



Section 30R review of Chorus' Unbundled Bitstream Access
Draft Determination

Submission to Commerce Commission

30th November 2016

ABOUT VOCUS

1. Vocus (New Zealand) (**Vocus**) thanks the Commission for the opportunity to Section 30R review of Chorus' Unbundled Bitstream Access Draft Determination. This is a brief submission as our views have been outlined in more detail in the submission and cross-submissions on the Commissions s30R process & issues paper earlier this year.
2. Vocus New Zealand is the third largest fixed line operator employing over 600 staff In New Zealand. Our retail operation includes a number of challenger brands - Slingshot, Orcon, Flip and 2Talk. We are also an active wholesaler of services including access, voice and broadband over both fibre and copper.
3. Vocus has made significant investments in New Zealand. We are the largest copper unbundler with a presence in over 200 exchanges throughout New Zealand. In addition we operate a 4,200km fibre optic network that transits between virtually all major towns and cities, and connects directly into all major peering exchanges.
4. Our customers in New Zealand range from government agencies, integrators, large corporates, SMEs and residential households. We are committed to New Zealand's fibre future.
5. Vocus Group is one of the fastest growing telecommunications companies in Australasia and a major provider of voice, broadband, domestic and international connectivity and data centres throughout New Zealand and Australia.
6. If you would like any further information about the topics in this submission or have any queries about the submission, please contact:

Graham Walmsley
General Manager Commercial and Regulatory

graham.walmsley@vocus.co.nz

COMMENTS ON THE DRAFT DETERMINATION

7. Overall Vocus is supportive of the Commissions conclusions in the draft determination, in particular:-
 - (a) the Commission clarifying its view that UBA is technology neutral and VDSL is included
 - (b) the Commission's proposal to add additional consultation requirements to clause 9.12 to improve transparency of the review process for the Operations Manual.
8. Vocus would like to comment on the following two items.

UBA SERVICE SPECIFICATION – LINK UTILISATION

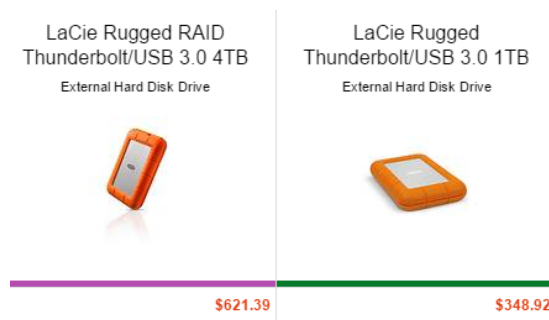
9. Vocus supports the Commissions approach of ensuring the regulated UBA service evolves to meet growing user demands.
10. At the proposed level of 95% utilisation over 15 minutes the links will already be heavily congested, furthermore if demand increases the links will rapidly become completely congested. Vocus would suggest a lower figure for the 'congested link' test.
11. As several submitters (including Chorus as noted in para 149.3) have stated Network augments should be commenced well in advance of the links reaching the threshold utilisation. The Commission has sensibly proposed reporting on link utilisation monthly which should provide early visibility of link congestion, however Vocus suggest that Chorus should be required to initiate capacity augmentation once link utilisation reaches 70-75%. In addition Vocus would suggest that the monthly reporting should include, on any link over 70% utilisation, the date on which capacity augment is to commence, the expected completion date of the work and the forecast utilisation of the link on completion date.
12. Vocus accepts that Chorus' legacy ATM network has different considerations. We could support ATM being 'ring fenced' from utilisation requirements pending the outcome of RBI 2. However in the interim Vocus would suggest that there is more transparency on information relating to the ATM link utilisation in order that RSP's can understand the issue and be able to operate efficiently and effectively when managing customers. A monthly report would address these issues and this would lead to a more informed debate post the outcome of RBI 2.

10 GigE HANDOVER CONNECTIONS

13. Vocus agrees with the Commission's decision to include 10GigE handovers in the regulated service and that the installation charge is the same for a 10GigE or 1GigE connection.
14. Vocus (and other RSP's no doubt) will have concerns with the monthly cost that the FPP model is generating for the 10GigE handover. Vocus has previously submitted on its concerns with taking the

FPP model and using it for assessing individual components without any benchmarking against the commercial reality. The model is at best an approximation of a complex network with many components, multiple over and under costings and value judgements on the assumptions in order to land on a price. The model is inherently holistic and relying on the accuracy of individual components may result in outcomes inconsistent with the commercial landscape. Vocus would suggest that charging 8 times the price of a 1GigE handover for a 10GigE handover is at odds with the economies of scale and the real world costs.

- (a) The commercially arrived at price for 10GigE UFB handovers is \$300, three times the price of the UFB 1 GigE price. The equipment used for UFB is not significantly different from UBA.
 - (b) The UBA 1GigE pricing is not that dissimilar to the commercial UFB pricing at \$150 and \$100 per month respectively. The FPP model is producing a 10GigE price of \$1,160 per month in contrast to the commercial price of \$300 for a 10GigE UFB handover.
 - (c) At 8 times the price of a 1GigE handover the 10GigE service flies in the face of the economies of scale that are commonplace in network builds.
 - (d) The capital cost of a 10*10GigE port is approximately one off USD 5,000 – so \$500 per port one off. Clearly the cost of the card is only a small component of the cost being generated by the FPP model?
15. The intention of the model was to arrive at an overall price for the service, surely there needs to be some form of sanity check if the FPP model is to be disaggregated to a component level to arrive at prices of one out of the many components.
 16. Vocus would also like to highlight that the availability of 10GigE links, as opposed to multiple 1GigE links, is necessary for RSP's to operate efficiently and effectively. It is difficult for an RSP to balance traffic across discrete 1GigE links efficiently due to the practicalities of load balancing. In fact past 4 links it becomes inefficient and very difficult to avoid congestion on one or more link.
 17. For this reason typically an RSP will purchase a larger handover, such as a 10GigE handover well before the sum of the smaller individual 1GigE handovers is close to the 10GigE level. That however is not normally an issue as the actual market price of the 10GigE handover is only 3 to 4 times the price of the 1GigE handover
 18. By way of an analogy a 4TB hard drive for my computer is 4 times the capacity (see below) but only 1.8 times the price.



19. To continue the analogy if I buy four 1TB external drives rather than one 4TB drive I don't actually get 4TB and it is well-nigh impossible to use the aggregate 'less than 4TB' efficiently.
20. If a 10 GigE handover is not available, or there is only a small economy of scale (e.g. the 10GigE price is 8 times the 1GigE) then RSP's will have to purchase multiple 1GigE pipes with the associated inefficiencies and difficulties of load balancing traffic.