Final report for Vocus and Vodafone

A cost-based price for layer 1 point to multi-point services

Executive summary

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1 Unbundling the fibre network

Fibre unbundling introduces competition over the technology deployed to activate fibre. This offers alternative operators possibilities for innovation through deploying new equipment in competition with incumbent fibre providers.

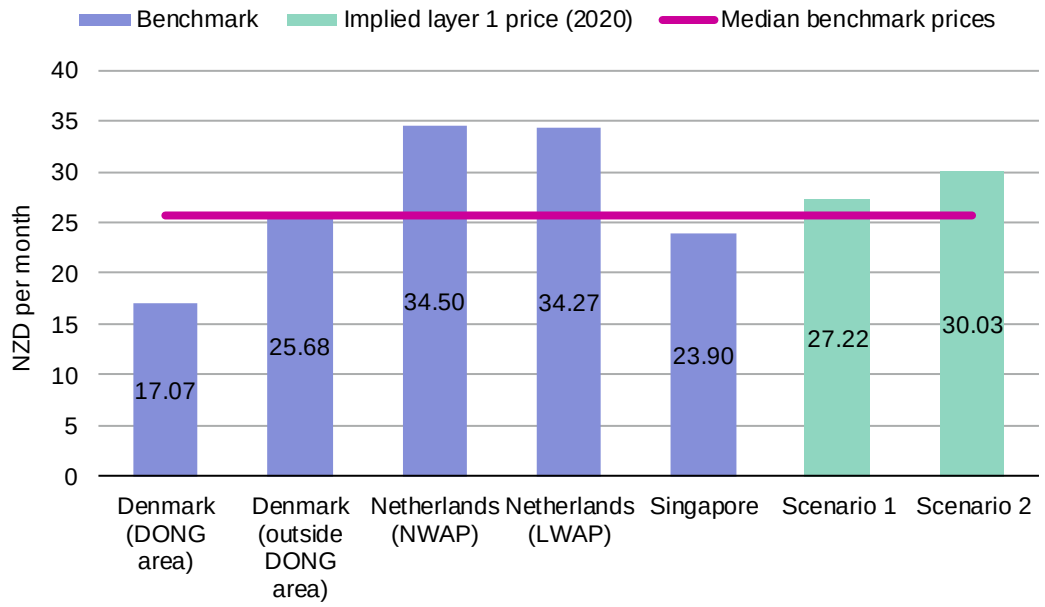
This study calculates a cost-based price for unbundled fibre which would allow for efficient competitive entry, consistent with the process which may be adopted by the Commerce Commission (the Commission) if it is required to set pricing. The price is based on local costs and conditions, but also reflects international best practice. We have also been careful to ensure that the approach used is consistent with the requirements in the Open Access Fibre Deeds of Undertaking and the recently amended Telecommunications Act 2001.

The purpose of the study is to assist with commercial negotiations with Chorus and the local fibre companies (LFCs) on the price and terms of the unbundled service. It also provides a cost-based price to inform any government intervention, should industry agreement not be reached.[1]

2 Key results

Our analysis finds that the price for the unbundled service should fall within a range of NZD27.22 to NZD30.03 per connection in 2020. This is higher than international benchmarks, which indicate that the median price for similar services in other countries is $25.68 (Exhibit 1).

[1] There are three ways in which the government may intervene on the price and terms of the unbundled product. Firstly, as part of the initial set of regulations set by order in Council, the Minister for Telecommunications can recommend to the Minister that an unbundled product be set on a cost-basis, see *Telecommunications Act 2001,* Section 229 and Schedule 1AA clause 16. Secondly, an interested party can request that the Commerce Commission investigates any breaches of the obligations imposed on the fibre providers by the Open Access Fibre Deeds of Undertaking. Thirdly, after 2025 the Commission can review the price offered by the fibre providers and assess whether it meets the cost-based requirement.



Scenario 1 – assumes a three-year customer lifetime and 33.3% churn rate

Scenario 2 – assumes a four-year customer lifetime and 25% churn rate

Exhibit 1: *Benchmark and implied layer 1 fibre prices, NZD [Source: operators, regulators]*

3 Modelling the layer 1 price

Our model performs an 'economic replicability test' (ERT) to determine a price for the unbundled service that would facilitate efficient competition. The ERT was proposed in 2013 as a means of promoting competition and investment in broadband infrastructure by the European Commission for next generation access (NGA) products. This consists of two steps:

- Estimating the average wholesale price charged by Chorus. This calculation is based on Chorus' UFB service plans[2] and an annual price increase of 2%.[3]

2 Chorus (2018), *Chorus UFB Services Agreement – price list*, July 2018.

3 Consistent with CPI projections from the Reserve Bank of New Zealand's November 2018 Monetary Policy Statement.

- Subtracting the costs an efficient competitor would incur in deploying layer 2 equipment to compete alongside Chorus.[4] For this step we used local information and applied modelling approaches consistent with international best practices.[5]

We found that assumptions of average customer lifetime and churn rates have a significant impact on the cost-based price for layer 1 services. The New Zealand fibre market is still developing, and as such there is some uncertainty associated with trends in retail customer behaviour. Given this uncertainty, we explored two scenarios:

- **scenario 1** – assumes a three-year customer lifetime and 33.3% churn rate
- **scenario 2** – assumes a four-year customer lifetime and 25% churn rate.

The Commission's monitoring data[6] indicates that current customer lifetime in New Zealand is approximately four years.[7] However, on a forward-looking basis the three-year customer life assumed by the OECD may be more likely. Retail competition in the New Zealand market is continuing to intensify, with Retail Service Providers (RSPs) offering incentives to switch,[8] and an increasing tendency in the New Zealand market towards no-term plans. Current churn rates may not be indicative of churn in the medium to long term, due to the initial spike in connections with the fibre rollout coupled with the fixed term plans offered during the early stages of rollout.

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4 For the purposes of this study we have focused on Chorus as the largest fibre provider. However, the main findings of this report would also be applicable to the LFCs.

5 Consistent with international best practice the model calculates long run incremental cost (LRIC), implementing a bottom-up engineering approach to quantify the network elements and services required to provide the layer 2 services to residential and enterprise / education subscribers.

6 Commerce Commission (2018), *Time series of Telecommunications industry questionnaire results 2005-2017*, 19 April 2018. Available at https://comcom.govt.nz/regulated-industries/telecommunications/monitoring-the-telecommunications-market/annual-telecommunications-market-monitoring-report.

7 The weighted average churn rate for naked broadband services over 2015/16 and 2016/17 was 25.4%, implying a current average customer lifetime of 3.94 years.

8 For example as at 3 December 2018, Trustpower are advertising a range of incentives, including smart TVs, refrigerators and washing machines for customers switching to their network. See https://www.trustpower.co.nz/promotion/ww-details#fmaxww.

Other key assumptions

Operator characteristics	The model is based on a notional operator, with the same coverage as Chorus, with efficiency comparable to that of Chorus. Market share is assumed to be 20%, consistent with assumptions used in models from other jurisdictions.
WACC	We have used the same WACC as that used in the Commission's 2015 final determinations for unbundled copper local loop[9] and unbundled bitstream.
Customer service activation fee	The model includes, as part of the layer 2 cost, a customer service activation fee of $93.90 (for 2019). The activation fee corresponds to the Chorus charge to an access seeker for setting up a new subscriber. This is based on Chorus proposed price for feeder and splitter install[10] and the number of subscribers per splitter calculated in the model.
Common cost	Common costs encompassing network related, commercial and overhead costs, are added to the calculated cost per unit. The common cost mark-up is assumed to be 19.6%, based on benchmark data from models used in regulatory exercises in other jurisdictions.

9 Commerce Commission (2015), *Final pricing review determination for Chorus' unbundled copper local loop service*, 15 December 2015.

10 Chorus (2019), *Post-2020: Chorus PONFAS Proposed Price*, 28 March 2019. Available at https://sp.chorus.co.nz/product-update/post-2020-chorus-ponfas-proposed-price.