

# Vodafone Submission



**Mobile Markets Study:  
Preliminary Findings**

28 June 2019



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## Executive Summary

Vodafone welcomes the Commerce Commission's preliminary findings on the Mobile Market Study. We agree with the Commission that consumers in the mobile market have been "benefiting from an increasingly competitive market environment". This has resulted in prices well below the OECD averages across the board, wide and increasing 3G and 4G coverage, and plans tailored to meet the needs of all New Zealanders.

The Commission rightly proposes no interventions in this market. This is critical to provide the stability and predictability needed as the MNOs begin to invest millions into the fifth generation of mobile technology.

The market is starting to really heat up for high data plans, with caps rapidly increasing or disappearing altogether. We expect that these changes will address many of the lingering concerns about higher data plans that the Commission raised.

It is also crucial that the spectrum used for mobile services continues to be allocated efficiently and in line with international best practice. Current allocations have provided a large amount of spectrum in New Zealand, which has both allowed relatively low cost networks, and sufficient headroom for growth and future competition.

The distribution of spectrum across the three MNOs is also not a competition problem. This is because different spectrum bands have different values and uses, and in the key bands the three MNOs are more closely aligned. Spectrum holdings have also been able to adjust over time to reflect the current levels of competition.

Finally we support the Commission's decision to not intervene in the MVNO market. As noted by Red Dawn there are few opportunities for MVNOs in New Zealand given our scale. Where opportunities do exist, the market conditions are sufficient to allow entry. For example Kogan recently signed an MVNO agreement with Vodafone and will soon start offering their innovative pricing approach to New Zealanders.



## Service Competition is Strong

Based on the information gathered through the Commission's study, it is clear that New Zealanders are receiving a great deal on their mobile telecommunication services:

- Prices are below OECD averages across the board
- Prices have continue to decline, while the value customers receive is increasing
- Wide and increasing coverage across 3G and 4G
- Plans tailored to meet the needs of all New Zealanders

### Competition is rapidly increasing for high data plans

One of the key issues raised by the Commission was the perceived relative lack of competition on higher usage plans. However, in our experience, this is exactly where competition is the hottest at the moment.

- Over the last year unlimited plans have become common across all three providers
- Data caps are raising rapidly. We recently increased the cap for our Red+ plans up to 40GB
- 2Degrees have also improved the speed cap on unlimited plans to 40GB.

It is clear that the market is delivering on this segment as demand starts to ramp up.

The image shows a mobile phone plan advertisement for 'Red+'. At the top, a red banner with a thumbs-up icon says 'INCLUDES 1 FREE SHARER'. Below this, a dark purple box contains '40GB of NZ Data'. The plan name 'Red+' is prominently displayed, followed by 'Unlimited Talk + TXTs to std NZ & Oz numbers'. A promotional offer states 'Enjoy 1 year of Netflix on us (If you haven't already)'. At the bottom, the price '\$99.99/month' is shown in a light grey font.



## There is a wide variety of products to meet customer needs in the market

As highlighted in our submission on the Issues Paper, there are a variety of plans in the market to meet the needs of all New Zealanders. This includes unlimited data plans, content specific data bundles, and full flexibility through Vodafone's 'My Flex Pre-Pay'.

The Commission's experts appear to disagree with each other on product variety, as per the diagram below. This mixed expert opinion points towards the current level of product variety being about right.

**Not enough  
choice**

**Too much  
choice**



"There is a relative lack of variety in price points for most MNOs ... operators in the Netherlands offer more distinct price points on average"

-Red Dawn p31

"[T]he telecommunications market provides consumers with a wealth of options that can be difficult to navigate"  
- The Behavioural Insights Team, p7

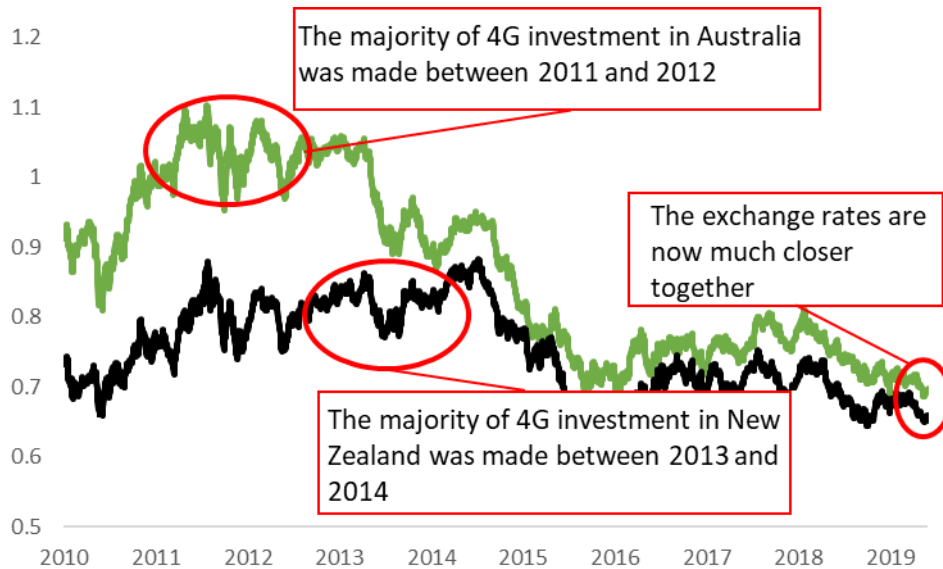
## Comparing price with Australia alone is unfair

Significant attention is placed in the Commission's report on comparing the prices for mobile plans between New Zealand and Australia. This comparison is unfair, and simply reflects a myriad of differences between the countries. This also departs from the Commission's previous international benchmarking analysis that compared plans across the OECD. For example:

- Most plans in Australia are fixed for 12 or 24 months, whereas plans in New Zealand are typically open term. While the Consumer NZ survey referenced by the Commission indicates term length is unimportant, this does not match with our actual experience in the market.
- There are significant scale efficiencies in mobile networks. Australia's larger size gives them an inherent cost advantage, as there are a number of fixed costs like the network core, the NOC and many back office costs.
- New Zealand has to contend with a significantly more complex geography than Australia.
- Australia had a favourable exchange rate when building its 4G network. The exchange rates are now much closer together, hiding a cost difference of around 20%, as shown in figure 1 below.



**Figure 1: Comparison of Australia and New Zealand exchange rates to the USD during 4G build and currently**



For these reasons and many more it is not good practice to make single country comparisons. We recommend that in the future the Commission compares New Zealand to the OECD averages and does not highlight comparisons to selective individual countries.

### Mobile data usage is not an indicator of poor service

The Commission highlighted New Zealand's low data usage, and asked why this is the case and what implications there are.

In the context of overwhelmingly positive indicators, limited weight should be placed on the one measure where New Zealand ranks lower than its OECD peers. The OECD in its notes to this data specifically says:

*All statistical country comparisons should be undertaken with caution and this advice similarly applies to broadband statistics ... it is important that policy makers examine a wide range of broadband indicators when considering key policy decisions.<sup>1</sup>*

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<sup>1</sup> <http://www.oecd.org/sti/broadband/broadband-methodology.htm>



There are some clear reasons why New Zealand is likely to rank low on this measure:

- New Zealand has a relatively high number of mobile subscribers per person.<sup>2</sup> This may indicate a particularly high number of very low use or inactive users, and some users, spreading their data usage over multiple subscriptions.
- New Zealand has a high fixed network usage. We know that in New Zealand each household downloads approximately 247GB per month.<sup>3</sup> This is among the highest in the world, especially compared to countries near the top of the mobile data per user statistics like Finland (who only consumed 26GB per month in 2016). This observation is reinforced by data showing that New Zealanders spend more time connected to Wi-Fi networks on their mobile devices than most other countries.<sup>4</sup> This allows them to take advantage of the inherent speed and capacity advantages of a fixed network.

### Customers are supported to make good choices

We agree with the Commission that there are no barriers to customers accessing their telecommunications data and making good decisions. There are numerous freely available apps that provide this info such as Apple screen time, and the Vodafone Net Perform app. It is also very easy to switch providers, with high levels of number portability.

We also make made considerable efforts to get customers onto the right plans to suit their needs. This includes:

- Active communication with customers when they reach the last month of their contract with re-sign offers and other information.
- Information to all subscribing customers about new plans as they are released.<sup>5</sup>
- Staff provide advice to customers to a newer plan better suited to their needs.

However, our customers are often in the best position to make decisions about their plans. This decision can be influenced by a number of factors that are entirely rational and in the consumers' interest, including:

- the simplicity and assurance that comes from buying a full service plan;

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<sup>2</sup> <http://www.oecd.org/sti/broadband/1.2.OECD-FixedMobileBB-2018-06.xls>

<sup>3</sup> <http://www.scoop.co.nz/stories/BU1904/S00294/chorus-fibre-connection-growth-outpaces-copper-line-decline.htm>

<sup>4</sup> <https://www.opensignal.com/reports/2017/02/global-state-of-the-mobile-network>

<sup>5</sup> Some customers choose to opt out of communications from us. If they do they will miss out on these updates.



- trust in the provider offering the service; and
- the value of add-ons, such as international roaming, Vodafone Rewards, and many others.

Any intervention that limited choices risks a worse outcome for New Zealanders.





# Mobile Spectrum and Efficient Allocation

We agree with the Commission’s conclusion that radio spectrum is a critical input used in mobile network deployment, and the type and amount of spectrum held by the MNOs affects the way in which MNOs deploy networks, provide services and compete in the market.

We also agree with the Commission’s view that “the allocation of spectrum will continue to have a very important influence on the competitive conditions in downstream markets, including the mobile market, and on how competition evolves in the future.”<sup>6</sup>

New Zealand is fortunate in two respects:

- By international comparison, New Zealand has a significant amount of spectrum available and allocated for mobile use; and
- the government’s approach to spectrum allocation reflects international best practice.

## New Zealand has significant spectrum allocated for mobile use

New Zealand is fortunate to have significant spectrum available against international comparators, with the government also working on making additional spectrum available for 5G.<sup>7</sup>

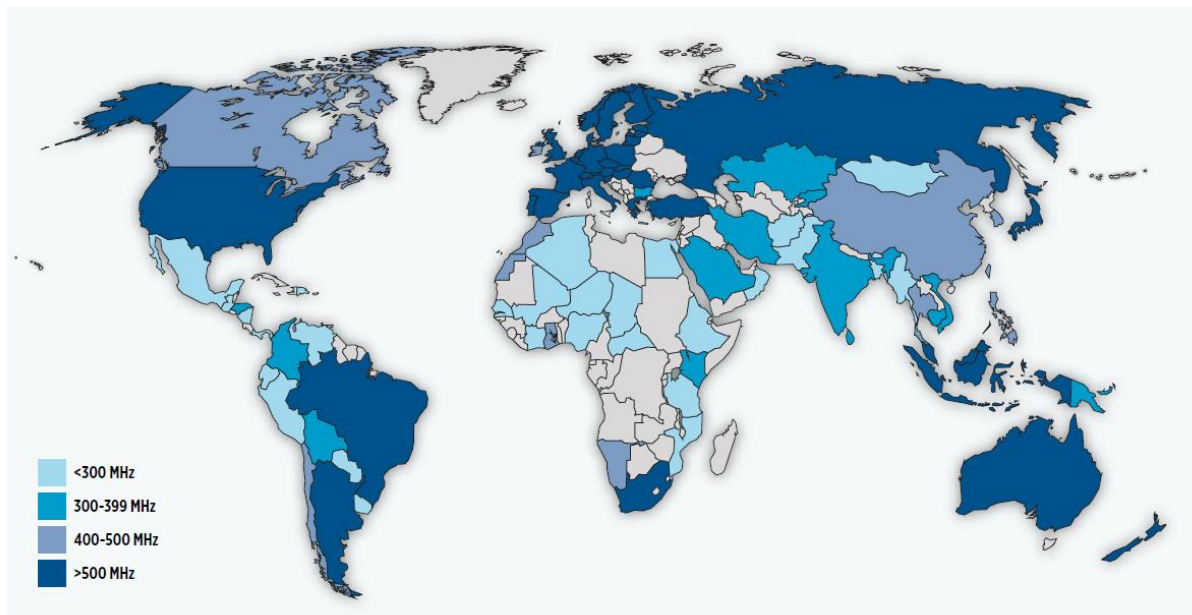
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<sup>6</sup> Commerce Commission, *Mobile Market Study – Preliminary Findings*, 16 May 2019, para. 3.90

<sup>7</sup> GSMAi, ITU and regulators websites (total spectrum calculated including both uplink and downlink FDD and TDD spectrum)



**Figure 2: Total spectrum assigned for mobile purposes across the world**



The benefits for New Zealand are that:

- Network deployment costs are lower, and network performance is higher, where MNOs have greater spectrum available.<sup>8</sup> This has reduced the impact of New Zealand’s challenges of complex terrain and a small population. All MNOs have been able to efficiently roll out mobile infrastructure – and the result is the competitive market New Zealanders enjoy today.
- New Zealand is well placed for the future development of mobile including 5G. The government has earmarked significant additional spectrum for 5G networks, through the expansion of 3.5 GHz available, and in the longer term, the reallocation of 26- 28 GHz (the “millimetre wave”) and the 600 MHz spectrum for mobile use. This will support both existing providers, and provide opportunities for potential new entrants where economic.

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<sup>8</sup> This does not affect the comparison to Australia. Australia also has a large amount of spectrum allocated, providing a similar cost base on this metric to New Zealand.



## The New Zealand government's approach to spectrum allocation reflects best practice

New Zealand is generally recognised as having an efficient and effective approach to spectrum allocation and management. The ITU recommends that:<sup>9</sup>

- governments best promote competition by making as much spectrum available as possible, and by limiting charges and other conditions on the industry so that multiple operators will be viable;
- specific additional measures to increase competition only make sense where competition is not already effective, additional players would be sustainable and where the competitive gains outweigh any loss arising from spectrum being used less intensively;
- where competition is already expected to be effective then imposing additional obligations may bring little additional benefit while carrying costs such as in terms of spectrum not being assigned to its most valuable use or the market becoming excessively fragmented resulting in higher costs and prices; and
- identify whether there are ways to achieve effective competition that does not constrain the ability of any operator to support growing data usage by existing customers or attract new customers.

Similarly, the GSM<sup>10</sup> identify that realising the consumer and business benefits of mobile services require licensing frameworks that:

- ensure operators have access to sufficient spectrum;
- provide predictability to support the new network investment needed; and
- avoid costly restrictions on the use of spectrum beyond those needed to manage interference.

Vodafone considers that the New Zealand government's approach to spectrum allocation continues to be consistent with these principles.

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<sup>9</sup> ITU

<sup>10</sup> GSM, Best practice in mobile spectrum licensing, September 2016, see:

[https://www.gsma.com/spectrum/wp-content/uploads/2016/11/spec\\_best\\_practice\\_ENG.pdf](https://www.gsma.com/spectrum/wp-content/uploads/2016/11/spec_best_practice_ENG.pdf)



## Spectrum asymmetry

The Commission identifies that the three MNOs have asymmetric holdings of spectrum, in particular in the sub-1GHz bands and in some of the higher frequency bands. Based on raw cumulative numbers, the Commission preliminarily concludes that:

*Significant asymmetries in spectrum holdings (including in terms of the amount and type of spectrum held) can affect competition in the mobile market, and the design of future allocation processes for spectrum should have regard to such asymmetries. In setting limits on the amount of spectrum that may be acquired, it may also be appropriate to have regard to existing holdings in other bands which represent a substitute for the spectrum being auctioned or allocated.*

The Commission does not provide detailed analysis of the specific spectrum holdings.

Vodafone is concerned with any decision to intervene or limit future acquisition, simply on the basis of total aggregate holdings. This ignores important characteristics and market dynamics, and would be detrimental to effective competition. Before reaching such a conclusion, there are multiple factors that would need to be carefully considered.

### (1) Different spectrum bands and combinations have different value

Analysis of total spectrum holdings ignores the different uses and value of different spectrum bands (and their combinations) for MNOs. This includes:

- **Frequency:** Lower bandwidths (such as sub 1 GHz) offer greater reach / propagation, while higher bandwidths offer shorter reach. While low band offers greater coverage because of the reach of useful signal, the shorter coverage range of high bands reduces interference to other cell phone towers, and thus allow higher density of cell sites, increasing the total network capacity. The particular spectrum deployed by an MNO balances achieving coverage (lower bandwidths) with delivering capacity (higher cell site density).
- **International standards:** New Zealand is reliant on the development of internationally consistent standards through global organisations like 3GPP that support the particular bands available for mobile use.
- **Device availability & cost:** As a small country, New Zealand is dependent on the international availability of network equipment and user devices that support the locally allocated spectrum. As a small market, we are often reliant on suppliers developing equipment for larger markets first.
- **Multi-band devices:** Most modern mobile user devices are multi-band, so can receive data across multiple spectrum bands. as a result it reduces reliance on any particular band to operate.



- **Spectrum carrier aggregation:** Modern mobile technologies (4G & 5G) allows multiple frequency bands to be joined together to deliver greater data speed – increasing the flexibility for MNOs with different spectrum holdings to deliver services.

As a result of these differences, simply identifying total spectrum holdings is not a good indicator of ability to compete.

## **(2) Spectrum holdings have evolved over time as a result of competition**

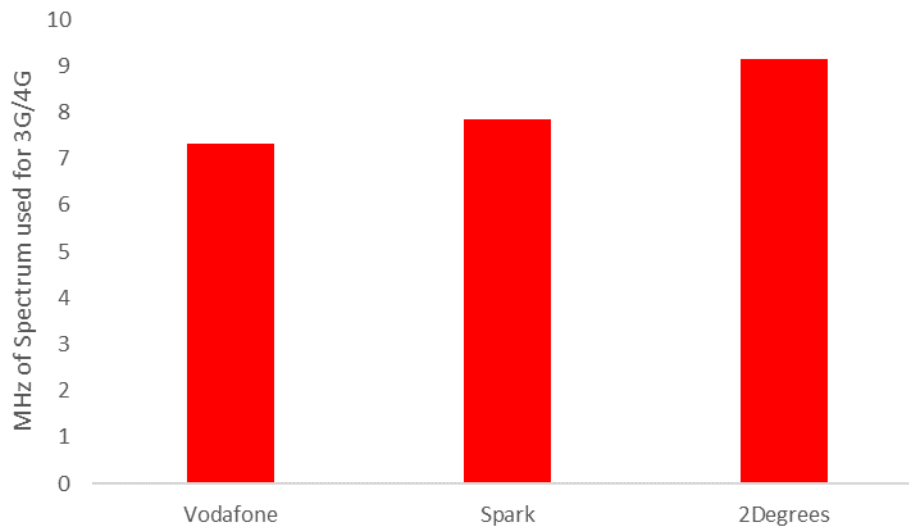
Today's spectrum holdings have been driven in part by current and historical competition, market rules set by the government, and decisions made by individual mobile providers. For example:

- different timing and entry in the mobile market – with Telecom/Spark in 1987, BellSouth/Vodafone entry into the market in 1993, and 2Degrees in 2009;
- commercial decisions made by MNOs on technologies and spectrum bands used – for example, Telecom decision to deploy AMPS/CDMA, while Vodafone and 2Degrees deployed GSM/UMTS/LTE;
- consolidation through acquisition, such as Vodafone acquiring TelstraClear and its 1800 & 2100 spectrum holdings;
- secondary market spectrum transactions including Spark's acquisition of Woosh Wireless spectrum, and Vodafone's sale of part of its 900 MHz band to 2Degrees;
- auction /allocation process set by government, and Commission clearances under the Commerce Act; and
- commercial decisions on spectrum acquisition – such as the decision by 2Degrees not to acquire the full allocation of 700MHz available to it.

Figure 3 below shows that this has resulted in sufficient spectrum to reflect the market shares of each MNO, with 2Degrees holding more on a per-subscriber basis than either Vodafone or Spark.



**Figure 3: MHz of spectrum used for 3G/4G per 100,000 customers<sup>11</sup>**



Relative spectrum holdings will continue to change over time – particularly as new spectrum becomes available for 5G. The rapidly increasing demand for mobile data and the upcoming 5G technology will continue to require significant investment in both additional spectrum and network to support its use.

Initially, this will be the opening up of the 3.5GHz spectrum band with an auction expected in early 2020. The government has also signalled the opening up of additional 5G capable spectrum bands including 24-29 GHz band, 600MHz and 1.4 GHz bands in the future – as 5G technology develops.

On behalf of 2Degrees, Covoc stated that “2Degrees low spectrum holdings relative to other other MNOs may constrain its ability to compete at both the retail and wholesale levels going forward”.<sup>12</sup>

In respect of 700MHz spectrum, existing MNOs and potential entrants were able to acquire up to 2x15 MHz of 700MHz spectrum at the beginning of the auction. By choice 2Degrees did not seek to acquire its full available amount, and as a result, the remaining 2x5MHz was re-auctioned off, with Spark ultimately acquiring the additional band at significant additional cost.

The government specifically put in place rules to ensure that all parties could acquire the same amount of spectrum up to the initial cap at a reserve price. The reserve price was limited to recovering the government’s costs from the analogue television switch-off, and the spectrum cost could be paid over a five year period by instalment.

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<sup>11</sup> This figure totals up spectrum holdings in the 700, 850, 900, 1800, 2100, 2500, and 2600 bands. We excluded the 2300 band which is used for fixed wireless.

<sup>12</sup> Paragraph 4.13



2Degrees' own decision to not acquire the full available holdings, it effectively amplified the disparity that Covec raises in sub-1GHz spectrum holdings.

It would be inappropriate for one MNO to be then disadvantaged in a subsequent spectrum allocation as a result of an earlier decision of another MNO not to acquire spectrum. Such an approach is wholly inconsistent with efficient spectrum allocation and undermine the benefits that competition has delivered.



# MVNO Market Needs No Intervention

## The Commission rightly puts the focus on consumer outcomes

We agree with the Commission that “there would need to be greater evidence of market failure to justify wholesale access regulation”.

To justify any intervention the Commission would have had to demonstrate a real problem affecting consumers, and clearly show that the intervention would have helped to solve that problem.

As the Commission’s report demonstrates, New Zealanders are getting a good deal on their mobile services. Prices are lower than OECD averages across the board, there is wide 3G and 4G coverage, with a variety of plans that provides choice while minimising confusion.

There is also no evidence that MVNOs would add anything to this situation. For example, international evidence has shown little to no impact on prices:

*“What research we have today suggests, consistently, that MVNOs have had no statistically significant impact on retail prices, particularly low cost tariffs, despite the many claims of potential MVNOs to the contrary.”<sup>13</sup>*

## The New Zealand market affords limited opportunities for MVNOs

Red Dawn’s analysis of the mobile market shows that the main reason for New Zealand’s low MVNO uptake is due to the limited opportunities in a country of our size, which means:

- scale is unlikely to be reached;
- there are few niche segments that are large enough to support an MVNO; and
- there is low potential for MVNOs to make a significant profit margin

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<sup>13</sup> R Feasey, 11 May 2019, “Report on Developments in the Regulation of Wholesale Services for MVNOs in the Rest of the World” Prepared for Rogers Communications Canada, para 12





However, they do see some opportunities:

- Some potential for service innovation.
- A bundling strategy may be successful. However in our experience bundling is becoming less and less important to consumers. For example Spark has recently removed its bundle discount for fixed and mobile customers.

Overall Red Dawn recommend that simpler MVNO models, such as licensed reselling is the best way to meet these opportunities. We agree, and the innovative MVNO deal that Kogan have recently signed with Vodafone to enter into the New Zealand market is a good example of this. In Australia Kogan offer unique pricing where customers pay up-front for up to a years' worth of connectivity. This has allowed Kogan to capture market share in a short period of time.

30 DAYS	90 DAYS	365 DAYS
\$49.90	\$46.64 per 30 days <small>when you prepay \$139.90 for 90 days access</small>	\$25.90 <sup>~</sup> SALE per 30 days <small>when you prepay \$315.10 for 365 days access</small>
40GB <sup>2</sup>	120GB <sup>2</sup> 40GB per 30 days	486GB <sup>2</sup> 40GB per 30 days
UNLIMITED STANDARD CALLS & TEXTS*	UNLIMITED STANDARD CALLS & TEXTS*	UNLIMITED STANDARD CALLS & TEXTS*
BUY NOW	BUY NOW	BUY NOW

### Intervention creates uncertainty and risks delaying pivotal investment

We are currently at a pivotal time for mobile services with the upcoming investment in 5G globally. At a time when margins are at their thinnest ever, providers all around the world are facing one of the biggest investments in their history to move to 5G services. To make this investment we need to be certain that we can recover the costs. As noted by Richard Feasey:

*The investment requirements for 5G are very considerable. Regulators elsewhere in the world, almost without exception, consider these risks so great that they do not even consider setting wholesale prices between carriers and MVNOs.<sup>14</sup>*

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<sup>14</sup> R Feasey, 11 May 2019, "Report on Developments in the Regulation of Wholesale Services for MVNOs in the Rest of the World" Prepared for Rogers Communications Canada, para 6