

**NOTICE SEEKING CLEARANCE OF A BUSINESS ACQUISITION PURSUANT TO SECTION
66 OF THE COMMERCE ACT 1986**

18 December 2015

The Registrar
Business Acquisitions and Authorisations
Commerce Commission
PO Box 2351
WELLINGTON

Pursuant to s 66(1) of the Commerce Act 1986 notice is hereby given seeking **clearance** of a proposed business acquisition.

1. EXECUTIVE SUMMARY

- 1.1 Spark intends to acquire the management rights to 70MHz of radio spectrum in the 2300MHz band (management rights 396 and 415) from Craig NZ and Woosh NZ (the "**2300MHz Management Rights**") (the "**Transaction**").
- 1.2 The 2300MHz Management Rights were originally intended by the Ministry of Economic Development ("**MED**") (now the Ministry of Business Innovation and Employment ("**MBIE**")) to be used for Fixed Wireless Broadband Access ("**FWA**") services as an alternative to copper inputs and, therefore, were sold as unpaired management rights, consistent with the International Telecommunication Union Radiocommunication Sector's ("**ITU-R**") band plan for the frequency.
- 1.3 The 2300MHz Management Rights have not been used since awarded in 2007 and will expire on 31 December 2016 if they are not used to provide a service. Prior to completion of the Transaction, Spark will be required to enter into a Management Rights Agreement with the Crown that commits to implementing a FWA service with coverage of at least 30% of the population in 15 local authority areas using the 2300MHz Management Rights (likely by December 2016) ("**Implementation Requirements**"). The 2300MHz Management Rights become unconditional and will be extended until 23 November 2030 if the owner fulfils the Implementation Requirements. These terms were originally set out in the 2300MHz Management Rights Deed entered into with the Crown at the time of the 2007 auction.
- 1.4 Advances in Long-Term Evolution ("**LTE**") technology since 2007 have led Spark to identify the opportunity to use the 2300MHz Management Rights to more efficiently deliver FWA services, namely Broadband over LTE ("**BoLTE**") and Voice over LTE ("**VoLTE**") services, for New Zealand customers.
- 1.5 BoLTE services are currently being delivered over Spark's 700MHz, 1800MHz and 2500/2600MHz spectrum. Spark intends to use the 2300MHz spectrum as the preferred band for FWA services using LTE technology and Spark's existing cellular towers and network infrastructure. Customers will receive the BoLTE/VoLTE service in their homes/businesses using a LTE broadband modem that will enable them to connect computers, land line phones and other networked devices.
- 1.6 Having a preferred spectrum band for FWA will enable Spark to more efficiently manage FWA service performance without service degradation. [] It would also likely enhance ultimate uptake of fibre Ultrafast Broadband ("**UFB**") in UFB areas by demonstrating to customers the benefits of faster broadband speeds as/when fibre becomes available to customers.
- 1.7 []
- 1.8 The most likely counterfactual appears to be that [] to deploy a FWA service.
- 1.9 Spectrum in the 2300MHz and other spectrum bands made available for mobile and broadband services (including the 700MHz, 850MHz, 900MHz, 1800MHz, 2100MHz, 2500/2600MHz and 3400MHz bands) are readily substitutable with each other for the provision of LTE FWA services, and moreover:
 - (a) []
- 1.10 The above approach to competitive effects is consistent with the Australian Competition and Consumer Commission's ("**ACCC**") decision to not oppose Singtel Optus Pty Ltd's ("**Optus**") acquisition of 98MHz of spectrum in the 2300MHz band through its acquisition

of VividWireless Ltd on the basis that the acquisition would "result in limited horizontal aggregation" and "would not be likely to significantly impact the ability of existing competitors to compete". The same considerations apply in respect of the Transaction.

- 1.11 Furthermore, by improving Spark's ability to deliver a new [] FWA service, the Transaction will deliver an attractive widespread broadband offering to compete against Vodafone's Rural Broadband Initiative ("**RBI**") offering in rural areas.
- 1.12 Accordingly, the Transaction delivers a number of pro-competitive outcomes in the fixed broadband and voice markets, without any detrimental impact on competition in any market.

TRANSACTION AND PARTY DETAILS

2. THE APPLICANT

Spark New Zealand Trading Ltd

- 2.1 This notice seeking clearance is given by Spark New Zealand Trading Limited ("**Spark**"):

Spark New Zealand Trading Limited
Level 7 Purple, Spark City,
167 Victoria Street West,
Auckland 1010, New Zealand
Telephone: 0800 287 463
Website: <https://www.spark.co.nz/>

- 2.2 The contact person for Spark is:

Sasha Daniels / John Wesley-Smith

Telephone: +64 9 355 4604 / +64 4 8029335
Fax: +64 9 377 2659
Email: sasha.daniels@spark.co.nz /
john.wesley-smith@spark.co.nz

- 2.3 All correspondence and notices in respect of the application should be directed at the first instance to:

Russell McVeagh
Barristers & Solicitors
PO Box 8
AUCKLAND 1140

Attention: Sarah Keene / Troy Pilkington
Telephone: 09 367 8133 / 09 367 8108
Fax: 09 367 8595 / 09 367 8596
Email: sarah.keene@russellmcveagh.com /
troy.pilkington@russellmcveagh.com

- 2.4 Spark is ultimately a 100% owned subsidiary of Spark New Zealand Ltd, and is the trading entity of Spark New Zealand Ltd.
- 2.5 Spark understands that the Commission is familiar with its business. It is a New Zealand-wide communications provider, providing fixed telephone and broadband services, mobile services, and ICT services.

- 2.6 Spark holds the following spectrum management rights in New Zealand:
- (a) 2x20MHz of paired spectrum in the 700MHz band, primarily used for providing mobile services (Spark has also recently launched FWA services using this spectrum in rural areas, and is trialling FWA services in urban areas on this spectrum);
 - (b) 2x15MHz of paired spectrum in the 800/900MHz band, used for providing mobile services;
 - (c) 2x25MHz of paired spectrum in the 1800MHz band, primarily used for providing mobile services (Spark has recently launched FWA using this spectrum in some rural areas, and is trialling FWA services in urban areas using this spectrum);
 - (d) 2x15MHz of paired spectrum in the 2100MHz band, used for providing mobile services;
 - (e) 2x20MHz of paired spectrum in the 2500/2600MHz band used for both FWA and mobile services;
 - (f) 2x7MHz of paired spectrum in the 3400/3500MHz band, which is not currently used by Spark.
- 2.7 The organisation chart of the Spark Group, as relevant to this application, is included in **Appendix One**.

3. THE VENDORS

Craig Wireless Systems Ltd and Woosh Wireless Holdings Ltd

- 3.1 The other party to the acquisition is Craig Wireless New Zealand Spectrum Operations Ltd ("**Craig NZ**"), including its related company Woosh Wireless Holdings Ltd ("**Woosh NZ**").
- 3.2 Contact details for Craig NZ and Woosh NZ are:

71-713 Highway 111
Rancho Mirage, CA,
USA
92270
Telephone: 760-346-3282
Website: <http://www.craigwireless.com/>

- 3.3 The contact people for Craig NZ / Woosh NZ are:

Boyd Craig / Gary Birkland
Founder, CEO Craig Wireless / Consultant Craig Wireless
Email: bcraig@craigwireless.com / gbirkland@craigwireless.com
Phone: 1-760-346-3282

- 3.4 Craig NZ is a 100% owned subsidiary of Craig Wireless New Zealand Spectrum Holdings Inc, a Canadian-incorporated company, which itself is ultimately a 100% owned subsidiary of Craig Wireless Systems Ltd, a Californian-based Canadian incorporated company listed on the Toronto Stock Exchange.

- 3.5 Craig Wireless Systems Ltd and its affiliates (collectively, the "**CWS Group**") offer telecommunications services in a number of countries, including high-speed wireless broadband internet access, as well as holding and trading in spectrum in a number of countries.
- 3.6 Woosh NZ is ultimately 75% owned by Craig Wireless Systems Ltd. Woosh NZ was founded in 2003. Woosh NZ owns approximately 131 towers, and associated telecommunications infrastructure, in New Zealand.
- 3.7 In 2011 CWS Group acquired a 51% controlling interest in Woosh,¹ which it increased to 75% in 2012.²
- 3.8 Following the sale of its 9,000 (mainly fixed line) customers to M2 NZ Ltd in July 2015, Woosh NZ's primary business in New Zealand is providing broadband services to customers on its FWA network (it no longer resells Chorus fixed line services to customers).
- 3.9 The organisation chart of the CWS Group, as relevant to this application (including Woosh), is included in **Appendix Two**.
- 3.10 The CWS Group (including Woosh NZ and other related companies) holds the following spectrum management rights in New Zealand:
- (a) 70MHz in the 2300MHz band suitable for FWA services (this is the spectrum that is the subject of this clearance). It has not offered FWA services using this spectrum to date;
 - (b) 2x29MHz in the 2000 - 2200MHz spectrum, which Woosh NZ uses to offer FWA internet access within 50km of the CBDs of Auckland, Wellington, Christchurch, and Invercargill;
 - (c) 2x20MHz in the 2500MHz spectrum, which Woosh NZ uses to offer FWA internet access in a number of regions across New Zealand (as of November 2015 []).

4. THE TRANSACTION DETAILS

Transaction structure

- 4.1 Spark seeks clearance to acquire the 15 year balance of the 20 year management rights to 70MHz of radio spectrum management rights in the 2300MHz band (management rights 396 and 415) from Craig NZ and its related company Woosh NZ (previously defined as the "**2300MHz Management Rights**" and the "**Transaction**").³
- 4.2 The 2300MHz Management Rights have not been used since awarded in 2007 and will expire on 31 December 2016 if they are not used to provide a service. Prior to completion of the Transaction, Spark will be required to enter into a Management Rights Agreement with the Crown that commits it to implementing a FWA service with coverage of at least 30% of the population in 15 local authority areas using the 2300MHz Management Rights (likely by December 2016) (previously defined as the "**Implementation Requirements**"). The 2300MHz Management Rights become

¹ http://www.craigwireless.com/PR_12_2_2011.pdf

² http://www.craigwireless.com/PR_9_24_2012.pdf

³ Pursuant to section 139(1) of the Radiocommunications Act 1989, the grant of any management right for radio spectrum is deemed to be the acquisition of assets of a business and is subject to section 47 of the Commerce Act.

unconditional and will be extended until 23 November 2030 if the owner fulfils the Implementation Requirements. These terms were originally set out in the 2300MHz Management Rights Deed entered into with the Crown at the time of auction.

Rationale

Background

- 4.3 The 2300MHz Management Rights were originally acquired by Kordia Ltd and Woosh Wireless Ltd through the MED's December 2007 auction of 2300MHz and 2500/2600MHz spectrum management rights (the "**2007 Auction**").
- 4.4 The full results of this 2007 Auction are set out in Figure One below:

Figure One - Results of the 2007 Auction

Lot No.	Lower Boundary	Upper Boundary	Lot size (MHz)	Successful bidder	Lot Value
1	2300 MHz	2335 MHz	35	Kordia Ltd	\$593,333
2	2335 MHz	2370 MHz	35	Woosh Wireless Ltd	\$650,000
N/A	2370 MHz	2395MHz	25	Hautaki Ltd	Option to purchase at 5% discount on auction prices
3	2500 MHz	2520 MHz	20	Craig Wireless Systems Ltd	\$555,000
4	2520 MHz	2540 MHz	20	Telecom Leasing Ltd	\$456,000
5	2540 MHz	2575 MHz	35	Vodafone Mobile NZ Ltd	\$670,000
6	2620 MHz	2640 MHz	20	Craig Wireless Systems Ltd	\$500,000
7	2640 MHz	2660 MHz	20	Telecom Leasing Ltd	\$450,000
8	2660 MHz	2690 MHz	30	Blue Reach Ltd	\$500,000

- 4.5 As noted in Figure One, 25MHz of unpaired 2300MHz spectrum was set aside for purchase by Hautaki Ltd, representing Maori interests, at a 5% discount on auction prices. The spectrum is currently held by the Crown, as Hautaki Ltd did not exercise its option to acquire the spectrum. As the Commission will be aware, Hautaki Ltd also owns ~7% of Two Degrees Mobile Ltd ("**2Degrees**"), and has previously contributed its management rights to 2x15MHz of 2100MHz spectrum to 2Degrees for 3G mobile use.
- 4.6 The 2007 Auction rules set an acquisition limit of 40MHz per bidder. That cap was only temporary and after December 2012 bidders were free to purchase more spectrum in the 2300MHz and 2500MHz bands.
- 4.7 The 2300MHz Management Rights subsequently came under the effective common ownership of CWS Group as:

- (a) In 2011 CWS Group acquired a 51% controlling interest in Woosh NZ (including its 100% subsidiary Woosh Ltd),⁴ which it increased to 75% in 2012.⁵
- (b) In 2013 CWS Group acquired Management Right 396 from Kordia Ltd for \$2,200,000.⁶
- 4.8 At the time of the 2007 Auction, the 2300MHz Management Rights were intended by MED to be used for FWA services (envisaged at that time to be provided using WiMAX⁷ technology, which has since been surpassed by LTE)⁸ in competition with the broadband access services then sold by Telecom (now Chorus) and, therefore, were sold as unpaired management rights.⁹
- 4.9 Other management rights in the 2500/2600MHz range were also sold by MED through the 2007 Auction as either unpaired or paired spectrum (with the necessary 120 MHz of duplex separation between the pairs) so that they could be used to offer either FWA or mobile 3G/LTE services.¹⁰ In the 2500/2600MHz range in the 2007 Auction:
- (a) Spark acquired 2x20MHz of paired spectrum in the 2500/2600MHz range, which it uses to offer FWA in 15 mainly rural and regional parts of New Zealand and to offer mobile services in a small number of urban areas (Spark uses this band to provide infill or capacity augmentation to its mobile network in urban areas with very high demand);
- (b) Craig acquired 2x20MHz of paired spectrum in the 2500/2600MHz range, which it uses to offer FWA services (as of 1 December 2015 []);
- (c) Vodafone and Blue Reach Ltd (then a subsidiary of CallPlus now called Blue Reach Wireless Ltd) ("**Blue Reach**") each acquired 30MHz of unpaired spectrum. Blue Reach briefly used its unpaired spectrum to offer a WiMAX FWA service in Auckland during the 2011 Rugby World Cup. However, in 2012 Vodafone and Blue Reach swapped half their respective 2500/2600MHz spectrum with each other, so that Vodafone has 2x20MHz and Blue Reach has 2x15MHz of paired spectrum. Spark understands that:
- (i) Vodafone uses this paired spectrum to offer retail FWA services in a number of regions in New Zealand, and to offer mobile services in other areas of New Zealand (using band Carrier Aggregation technology to pair it with spectrum in the 700MHz and 1800MHz bands).¹¹
- (ii) Blue Reach (which did not transfer to M2 Group Ltd ("**M2**") when M2 acquired CallPlus in 2015) uses its paired spectrum to offer wholesale FWA services in a number of regions across New Zealand.

⁴ http://www.craigwireless.com/PR_12_2_2011.pdf

⁵ http://www.craigwireless.com/PR_9_24_2012.pdf

⁶ <http://www.craigwireless.com/PR-4-11-2013.pdf>

⁷ WiMAX stands for "Worldwide Interoperability for Microwave Access", and is a wireless communication standard.

⁸ Cabinet Business Committee. Allocation of Spectrum for Wireless Broadband: 2.3GHz and 2.5GHz.

⁹ Decision No. 635 *Telecom Leasing Limited / 2.5 GHz Spectrum*. (7 March 2008).

¹⁰ There are two main spectrum allocation arrangements for mobile / FWA service delivery:

- paired use for Frequency Division Duplex ("**FDD**") technologies, which rely on paired blocks of frequencies separated by 120 MHz, one for network base station transmission (and user equipment reception), the other for user equipment transmission (and network base station reception); and
- unpaired use for Time Division Duplex ("**TDD**") technologies, which rely on unpaired blocks in which network base stations and user equipment both receive and transmit at the same frequency, but in different timeslots.

¹¹ <https://www.vodafone.co.nz/press-release/the-fastest-just-got-faster/>

Spark's rationale for the Transaction

- 4.10 As noted at paragraph 4.8 above, the Government's intention for the 2300MHz band at the 2007 Auction was that the spectrum would be deployed to offer nationwide FWA services. The Government's intention was to create network competition between the existing fixed copper network and wireless networks for the delivery of broadband:¹²

For years there was a sterile debate about whether the way forward to cheaper, faster broadband was via the wire loop or through inter-modal competition via a range of other delivery modes.

The Stocktake demonstrated the answer was not one or the other, but a sensible combination of both.

For that reason, we are promoting LLU on a fast track. But there is also much, much more.

Today I am announcing plans to release to the market by auction a very large amount of spectrum for broadband wireless.

- 4.11 To date this has not occurred, with the 2300MHz Management Rights not having been used to deliver FWA services to customers.

- 4.12 In the meantime, WiMAX technology has been surpassed by LTE as the technology of choice for the provision of FWA services (internationally WiMAX networks are progressively being shutdown).

- 4.13 Due to the subsequent advances in LTE technology, Spark has identified the opportunity to use the 2300MHz Management Rights as the most efficient methods to deliver [] FWA services to [] namely BoLTE and VoLTE services []

- 4.14 The BoLTE and VoLTE LTE FWA services will be delivered using the 2300MHz spectrum (as the preferred spectrum band) via Spark's tower/network infrastructure. []

- 4.15 This will enable Spark to deliver innovative and differentiated residential and business broadband/voice services, and generate a number of pro-competitive outcomes for customers in the fixed broadband and voice markets:

(a) []¹³

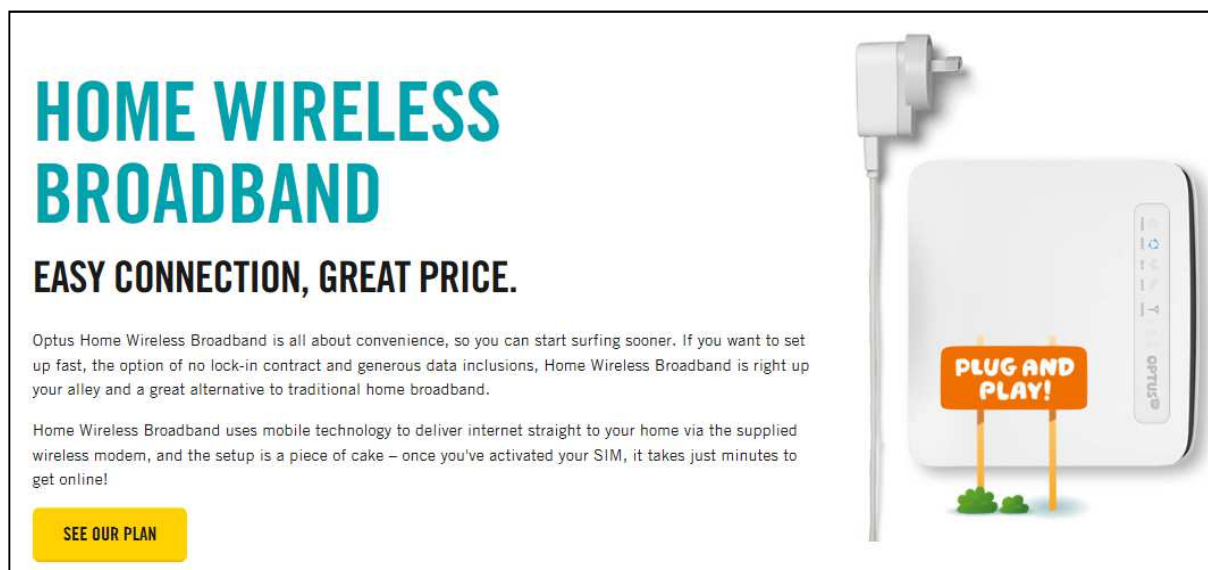
- 4.16 Spark considers its BoLTE offering will become an attractive competitive alternative for a number of customers[]

- 4.17 Australian RSP Optus has recently launched a [] 2300MHZ TDD-LTE FWA service (in urban parts of Australia) using 60MHz of continuous unpaired 2300MHz spectrum. Optus achieved this using 98MHz of 2300MHz spectrum that it acquired through its 2012 acquisition of wireless WiMAX provider Vividwireless Group Ltd. An extract from Optus' marketing material for its new FWA service is below:

¹² David Cunliffe. Delivering on telecommunications. (31 May 2007). Retrieved from: <http://www.beehive.govt.nz/speech/delivering-telecommunications>

¹³ []

Figure Two - Extract from Optus FWA marketing material¹⁴



- 4.18 Australia's National Broadband Network ("**NBN**") also provides TDD-LTE FWA services using up to 98MHz of 2300MHz to supply high speed broadband services beyond the fixed line footprint. Using this spectrum acquired in 2011, NBN is able to offer FWA broadband and voice services comparable to those possible on copper inputs in rural and regional areas of Australia.
- 4.19 Spark has recently started providing BoLTE services in a number of areas using its 700MHz, 1800MHz and 2600MHz spectrum bands. However, Spark has identified the 2300MHz Management Rights as an opportunity to most efficiently and cost-effectively []. This is because:
- (a) 70MHz is of sufficient continuous bandwidth to enable Spark to []
[]
 - (b) The commercial case to deliver the services that Spark is targeting requires a preferred band []

If its VoLTE/BoLTE FWA services were to be offered through a band shared with its mobile service, [] Spark would need to choose to prioritise either mobile traffic or its FWA VoLTE/BoLTE traffic, or to accept congestion risk to both service types. The Transaction is the most efficient method for Spark to avoid needing to make prioritisation decisions that (a) would impact service performance, and (b) would need to be communicated to customers in marketing material.
- 4.20 Spark could mitigate some congestion/performance issues by instead making (or bringing forward) additional investment in network technology (e.g., more cell sites, massive MIMO, etc), or investing in Carrier Aggregation technology. However, by purchasing the 2300MHz Management Rights through the Transaction, through an upfront capital outlay, Spark can defer and lower costs over the longer term in respect of technology/network investment in order to support [] its FWA offering.
- 4.21 Accordingly, Spark has identified the Transaction as the lowest cost and most efficient option for it to implement its strategy of introducing [] its FWA service.

¹⁴ <http://www.optus.com.au/shop/broadband/home-wireless-broadband>

Ancillary agreements

4.22 []. There are no other ancillary agreements between the parties associated with the Transaction.

4.23 []

5. COPIES OF TRANSACTION DOCUMENTS

5.1 Enclosed in **Confidential Appendix Four** are copies of the Agreements for Sale and Purchase of Management Right 396 and 415 entered into between Spark (or nominee) and Craig NZ and Woosh NZ.

6. NOTIFICATION OF OTHER COMPETITION AGENCIES

6.1 This is a New Zealand specific transaction. No other competition agencies will be notified of this transaction.

7. REQUESTED DETAILS

7.1 The Transaction does not result in horizontal aggregation between competitors. However, Spark provides the following details to assist the Commission's assessment of its application.

Annual Reports

7.2 The 2015 Annual Report of Spark New Zealand Ltd can be accessed [here](#).

7.3 The Annual Report of Craig Wireless New Zealand Spectrum Operations Ltd for the year ended 31 August 2014 can be accessed [here](#).

7.4 The Annual Report of Woosh Wireless Holdings Ltd for the year ended 31 August 2014 can be accessed [here](#).

Suppliers, Competitors and Trade Associations

7.5 The application relates to competition in the fixed broadband market. The Commission is already familiar with the key suppliers, competitors and active trade associations in this market (as described at **Appendix Three**).

8. NO LESSENING OF COMPETITION

8.1 The Transaction will not lead to a lessening of competition in any market. Rather, the Transaction is the most efficient means for Spark to bring an innovative and differentiated competitive alternative for customers in the fixed broadband and voice markets and, therefore, will enhance competition in those markets for the reasons outlined at paragraphs 4.10 to 4.21.

8.2 Assessing the Transaction in the context of fixed (wired and wireless) broadband and voice markets is consistent with the Commission's previous approach to considering

acquisitions of 2300 - 2600MHz spectrum made available through MED's 2007 Auction.¹⁵

To the extent that acquired spectrum is used to offer services which compete with fixed broadband, then the list of existing competitors will include the numerous participants in the fixed broadband access market. Accordingly, the proposed acquisition is unlikely to substantially lessen competition in the fixed broadband access market.

8.3 Spark agrees with the Commission's analysis, and considers it applies even more so today:

- (a) *The fixed broadband and voice markets are highly competitive:* MBIE's June 2015 quarterly "Broadband Deployment Update" report reports that there are now 87 RSPs in New Zealand offering fixed broadband services.¹⁶ These competitors range from larger competitors such as Vodafone, M2/Vocus/Maxnet, Trustpower, 2Degrees/Snap, to the more than 80 smaller RSPs, such as Megatel, Actrix, CityLink, Inspire, Voyager, Teamtalk, Vibe Communications, Kordia, etc.
- (b) *There are no material barriers to entry or expansion:* As the Commission knows, barriers to entry in broadband markets are low due to the availability of regulated copper broadband inputs, and government mandated price caps on fibre inputs, on non-discriminatory terms from Chorus and LFCs. These are available at the same price everywhere in the country and on the same terms. The growth of smaller RSPs, at the expense of larger RSPs, demonstrates that there are no material barriers to expansion in the New Zealand market. In particular, the recent growth of TrustPower and 2Degrees/Snap in fixed line services, the two fastest growing RSPs in New Zealand,¹⁷ demonstrates the ability of RSPs to expand by offering compelling customer propositions.

8.4 In these highly competitive markets, the ability of Spark to efficiently deliver an innovative and differentiated product offering to customers will drive better competitive outcomes for customers.

8.5 Spark anticipates that in the counterfactual, any alternative bidder would also be likely to purchase the 2300MHz Management Rights to offer LTE FWA services to compete in the fixed broadband and voice markets given:

- (a) The spectrum, at 70MHz, is of sufficient bandwidth to cost-effectively deliver high-speed FWA services (see paragraph 4.19(a));
- (b) FWA is the service that the 2300MHz spectrum was originally ear-marked by the Government for in order to create alternatives to Chorus' fixed copper inputs (see paragraph 4.8);
- (c) Internationally, spectrum between 2100MHz to 2600MHz is increasingly being used to deliver LTE FWA technology;
- (d) The 2300MHz Management Rights are better suited to providing TDD-LTE FWA services in comparison to FDD mobile services. This is because:

¹⁵ Decision No. 635. *Telecom Leasing Ltd / 2.5 GHz Spectrum*. (7 March 2008).

¹⁶ <http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/fast-broadband/documents-image-library/quarterly-broadband-deployment-update-june-2015.pdf>

¹⁷ <http://www.stuff.co.nz/technology/63119234/snap-trustpower-fastestgrowing-isps>

- (i) TDD allows for asymmetric allocation of bandwidth so that the FWA services can reflect the higher proportionate demand for download over upload bandwidth that is expected from broadband customers; and
- (ii) 2300MHz has poorer coverage characteristics than lower band frequencies.

These coverage characteristics are more easily managed in providing a FWA service as FWA broadband devices (modems) have significantly greater transmitting activity / capability than mobile devices and are, therefore, significantly better at locking onto signals (Spark estimates that a standard mobile device has 10% - 25% of the transmitting activity / capability of a FWA modem). This means that a service provider would need [] to use the 2300MHz Management Rights to provide a mobile service vis-a-vis a LTE FWA service.

- (e) While 2300MHz can be used to offer either FWA or mobile services (for example, Australia),¹⁸ there are comparatively fewer mobile devices capable of using 2300MHz spectrum than other spectrum bands (such as 700MHz, 900MHz, 1800MHz, 2100MHz).

8.6 Specifically, Spark's current view is that the most likely counterfactual appears to be that [] to deploy a FWA service.

8.7 Spectrum in the 2300MHz and other spectrum bands made available for mobile and broadband services (including the 700MHz, 850MHz, 900MHz, 1800MHz, 2100MHz, 2500/2600MHz and 3400MHz bands) are readily substitutable with each other for the provision of LTE FWA services. Moreover:

- (a) []

8.8 The above approach to competitive effects is consistent with the ACCC's decision to not oppose Optus' acquisition of 98MHz of spectrum in the 2300MHz band through its acquisition of VividWireless Ltd on the basis that the acquisition would "result in limited horizontal aggregation" and "would not be likely to significantly impact the ability of existing competitors to compete".¹⁹ The same considerations apply in respect of the Transaction.

8.9 Furthermore, by improving Spark's ability to deliver a new [] FWA service, the Transaction will deliver an attractive widespread broadband offering to compete against Vodafone's RBI offering in rural areas.

8.10 Accordingly, the factual is pro-competitive in comparison to any potentially relevant counterfactual.

8.11 The Transaction will also not have any adverse effect on competition in the mobile phone services market - both mobile phone competitors, Vodafone and 2Degrees, are already well-served by their existing spectrum holdings to vigorously compete against Spark:

¹⁸ In Australia Optus has launched LTE mobile services using "advanced" carrier aggregation to combine 40MHz of unpaired spectrum in the 2300MHz band with 2x15MHz of paired spectrum in the 1800MHz band. See: <http://www.rcrwireless.com/20150817/carriers/optus-launches-lte-a-3x-carrier-aggregation-tag23>

¹⁹ <http://registers.accc.gov.au/content/index.phtml/itemId/1046453/fromItemId/751043>

- (a) For the reasons noted at paragraph 8.5 above, Spark considers it unlikely in the counterfactual that the 2300MHz Management Rights would be acquired to provide a mobile service;
- (b) As noted at paragraph 8.7(a) above, Vodafone already has sufficient aggregate spectrum holdings and has recently invested in Carrier Aggregation technology to maximise the spectral efficiency of its existing spectrum holdings (see paragraph 8.13(b)); and
- (c) As the Commission is aware, 25MHz of unpaired 2300MHz spectrum was set aside in the Government's 2007 Auction for purchase by Hautaki Ltd. Hautaki Ltd owns a significant share in 2Degrees, and has previously provided 2Degrees with access to spectrum in other bands. Hautaki Ltd had the option until relatively recently to purchase that 25MHz of spectrum at a 5% discount from 2007 prices (~\$500,000). []

8.12 The fact that Spark is the highest bidder in the negotiations with Craig NZ/Woosh NZ demonstrates that it values the spectrum the highest and, therefore, is:

- (a) Consistent with the Government's policy objective of allocating radio spectrum to the highest value use (subject to cultural, social and community objectives);²⁰

the government's preferred means of allocating spectrum to its most valuable uses is through the price mechanism. This allows spectrum to be allocated to those who are prepared to pay the highest price, reflecting the value that they place on the spectrum as an input to providing services...

After the initial allocation of spectrum by the government, generally rights can be freely traded and spectrum managers can make decisions whether or not to trade their rights and, if so, on what basis.

- (b) The most efficient use of the spectrum and, therefore, the most competitive outcome for markets in New Zealand.

8.13 In addition, in the unlikely event any FWA competitor or mobile competitor requires additional capacity to compete in the fixed broadband/voice markets or mobile phone services market during the term of the Management Rights, a number of alternative options could be exercised:

- (a) There are a number of network investments that a FWA or mobile service operator could make in order to enhance spectral efficiency, such as additional tower locations, MIMO and small cell solutions (to name but a few). These technology options are very effective at managing capacity and/or throughput speeds and provide relatively efficient means for RSPs/MNOs²¹ to expand capacity to meet demand as and when required;
- (b) New Carrier Aggregation technology allows even greater spectral efficiency and network speeds. In October 2015 Vodafone announced it had implemented Carrier Aggregation technology across its 700MHz, 1800MHz and 2600MHz bands:²²

²⁰ <http://www.rsm.govt.nz/about-rsm/spectrum-policy/allocation-of-spectrum>

²¹ Mobile Network Operators.

²² <https://www.vodafone.co.nz/press-release/the-fastest-just-got-faster/>

Vodafone customers will be the first in New Zealand to experience even faster mobile data speeds, thanks to the roll out of innovative new technology.

It's called Carrier Aggregation (CA) - allowing different bands of radio spectrum to be paired at mobile cell sites across the country. Early testing has shown the technology delivers a significant increase in download speeds for 4G users – average speed increases of up to 56 per cent in some locations.

Upgrades have been completed at 72 sites around the country, including Cambridge, Kerikeri, Napier, Blenheim and some sites in Auckland, with dozens more planned for 2016.

"It's a lot like adding extra lanes to a motorway, enabling a smoother ride and more customers to take advantage of high-speed data at the same time," said Tony Baird, Vodafone's Technology Director.

- (c) Telstra Network Services NZ Ltd ("**Telstra**") holds 2x5MHz of paired spectrum in the 2100MHz band, which Spark understands is not currently being used to offer any service. Telstra [] could potentially be readily incentivised to enter into a transaction with a RSP or MNO that identified an efficient use for that spectrum, which has better coverage characteristics than 2300MHz spectrum.
- (d) The Crown holds 25MHz of unpaired spectrum in the 2300MHz that has reverted to it as Hautaki Ltd did not exercise its option to acquire that spectrum. The Crown could potentially be incentivised to re-allocate that spectrum in the near term to the extent an alternative efficient use is identified for it.
- (e) Spark understands that MBIE is likely to allocate and re-auction further spectrum that is suitable for LTE FWA or mobile use in the near future. A key outcome of the World Radiocommunication Conference ("**WRC**") announced on 27 November 2015 is that further spectrum in the 1427-1518 MHz, 3.4 - 3.6GHz, and 3.6 - 3.7GHz bands will be allocated in the near future:²³

Key outcomes of WRC-15

Mobile broadband communications

Following the growing demand for spectrum for mobile broadband services, WRC-15 identified frequency bands in the L-band (1427-1518 MHz) and in the lower part of the C-band (3.4 -3.6 GHz).

Accordingly, Spark expects MBIE will:

- (i) Look to reallocate spectrum in the 3.4 - 3.7GHz band as TDD spectrum in the next 2-4 years;
- (ii) Allocate and auction spectrum in the 1427-1518MHz for the provision of mobile phone services within 2-3 years.

8.14 That there is sufficient alternative spectrum is illustrated in Figure Three below.

8.15 Accordingly, the Transaction delivers a number of significant pro-competitive outcomes in the fixed broadband and voice markets, without having any detrimental impact on competition in any market.

²³ http://www.itu.int/net/pressoffice/press_releases/2015/56.aspx#.VmnxUtlNvoo

Figure Three - Holdings of spectrum management rights for spectrum suitable for LTE FWA or mobile use post-Transaction

	614 - 698MHz	700 MHz	850/900MHz	1427 - 1518MHz	1700/ 1800MHz	1900/ 2100/2200MHz	2300MHz	2500/ 2600MHz	3400/3500 MHz <i>MBIE expected to reallocate 3400/3500MHz for TDD use in the next 2 -4 years.</i>	3600/3700 MHz
Spark	<i>MBIE expected to auction for downlink broadcasting use in next five years</i>	2x20 MHz	2x15 MHz	<i>MBIE expected to auction for mobile use in next 2-3 years</i>	2x25 MHz	2x15 MHz	70 MHz (spectrum acquired through the Transaction)	2x20 MHz	2x7 MHz	<i>MBIE expected to reallocate 3600/3700MHz for TDD use in the next 2 -4 years.</i>
Vodafone		2x15MHz	2x15 MHz		2x25 MHz	2x20 MHz	-	2x20 MHz	2x28 MHz	
2Degrees / Hautaki Ltd		2x10 MHz	2x10 MHz		2x25 MHz	2x15 MHz	-	-	-	
Telstra Network Services NZ Ltd		-	-		-	2x5 MHz	-	-	-	
Blue Reach Wireless Ltd		-	-		20MHz	5MHz	-	2x15MHz	-	
Cayman Spectrum (NZ) Co (a Craig / Woosh company) / Woosh NZ		-	-		-	2x29 MHz	-	2x20 MHz	-	
Kordia		-	-		-	28 MHz 35MHz	-	-	2x21 MHz	
Wired Country (Compass Communications)		-	-		-	-	-	-	2x7 MHz	
Crown spectrum previously set aside for Hautaki Ltd		-	-		-	-	-	25 MHz	-	

CONFIDENTIALITY

9. Reasons for seeking confidentiality

9.1 Confidentiality is sought in respect of the information in this application that is contained in square brackets. Confidentiality is sought for the purposes of section 9(2)(b) of the Official Information Act 1982 on the grounds that:

- (a) the information is commercially sensitive and valuable information which is confidential to the participants; and
- (b) disclosure would be likely unreasonably to prejudice the commercial position of the participants, as the parties providing the information.

Spark requests that it be notified of any request made to the Commission under the Official Information Act 1982 for release of the confidential information. Spark also requests that the Commission seek and consider Spark's views as to whether the information remains confidential and commercially sensitive at the time responses to such requests are being considered.

9.2 The foregoing equally applies in respect of any additional information provided to the Commission that is expressed to be confidential.

DECLARATION

I, Simon Moutter, have prepared, or supervised the preparation, of this notice seeking clearance.

To the best of my knowledge, I confirm that:

- all the information specified by the Commission has been supplied;
- if the information has not been supplied, reasons have been included as to why the information has not been supplied;
- all information known to me that is relevant to the consideration of this notice has been supplied; and
- all information supplied is correct as at the date of this notice.

I undertake to advise the Commission immediately of any material change in circumstances relating to the notice.

I understand that it is an offence under the Commerce Act to attempt to deceive or knowingly mislead the Commission in respect of any matter before the Commission, including in these documents.

I am a director/officer of the company and am duly authorised to submit this notice.

Simon Moutter, Managing Director of Spark New Zealand Ltd

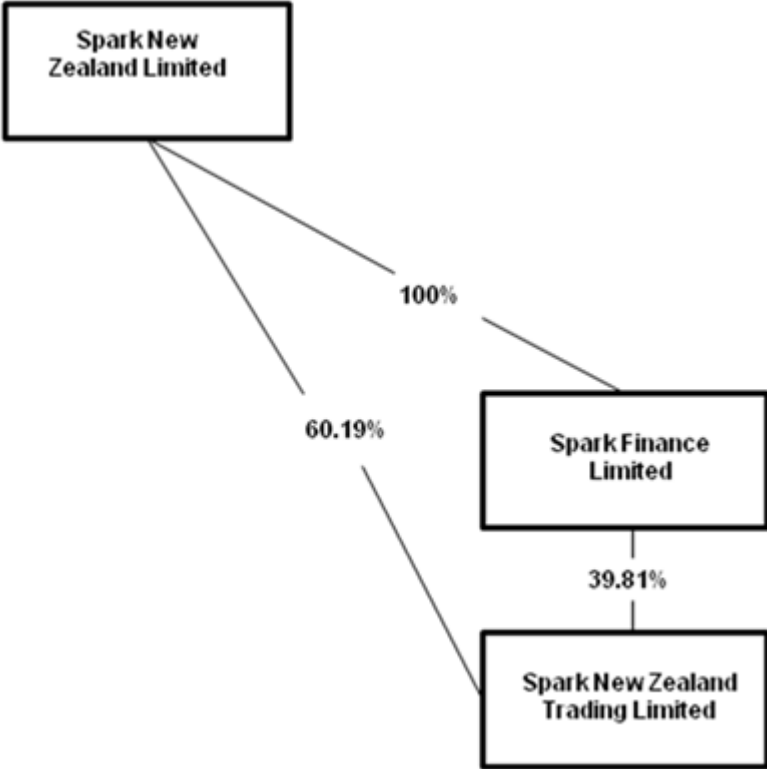
Signature

Date

APPENDIX ONE
SPARK ORGANISATIONAL DIAGRAM

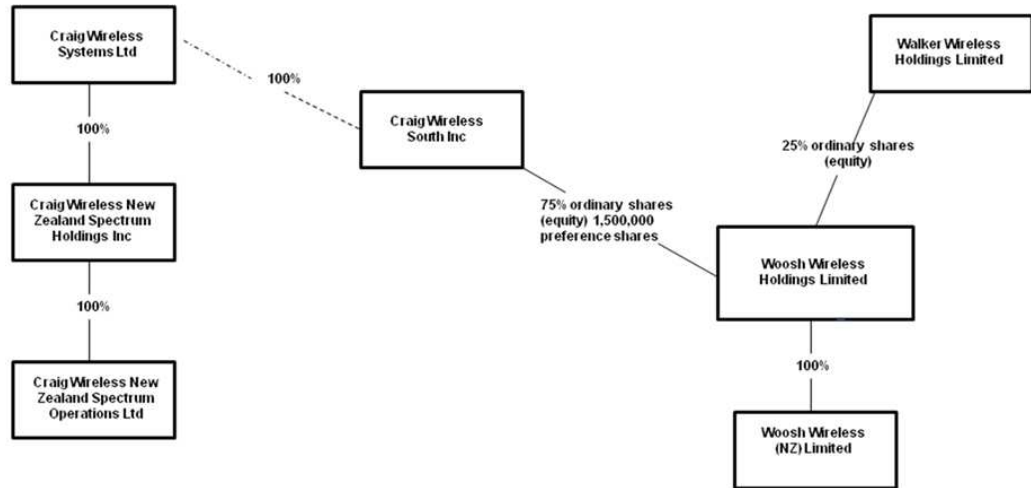
Spark New Zealand Trading Ltd is ultimately 100% owned by Spark New Zealand Ltd, which is listed on the New Zealand Stock Exchange.

The direct shareholdings in Spark New Zealand Trading Ltd are shown below.



APPENDIX TWO

CORPORATE STRUCTURE CHART OF THE CRAIG WIRELESS / WOOSH GROUP



APPENDIX THREE

KEY SUPPLIERS, CUSTOMERS, INDUSTRY ASSOCIATIONS

Name of entity	Contact details
Key Voice/Broadband Input Suppliers	
Chorus	PO Box 632 Wellington 6140 New Zealand Phone: (09) 300 1660 Email: info@chorus.co.nz . Website: https://www.chorus.co.nz/home
Northpower Fibre	28 Mt Pleasant Road Raumanga Whangarei 0110 Phone: 0800 667 847 Website: http://northpowerfibre.co.nz/
Ultrafast Fibre	11 Ken Browne Drive Te Rapa Hamilton 3200 Phone: 0800 342 735 Website: http://www.ultrafastfibre.co.nz/
Unison fibre	1101 Omahu Road Hastings Hawke's Bay 4175 Phone: 0800 2 86476 Website: http://www.unison.co.nz/
Vector Communications	101 Carlton Gore Road Newmarket Auckland 1023 Phone: (09) 978 7788 Website: https://vector.co.nz/home
Vocus Communications	Vocus House, Level 4, 25 Teed Street, Newmarket, Auckland 1023 Phone: 0800 862 876 Website: http://www.vocus.co.nz/
Selection of RSP Competitors	
2 Degrees	PO Box 8355 Symonds Street Auckland, 1150 New Zealand Phone: 0800022022 Website: https://www.2degreesmobile.co.nz/
Actrix	86 Victoria St, Te Aro, Wellington 6011 Phone: 0800 228 749 Website: https://www.actrix.co.nz/
BigPipe	https://www.bigpipe.co.nz/
CallPlus	110 Symonds St, Grafton, Auckland 1010 Phone: 0800 895 000 Website: https://www.callplus.co.nz
CityLink	Level 5 53 Boulcott Street Wellington Phone: (04) 917 0200 Website: https://www.citylink.co.nz/
Compass	162 Grafton Rd,

Name of entity	Contact details
	Grafton, Auckland 1140 Phone: 09-965 2200 Website: www.compass.net.nz/
Inspire	325 Main Street Palmerston North, 4410 Phone: (06) 357 8559 Website: https://www.inspire.net.nz/
Kordia	Level 3, 162 Victoria St W, Auckland, 1140 Phone: 09-551 7000 Website: https://www.kordia.co.nz/
Lightwire	PO Box 9361, Hamilton 3240 Phone: 0800 12 13 14 Website: https://www.lightwire.co.nz/
Megatel	PO Box 305 292, Triton Plaza, Albany, North Shore City, New Zealand Phone: 09 912 1200 Website: www.megatel.co.nz
My Republic	P.O. Box 37540, Auckland Phone: 0508 6934273 Website: https://myrepublic.net/nz
TeamTalk	PO Box 11619, Ellerslie Phone: (0)9 579 0646 Website: http://www.teamtalk.co.nz/home
Trust Power	Private Bag 12023 Tauranga Mail Centre Tauranga 3143 Phone: 0800 87 87 87 Website: https://ask.trustpower.co.nz/
Vibe Communication	Vibe Communications Head Office Level 2, 155 K'Road Auckland Phone: 09 222 0000 Website: www.vibecomcommunications.co.nz
Vodafone	20 Viaduct Harbour Avenue, Auckland 1010 Phone: 09-355 2000 Website: www.vodafone.co.nz/
Voyager	PO Box 137272, Parnell, Auckland, 1151 Phone: 09 444 4444 Website: https://voyager.nz/support/
Wired Country	Glasgow Road, Pukekohe, Franklin-Auckland, Auckland Phone: 0800 800757 Website: http://www.wiredcountry.net.nz/
Industry Bodies	
NZ Telecommunications Forum	PO Box 302469 North Harbour Auckland 0751 Phone: 09 475 0203 Website: http://www.tcf.org.nz/
New Zealand Technology Industry Association	PO Box 302469 North Harbour

Name of entity	Contact details
	Auckland 0751 Phone +64 9 475 0204 Email: info@nztech.org.nz Website: http://www.nztech.org.nz/
Other relevant entities	
Ministry of Business, Innovation & Employment Radio Spectrum Management	33 Bowen St PO Box 1473 Wellington Phone: (04) 462 4221 Website: www.rsm.govt.nz