



Vodafone New Zealand

Review of the Telecommunications Act 2001

Submission on MBIE Options Paper

2 September 2016



1 Executive Summary

- i. The New Zealand telecommunications marketplace has undergone transformative changes in recent years including structural separation, the Ultra-Fast Broadband Initiative, the Rural Broadband Initiative, and the rollout of 4G mobile technology. As a result, New Zealanders are benefiting from unprecedented levels of investment, world leading uptake of new technologies, internationally competitive pricing, and a strong and committed roadmap to next generation technologies.
- ii. We should not underestimate the impact that changes to the regulatory regime could have on such impressive outcomes. The proposed changes to the Telecommunications Act must ensure that these benefits are maintained and enhanced. This will be achieved by a predictable regulatory environment that fosters incentives to continue investment, rewards innovation and promotes vigorous competition. On the other hand, regulation must not impede commercial opportunities that can also deliver competition, investment and innovation.
- iii. These are the right objectives for regulatory reform and it is critical they are kept front of mind throughout this review process. Vodafone welcomes the Options Paper as a further step towards securing certainty beyond 2020. We encourage our suggested approaches be carefully considered if we are to properly leverage the bold chapters already written in New Zealand's telecommunications story.

1.1 An opportunity for an industry-led solution

- iv. While structural separation has not removed all of the challenges associated with having a single, dominant fixed line incumbent, there is still the opportunity for a genuine commercial agreement that supports the continued acceleration of the broadband market from 2020 and beyond. An industry-led solution would avoid costly and lengthy regulatory intervention and achieves certainty favoured by consumers and investors. These negotiations must proceed in parallel with development of a clear regulatory alternative which would kick in should commercial negotiations falter.
- v. Legislation should therefore provide the opportunity for the industry, in the lead up to 2020, to find a commercial solution for wholesale access terms.

1.2 Getting the right settings for fixed access from 2020

- vi. Vodafone supports a utility-style model to regulate fixed line telecommunications services from 2020. However there are three key changes we propose to the current framework:

Keep the promise of fibre unbundling

- vii. Unbundled access by 2020 was a requirement of the original UFB regime. This promise must be kept if we are to realise the benefits of deeper network competition as a means of delivering greater competition and innovation. The potential benefits are clear based on the experience of countries where unbundled fibre is available today – Singapore, Sweden, Denmark and the Netherlands.



- viii. The Options Paper suggests that commercial incentives to offer unbundling, with a regulatory backstop, will be sufficient. We disagree. This ignores the reality that a fibre provider has no incentive to commercially offer a viable unbundled product, because it would introduce competition against its own fibre bitstream services. Providing for regulatory intervention only if commercial negotiations fail simply defers the potential benefits from unbundling. Furthermore our analysis does not support the assertion by Chorus, LFCs or the Options Paper that the likely price difference between unbundled dark fibre and fibre bitstream would be small.

The anchor product should target mainstream customers

- ix. The anchor products must be future looking and provide price protection to the greatest number of customers possible. Uptake of higher speed fibre services is increasing exponentially with gigabit speed services already on offer. The speeds for anchor products should not be specified today but should be left to the Commission to determine in the lead up to 2020. In addition, the vulnerable market segments that the Options Paper attempts to protect through below cost anchor products are better serviced through direct assistance schemes.

Maintain price caps for some legacy services

- x. Wholesale prices for legacy copper bitstream services in non-UFB areas should be capped while the transition to newer technologies such as fixed wireless occurs. However, we recommend the Commission be given the discretion not to impose such price caps if competing platforms such as fixed wireless services are considered a sufficient constraint by 2020. We also support a cap on price increases for wholesale voice only services to protect those who don't wish to connect to broadband.

1.3 Maintain an overall revenue cap

- xi. All other products should be offered on commercial terms with Chorus constrained by an overall revenue cap. This will give Chorus and LFCs the flexibility to service all market segments by offering products to the full spectrum of customers. If these are priced aggressively, and specified attractively, they will provide the means for LFCs to manage any unexpected changes in demand for the anchor products over the regulatory period.

1.4 Mobile markets are highly competitive

- xii. New Zealand's mobile markets are highly competitive with three established mobile networks – recognised by the Commerce Commission and the Ministry's own analysis. As a result of this competition, New Zealand benefits from some of the fastest 4G services in the world, and benchmarking shows that New Zealanders are paying internationally competitive prices. In light of this, no changes are required to the tools the Commission has available under the Telecommunications Act today.



Contents

1	Executive Summary	2
2	Future of Fixed Broadband	6
2.1	Overview	6
2.2	Commercial solution and regulatory back-stop	7
2.2.1	How the commercial agreement could be adopted	8
2.2.2	Regulation would only come into force if a satisfactory commercial solution could not be reached	8
2.3	Unlocking the full potential of the UFB initiative through fibre unbundling	9
2.3.1	Fibre unbundling a core promise of UFB	9
2.3.2	Ensuring fibre unbundling is a success	10
2.3.3	Unbundling will deliver significant benefits to New Zealanders	12
2.3.4	Fibre unbundling is not a pipe dream: deeper network access is economic and technically feasible	15
2.3.5	UCLL should be maintained where it currently exists	17
2.4	Ensuring Layer 2 access supports a Gigabit Society	17
2.4.1	Layer 2 anchors are key to developing a sustainable wholesale ecosystem	18
2.4.2	The proposed mix of anchor products are not fit for purpose	18
2.4.3	Focus should be on creating protections to support a growing market	20
2.4.4	Avoiding price shocks	21
2.4.5	Vulnerable users can be protected in a more targeted way	21
2.4.6	Rural users should be offered the best service possible at a reasonable price	22
2.4.7	Voice	23
2.4.8	All other products should be left to Chorus and the LFCs to price commercially	23
2.4.9	Geographic neutrality should be maintained by extending price-quality regulation to LFCs	24
2.5	Deregulation should be possible where competition occurs	25
2.5.1	How competitive market segments could be removed from the building blocks model	26
2.6	Delivering a fair return to investors	27
2.6.1	Setting a cost reflective RAB for the life of the network	27
2.6.2	Revenue cap	27
2.6.3	Chorus has the means to manage demand uncertainty	28
2.7	Non-price terms and enhancing customer experience	29



2.8	Implementation, transition and details.....	30
2.8.1	Purpose statement.....	30
2.8.2	Government Economic Policy Statements	32
2.8.3	Copper to fibre transition	32
2.8.4	Approvals for capital expenditure	33
2.8.5	Scope of the Input Methodologies	33
2.8.6	Other fixed line matters we wish to comment on.....	34
3	Mobile.....	34
3.1	New Zealand’s mobile market is delivering.....	34
3.2	Site access terms crucial for taking mobile connectivity further and faster for New Zealand.....	35
4	Other matters.....	36
4.1	Net neutrality.....	36
4.2	The Schedule 3 process should not be undermined.....	36
4.3	Role of Telecommunications Commissioner	37
5	Summary of Recommendations	38



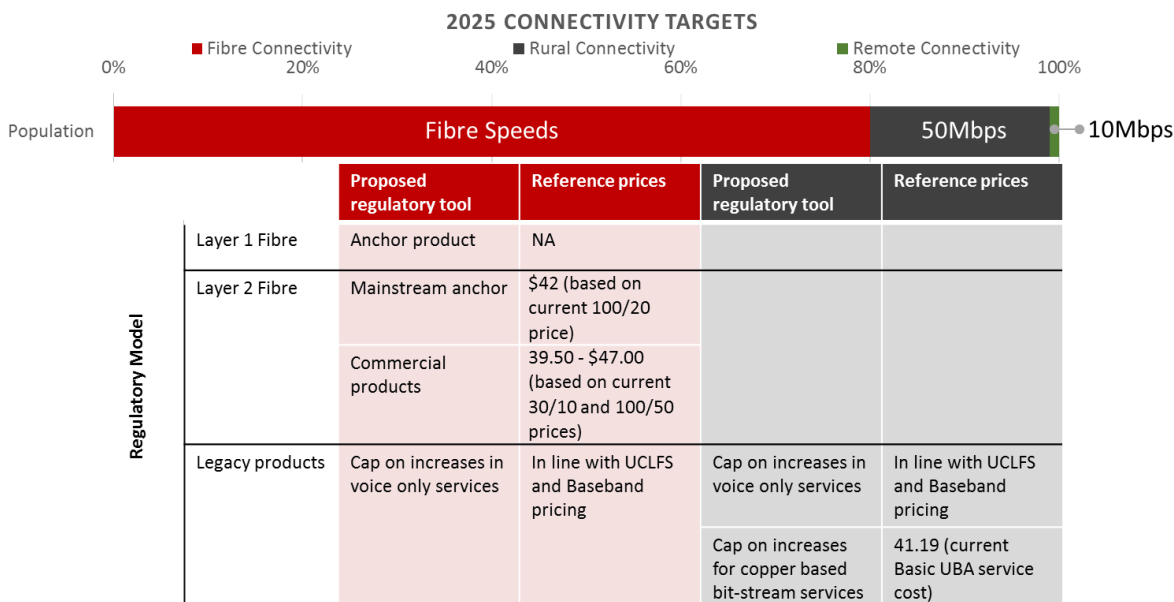
2 Future of Fixed Broadband

2.1 Overview

1. The future of fixed broadband is at the heart of New Zealand achieving the benefits of a Gigabit Society. Vodafone has a bold vision for accelerating this through 2020 and beyond.
2. By then:
 - the vast majority of New Zealand's investment in fibre access will be complete. Operators like Vodafone will have the opportunity to unlock the next phase of investment and innovation by unbundling the fibre network; and
 - access to high speed mobile broadband services will be near ubiquitous, with the roll-out of 4G services and further investment through the Rural Broadband Initiative.
3. The Government has a significant role to play to achieve this vision. It is supporting investment in fibre, and must now ensure that regulation provides a predictable environment with incentives to secure investment, innovation and ongoing vigorous competition.
4. The industry must have the opportunity to reach a commercial agreement on wholesale access conditions and price. However, if a suitable agreement cannot be reached, and regulation of the wholesale fixed broadband market is required, it should include the following features.
 - **Affordable and complete Layer 1 unbundling.** This will allow investment deeper into the fibre access network to deliver greater competition and new, innovative services;
 - **A mass-market fibre bitstream service.** This must meet the needs of most Kiwi families and businesses to fully participate in the Gigabit Society. The exact details should be left to the Commission to determine in the lead up to 2020, but we expect this to be a gigabit service;
 - **Maintain prices for some legacy services.** This must ensure that an acceptable copper service continues to be available in non-UFB areas while the transition to wireless occurs. A wholesale voice-only service must also be available for those who do not want a broadband connection; and
 - **Sufficient commercial flexibility.** Chorus and the LFCs must be able to develop services for marginal customers and premium or commercial services to sit on top of the unbundled layer 1 service.
5. In the long-run, wholesale access prices must be cost-oriented, with the Commission directed to avoid price-shocks to protect end-users and investors.
6. Figure 1 below shows how each of these products fits against the market we expect will be in place by 2020.



Figure 1: Proposed regulatory model for fibre and rural areas



7. LFCs must also be subject to a price-quality determination that sets the Layer 1 and mainstream anchor product price caps and quality standards, but does not impose a full revenue cap.
8. End users should not have to pay different prices in each of the fibre regions. Having consistent products should also be possible because the cost base between the Chorus and LFC businesses will be very similar. While Chorus has an advantage of scale, it also has a legacy copper network to maintain which increases its cost base relative to LFCs. These two effects should largely cancel each other out.

2.2 Commercial solution and regulatory back-stop

Recommendations

- The Telecommunications Act must allow for the regulatory process to be suspended if an acceptable commercial solution is reached

9. New Zealand's transition to fibre is well underway. Structural separation has unleashed a highly competitive retail fixed broadband market, and is ensuring better incentives for both wholesalers and retailers.
10. A genuine opportunity remains for Chorus (and the LFCs) to lead a commercial negotiation process with access seekers. Not all of the challenges associated with Chorus' position as the dominant provider of fixed access in New Zealand have been resolved. However pro-competitive incentives exist on both sides to reach an agreement that will accelerate New Zealand towards a Gigabit Society. This will avoid the potential risks and costs associated with a complex regulatory transition.



11. The Commission must be equipped with the power to suspend the process to regulation, if the industry reaches a commercial solution. The suspension could then continue indefinitely if the commercial solution met certain conditions. This approach has considerable precedent in telecommunications regulation, with the Commission often avoiding the costs associated with formalising detailed regulation when access seekers have been able to conclude them commercially.
12. For example, Telecom and TelstraClear reached commercial agreement in January 2006 relating to access to a number of regulated services. Telecom and TelstraClear then withdrew their applications for regulated access with the Commission. As a result of the applications being withdrawn, the Commission stopped all further work on these applications.¹ The commercial agreements remained in force.

2.2.1 How the commercial agreement could be adopted

13. The process for the commercial solution itself should be specified in legislation. Chorus and access seekers could have the opportunity to reach a commercial agreement in the lead up to 2020. To ensure that any multilateral access agreement reflects an industry consensus it would be necessary to stipulate a minimum level of agreement necessary by market participants (e.g. by reference to the percentage of access providers or access seekers party to the agreement by market share or turnover).
14. The legislation should then require that small access seekers are given a short period to 'opt in' to any multilateral access agreement.
15. Following any 'opt in' period:
 - the parties would submit the access agreement to the Commission for approval. The Commission would be required to approve the access agreement unless satisfied that price-quality regulation would be materially better in meeting the purpose of the Part;² and
 - any access seeker who is not party to an access agreement could choose to apply to the Commission for a determination imposing price-quality regulation.³ Such an access seeker would be required to make an increased contribution to the Commission's costs of conducting that aspect of the regulatory process. This would avoid applications to the Commission on spurious grounds.

2.2.2 Regulation would only come into force if a satisfactory commercial solution could not be reached

16. If the commercial approach was unsuccessful then the regulatory process should continue. This may occur either due to negotiations breaking down, or the Commission determining that the agreement is not in the long term interest of end users.
17. If the regulatory decisions did need to be finalised, changes must be made to the proposed regulatory structure to limit the impact of market power, while encouraging the further investment and development of the network. The following sections set out the changes that should be made.

¹ Letter to the Commission, *Telecom – withdrawal of Pricing Review Applications* 13 January 2006

² The details of the test to be applied by the Commission have to be worked through, but should have a suitably high threshold.

³ Before any such application could be made, the relevant input methodologies would need to be determined by the Commission.



2.3 Unlocking the full potential of the UFB initiative through fibre unbundling

Recommendations

- The Equivalence of Input requirements in the Deed of Open Access Fibre Undertakings must remain for all Layer 2 products
- A cost-based Layer 1 anchor product must be in place by 2020
- Existing UCLL services in unbundled Chorus exchanges must be grandfathered in 2020

2.3.1 Fibre unbundling a core promise of UFB

18. Fibre unbundling must exist in more than name only. The proposed model in the Options Paper undermines the benefits of true fibre unbundling by:
- skirting around the Equivalence of Inputs (EOI) requirements in order to establish a below cost entry level anchor product; and
 - delaying unbundling by assuming Chorus and LFCs have commercial incentives to unbundle.
19. New Zealanders have invested in UFB networks which have been designed to be unbundled, and this should not be foregone before it even begins.
20. EOI is essential for successful unbundling. EOI puts firms wanting to unbundle on the same footing as the vertically integrated network owner. As recently as August 2015, MBIE has stated that it is a “core safeguard built into the UFB programme”.⁴ The attached advice from Dr James Every-Palmer expands on this point:
- [...] the key requirement is that there must be sufficient “economic space” between the layer 1 and layer 2 prices such that an equally efficient access seeker purchasing the layer 1 service from the UFB provider will be able to compete against the UFB provider in respect of the layer 2 service or an RSP re-supplying one of the layer 2 services at retail.⁵*
21. It has been a long standing promise that unbundling on an EOI basis will be available from 2020. This obligation is explicitly stated in the Deed of Open Access Undertaking for Fibre Services (the Deed).⁶ This is also noted much further back in the 2010 Regulatory Impact Statement regarding changes to the UFB Initiative model. It states that after 2020 there would be:

4. *An obligation that the LFCs networks and systems must be capable of providing layer 1 services on an EOI basis*

5. *An obligation to provide the “equivalent” layer 1 service;*

⁴ Ministry of Business Innovation and Employment, *Regulatory Impact Statement: Amendments to the Telecommunications Act 2001 to support the extension of Ultra-Fast Broadband* 18 August 2015, paragraph 18.

⁵ Dr James Every-Palmer, *Equivalence of Inputs Obligation: Implications for pricing of layer 1 services*, 2 September 2016, paragraph 14.

⁶ See, for example, Chorus Fibre Open Access Deed at 6.1 and 6.2.



22. The Options Paper now proposes to back-track on this promise and exempt the anchor products from any EOI obligations. This proposal is a major shift in Government policy.
23. As highlighted by the advice from James Every-Palmer, for an issue of this importance there should be:
 - an express acknowledgement that a prior policy decision is being revisited;
 - an investigation to assess the impacts; and
 - exploration of alternative options.⁷
24. The Options Paper does not investigate or analyse the impact of breaking the EOI promise for the anchor products. The paper focusses on the desire to protect certain consumer groups (which we discuss in detail in section 2.4), and does not consider the costs of this change.
25. Our analysis, and that in the attached expert reports, suggests there are significant costs of weakening the EOI requirement:
 - It creates a competitive disadvantage for any other company seeking to compete with Layer 2 services for the segments of the market serviced by the anchor products. These segments of the market may also be unnaturally large if the service is offered at below cost as suggested in the Options Paper.⁸
 - Competition at Layer 2 is reduced, as potential competitors are put off unbundling in certain areas due to the inability to compete.⁹ As covered in more detail later in section 2.3.3 below, competition at Layer 2 will be the key factor driving innovation in the fibre networks.
 - It muddies the waters in determining an EOI price for Layer 1. As other Layer 2 products will need to pay some of the costs of the below cost entry level product, it is increasingly difficult to distinguish between the Layer 1 price, the Layer 2 price, and the cross-subsidisation, making a true EOI price that much less likely.
26. We have further concerns about the positioning of the anchor products and the effects that this will have on the continued growth and development of the Market. These are discussed further in section 2.4.2 below.

2.3.2 Ensuring fibre unbundling is a success

27. A Layer 1 anchor product must be prescribed in the legislation upfront. This will provide the right incentive for Chorus and LFCs to provide reasonable commercial access terms for Layer 1 as part of a wider industry commercial outcome.

⁷ Dr James Every-Palmer, *Equivalence of Inputs Obligation: Implications for pricing of layer 1 services*, 2 September 2016, page 7

⁸ A below cost product such as this is unlikely to only capture the marginal customer, as discussed further below, this product will dampen growth in the market, keeping more people on lower speeds for longer, exacerbating the size of the competitive disadvantage this distortion creates.

⁹ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 12; Dr James Every-Palmer, *Equivalence of Inputs Obligation: Implications for pricing of layer 1 services*, 2 September 2016, page 5.



28. Creating a Layer 1 anchor would lock in the benefits of fibre unbundling into a clear and transparent framework. This would also ensure that Layer 1 prices get set on an EOI basis from 2020 as promised, and those prices are adhered to.
29. The Options Paper naively assumes that Chorus and LFCs will provide an EOI price on commercial terms with only the threat of a further investigation by the Commission. While the Deed requires Chorus to provide Layer 1 on an EOI basis, they have the motivation and the means to not fully deliver on this.
 - As a vertically integrated service provider, it is not in Chorus or LFCs' interests to provide access to Layer 1 services at a price that will allow competition for Layer 2 services. This would create competitive pressure on its Layer 2 assets and pricing structure, forcing it to innovate or compete on price. While this is undesirable from a monopolist's point of view, competition and innovation are key to growing the market and delivering for New Zealanders.
 - Without a regulatory Layer 1 price, it is very difficult to determine if Chorus is truly offering an EOI price. Chorus will always have an information advantage on its true input costs, no matter how detailed information disclosure requirements become. The difficulty of knowing when an EOI price is met will be further complicated by the proposed cross-subsidies.
30. Agreeing a Layer 1 price between Chorus, LFCs and RSPs would be extremely challenging. Already we are seeing clear differences of opinion play out in practice with Chorus and the RSPs expressing very different views of Layer 1 access. Lengthy negotiations could occur with little prospect of commercial agreement. Chorus will be incentivised to make sure that these negotiations go on for as long as possible so they can continue to be protected from competition.
31. If at a later date the Commission decided to set a price for Layer 1, there would be further delay as the Commission undertook its detailed analysis to reach a decision on Layer 1 access and price. This would delay the benefits of true unbundling further, putting a handbrake on competition and innovation.
32. As covered in section 2.2 above, we are committed to reaching a commercial solution for fibre access. This would include a Layer 1 price. However, for the reasons outlined above we anticipate that if commercial negotiations break down, and regulation becomes necessary, Layer 1 pricing is likely to be one of the sticking points. Continuing to rely on commercial negotiations will at that point, be a nonsense.
33. A cost based Layer 1 anchor set upfront in the legislation, will ensure unbundling and all its associated benefits should begin right from the start of the first regulatory period. It would also provide the regulator with greater control over the package of anchor products if commercial negotiations failed.
34. Reaching a price for Layer 1 services is also quite achievable. The simplest way to do this is by using an avoided cost methodology. This could be similar to the definition of 'avoided costs saved' currently used in the Telecommunications Act 2001, which defines the difference between wholesale and retail services.¹⁰ Using an avoided cost approach is attractive because it allows a close approximation of the costs Chorus faces for its dark fibre services, without resorting to a full bottom up allocation of assets (which would effectively create two RABs).

¹⁰ Telecommunications Act 2001, Part 1.

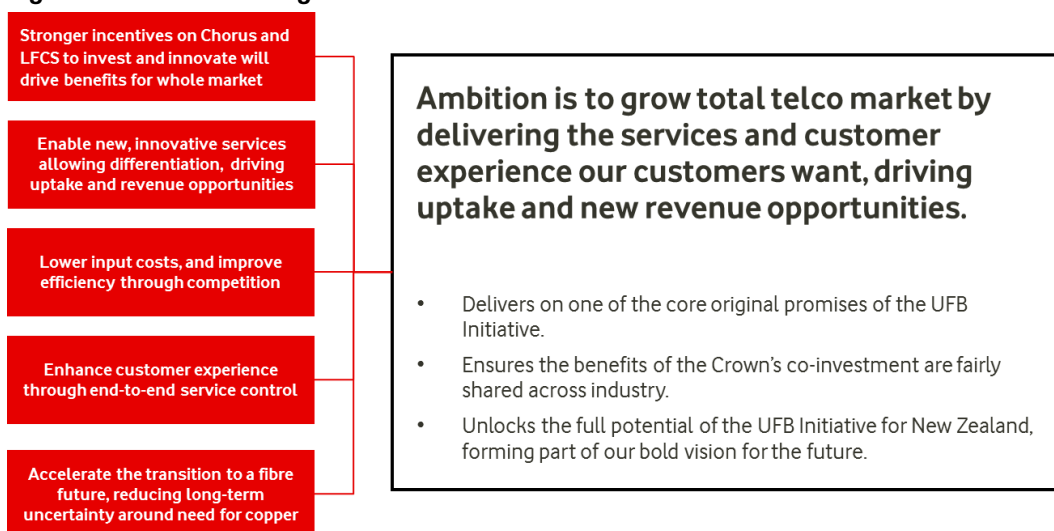


- 35. This could be calculated by creating a notional exchange and calculating the typical costs Chorus would charge a firm wishing to unbundle, including the costs at the exchange, the costs of the dark fibre and ducts, and a proxy of the associated non-network costs. The average avoided cost per connection could then be calculated and netted off the cost of the mainstream anchor product to get a Layer 1 anchor price.
- 36. This would result in a Layer 1 price that is at least 34% less than the mainstream Layer 2 anchor, and could be considerably greater. This was the conclusion reached in the attached expert report from Network Strategies, following a review of the UBA/UCLL modelling and a survey of key comparator countries, Denmark Netherlands Singapore and Sweden.¹¹

2.3.3 Unbundling will deliver significant benefits to New Zealanders

- 37. If the Government acts now to fix the proposed regime, there is still the opportunity to gain all the benefits of unbundling. Figure 2 sets out the key benefits. These are then described in more detail below.

Figure 2: Fibre unbundling will deliver a better market for RSPs and end users



2.3.3.1 Best incentives for all parties to keep up investment

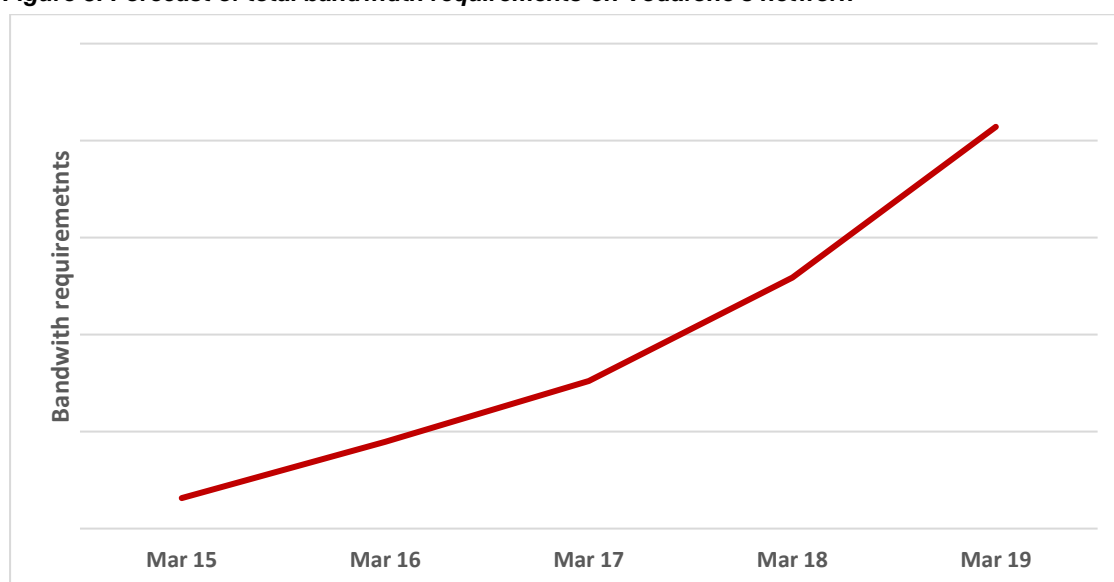
- 38. Copper unbundling drove Telecom to invest significantly in its cabinetisation programme. Similarly, fibre unbundling will ensure Chorus and the LFCs are incentivised to continue efficient investment in fibre networks. Continuing investment in the fibre network will be essential to ensure it keeps up with rapidly increasing consumer demands, and is not hampered by congestion or capacity constraints.

¹¹ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 2.



- 39. Chorus' own analysis (from over a year ago) points to the impact that streaming video services has had on network capacity. Streaming services currently require sustained speeds of 50Mbps. That's before we take into account the types of innovative services that are likely to emerge in the near future.
- 40. We are also seeing an increasing need for fast internet access from a number of other sources. As highlighted by Network Strategies, web page size increased by more than 240% over the last six years. Furthermore, many of New Zealand's websites such as, Lightbox, SkyTV, Stuff and Metservice, are among the most bandwidth hungry, and continue to demand faster connections.¹²
- 41. As a result, our forecasts show a rapid increase in demand for total bandwidth on our network. As shown in figure 3 below, we expect monthly bandwidth requirements in 2019 will be more than 13 times greater than those in 2015.

Figure 3: Forecast of total bandwidth requirements on Vodafone's network



- 42. Current GPON networks may not have sufficient capacity to meet this demand. For example, Chorus' GPON today allows for 2.5Gbps downstream and 1.25Gbps upstream capacities serving 24 households on a Chorus optical line terminal (OLT). However an OLT serving 24 households cannot simultaneously deliver 24 x 1Gbps to each household. Not accounting for overhead, 2.5Gbps provides roughly 100Mbps per end-user premises when split between 24 households. It is clear that further investment is required to meet demands by 2020.
- 43. Layer 1 unbundling will deliver this. Kiwis consuming broadband services from unbundled lines will benefit from the investment of their RSP, and the network operators will be incentivised to "keep up" with their wholesale offers in order to maintain or grow their share of Layer 2 services.

¹² Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 24-25.



2.3.3.2 Enable new, innovative services allowing differentiation

- 44. We don't agree with suggestions that a benevolent monopolist is required to achieve differentiation and promote digital inclusion.¹³ Instead, we think the evidence is clear that it is competition that will best promote these objectives.
- 45. At the moment the multitude of differentiated products made possible through fibre (gigabit speeds and beyond, lower latency, and symmetrical connections) are not being realised. Network Strategies found "*little or no retail speed-price differential for the entry level (30) and higher speed (100) fibre products*".¹⁴ While RSPs can and do differentiate with value added services, we are currently missing out on a deeper level of differentiation capable at the wholesale level.
- 46. International evidence suggests that differentiation is the product of competitive pressures at Layer 2. The Network Strategies report attached to this submission demonstrates that there has been a great deal of product differentiation for Layer 2 wholesale fibre services in comparable markets with unbundling.
- 47. This has been key to driving the success of the network in Singapore, which is now rated number 1 in the World Economic Forum network readiness index.

Case study
The impact of fibre unbundling in Singapore

12	RSPs providing unbundled fibre services to end-users.
81%	Share of connections provided by RSPs who have unbundled.
55%	Uptake of fibre services, meaning 770,000 end-user connections.
#1	In global download speed rankings (131.4 Mbps) in June 2015.
#1	In World Economic Forum Network Readiness Index.

2.3.3.3 Deliver efficiency gains, that will be shared with the consumer, through competition

- 48. Fibre unbundling will push competitive pressure deeper into the network. This will ensure stronger incentives to maximise the efficiency of network investment. More importantly, because this competitive pressure will be driven by RSPs, efficiency gains are passed on to consumers in the competitive retail market.
- 49. This was very clearly the experience through copper unbundling in New Zealand, underpinning a sustained period of greater value and lower prices for copper broadband customers.
- 50. The impact in a fibre world will be even greater. There is an opportunity now to secure the availability of unbundled fibre, with the necessary clarity on details, before it is "too late" (as can be said of copper unbundling, where New Zealand was slow off the starting blocks compared to other countries). The complexities of both vertical integration and the cabinetisation programme are avoided, and the potential of fibre is simply far greater than the copper of yesteryear.

¹³ An unconstrained monopolist will be incentivised to price discriminate, resulting in a great deal of differentiation. However, a price (or revenue) constrained monopolist does not naturally have this incentive.

¹⁴ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 22.



51. Deeper competition through unbundling, which ensures efficiency gains are shared with consumers, is the best way to promote digital inclusion.

2.3.3.4 Enhancing customer experience through end-to-end service control and competition

52. Delivering the best customer experience is an important competitive differentiator for Vodafone. It is an increasingly important feature of a customer's decision-making about their communications provider, as communications services become an ever-more important part of their lives. In markets like Spain and Portugal, where we deliver services over our own networks rather than via that of the incumbent (under a passive - ducts and trenches - access regime), improved customer experience is clear:
 - customers get connected twice as quickly;
 - Vodafone has 50% fewer service incidents; and
 - Vodafone can fix 87% of those incidents within 24 hours.
53. This is a function of direct investment, driven by what we know our customers expect in order for us to better compete in the market. We also know it sets the right incentive to drive better service performance from the incumbent operator in response.
54. Layer 1 fibre unbundling will support this outcome. It will allow RSPs who invest in unbundling to have greater end-to-end service control, and a more active role in managing new connections and changes. This will increase the competitive pressure on both RSPs and wholesalers to improve customer experience, which we know is a critical part of driving fibre uptake.

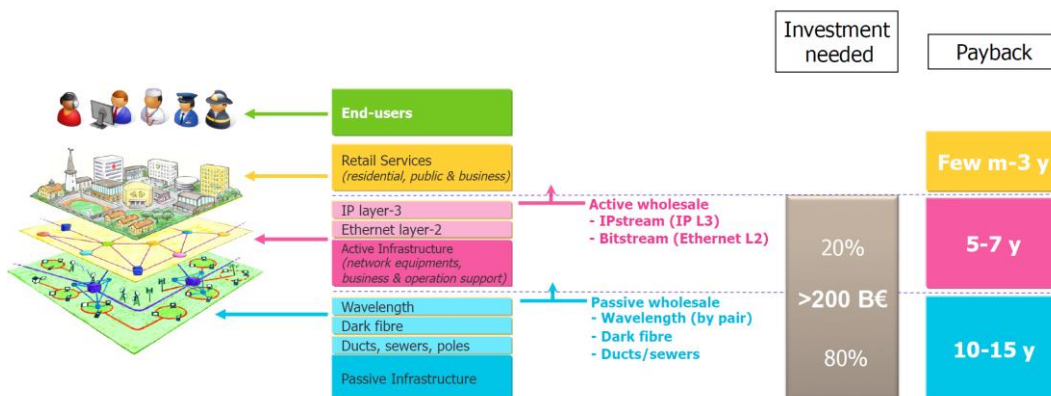
2.3.3.5 Accelerate transition to a fibre future, reducing long-term uncertainty around copper

55. The benefits of increased investment in new innovative services and enhanced customer experience are a key ingredient in driving uptake. This will accelerate the transition to fibre services, reducing the uncertainty around copper access in the long-term (and allowing New Zealand to move more quickly towards consolidating to ubiquitous fibre and wireless networks).

2.3.4 Fibre unbundling is not a pipe dream: deeper network access is economic and technically feasible

56. Layer 1 access is proven elsewhere. There is no evidence that it is not technically feasible or financially viable in New Zealand. Our initial analysis has demonstrated the clear viability of fibre unbundling post December 2019.
57. The economics of the fibre networks mean there is a significant difference between Layer 1 and Layer 2 prices. While Layer 1 infrastructure (dark fibre, trenches and ducts) makes up a larger part of the investment base when a fibre network is initially deployed, passive infrastructure also has a much longer asset life than the active electronics needed to light up the dark fibre. As a result, as is consistently the case for economic regulation of Layer 1 and Layer 2 services, cost-based pricing will result in sufficient head-room for the efficient entry of competition at Layer 2.
58. In Europe, Alcatel-Lucent have recently assessed the payback period for active and passive equipment as follows:

Figure 4: Alcatel Lucent on payback period for active or passive kit



Source: Alcatel Lucent presentation, at http://project.ppp4broadband.eu/files/Florian_Damas_Alcatel_Lucent.pdf

59. Network Strategies identified a significant price difference between Layer 1 and Layer 2 services in comparable jurisdictions. Table 1 below provides a summary of their findings.

Table 1: Summary of differentials between Layer 1 and Layer 2 services for selected countries

Country	Bitstream service	Differential with raw fibre
Denmark	10Mbit/s	23%
	100Mbit/s	40%
Netherlands	≤50/50Mbit/s	39%
	≤100/100Mbit/s	58%
Singapore	Class D Best Effort Fast Ethernet with minimum committed information rate of 25Mbit/s downlink	40%
	Class D Best Effort Gigabit Ethernet with minimum committed information rate of 250Mbit/s downlink and 10Mbit/s uplink	707%
Sweden	FTTx 10/10	224% (geotype 1)
		115% (geotype 2)
		30% (geotype 3)
	FTTx 100/100	265% (geotype 1)
		143% (geotype 2)
	47% (geotype 3)	
New Zealand	(lower bound based on DSL bitstream)	34%

Source: Network Strategies "Selection of broadband anchor products: Options paper for the telecommunication Act 2001 Review" 2 September 2016



60. From this and a review of the UBA/UCLL modelling, Network Strategies conclude that “the lowest bandwidth bitstream service in New Zealand would have a cost-based differential with the layer 1 service of at least 34%, and indeed is likely to be considerably greater”.¹⁵
61. We also know that unbundling is technically feasible. Although GPON unbundling is considered more complex compared to P2P unbundling, technologies exist and will continue to be developed as we progress to 2020.

2.3.5 UCLL should be maintained where it currently exists

62. The Options paper proposes that the requirement for Chorus to provide an unbundled copper local loop (UCLL) in 2020 ends. Vodafone and other RSPs have made a significant investment in copper unbundling, which has delivered benefits to New Zealanders by creating competition and extracting the most out of the aging copper network.
63. While the copper network continues to be available, Chorus should be required to provide UCLL at existing unbundled exchanges, to ensure that existing investment does not unnecessarily and prematurely go to waste. We recommend that UCLL at existing unbundled exchanges be grandfathered from 2020.
64. The rapid migration to fibre means that further unbundling of exchanges is unlikely. However it would be discriminatory if Chorus was able to continue to supply UBA services from an exchange while copper unbundlers were forced to migrate its unbundled copper customers to either fibre or UBA bitstream services.

2.4 Ensuring Layer 2 access supports a Gigabit Society

Recommendations

- A single Layer 2 anchor product is required. This should be targeted at mainstream users, and the specific parameters set by the Commission
- Price increases should be capped for rural copper, and voice only services
- Regulatory periods should be three years long
- There should be a cap on any further expansionary investment on the legacy copper network
- Any assistance to vulnerable users this should be done in a more targeted way
- The Commission should be directed to avoid price shocks
- We support the modest constraints on the commercial products proposed in the Options Paper
- The LFCs should be placed on a price-quality determination imposing the Layer 1 and mainstream anchor product price, and the quality standards, but not the overall revenue cap

¹⁵ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 2.



2.4.1 Layer 2 anchors are key to developing a sustainable wholesale ecosystem

65. Introducing the right incentives for competition, investment and innovation through fibre unbundling will be the central accelerant to unlocking the full potential of the UFB Initiative. As outlined above, this will drive competition deep into the network which will be the primary force for developing the network to meet the needs of Kiwi families and businesses.
66. Layer 2 anchor products are also a sensible approach to ensure that the key features of a vibrant and competitive retail broadband market are available from the outset. If the settings are right, the Layer 2 anchors will help develop a sustainable wholesale eco-system by:
- ensuring prices are set in a way to encourage uptake of high speed broadband;
 - protecting retailers who choose not to unbundle by providing them with wholesale prices that are attractive to their customers; and
 - providing sufficient flexibility for the development of a full suite of wholesale products through the commercial products.

2.4.2 The proposed mix of anchor products are not fit for purpose

67. The anchor products proposed in the Options Paper are not set at the right place and so won't deliver the benefits stated above. There are two reasons for this:
- the 15/1 entry level product will not meet customer demands, and will distort the market; and
 - the suite of anchor products are too rigid.

2.4.2.1 The proposed entry level product would distort the market

68. We do not support the proposed "entry-level" anchor product. Creating a regulated product with an artificially limited performance, in order to regulate a lower price, will undermine the objectives of the UFB network, will not support the objective of ensuring vulnerable users will access and benefit from next generation broadband. Instead, it will consign those users to a second-class of connectivity, while distorting the regulatory framework in a way that doesn't support the long-term benefit of end-users.
69. The distortionary effects of this product are covered in more detail in the attached report from Network Strategies,¹⁶ but in summary:
- By 2020 very few will be without a broadband subscription, and those that are still not connected would simply not see the need for fixed broadband. Therefore, they are unlikely to be influenced by a below cost product.
 - By 2020, even vulnerable users are likely to have migrated to a fibre service of 100Mbit/s or greater, moving back to a slower speed to take advantage of a subsidy would be inefficient, and cause a quality shock.¹⁷

¹⁶ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, pages 9-12.

¹⁷ Where for example a lower quality would no longer allow a customer to maintain services more suited to a faster network.



- For the subset of customers who cannot access fibre or RBI some protection may be appropriate.
 - Vulnerable users are showing demand for more mainstream fibre products, and will therefore be affected by the increased UFB prices needed to sustain below cost anchor products.
 - Because the anchor products are below cost they could distort service provider's decisions on Layer 1 and Layer 2 inputs.
70. Further to this we also add that while no market would naturally exist for the 15/1 product, pricing it at below cost may artificially create a market.¹⁸ This would establish a two tier internet, slowing down the fibre transition. Anyone on the entry level product would not gain the full benefits of fibre, holding back the growth of the network and the sector overall.

2.4.2.2 The proposed anchor products are too rigid for a fast changing sector

71. In providing an indication of expected target speeds, the anchor products risk being unfit for purpose for the regulatory period from 2020 – 2025. The telecommunications sector is fast moving and constantly changing. Fixing targets in legislation today for services not available for several years will only ensure their irrelevance.
72. By 2020 the proposed 15/1 anchor product will be well below the norm of the market. The 15/1 anchor is based on speeds achievable by the copper network, which Network Strategies notes "will be unlikely to act as a constraint on abuse of monopoly power".¹⁹
73. Even the 100/20 product may be too low by 2020. Our analysis suggests that gigabit services will be the norm by 2020. This is supported by recent announcements by the LFCs that they are already beginning to offer gigabit services in their regions.²⁰
74. As highlighted by Network Strategies, the difference between the proposed anchors and the products that will be used by the majority of Kiwi's means that by 2020 they "will have become weak substitutes".²¹ The anchors will not provide a ready alternative to the mainstream products, meaning Chorus will not be effectively constrained in the setting of price and quality. In this circumstance it is unlikely that Chorus would develop a menu of products in the interests of New Zealanders.²²

¹⁸ The proposed entry level anchor product may be priced to cover marginal cost, but since all other prices will include recovery of fixed costs, they are not costed on a consistent basis, creating a distortionary incentive towards the lesser product.

¹⁹ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 13.

²⁰ See: <https://www.beehive.govt.nz/release/super-fast-internet-puts-nz-par-world>

²¹ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 13.

²² A common finding in the literature is that a revenue controlled monopoly will be incentivised to reduce costs by pricing-out customers with a lower elasticity. For example see Crew M.A. and Kleindorfer P.R. (1996), "Incentive Regulation in the United Kingdom and the United States: Some Lessons", *Journal of Regulatory Economics*, 9, pages. 211-225.



2.4.3 Focus should be on creating protections to support a growing market

75. In order to create a regulatory framework that best meets the needs of Kiwi families and businesses in 2020 and beyond, we recommend that the legislation is less prescriptive than proposed in the Options Paper. The legislation should simply set out the policy objective or broad market segment which the Layer 1 and 2 anchor products are intended to protect. The Commission would then be enabled to determine the specific performance parameters closer to the time, as part of the regulation-making process.
76. We therefore propose that on top of the anchor for Layer 1 fibre, the legislation provides for:
- a mass-market bitstream anchor product that meets the needs of most Kiwis, and allows them to fully participate in the Gigabit Society;
 - maintaining a simple cap on price increases for the following legacy products:
 - copper broadband (at maximum speed copper line is capable of supporting) in areas outside of the UFB footprint; and
 - voice only services.
77. Table 2 below sets out this suite of Layer 2 products, with their expected characteristics in 2020 and reference prices based on comparable currently available products.

Table 2: Proposed regulation of Layer 2 services

Layer 2 regulated prices	Expected characteristics in 2020	Reference products and prices
Mainstream anchor	Gigabit service	\$42 (based on current 100/20 price)
Legacy copper for rural customers	Best efforts approach, likely to be 30/1 in most areas	41.19 (current Basic UBA service cost)
Voice	Over copper or fibre in all areas covered by Chorus.	Should be in line with UCLFS and Baseband pricing

78. Regulatory periods should be set for no longer than three years to keep pace with the fast changing sector. This will allow the Commission to reconsider the suite of anchor products at more regular intervals. However, the Commission should also have the ability to roll over the existing regulatory settings for one or two further years, if they remain appropriate.
79. Three year regulatory periods are common practice for fixed line telecommunication services internationally.²³ Further, the incentives for efficiency gains inherent in a five year period could be retained by the Commission if it implemented a scheme similar to the Incremental Rolling Incentive Scheme (IRIS) applied to the regulation of utilities under Part 4 of the Commerce Act.²⁴

²³ Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016 page 19.

²⁴ Further details of the IRIS mechanism can be found at <http://www.comcom.govt.nz/dmsdocument/12725>



2.4.4 Avoiding price shocks

80. We agree that Kiwi families and businesses should be protected from sudden price changes. Avoiding price shocks should be an explicit requirement on the Commission during the transition to the new regulatory framework.
81. However, we strongly disagree with any suggestions of modifying any of the core components of the regime for this reason. Rather than creating distortionary below cost anchor products we propose:
- ensuring that the anchor product is targeted to the largest possible group of consumers to ensure that the mainstream have a smooth transition to the new regime; and
 - providing the flexibility for the Commission to manage price shocks.
82. Avoiding any price shocks for the mainstream anchor product and the commercial products could be managed in a similar way to what the Commission did in the first default price-quality path for electricity distribution businesses. There were some significant price increases in this reset for some suppliers. To avoid price shocks, the Commission:
- defined price-shock as a certain increase on year on year average prices (which was chosen to be CPI+10%);
 - set the price path in a way that no year on year price increase exceeded the definition of a price shock; and
 - allowed any un-recovered revenues due to the price increase cap to be recovered in future regulatory periods.²⁵
83. Such an approach does not need to be specified in legislation, however, it demonstrates that the Commission can solve this problem if given sufficient discretion.

2.4.5 Vulnerable users can be protected in a more targeted way

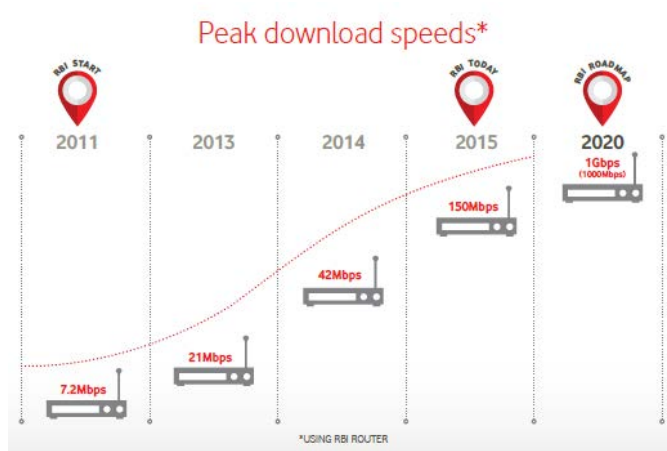
84. As the fixed lines communications network begins to show the characteristics of an 'essential service', it is important to ensure that vulnerable users can continue to have access and participate in the market. A below-cost anchor product is a clumsy way to address this challenge because it is poorly targeted and will create a distortions across the wider market. Instead, the Government should consider schemes that better target vulnerable customers.
85. A number of measures are already in place, or in development. For example the TCF is currently developing a Medical Dependency Code to help ensure that customers who require communications access receive priority service in the event of a fault or outage.
86. Targeted direct assistance programmes for vulnerable users may also be appropriate. The attached Network Strategies report highlights various income-based assistance schemes used internationally that the Government may wish to consider.

²⁵ Commerce Commission, *Resetting the 2010-15 Default Price-Quality Paths for 16 Electricity Distributors*, 30 November 2012, pp 49-53.

2.4.6 Rural users should be offered the best service possible at a reasonable price

87. Rural New Zealand will only be a part of the Gigabit Society through investment in next-generation fibre and wireless services. Over the next 10 years our vision is for 4G superfast broadband and mobile services being available to all of New Zealand except for the most remote areas. This equates to nearly all rural properties, and excludes only some high country sheep stations, national parks, mountain ranges and non-commercial forests. We are however always looking at new ways to provide connectivity including to some of these most remote areas. The roadmap below shows our plans to bring gigabit services to rural communities by 2020.

88. We also know that this investment has huge potential for rural New Zealand. Rural connectivity investment has delivered a 270% increase in rural data usage between 2013 and 2015, a 60% increase in rural voice minutes in 2015 and more than double the number of devices connected using M2M technology. Alongside this 4G services are now near ubiquitous. This has boosted productivity in the agri-business sector through innovations like smart irrigation and farm management over the cloud).



89. As a result, Chorus' legacy copper network is quickly being surpassed. While technologies exist that could improve the performance of the copper network such as G.fast, vectoring and Long-reach VDSL, these are not efficient investments.

- It would be wrong to support short-term incremental upgrades to outdated copper telephone networks rather than support investment in fibre and wireless networks which are the future of telecommunications. Breathing further life into the copper network would move us toward a technological standstill.
- More specifically, the quality of the assets in the ground today are highly variable – particularly in rural areas where ongoing investment in last-mile copper has simply not occurred. The performance of G.fast is significantly impacted by degraded copper.
- G.fast performance can drop off to 150Mbps by 250 metres. This practically limits the population coverage that can be achieved. To meet the target for greater population coverage “slave” cabinets would have to be deployed every 100 metres.
- Relying on G.fast or vectoring would mean a continued monopoly over large parts of New Zealand's network infrastructure. Co-location in cabinets is not supported which has resulted in limited bitstream wholesaling and therefore no competition at the wholesale level. This contrasts with a wireless solution where wholesale competition can efficiently be facilitated via co-location, while retail competition occurs through competing network providers as well as through retail providers.



90. So while the copper network is quickly becoming the technology of the past, it will remain an important source of connectivity for some rural customers during a transition period. During this period rural users should have access to the best possible service at a reasonable price. We do not support a framework that incentivises rural users to a lower quality service, which the proposed entry level product would likely achieve.²⁶
91. However, to protect customers in rural New Zealand it may be necessary for certain restrictions to be placed on how Chorus sets prices on this sub-set of the network. For example the Government could consider requiring Chorus to offer a product to rural users that is:
- provided on full-speed/full-speed basis (whether via ADSL, VDSL or any future copper-based broadband technology); and
 - based on the current UBA prices.
92. If the Commission is required to set quality parameters for rural copper services, it must not require or incentivise further investment in the legacy copper network. Further copper investment is inefficient. Instead, incentives must focus on investment in next generation technologies such as wireless technologies.

2.4.7 Voice

93. In order to maintain the availability of a voice only service for customers who do not wish to have internet access, we support a basic price cap on the wholesale price of voice only services that:
- allows Spark to meet its TSO obligations; and
 - is based on the current UCLFS price for voice.

2.4.8 All other products should be left to Chorus and the LFCs to price commercially

94. All other services should be provided on a commercial basis. This provides Chorus and the LFCs with the right mix of flexibility and constraint to develop commercial products to meet the needs of all Kiwi families and businesses by:
- creating a suite of products so they can maximise revenues within the regulatory constraints,²⁷ including:
 - products priced below the mainstream anchor to capture the marginal customers not interested in the mainstream offering; and
 - products priced above the mainstream anchor to capture enterprise customers, or others with a demand for a greater quality service.

²⁶ As noted by Network Strategies, the main target of the entry level anchor product is likely to be rural users, due to its irrelevance in a fibre areas. Network Strategies, *Selection of broadband anchor products: Options paper for the Telecommunications Act 2001 Review*, 2 September 2016, page 10.

²⁷ For Chorus the overall revenue cap will act as a target. The LFCs will be free to maximise revenues on the commercial products.



- innovating and offering new services to compete against the unbundled Layer 2 competitors; and
- adjusting their commercial products throughout a regulatory period to mitigate the effect of any unexpected changes in demand with the anchor products.²⁸

95. We also support the relatively modest constraints on commercial products set out on page 55 of the Options Paper. These preserve transparency and create a degree of stability for both RSPs and end users.

2.4.9 Geographic neutrality should be maintained by extending price-quality regulation to LFCs

96. Mainstream prices, full Layer 1 access and quality standards must be applied on a consistent basis across both Chorus and the LFCs. Customers and RSPs should be able to expect all the benefits of unbundling, and the same price for a mainstream service, whether you live in Auckland, Christchurch, Timaru or Whangarei. This will ensure no one is disadvantaged by the UFB market structure.
97. To achieve this, LFCs should be placed on a price-quality path which requires Layer 1 and mainstream anchor products and quality measures. However, a revenue cap is likely to be less important, given the cost benefit trade-offs of implementing a full building blocks model for each of these businesses.
98. LFCs may have a slightly different cost structures than Chorus. We do not consider that customers should face higher prices, simply for living in regions provided by a specific fibre provider. We expect the costs between the fibre providers should also be very similar. While Chorus has the advantage of scale, it also has the legacy copper network to maintain which increases its cost base relative to a fibre-only provider. These two effects should largely cancel each other out.
99. Furthermore, when CFH awarded LFCs contracts for UFB regions, it must have determined that they offered a better value proposition than Chorus in these areas, due to exploiting efficiencies from existing scale, or existing networks in the region. We also note that all the LFCs and Chorus settled on the same contracted price for fibre up to the end of 2019. Again suggesting they can operate with the same price agreements.
100. Where differences in costs do exist, we expect that the LFCs will be able to recover these costs through commercial products. They would also have greater flexibility over the specification of their commercial products than Chorus because there would be no overall revenue cap.

²⁸ The effect of unexpected changes in demand is discussed further in section 2.6.3.



2.5 Deregulation should be possible where competition occurs

Recommendations

- Vodafone supports deregulation where effective market competition develops
- The Commission should remove market segments from the regulatory model if they pass a competition test
- The competition test should be able to be applied before the first regulatory period, and prior to all subsequent regulatory periods

101. We recognise the importance of regulating access in markets with limited competition. We also encourage proactively removing regulation where it becomes unnecessary because effective competition emerges. This minimises a risk of creating artificial and distortionary barriers to competition and investment.
102. The legislation should require competition tests to assess whether parts of the market could be deregulated if effective competition emerges. The decision on whether to deregulate should be left to the Commission using the well-established approach to market definition and competition assessment.
103. Because the proposed legislative framework for fixed access being designed today will not apply until 2020, these competition tests must apply to the first regulatory period. These should then be repeated prior to all subsequent regulatory periods.
104. This is consistent with the approach taken today for regulated services under Schedule 1 of the Telecommunications Act. For example, Chorus's unbundled bitstream access service has the following condition:

that either –

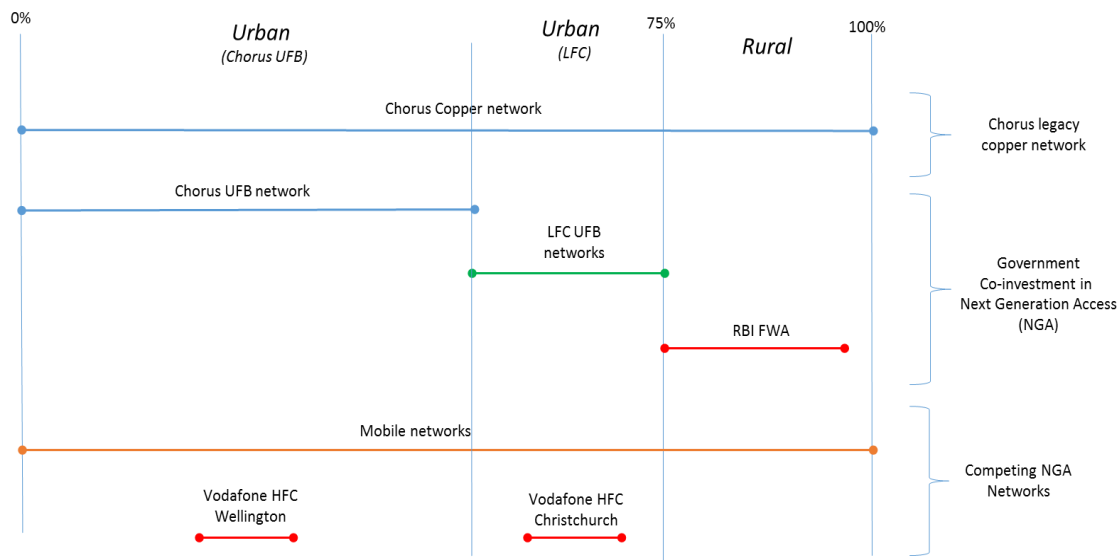
Chorus faces limited, or is likely to face lessened, competition in a relevant market; or

Chorus does not face limited, or is not likely to face lessened, competition in a relevant market, and the Commission has decided to require Chorus's unbundled bitstream access to be wholesaled in that market.

105. Today, the extent of competition for Chorus as a regulated provider of copper broadband varies by technology and across the country. These differences will be amplified by 2020. For example, Chorus will face different levels of competition in areas where it is rolling out UFB, areas where it will compete against LFCs, and areas where it will compete against fixed wireless substitutable services. Each of these areas can be treated as separate market segments.
106. This is shown in Figure 5 below.



Figure 5: Next generation broadband access technologies



107. While it is not possible to determine the extent of network competition in 2020 today, it is clear that the intensity of competition Chorus will face will differ across New Zealand. Annual industry investment is currently \$1.7b per annum, which is the second highest out of all OECD countries.²⁹ This investment is occurring across UFB, RBI, Mobile 4G and HFC networks and by 2020 will significantly alter the market dynamics

2.5.1 How competitive market segments could be removed from the building blocks model

108. If the competition test is applied and the Commission decides to deregulate a particular market the Commission would then need to remove that market from the building blocks model. This would involve removing the specified assets from the RAB, plus the related contribution to shared and common costs. It would also mean calculating variable costs for the next period so that they exclude the deregulated market. Chorus would then be free to make commercial decisions in those effectively competitive areas.

109. For example, in Christchurch, Chorus' copper network will face competition from the gigabit capable LFC fibre and Vodafone's HFC networks. If the Commission determined that competition was effective it could remove this part of Chorus' network from the RAB, and lift all anchor and legacy product restrictions. This would free Chorus to compete and invest without regulatory constraints. For example, it would no longer require Commission approval or oversight of additional capital expenditure to, for example, vector its copper network to improve performance.

²⁹ Telecommunications Carriers Forum (TCF), Telecommunications, Enabling New Zealand's Future, 2016.



2.6 Delivering a fair return to investors

Recommendations

- The legislation should prescribe a depreciated actual cost approach to the valuation of the RAB to ensure it is cost reflective and encourages the right level of investment
- A revenue cap based on the building blocks model is appropriate to provide an overall constraint on Chorus' ability to extract excessive profits, while providing a fair return to investors
- There should be no wash-up for under recovery –Chorus should be able to manage any unexpected demand for the anchor products through the specification of commercial products

2.6.1 Setting a cost reflective RAB for the life of the network

110. The RAB provides an on-going commitment to investors of a fair return. Once decided, there should be no circumstances where the sunk investment in the RAB is re-determined, as long as the assets remain regulated. It is therefore critical that the RAB reflects the actual costs of the network. A value too high will lock in over-investment, and a value too low will lock in under-investment.
111. To support this, an accurate valuation of the network needs to be made, starting now. A depreciated actual cost (DAC) approach will reflect the investment made in the network and provide an appropriate return. We recognise this will not be simple, particularly for the copper network, but given the importance of this decision and the commitment associated with the RAB, the time needs to be taken to get the valuation right.
112. Therefore legislation should direct the use a DAC approach. This will provide the basis for these valuations to begin soon and be ready in time for the start of the first regulatory period in 2020. For simplicity we now consider that there should be a single RAB across the copper and fibre networks.³⁰ Detailing and maintaining the cost allocation between copper and fibre assets would be costly and provide little benefit. Further, a single RAB provides flexibility in the transition between copper and fibre, and eliminates the incentive for Chorus to keep the copper network going while its asset base remains.

2.6.2 Revenue cap

113. An overall revenue cap will provide a steady, predictable and fair return to investors. For each regulatory period, Chorus will have full transparency of future revenues, including agreement of expenditure forecasts, and shelter from the revenue volatility of a price-cap. This stability, and predictability will support continued investment and maintenance of the network.

³⁰ In our November submission we argued for two RABs. Given the costs involved in doing so we now support a single RAB.



114. A revenue cap will also constrain Chorus' ability to extract excessive profits. Revenue must be based on a return of efficient expenditure and investment, and no more. Within a period, Chorus then has the incentive to find efficiencies across the network to reduce costs and increase profits which they can retain until the start of the next regulatory period.³¹

2.6.3 Chorus has the means to manage demand uncertainty

115. Through the commercial products, Chorus has the means to manage demand risk.³² We therefore support the proposal in the Options Paper for an asymmetrical wash-up that would wash-up over-recovery, but not under-recovery.

116. Broadly under-recovery can happen for two reasons:

- demand is lower than expectations; or
- Chorus loses market share due to increased competition from competing technologies or unbundled Layer 2 competitors.

117. In its decision to participate in the UFB programme, Chorus made an investment decision without any guarantee of the demand of its UFB fibre network. Ultimately, uptake has occurred significantly earlier and faster than anticipated. Chorus should not be insulated or compensated from unexpected competition or lack of demand because this would remove incentives to be more efficient or innovate to compete as compensation would occur regardless.

2.6.3.1 Accurate industry-wide forecasts should be achievable for short periods of time

118. Under the proposed model Chorus would need to forecast quantities so that it can set prices for the commercial products in a way that does not exceed their revenue cap. In the proposed model, Chorus would need to forecast two years ahead, due to the requirement to give 12 months' notice for changes in prices.

119. It is reasonable to expect Chorus to be able to forecast changes in overall industry demand over a two year period. They will have sufficient data and incentives to get this forecast very accurate.

120. Chorus' nationwide fixed line network does not have the same regional forecasting difficulties that led the Commerce Commission to propose yearly wash-ups for EDBs.³³ As noted by the Commission, forecasting is much less challenging on a national level, and they found that their forecasts were only out by 0.22 percentage points across the industry.³⁴ The errors in regional forecasting likely result from some of the less robust inputs needed when making regional demand forecasts such as regional GDP. Chorus will not be faced with these same difficulties.

³¹ Or at a sharing factor determined by the Commission if an IRIS mechanism is implemented as mentioned in section 2.4.3

³² We have not considered the demand uncertainties for LFCs, as without a revenue cap they are free to maximise revenues through the commercial products, no matter the demand for the anchor products.

³³ Commerce Commission, *Input methodologies review draft decisions – Topic Paper 1: Form of control and RAB indexation for EDBs, GDBs and Transpower*, 16 June 2016.

³⁴ *Ibid*, para 37.



121. The Commission also noted that “variation in revenue growth has a more significant impact over a longer time period”.³⁵ Given that Chorus would only need to create forecasts for two years in advance, this risk is substantially less than the forecasting risk of a price cap, where forecasts need to be made to cover the full regulatory period.³⁶

2.6.3.2 Chorus must be exposed to market pressures where they exist

122. As noted in the Options Paper a key reason for under-recovery may be the emergence of competition within certain parts of the market. If Chorus were able to wash-up un-recovered revenue due to a loss in market share this would insulate them from market pressures, creating significant distortions in the market.
123. Exposing Chorus to competitive pressures provides the full incentives for them to innovate and develop their business to avoid being overtaken by competition from unbundled services, or alternative technologies. This pressure will drive the development of the market and should not be dampened.
124. Furthermore, a wash-up provides very little protection against losing market share, and as noted in the Options Paper, could put Chorus into a death spiral. If their market share decreases, they will have to increase prices for all remaining customers to recover their revenue and the wash-up amount. This will make these remaining parts of the market more attractive to potential competitors who can under-cut the price offered by Chorus, resulting in them losing even more market share. Ultimately, if Chorus was unable to recover their full allowable revenue in the current period, what assurance do its investors have that they will be able to recover all allowable revenues and the wash-up in the next period?

2.7 Non-price terms and enhancing customer experience

125. Developing key quality measures for both Chorus and the LFCs as part of the regulatory regime will provide an opportunity to address underlying service issues. Incentives on Chorus to improve the connection process and maintain service connection will go a long way to addressing the current complexities New Zealanders continue to have with getting access to UFB services.
126. We agree that quality should be included as a required input methodology. This will provide certainty and predictability of the quality measures that will be used. Given the importance, complexity and ever increasing consumer demands for quality in the telecommunications sector, this additional level of long-term predictability is appropriate.
127. While the detail of the quality input methodologies should be left to the Commission, legislation should direct the Commission to determine the quality measures in a way that avoids conflict with current and future Standard Terms Determinations. We anticipate that this means the quality measures will need to be relatively high level.

³⁵ Ibid para 62.

³⁶ The other reasons given by the Commission to change to a ‘pure’ revenue cap were due to disincentives for demand side efficiencies, and barriers to tariff restructuring. Neither of these reasons apply to the regulation of Chorus’ fixed line network.



128. Having specific quality measures for the anchor products will also be beneficial. For example,
- for the Layer 1 anchor the quality measures could be focussed on ease of access, and responding to faults on the dark fibre;
 - for the mainstream anchor product quality measures could include an incentive for increasing minimum throughput as demand continues to grow; and
 - for the legacy copper bitstream product the quality measures could focus on maintaining current service quality, but avoiding a requirement for further investment to improve this legacy technology.
129. We also support allowing the Commission flexibility to link quality to revenues. This improves the incentives for Chorus and the LFCs by providing a direct reward or penalty to achieving required quality standards. Increases in the quality targets during a regulatory period to reflect the rapidly increasing demands from New Zealanders will be important.

2.8 Implementation, transition and details

Recommendations

- We agree with basing the purpose statement on s52A of the Commerce Act, but suggest some tweaks to fit the specific requirements of the telecommunications sector
- Where government direction is clear today, it should be described entirely in primary legislation, rather than creating uncertainty by allowing direction in government economic policy statements
- The copper to fibre transition should be guided by industry codes
- There should be an ex-ante Capex approval mechanism for out-of-cycle Capex projects
- The scope of the input methodologies should be based off the whole of s52T, and also include an ex-ante Capex approval mechanism and a quality IM
- We support Information Disclosure requirements for both Chorus and the LFCs
- We support freezing prices if the new framework cannot be implemented in time
- We support mandatory claw-backs
- We support capitalisation of losses
- We support including all fixed line assets in the RAB
- We support taking the UFB investment as efficient

2.8.1 Purpose statement

130. Vodafone is generally supportive of the proposal to set out a new purpose statement for the new regime in a new Part of the Act, largely based on section 52A of the Commerce Act 1986. Our recommendations below are intended to tailor section 52A for use in the telecommunications context.



131. We agree that "consumers" should be replaced with "end-users". The Act has always been focused on advancing the interests of "end-users" of telecommunications services through regulation, while Part 4 of the Commerce Act has developed a specialised meaning of "consumers" that will not translate easily into a different context.
132. The introductory words to section 52A(1) are unnecessarily complex. It states that Part 4 is intended to promote the long-term benefit of consumers by promoting outcomes that are consistent with outcomes in competitive markets, consistent with the requirements in s52A (a)-(d). That convoluted formulation led to considerable confusion and debate during the implementation of Part 4 regulation (and subsequent litigation).
133. However, we accept that it may be desirable to ensure consistency between Part 4 and the new regime. If the introductory words of section 52A(1) are to be incorporated into the new purpose statement in order to ensure consistency, it would also be necessary to incorporate into the new Part a definition of "competition" as meaning workable or effective competition (equivalent to section 3(1) of the Commerce Act). If that definition is not added, a Court might conclude that "competition" in the new purpose statement must have been intended to mean something different to "competition" under section 52A.
134. The drafting of section 52A(1)(a)-(d) may also be slightly inapposite for an unbundled fixed access communications network. Our concern is that the purpose statement does not do enough to protect Layer 2 competition. For example the Commission should have to weigh up providing incentives for Chorus to innovate against any impact this would have on Layer 2 competitors. We therefore propose that an additional element be added to section 52A(1), to recognise the economic importance of requiring access providers to unbundle Layer 1 services on terms that encourage RSPs to compete in downstream markets.
135. It may also be desirable to clarify what the Commission and Courts should do when the second-order criteria in section 52A(1) conflict. For instance, there will inevitably be tension between the goal of preserving incentives to innovate and invest and the goal of preventing excessive profits. Rather than prioritising one goal over another, the best solution is to include an additional subsection clarifying that those matters must be balanced.
136. For clarity, an additional subsection should be inserted to make it clear that the purpose statement should apply in lieu of the general purpose statement set out in section 3(1). Although there is limited risk of the general purpose statement conflicting with the purpose statement for the fixed access regime, it might be safest to exclude that risk ex ante.
137. We therefore propose that the new purpose statement provide as follows:

Purpose of Part

- (1) The purpose of this Part is to promote the long-term benefit of end-users of telecommunications services in New Zealand by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated services:
 - (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
 - (b) have incentives to improve efficiency and provide services at a quality that reflects end-user demands; and
 - (c) share with end-users the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices
 - (d) unbundle services on terms that ensure that acquirers of those services have incentives to innovate and invest in providing downstream services; and
 - (e) are limited in their ability to extract excessive profits.
- (2) To avoid doubt, the outcomes set out in subsection (1)(a) to (1)(e) are of equal importance.



(3) In this Part, the purpose set out in subsection (1) applies in place of the purpose set out in section 3(1).

2.8.2 Government Economic Policy Statements

138. Vodafone has some concerns about the role which the Options Paper indicates may be played by Government Economic Policy Statements (policy statements). In particular, it appears that some important elements of the new regime (e.g. the treatment of UFB investments in an initial RAB) will be determined not by Parliament or the Commission but by the Executive.
139. That presents a significant risk to the predictability and durability of the new regime. We understand that one key policy goal of the new regime is to give all stakeholders greater certainty as to the way in which it will be implemented. Reserving the discretion for the Government of the day to intervene on important aspects of that regime at an uncertain future date would count heavily against that goal. That uncertainty is not alleviated by the fact that it has not proven necessary for any policy statements to be issued in connection with Part 4 of the Commerce Act. Further, providing for policy statements presents potential constitutional issues in that it could involve the Executive influencing the proper interpretation or effect of primary legislation without the involvement of Parliament. That in turns raises the prospect of Court challenges to any policy statements, with inevitable cost and delay that could threaten delivery of the new regime.
140. The safer and more certain course would be for the new regime to be described entirely in primary legislation. If that legislation is carefully thought through and fully expressed, it would not be necessary for the new regime to be supplemented by means of the problematic policy statement mechanism.

2.8.3 Copper to fibre transition

141. We agree with the TCF submission that the best way to manage the copper to fibre transition is through industry led codes. As noted by the TCF, the industry has considerable experience in developing codes, and is well placed to do so for the transition. It also allows a greater level of speed and responsiveness to the transition so that the industry can quickly adjust to customer needs.
142. A big challenge at the time of copper withdrawal will be what to do with any stranded assets in the RAB. We do not agree with customers continuing to pay for a service (or part thereof) that is no longer in use. However, Chorus also wants the opportunity to fully recover its costs.
143. One way to minimise the problems associated with stranding the copper assets is by shortening the asset lives.³⁷ This assumes that the legacy copper assets are valued in the RAB model on a DAC basis. This would allow Chorus to recover the majority of the remaining costs while these assets are still valued by New Zealanders. This was the approach proposed by the Commerce Commission in response to the risk that some electricity assets may become stranded as new technologies emerge in that market.³⁸

³⁷ An alternative approach could be to set a depreciation profile where most of the remaining RAB is recovered over the next few years, with a tail going out for a longer period of time.

³⁸ Commerce Commission, *Input methodologies review draft decisions – Topic paper 3: The future impact of emerging technologies in the energy sector*, 16 June 2016.



144. This need not be set out in legislation, but the policy process currently being carried out should not preclude such tools being developed. For example a RAB valuation methodology should not be established that would make recovering copper assets infeasible over a short period of time.

2.8.4 Approvals for capital expenditure

145. Chorus should be able to gain assurance of significant out of cycle capex through an ex-ante approval mechanism. This would provide a way for Chorus and its investors to gain assurance that significant out-of-cycle capex will be included in the RAB, paving the way for efficient expenditure to occur when it is needed.

146. 'Base' capex should still be assessed on a forecast basis. This would preserve the cost saving incentive for Chorus to cut down on expected capex spend during a regulatory period. This dual capex approach has been successfully applied to the regulation of Transpower under Part 4 of the Commerce Act.

147. In contrast to the regulation of Transpower, we consider that ex-ante approvals should only apply to out-of-cycle capex, rather than using a major capex threshold. This is because it is best to target capex that is not regular and cannot be forecast using past trends. In many cases a communications network provider such as Chorus will have standard base capex that is of a similar value to out-of-cycle Capex. For example the current roll-out of UFB to residents and businesses. Whereas the ex-ante approval system should really only capture major step changes such as a major roll out of NG-PON2.

2.8.5 Scope of the Input Methodologies

148. We support the development of Input Methodologies (IMs) for the regulation of fixed line services. They have enhanced the predictability and stability of the regulation of utilities under Part 4 of the Commerce Act. This stability has been sorely missing from the Communications sector.

149. All requirements from s52T in the Commerce Act should be transported over to the Telecommunications Act. The summary of s52T in the Options Paper cuts out much of the detail regarding the regulatory rules and processes IMs. Under the Commerce Act these IMs cover the specification of price (including what costs can be passed-through to prices) and the situations where price-quality paths can be reconsidered mid-period. Both of these aspects of the IMs have been crucial to the functioning of Part 4 of the commerce Act and should not be overlooked.

150. The ex-ante capex approval mechanism should be supported by an IM. This should be based off the requirements under s54S of the Commerce Act which sets out the requirement to develop a Capex IM for the price-quality regulation of Transpower.

151. Finally, we support the development of quality IMs. This will provide a sound and long term basis for this crucial aspect of the communications industry. The ability for quality requirements to change at every reset would not facilitate continued improvement in this area.



2.8.6 Other fixed line matters we wish to comment on

Table 3: Other fixed line matters

Matter	Comment
Information disclosure	We support the inclusion of information disclosure requirements for both Chorus and the LFCs. Information disclosure is necessary to create transparency on how the network is managed, and to provide the pressure of daylight regulation.
Transition to the new regime	We support the suggestion in the Options Paper to simply freeze prices if the new framework is not able to be implemented in time or no satisfactory commercial agreement is reached. We also agree with instituting mandatory claw-backs
Details on the RAB	We support capitalisation of initial losses We support including all fixed line assets in the RAB We support taking the UFB investment as efficient

3 Mobile

Recommendations

- There is no need for change in the regulation of New Zealand's mobile market. The Telecommunications Act has the relevant tools today to address any regulatory issues that may arise in the future
- Government should investigate opportunities to make Crown land available for extending mobile coverage in rural New Zealand

3.1 New Zealand's mobile market is delivering

152. New Zealand's mobile market is delivering for Kiwis. Prices are highly competitive, with investment in network performance continuing at pace. Even since our November 2015 submission on the Review of the Telecommunications Act:

- Vodafone's coverage has grown to 98.5% of the population (up from 98%), with 4G now reaching over 90% (up from 85%);
- the Rural Broadband Initiative has been completed, bringing high-speed wireless and mobile broadband to over 290,000 homes and businesses, many experiencing fibre-like speeds via 4G; and
- the Commission's Annual Telecommunications Monitoring Report for 2015 concluded that "mobile pricing continues to be competitive across all bundle sizes", with pricing at or below the OECD average in all mobile service baskets measured.³⁹

³⁹ At pp 5, 38 – 39.



153. The Options Paper recognises the conclusion in the Discussion Document that competition and the current regulatory settings for mobile markets are delivering, while the Government had some concern that this competition was vulnerable. The Options Papers acknowledges that we have, in the intervening period, concluded a long-term agreement on national roaming.
154. Despite the recognition of a long-term, commercial roaming arrangement, the Options Paper suggests that concerns remain whether there are sufficient incentives for infrastructure sharing, including the availability of competitively-priced national roaming arrangements. This concern is unfounded (and is put forward in the Options Paper without any evidence).
155. Our long-term arrangements with 2degrees are clear evidence of a functioning wholesale market for roaming services. Outside of national roaming, the incentives for and evidence of efficient infrastructure sharing is clear – especially in rural New Zealand, where over 80% of our RBI sites have a co-locating party.
156. For MVNOs, we agree with the Options Paper that there is considerable infrastructure-based competition in New Zealand. This gives new entrant MVNOs a competitive market for wholesale access, which is reflected by the various MVNO partners who wholesale from all three operators. It is also clear that there is competitive choice and competition between providers to deliver MVNO services. Most recently, The Warehouse has established a MVNO with 2Degrees.
157. As both the Discussion Document and the Options Paper set out, the current state of competition and regulatory settings for mobile markets are delivering for New Zealand. There is no need for change.

3.2 Site access terms crucial for taking mobile connectivity further and faster for New Zealand

158. To deliver our ambition to take high-speed mobile services further and faster for New Zealand, network operators need access to land for mobile sites and associated infrastructure. Increasingly, especially for expanded coverage in rural New Zealand, individual sites are uneconomic because of escalating land rental costs and other high costs including access to power networks.
159. At present, the majority of sites from which mobile services are delivered in New Zealand are located on privately-held land, subject to a lease by the mobile operator(s). We enter into commercial rent negotiations with the land owner when a site is established and (at times) when a site is upgraded.
160. Site locations are determined by a range of technical factors, as well as constraints such as resource management law and community expectations. In practice, this means that when operators look to expand coverage, there may be few viable options available in a particular coverage area for the precise location of a site. Once a site has been established with the associated power and backhaul infrastructure, it is typically cost prohibitive to relocate a site, even if an alternative location which is technically feasible can be identified. Customers who rely on coverage from an existing site could also be negatively impacted by site replacement, where coverage is disrupted or displaced.
161. As a consequence of mobile operators being limited in their choice of site locations, once a site is established it means the land owners are sometimes able to extract very high rental values from operators. These situations can be exacerbated in rural areas, where the same landowner often owns the land surrounding any particular site (in these situation, a mobile operator has no alternative landowner to negotiate with).



162. Aggressive land rental pricing (for new sites and on renewal) has not been a significant issue for much of the history of mobile infrastructure provision in New Zealand. Most land-owners, especially in rural New Zealand, appreciate the significant benefits that mobile coverage delivers, and so are open to negotiating fair rental prices. However, we are now observing an increasing trend toward significantly increasing rental costs, often due to intermediaries clipping the ticket for no benefit, which threatens investment in additional mobile capacity and coverage.
163. We also see further opportunity of extending high speed broadband and mobile coverage to more Kiwis if more efficient access was secured for locating sites on Crown owned land. At present, only a small proportion of mobile sites are deployed on Crown land, primarily due to the uncertainty of securing a lease, the lease terms imposed, and the timeframes for acquisition. We continue to work with Government to improve land access, to ensure New Zealanders benefit from wide spread deployment of next generation networks.

4 Other matters

Recommendations

- No changes are needed to ensure net neutrality
- No simplifications should be made to the schedule 3 process
- The role of the Telecommunications Commissioner should be retained, any review of this role should be deferred until after any new regulatory regime is implemented

4.1 Net neutrality

164. As set out in the Options Paper “the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise in New Zealand”.
165. There is no reason why market developments such as the proposed merger between Vodafone and Sky, Spark’s bundling of Spotify, and 2Degrees bundling of Tidal, should change that view. New Zealand has an intensely competitive market for both fixed and mobile services, and this will continue. Net neutrality is unlikely to become an issue in the future. Existing protections against net neutrality risks are already in place with strong competition and consumer law enforced by the Commerce Commission. This provides the necessary tools and remedies if competition issues were to arise in the future.

4.2 The Schedule 3 process should not be undermined

166. The simplifications to the Schedule 3 process that are proposed in the Options Paper risk undermining its effectiveness. The Schedule 3 process is an important component of the Telecommunications Act, which ensures that the Commission comprehensively and independently investigates whether changes to regulation are required. It is essential that these decisions are not taken lightly or on the basis of limited information.



167. The Commission should not be constrained to a hard deadline for Schedule 3 investigations. Given the complexity of the analysis involved, and its importance, it is appropriate to afford the Commission the flexibility to make 'reasonable efforts' to complete the work within 120 days.
168. Our experience is that a hard deadline can lead to short-cuts being made and not all information considered. For example, a hard deadline was expressly written into the Act for the Section 64 review to consider regulation of local loop unbundling. The Commission met this deadline, but it was clearly rushed, and the decision had to be revisited at the request of the Minister. This increased the risk of the Commission's recommendation being judicially reviewed, and ultimately did not speed up the process, given the amount of re-work required.
169. The requirements to hold conferences or public hearings under Section 10 should similarly not be removed when the Commission is considering changing a specified service (non-price terms) to a designated service (price and non-price terms). The Options Paper suggests that a decision whether to regulate price is 'more of a technical matter'. We disagree. Price regulation can have a significant impact on further investment (the dynamic efficiency effects) and incentives for commercial negotiation. These are not 'technical matters' but are core to future investment in technology. It is crucial that this decision is not weakened or trivialised by removing the opportunity for discussion directly between the Commission and industry through conferences or public hearings.
170. Access providers should also not be constrained in their ability to participate in the Schedule 3 process. The Options Paper proposes that access providers would only have one attempt at providing an undertaking to the Commission in lieu of regulation being imposed. In our experience, Schedule 3 investigations are an educative and iterative process – for the Commission, access providers and access seekers alike. As views and understanding of the issues being considered develop, it is reasonable for parties' views to change, including access providers considering whether to provide undertakings, and on what terms, to be considered by the Commission.
171. Finally, the Commission should not have the power to set an interim price for a potentially regulated service while a Schedule 3 investigation is underway. This would create a significant risk of predetermination, which is likely to jeopardise commercial outcomes, and result in interim prices being set that don't reflect any final pricing approved by the Minister. Practically, the parties are likely to already have an agreement in place, and there is no evidence to support the proposition in the Options Paper that "[a] potentially regulated access provider could in theory raise prices to such an extent that it could drive smaller or new entrant access seekers out of the market".

4.3 Role of Telecommunications Commissioner

172. Vodafone continues to support the separate function of the Telecommunications Commissioner within the Commerce Commission. This is important because of the complexity and rapid evolution and change in the telecommunications sector.
173. We recommend that any review whether a dedicated Telecommunications Commissioner remains necessary must not start until well after key decisions around fixed access pricing are completed. As the Options Paper acknowledges (with the discussion of backdating and clawbacks), this work may not be completed until after 2020. Those projects must have been completed, to avoid disruption or uncertainty. We also understand that the Telecommunications Commissioner is able to participate on other Commission Divisions, so any inefficiency risk of a Commissioner who can't work on other Commission workstreams is limited.



5 Summary of Recommendations

5.1 Future of fixed broadband

5.1.1 Commercial solution and regulatory back-stop

- The Telecommunications Act must allow for the regulatory process to be suspended if an acceptable commercial solution is reached

5.1.2 Unlocking the full potential of the UFB initiative through fibre unbundling

- The Equivalence of Input requirements in the Deed of Open Access Fibre Undertakings must remain for all Layer 2 products
- A cost-based Layer 1 anchor product must be in place by 2020
- Existing UCLL services in unbundled Chorus exchanges must be grandfathered in 2020

5.1.3 Ensuring Layer 2 access supports a Gigabit Society

- A single Layer 2 anchor product is required. This should be targeted at mainstream users, and the specific parameters set by the Commission
- Price increases should be capped for rural copper, and voice only services
- Regulatory periods should be three years long
- There should be a cap on any further expansionary investment on the legacy copper network
- Any assistance to vulnerable users this should be done in a more targeted way
- The Commission should be directed to avoid price shocks
- We support the modest constraints on the commercial products proposed in the Options Paper
- The LFCs should be placed on a price-quality determination imposing the Layer 1 and mainstream anchor product price, and the quality standards, but not the overall revenue cap

5.1.4 Deregulation should be possible where competition occurs

- Vodafone supports deregulation where effective market competition develops
- The Commission should remove market segments from the regulatory model if they pass a competition test
- The competition test should be able to be applied before the first regulatory period, and prior to all subsequent regulatory periods

5.1.5 Delivering a fair return to investors

- The legislation should prescribe a depreciated actual cost approach to the valuation of the RAB to ensure it is cost reflective and encourages the right level of investment
- A revenue cap based on the building blocks model is appropriate to provide an overall constraint on Chorus' ability to extract excessive profits, while providing a fair return to investors
- There should be no wash-up for under recovery –Chorus should be able to manage any unexpected demand for the anchor products through the specification of commercial products



5.1.6 Implementation, transition and details

- We agree with basing the purpose statement on s52A of the Commerce Act, but suggest some tweaks to fit the specific requirements of the telecommunications sector
- Where government direction is clear today, it should be described entirely in primary legislation, rather than creating uncertainty by allowing direction in government economic policy statements
- The copper to fibre transition should be guided by industry codes
- There should be an ex-ante Capex approval mechanism for out-of-cycle Capex projects
- The scope of the input methodologies should be based off the whole of s52T, and also include an ex-ante Capex approval mechanism and a quality IM
- We support Information Disclosure requirements for both Chorus and the LFCs
- We support freezing prices if the new framework cannot be implemented in time
- We support mandatory claw-backs
- We support capitalisation of losses
- We support including all fixed line assets in the RAB

5.2 Mobile

- There is no need for change in the regulation of New Zealand's mobile market. The Telecommunications Act has the relevant tools today to address any regulatory issues that may arise in the future
- Government should investigate opportunities to make Crown land available for extending mobile coverage in rural New Zealand

5.3 Other matters

- No changes are needed to ensure net neutrality
- No simplifications should be made to the schedule 3 process
- The role of the Telecommunications Commissioner should be retained, any review of this role should be deferred until after any new regulatory regime is implemented