL as a regulated UBA service.
2. On 7 July 2014 we released an issues paper seeking views from parties on Chorus' proposed Boost variants and proposed changes to the regulated UBA service, including on whether or not the withdrawal of VDSL and bandwidth management of the regulated UBA service, were permissible under the UBA STD.
3. In its initial submissions on our issues paper, Telecom (now Spark) asked us to investigate whether Chorus' conduct relating to the proposed changes to the regulated UBA service had breached the UBA STD (an enforceable matter under the Telecommunications Act 2001).²
4. We commenced an investigation of the proposed changes to the UBA STD under section 156o of the Telecommunications Act 2001 on 22 July 2014 after considering Telecom's complaint.

We are interested in your views on the attached legal advice on the legality of Chorus' proposed changes to the STD

5. We instructed external counsel to provide us with legal advice considering whether Chorus' proposed changes to the regulated UBA service would breach the UBA STD. Their legal advice is attached to this paper.
6. The legal advice is that Chorus' proposed changes would likely breach clause 2.2.1 of the UBA General Terms.³
7. The advice also considers and expresses views on specific questions relating to the interpretation of the UBA STD raised in submissions. These also suggest that Chorus' proposals would breach the UBA STD.

¹ Chorus amended its proposals relating to the commercial variants on 28 July 2014.

² CallPlus' submissions also stated that Chorus' proposed changes would breach the STD, if implemented.

³ Clause 2.2.1 requires Chorus (and access seekers) to carry out their obligations under the UBA General Terms in good faith and in furtherance of the purposes set out in the Telecommunications Act and in particular s 18.

Consultation

8. We are interested in your views on the matters raised in the attached legal advice. Please provide your views by 18 September 2014. Please address responses to Matthew Clark, c/o telco@comcom.govt.nz.

To: Katie Bhreatnach and Mark Worsley

From: David Laurenson QC and James Every-Palmer

Date: 3 September 2014

Subject: Proposed changes to the regulated UBA services

Introduction

1. You have sought our advice in relation to the legality of Chorus' proposed changes to the delivery of the regulated UBA services.
2. We understand that in parallel with the introduction of Boost HD and Boost VDSL, Chorus has indicated that it intends to make a number of changes to the regulated UBA services. In particular, it proposes:
 - a. Constraining the throughput of regulated traffic on the shared path from the handover point to the DSLAM to 300kbps of capacity per user (with a minimum of 50Mbps per handover point) which is shared between those users.
 - b. Prioritising the Boost traffic ahead of regulated traffic over shared infrastructure by treating Boost traffic as "premium best efforts".
 - c. Withdrawing VDSL-based regulated services.
3. While the impact will depend on end-user behaviour and other network management decisions by Chorus, you have advised that we should proceed on the basis that:
 - a. End-users of the regulated service will experience reduced performance at times when the average throughput on their handover point would have been greater than 300kbps, but for the capacity constraint. Approximately 20% of handover points currently have average throughput greater than 300kbps at peak times.
 - b. The impact is likely to become greater over time (both in terms of the number of users impacted and the extent of the impact) as end-user demand increases.⁴ On the other hand, however, if end-users with greater throughput usage switch to the Boost service the average throughput of regulated traffic will tend to drop.

⁴ We understand that average user throughput is currently increasing by around 5% per month.

- c. The impact of prioritising Boost traffic over regulated UBA traffic will occur during times of congestion at the first data switch, which may result in a significant reduction in performance of the regulated UBA services.
 - d. The changes are likely to reduce the ability of retail service providers (RSPs) to offer broadband products suitable for “higher-end” applications (eg video and gaming) via the regulated UBA services.
4. Our advice also proceeds on the basis that Chorus’ motivations for the changes are to:
- a. manage capacity on some end-of-life infrastructure;
 - b. more clearly “define” the regulated UBA service so as to have clarity over its investment commitments;
 - c. be able to offer a demarcated product range where Boost HD and Boost VDSL are targeted at high-end applications and the regulated UBA services are confined to a more limited niche for less demanding applications (such as general web browsing and email); and
 - d. migrate RSPs from regulated (price controlled) services to commercial services.

Good faith and section 18

Introduction

5. The question we have focussed on in this advice is whether the proposed changes would breach Chorus’ obligation to carry out its obligations under the STD in good faith and in furtherance of the purposes of the Telecommunications Act 2001 (in particular s 18).
6. The relevant obligations are contained in the “Guiding Principles” in the UBA General Terms as follows:
- 2.1 The UBA Standard Terms Determination is designed to meet the purposes set out in the Act, and in particular, section 18 of the Act. The UBA Terms are to be interpreted in light of the Commission’s decision report and the purposes.
 - 2.2 The Parties must:
 - 2.2.1 carry out their obligations under the UBA Terms in good faith and in furtherance of those purposes; and
 - 2.2.2 ensure that they and their employees, subcontractors and agents do all things reasonably necessary, including executing any additional documents or instruments, to give full effect to the UBA Terms.
7. Section 18 relevantly provides that the purpose 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.

Relevant features of the regulated UBA services

8. It is evident from a review of Decision 611 (and its predecessors, Decisions 568 and 582) that:
 - a. The Commission was concerned to create a regulated UBA service which left dimensioning to the RSP to the greatest extent possible.
 - b. The regulated UBA service was not static, but was capable of evolving (and did evolve)⁵ as technology and end-user demand changed over time.
 - c. The Commission saw these characteristics as being consistent with and required by the s 18 purpose statement.

9. These propositions are illustrated as follows (in chronological order):
 - a. The Commission’s rejection of downstream rate-shaping by Telecom (that is, speed constraints on downloading data) in Decision 568 on the basis that it would promote s 18 if dimensioning was left up to the access seeker (Decision 568, [193]-[246], [321]-[324], and [360]-[364]).
 - b. The Commission’s decision to set the downstream PIR (maximum achievable throughput in the absence of congestion) equal to the lesser of line speed and the capacity of the shared line (Decision 568, [239]-[246] and Table 7). Any further constraining by Telecom which limited the maximum throughput would have been inconsistent with this decision.
 - c. In Decision 582 the Commission rejected Telecom’s submission that the maximum PIR for the regulated service should be set at 7.6Mbps to protect investment in ADSL2+. The Commission noted that the service description in the Act “does not provide for any limiting of the PIR” [117].
 - d. In Decision 582 the Commission noted that DSL technology would improve over time and any attempt to constrain the regulated service to particular technologies would risk the service becoming obsolete and ineffective (Decision 582, [117]-[122]).
 - e. Decisions 568 and 582 both contain discussions about the possibility of full speed services resulting in cross-talk (interference) and the possibility of Telecom implementing spectrum management plans if this occurred. The discussion proceeds on the basis that Telecom was not able to constrain transmission over common paths unilaterally and required a mechanism for Commission approval to implement spectrum management (Decision 568 [225]-[246] and Decision 582 [99]-[112].)
 - f. In Decision 611, the Commission found that a bitstream access service which is not speed constrained and that may be “shaped” by the access

⁵ See para 10(e) below.

seeker best gives effect to s18 [58]-[108]. The discussion about whether to have a FS/128 UBA service as well as a FS/FS UBA service is premised on DSLAM speed controls being the only relevant potential constraint imposed by Telecom.

- g. At [59] of Decision 611, the Commission noted (and implicitly affirmed) its view in the draft decision that (emphasis added):

a single internet-grade FS/FS Basic UBA service would best give effect to s 18, and that continuing to limit the upstream line speed of the Basic UBA service to 128 kbps *would be unlikely to meet the changing needs of residential and SME broadband end-users where there is increasing use of symmetric web based applications such as social networking websites, video content, and increasing file sizes in general for residential and SME end-users.*

Application of clause 2.2.1 to the proposed changes

10. In our view, Chorus' proposed changes would likely breach clause 2.2.1 of the UBA General Terms. To explain:

- a. In our view, good faith requires "loyalty to the promise"⁶ and constrains Chorus from acting in a way that weakens or undercuts the regulated UBA service for the ulterior motive of making Boost services more attractive by comparison and migrating RSPs away from the regulated (price controlled) service.
- b. In our view, Chorus' proposed changes do not apply the STD in "good faith" since they are inconsistent with the core principles of the regulated UBA service as envisaged by Decision 611 and discussed above.
- c. Our particular areas of concern are that:
 - i. Chorus' proposed changes are, at least in part, an attempt to constrain the regulated UBA service (compared to what it would otherwise become) in order to make the Boost HD and Boost VDSL proposed commercial offerings more attractive.
 - ii. End-user throughput would be constrained even where network capacity was available.
 - iii. The regulated UBA services would in effect be defined and constrained by Chorus' view of reasonable usage as at mid-2014. As a result, the regulated UBA service:
 1. could only be used to create limited offerings by RSPs (compared with offerings based on the Boost services);
 2. would not evolve with user demand and technology; and

⁶ A F Mason, "Contract, Good Faith and Equitable Standards in Fair Dealing" (2000) 116 *Law Quarterly Review* 66.

3. would risk becoming appropriate for only a small percentage of users or even obsolete over time.
- d. We consider that Chorus' proposed changes would also conflict with the s 18 purpose statement as they result in a regulated service which is constrained and no longer capable of evolving over time. The regulated service will become progressively less competitive with the Boost services over time.
 - e. The "capping" of the regulated UBA service also seems to create a mismatch between what Chorus is being paid for (that is, a service which improves over time due to ongoing investment in its network) and what it would be providing (a service with a capped average throughput). To expand:
 - i. The performance of regulated UBA services has improved over time through the deployment of new DSL technologies and investment in infrastructure by Telecom/Chorus (and by RSPs). The sort of services used by broadband end-users has also changed over time, resulting in substantial increases in average throughput.
 - ii. The incentives of Chorus to continue to make such investments may differ from those that were historically faced by a vertically-integrated Telecom which: (a) competed with unbundlers and other providers of broadband infrastructure; (b) received "retail minus" pricing; and (c) was subject to non-discrimination obligations.
 - iii. Although the UBA price is now "cost-based", we understand that the IPP price will reflect ongoing investment in the network (as occurs in comparator countries) and that in setting the FPP price the Commission will need to consider the expected performance of the regulated UBA service over time.
 - f. Furthermore, the proposed changes seem likely to result in an environment where a significant percentage of end-users would be on Boost services and that Boost's share of the market would increase over time other than through competition "on the merits". That is, although the exact evolution is difficult to predict, Chorus' proposed changes (in combination with its proposed handover point arrangements) are likely to create the following market dynamics:
 - i. Performance degradation in relation to the regulated UBA services and the withdrawal of VDSL-based services (from the regulated service) will create end-user demand for the Boost services.
 - ii. RSPs may adopt Boost services even though they (and end-users) were otherwise satisfied with the regulated service.
 - iii. Although we have not reviewed them in detail at this stage, the proposed handover arrangements may create "all or nothing" incentives so that RSPs switch services from regulated to Boost in

bulk. We understand that Chorus has also proposed that a switching fee would be payable when a line changes from Boost to regulated, but not visa-versa.

- iv. Switching to Boost by some RSPs may force other RSPs to switch because prioritisation means further degradation for regulated UBA customers (as discussed in paragraphs 3(b) and 3(c) above).
- g. This group of end-users would be denied the protections of the regulated service (including in relation to price changes) which we consider inconsistent with s 18 particularly in light of the difficulties of moving back to the regulated service in the future (in terms of handover point arrangements and switching fees).
- h. In summary, Chorus' proposed changes would result in significant modifications to the regulated UBA service as it was envisaged by Decisions 568, 582 and 611. In our view, if change of this nature is to be contemplated, a s 30R review is the appropriate mechanism so that it can be assessed in light of s 18 and following a structured process of analysis.

Other issues

11. Given our view above in relation to Chorus' overall proposal, it is not strictly necessary for us to reach a firm view on various questions relating to the interpretation of the STD raised in submissions to the Commission such as:
 - a. In what circumstances network management can be imposed?
 - b. In what circumstances traffic can be prioritised?
 - c. Extent to which the FS/FS requirement means that VDSL has to be provided when a DSLAM card is installed in relation to the line.
12. We have, however, considered these questions in the course of preparing this advice. Our initial observation is that the UBA STD does not expressly address these questions and it is accordingly difficult to determine the correct legal position with any degree of certainty. In considering what is intended by the UBA STD we have relied on the discussions in Decisions 568, 582 and 611 and we comment on the three questions as follows:
 - a. In terms of network management, we consider that the better view is that Decision 611 (like Decisions 568 and 582) was intended to create a "full speed" service from the end-user to the handover point and that clauses 3.6-3.8, 3.9-3.13 and 4.13 of the Service Description should be read accordingly. In our view, the minimum standard of 32kbps is a universal "rock bottom" requirement, not an indicator of acceptable performance. While actual practice in New Zealand may suggest an exception to manage network congestion (for example, we understand that approximately 170,000 Basic UBA lines utilising ATM and ATM-over-Ethernet platforms are dimensioned at 75kbps per user), we consider that any such

exception is limited to minimising congestion and ensuring fairness and predictability. We understand that historically Telecom (now Chorus) has applied network management in this way while investing in the network to keep pace with growing demand (this is also consistent with our understanding of international best practice).

- b. In terms of prioritisation, we have had difficulty reconciling clause 3.25 of the Service Description which would appear to prevent any form of prioritisation at a handover point, with the Commission’s apparent previous acceptance that giving some traffic higher priority over a shared pathway is unobjectionable (see Decision 582 [103]-[108]), actual industry practice and the contrasting wording of clause 4.26. However, even if prioritisation of other traffic is permitted, if this was to undermine the regulated service we consider it would give rise to issues of good faith (and potentially international best practice).
- c. In terms of VDSL, in our view, the “maximum available downstream speed” service description (clause 3.6) anticipates the use of VDSL when it is available on a line (and subject to the end user’s wishes).⁷ This is consistent with the concern expressed by the Commission in Decision 582 [122] that “any attempt to differentiate [between DSL technologies] or define the bitstream access service according to specific technologies, for example to exclude ADSL2+, would generate a considerable risk that the service is rendered obsolete and ineffective through the introduction of new technology.” However, our view does not appear to match the view taken by the Commission in either:
 - i. the 16 April 2010 review/clarification decision which noted at [41] that what DSL technology is used to deliver the regulated service is up to Telecom (now Chorus), “except where they have chosen to make [VDSL] the only DSL technology available in an exchange or cabinet to deliver the regulated service”; or
 - ii. the IPP benchmarking decision (Decision [2013] NZCC 20 at [152]-[153]) which we read as finding that VDSL was not necessary/efficient for the regulated service.

In the context of the UBA FPP process, the Commission may wish to re-consider the inclusion of VDSL technology in the modern equivalent asset.

13. The uncertainty created by the absence of clear answers to these three fundamental questions (among others), provides further justification for a s 30R review of the UBA STD once the statutory freeze ends on 1 December 2014.
14. Finally, we understand that the Commission is considering whether Chorus’ proposed changes give rise to non-discrimination issues in terms of its Part 2A undertakings given that the proposed changes may have different impacts on

⁷ We leave to one side the issue of whether the UBA STD imposes an affirmative obligation on Chorus to install new technologies or apply techniques such as line profile optimisation.

different RSPs or to any issues under Part 2 of the Commerce Act 1986. We note that we have not considered these issues as part of this advice.

David Laurenson QC / James Every-Palmer