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# COMMERCE ACT 1986: BUSINESS ACQUISITION

## SECTION 66: NOTICE SEEKING CLEARANCE

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Date: **2 November 2023**

The Registrar  
Competition Branch  
Commerce Commission  
PO Box 2351  
Wellington

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

## Part A: Summary of Application

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### 1. Executive Summary

- 1.1 This clearance application concerns the proposed acquisition by One New Zealand Group Limited (**One NZ** or the **Applicant**) of 100% of the shares in Dense Air New Zealand Limited (**Dense Air** or the **Target**) from Dense Air Limited and SoftBank Corp (together, the **Vendors**) (the **Proposed Transaction**).
- 1.2 Dense Air's only assets are management rights to 2 x 35MHz in the 2600MHz radio spectrum band, being:
- (a) management right number 473 (2620-2655MHz); and
  - (b) management right number 474 (2500-2535MHz)
- as recorded in the Register of Radio Frequencies under the Radiocommunications Act 2001 (together, the **Management Rights**).
- 1.3 The Management Rights expire at the end of 2028. Dense Air does not currently use the spectrum.
- 1.4 One NZ and Dense Air (the **Parties** and each a **Party**) overlap in Management Rights to radio spectrum. Dense Air holds spectrum in the mid-band. One NZ currently holds spectrum in the low and mid bands.
- 1.5 Spectrum in the 2600MHz band is generally used to provide 4G mobile and 4G fixed wireless access broadband services (**FWA**) and will be used to provide 5G mobile services in the near future. One NZ expects to use 2600MHz spectrum for 5G towards the end of 2023. In the long term, One NZ expects spectrum in the 2600MHz band will be re-purposed and used to provide 6G services. The 2600MHz band is currently used primarily in high traffic areas, and is less suitable to provide rural mobile services.
- 1.6 One NZ considers the Proposed Transaction is not likely to substantially lessen competition in any market because:
- (a) all mobile network operators (**MNOs**) in New Zealand, including 2degrees and Spark, have access to adequate spectrum to provide high quality services (including 5G and 4G mobile and FWA services) in all downstream mobile markets;
  - (b) there are many alternative spectrum bands that can be used to provide 4G and 5G mobile and FWA services;
  - (c) there are a number of opportunities to acquire additional spectrum for use in 4G and 5G services arising in the short, medium and long term;
  - (d) the Proposed Transaction does not confer a material advantage on One NZ over Spark or 2degrees. Both Spark and 2degrees are strong competitors that have adequate spectrum holdings to provide high quality mobile services and to grow their customer bases in the future; and
  - (e) Dense Air did not enter scale commercial service with its proposed Radio-Access-Network (**RAN**)-as-a-Service solution, and the technology pilots conducted in four locations have been terminated.

**Conclusion: no SLC in any relevant market**

- 1.7 For the foregoing reasons, the Applicant submits that the Commerce Commission (the **Commission**) should be satisfied that the Proposed Transaction will not have, and will not be likely to have, the effect of substantially lessening competition in any New Zealand market.

## **Part B: The Parties**

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### **2. The Applicant: One New Zealand Group Limited**

- 2.1 One New Zealand Group Limited (**One NZ**) is a New Zealand unlimited company, incorporated on 12 October 1998 (NZCN: 927212). One NZ is directly wholly owned by ICN JV Limited and its ultimate holding company is Infratil 2019 Limited.<sup>1</sup>
- 2.2 A structure chart of One NZ (including One NZ's ownership of the Target following completion of the Transaction) and its corporate structure is set out in **Appendix 1** below.
- 2.3 One NZ (formerly known as Vodafone NZ) is one of New Zealand's largest telecommunications companies. One NZ offers fixed broadband and mobile to residential and business customers.
- 2.4 Infratil 2019 Limited recently acquired Brookfield Asset Management's stake in One NZ, increasing its shareholding from 49.95% to 99.91%.
- 2.5 Further information about One NZ is available at <https://one.nz/>.

#### *New Zealand interests*

- 2.6 In 2022 One NZ (then Vodafone New Zealand Limited) together with its shareholders Infratil Limited and Brookfield Asset Management Inc, sold its passive mobile tower assets to funds managed, or advised, by leading global investors InfraRed Capital Partners (40%) and Northleaf Capital Partners (40%). As part of the proposed transaction, Infratil reinvested to hold a 20% shareholding in the new TowerCo.
- 2.7 As set out in Appendix 1, One NZ has seven New Zealand subsidiaries:
- (a) Te Rourou, One Aotearoa Foundation Tāpui Limited;
  - (b) BayCity Communications Limited;
  - (c) TNAS Limited;
  - (d) Centurion GSM Limited;
  - (e) Rural Connectivity Group Limited;
  - (f) Defend Limited; and
  - (g) Hourua Limited.

#### *Financial and capacity information*

- 2.8 Annual reports for the Applicant for the past two financial years are attached as **Appendix 3**. For completeness, the Applicant notes that while there has been some restructuring in its upstream

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<sup>1</sup> For completeness, we note that there is a 0.1% management shareholder ownership in ICN JV Investments Limited. For further detail please see One NZ's structure chart at Appendix 1.

holding structure, with certain entities being renamed and removed, these financial statements relate to the Applicant's business in New Zealand.

2.9 Infratil, as majority shareholder of One NZ, offers significant financial resources and capacity. In FY2023 Infratil announced net parent surplus from continuing operations of \$643.1 million for the year ended 31 March 2023.<sup>2</sup>

2.10 The Applicant's annual revenue for the last two financial years is set out in **Appendix 4** below.

*Key customers, competitors, and trade and industry associations*

2.11 The names and contact details for each of the Applicant's key competitors, and the trade or industry associations in which the Applicant participates, are set out in **Appendix 5** below.

2.12 The names and contact details for each of the Applicant's key customers (by value), and the revenue the Applicant earned from them each in the last financial year, are set out in **Appendix 6** below.

*Internal documents*

2.13 Copies of the Applicant's relevant internal documents are attached as **Confidential Appendix 7**.

*Contact details*

2.14 Contact details for the Applicant:

<i>Address</i>	<b>One New Zealand Group Limited</b> 74 Taharoto Road, Takapuna, Auckland, 0622, New Zealand.
<i>Contact person</i>	Tom Thursby (Head of Legal & Regulatory)
<i>Email Address</i>	[REDACTED]
<i>Telephone</i>	[REDACTED]
<i>Website</i>	<a href="https://one.nz/">https://one.nz/</a>

2.15 Please direct all correspondence and notices for the Applicant to:

<i>Address</i>	<b>Bell Gully</b> Barristers and Solicitors PO Box 4199, Auckland 1140
<i>Attention</i>	Glenn Shewan / Penny Pasley
<i>Email Address</i>	<a href="mailto:Glenn.shewan@bellgully.com">Glenn.shewan@bellgully.com</a> / <a href="mailto:Penny.pasley@bellgully.com">Penny.pasley@bellgully.com</a>
<i>Telephone</i>	+64 9 916 8726 / +64 9 9168674

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<sup>2</sup> Infratil's FY23 Annual Report can be found at: <https://infratil.com/news/infratil-full-year-results-for-the-year-ended-31-march-2023/infratil-fy2023-annual-report/>.

3. **Target: Dense Air New Zealand Limited**

3.1 Dense Air is a New Zealand limited company, incorporated on 26 October 2018 (NZCN: 7088313). The Target is directly owned:

(a) 67.03% by Dense Air Limited; and

(b) 32.97% by SoftBank Corp

(collectively, the **Vendors**).

3.2 The parent company of Dense Air, Dense Air Limited (**DAL**) was acquired by Sidewalk Infrastructure Partners in 2022.<sup>3</sup>

3.3 A structure chart for the Target is attached as **Appendix 8**.

*Dense Air's services in New Zealand*

3.4 The Target conducted business development and technology pilots in New Zealand from 2018 to the end of 2022. DAL remains active in the provision of shared 4G and 5G neutral host radio access network infrastructure in other international markets such as the United States, the United Kingdom and Europe. However, DAL has terminated its businesses in Asia-Pacific to focus on fewer markets. It recently sold its Australian entity, Dense Air Networks Australia Pty Ltd, which owned spectrum in the 2600 MHz band, to Telstra.

3.5 Further information about DAL is available at <https://denseair.net/>.

3.6 Specific details regarding the Target's facilities in New Zealand, their capacities and the services provided at each, are set out in the table in **Appendix 9** below.

*Contact details*

3.7 Contact details for the Target:

<i>Address</i>	Dense Air New Zealand Limited [REDACTED] [REDACTED] [REDACTED]
<i>Contact person</i>	[REDACTED]
<i>Telephone</i>	[REDACTED]
<i>Email</i>	[REDACTED]
<i>Websites</i>	<a href="https://denseair.net/">https://denseair.net/</a>

3.8 All Target employees were terminated from March to June 2023 as operations were wound up. The Target has closed down all facilities and its contact address is its local counsel.

3.9 Please direct all correspondence and notices for the Target to:

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<sup>3</sup> See media release here: <https://denseair.net/sidewalk-infrastructure-partners-will-acquire-5g-innovator-dense-air/>.

<i>Address</i>	<b>Wynn Williams</b> PO Box 2401, Shortland Street, Auckland 1140
<i>Attention</i>	Stephen Lowe/Tom Heard
<i>Email Address</i>	<a href="mailto:stephen.lowe@wynnwilliams.co.nz">stephen.lowe@wynnwilliams.co.nz</a> / <a href="mailto:tom.heard@wynnwilliams.co.nz">tom.heard@wynnwilliams.co.nz</a>
<i>Telephone</i>	<a href="tel:+6493002600">+64 9 300 2600</a> / <a href="tel:+6493002600">+64 9 300 2600</a>

## Part C: The Transaction

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### 4. Transaction background

- 4.1 DAL invited interested parties to bid for the Management Rights (as an asset deal) in late 2022. One NZ submitted a bid and understands there were a number of other bidders, [REDACTED].
- 4.2 Following the lapse of the period of exclusivity with the other interested party, DAL invited bidders to resubmit bids on the basis of an acquisition of 100% of its shares. DAL stated it would reject any offer to acquire the Management Rights in an asset deal moving forward. One NZ revised and resubmitted its bid accordingly. After considering these bids, DAL entered into a period of exclusivity with One NZ to negotiate the terms of the sale.

4.3 [REDACTED]

### 5. Transaction structure

- 5.1 The Sale and Purchase Agreement entered into between the Parties on **6 October 2023** (the **SPA**) provides for One NZ to acquire 100% of the shares in Dense Air from the Vendors.
- 5.2 The Proposed Transaction is conditional on One NZ receiving clearance from the Commission (amongst other conditions precedent).

### 6. Rationale

6.1 [REDACTED]

6.2 [REDACTED]

6.3 [REDACTED]

### 7. Transaction documents

- 7.1 The SPA is attached as **Appendix 14**.

### 8. Clearance sought

- 8.1 Formally, this application seeks clearance for the Applicant or an interconnected body corporate of the Applicant to acquire up to 100% of the shares in, or the assets of, the Target.

### 9. Counterfactual

- 9.1 One NZ considers that the most appropriate counterfactual is that DAL will seek another party to purchase the Target as it has terminated its business in New Zealand and it has already sold its business in Australia. [REDACTED]. DAL has explicitly stated that it has no plans to make further

investment into New Zealand, having already invested 5 years into business development both pre and post Covid.

9.2 One NZ considers DAL would find an alternative buyer either locally or internationally:

- (a) [REDACTED]. A third party could in theory use the spectrum to provide services on its own. However, acquiring 2600MHz spectrum alone would not give a scale coverage network for the third party. They would also need to achieve core network integration and interconnection arrangements with MNOs (among other things);
- (b) One NZ is not aware if Spark is an interested purchaser of Dense Air. However, Spark has the majority share of mid-range spectrum holdings in New Zealand (and more than twice One NZ's holdings) such that any acquisition by Spark would be materially less competitive than the Proposed Transaction by One NZ; and
- (c) [REDACTED]

9.3 In any event, the Proposed Transaction does not substantially lessen competition against any relevant counterfactual, including one where 2degrees acquires 100% of the shares in Dense Air.

9.4 For completeness, [REDACTED]. In general terms, the alternative means available to One NZ are the same as are available to any other mobile operator seeking to develop and improve services. Purchase of the spectrum enables One NZ to pursue one means of doing so – it does not affect the ability of 2degrees or Spark to achieve the same outcomes or match One NZ via other means.

## 10. **Global filings**

10.1 There are no global filings involved with the Proposed Transaction as the only relevant area of overlap between the Parties is in New Zealand.

## Part D: Industry Background

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### 11. Overview of the spectrum industry

- 11.1 The Proposed Transaction concerns the market for spectrum, and the markets for the potential use of spectrum, being the 4G and 5G mobile and 4G and 5G FWA downstream markets.

#### *Background of radio spectrum in New Zealand*

- 11.2 Radio spectrum is part of the electromagnetic spectrum with frequencies from 30KHz to 300GHz ranges. Different radio frequency bands have different characteristics, and this makes them suitable for different purposes. From the early 1980s radio spectrum began to be utilised for mobile communications. Mobile communications typically use the radio frequency range between 600MHz and 30GHz. Different frequency bands have different properties. For example, low-frequency spectrum (e.g. 700MHz) generally travels over greater distances and passes through dense objects more easily. Whereas spectrum that operates at a higher frequency (e.g. 3.5GHz) generally travels over shorter distances.
- 11.3 For the purposes of this application, the different spectrum bands are defined as follows:<sup>4</sup>
- (a) Low-band: 0 – 1000MHz.
  - (b) Mid-band: 1000 – 6000MHz.
  - (c) High-band: > 6000MHz.
- 11.4 The Applicant generally uses this terminology when describing different spectrum bands, but the placement of specific bands within low, mid or high frequencies may sometimes vary across documents shared with the Commission.
- 11.5 Low-frequency spectrum is available in lower quantities (bandwidth) compared to higher-frequency spectrum, meaning that more capacity is available in higher frequencies than lower frequencies. Mid-band spectrum covers all bands from 1000 – 6000MHz and can be used on all technologies from 2-5G. In New Zealand the MNO deployed mid-band spectrum is 1800, 2100, 2300, 2600MHz & 3.5GHz. Mid-band spectrum tends to have more bandwidth and as a result offers more capacity than, for example, low-band spectrum. Due to the higher propagation losses of mid-band spectrum, the coverage range is a lot lower than for low-band e.g., in urban areas is typically 1-2km.
- 11.6 The Radiocommunications Act 1989 provides for the Crown to allocate radio spectrum, which it typically does either through the allocation of management rights or through the grant of licences. Radio spectrum used for mobile communications purposes is most commonly allocated through competitive auction, the most recent instance of auction being for the 700MHz.
- 11.7 Access to radio spectrum is an essential requirement for the operation of any mobile or wireless communication services. Radio spectrum is a critical input that affects both the coverage of mobile networks (particularly in rural or remote areas) and the capacity of services delivered using this coverage. Broadly, mobile operators have the following options available to achieve network coverage and capacity:
- (a) Building more towers to support capacity. A number of sites may be required to achieve coverage within urban areas, and site access or availability can pose challenges in these areas.

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<sup>4</sup> This spectrum band definition aligns with how the telecommunications industry defines spectrum in relation to FWA and mobile. See for example, GSM Association's definition of mid band spectrum [here](#) and high band spectrum [here](#).



- (b) Adding additional equipment to existing towers. However, this may not be possible at all towers – some are full.
- (c) Obtaining additional spectrum.

11.8 This last option reflects the rationale for the Proposed Transaction in this case.

11.9 Radio Spectrum Management (**RSM**), a business unit within the Ministry of Business, Innovation and Employment (**MBIE**), is responsible for managing radio spectrum in New Zealand.<sup>5</sup> In particular, RSM:

- (a) allocates rights for the use of spectrum;
- (b) enforces compliance with licensing requirements;
- (c) provides policy advice to the Government on radio spectrum; and
- (d) administers the Radiocommunications Act 1989 and the Radiocommunications Regulations 2001.

11.10 RSM allocates radio spectrum for various uses in New Zealand with reference to international rules and plans for its management and use, and in furtherance of government policy objectives. This includes identifying feasible additional bands for future allocation to mobile use in New Zealand. RSM's priorities in the period 2023-2027 are outlined in its Five Year Spectrum Outlook,<sup>6</sup> and have the stated aim of facilitating access to radio spectrum to support the Government Future of Connectivity work programme. This programme seeks to enable a greater range of options through which greater rural capacity and coverage can be provided, as well as supporting innovation and productivity in urban areas. In this document RSM indicates an intent to make further spectrum available for mobile communications uses. More recently, RSM has advised that the 24.25 – 27.5GHz spectrum range will be primarily allocated for mobile use.<sup>7</sup>

#### *Management rights and Spectrum Licensing*

11.11 In New Zealand, management rights and spectrum licences are used for high-demand parts of the radio spectrum. The Crown creates management rights and spectrum licenses for a range of different types of spectrum.<sup>8</sup> All of the commercial mobile broadband networks in New Zealand own, or have access to, management rights. Management right holders are able to manage their spectrum to meet their, or other parties', needs (generally by commercial arrangements).<sup>9</sup> RSM sets basic technical parameters of management rights to allow adjacent users of the radio spectrum to work together.

11.12 Management rights will generally set in-band technical conditions to allow for deployment of specific technologies; for example, choosing when and where to deploy either 2G, 3G, 4G or 5G cellular systems.<sup>10</sup>

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<sup>5</sup> For further information on RSM, please see its website: <https://www.rsm.govt.nz/>.

<sup>6</sup> See <https://www.rsm.govt.nz/assets/Uploads/documents/annual/new-zealand-spectrum-outlook-2023-to-2027.pdf>.

<sup>7</sup> <https://www.rsm.govt.nz/projects-and-auctions/current-projects/future-use-of-the-24-30-ghz-spectrum/#:~:text=the%2024.25%20%E2%80%93%2027.5%20GHz%20spectrum,some%20areas%20under%20technical%20conditions>.

<sup>8</sup> <https://www.rsm.govt.nz/about/our-work/spectrum-licensing-and-management-rights/>

<sup>9</sup> <https://iotalliance.org.nz/wp-content/uploads/sites/4/2019/05/loT-Spectrum-in-NZ-Briefing-Paper.pdf>

<sup>10</sup> <https://iotalliance.org.nz/wp-content/uploads/sites/4/2019/05/loT-Spectrum-in-NZ-Briefing-Paper.pdf>

11.13 Management right holders, however, must issue spectrum licences to permit transmission of radio waves. In New Zealand, cellular operators typically issue spectrum licences to themselves. This provides exclusivity of the bands in question.<sup>11</sup>

11.14 Management rights (and therefore spectrum licences) can last for up to 20 years in duration. This provides certainty of investment over the duration of the management right. Any decision about renewal of management rights is typically made five years before the expiry of the management right by the current Minister of Communications. As per RSM's New Zealand Spectrum Outlook for 2023-2027 the review of the 2500/2600 MHz management rights which are expiring on 31 December 2028 will commence around 2023/2024 and the review of the 2300MHz rights which are expiring 25 November 2030 will commence around 2024.<sup>12</sup>

11.15 The IMSC<sup>13</sup> represents a range of Māori groups with an interest in radio spectrum assets. It succeeds the Māori Spectrum Working Group and exists to:

- (a) hold any spectrum assets that the Crown vests in Māori and maximise value from these; and
- (b) achieve the (various) objectives of its stakeholder groups, and support Māori regional, economic, cultural, environmental and social wellbeing.

11.16 In February 2022, the Crown and the IMSC entered into a memorandum of understanding that recognises Māori interests in radio spectrum and proposes that 20% of all future commercial spectrum allocations will vest in the IMSC.<sup>14</sup> The IMSC already holds the following spectrum assets:

- (a) 100MHz of 3.5Ghz spectrum;
- (b) 2x10MHz of 2100MHz spectrum; and
- (c) 25MHz of 2300MHz spectrum.

11.17 [REDACTED]. Under its memorandum of understanding with the Crown, the IMSC must ensure it *"effectively performs its roles with the view to serving Māori interests and opportunities in spectrum, is sustainable, and is immediately active in the telecommunication sector and industry."*<sup>15</sup> [REDACTED]

11.18 Other significant holders of spectrum (insofar as this is used for telecommunications) are the three large telecommunications providers in New Zealand: Spark, 2degrees, and One NZ.

#### *Types of spectrum and their functions*

11.19 Electromagnetic spectrum has a variety of uses in New Zealand and internationally, including for radio and cellular mobile technology. Devices and equipment like computers, radios, mobile phones, phone towers and Wi-Fi routers emit electromagnetic radiation. Cellular networks use dedicated radio spectrum frequencies for the connection between the cell site and the handset (cell phone).<sup>16</sup>

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<sup>11</sup> <https://iotalliance.org.nz/wp-content/uploads/sites/4/2019/05/loT-Spectrum-in-NZ-Briefing-Paper.pdf>

<sup>12</sup> See <https://www.rsm.govt.nz/assets/Uploads/documents/annual/new-zealand-spectrum-outlook-2023-to-2027.pdf> at page 27.

<sup>13</sup> <https://www.imsc.nz/>

<sup>14</sup> <https://www.mbie.govt.nz/dmsdocument/18702-memorandum-of-understanding-maori-spectrum-agreement>

<sup>15</sup> Memorandum of Understanding (2 February 2022), <https://www.mbie.govt.nz/dmsdocument/18702-memorandum-of-understanding-maori-spectrum-agreement>, §6.

<sup>16</sup> <https://www.mbie.govt.nz/dmsdocument/7483-5g-information-pack-pdf>

11.20 Spectrum allocated to mobile telephony use is broadly classified into three categories, being low-band, mid-band and high-band (as defined above at paragraph [11.3]). Low-band spectrum transmits signal over the longest distance, but at lower speeds<sup>17</sup> and lower capacity than other bands. High-band spectrum offers high speeds and greater capacity, but over shorter distances. Low-band spectrum is most suited to rural areas, whereas high-band spectrum is suited to urban areas. The Target holds mid-band spectrum because it is suitable for small cell deployment where long range is not a focus and where capacity “hotspots” or micro in-fill of “hotspots” are the focus.

11.21 The Management Rights which are included in the Proposed Transaction relate to spectrum in the 2600MHz band, which is mid-band spectrum. Mid-band spectrum is generally used for the provision of 4G mobile and FWA services, and will be used for 5G mobile services in the near future. The 2600MHz band is well suited to providing high-capacity services in urban areas, although other bands could be used equally well to achieve this outcome by a mobile network operator pursuing a different commercial or network strategy.

11.22 All MNOs deliver services using a mix of low and mid bands. The spectrum holdings of the three largest MNOs are illustrated in the table below.<sup>18</sup>

		Spark	One NZ	2degrees
FDD	700MHz	2 x 20MHz	2 x 15MHz	2 x 10MHz
	800MHz	2 x 15MHz		
	900MHz		2 x 15MHz	2 x 10MHz
	1800MHz	2 x 20MHz	2 x 25MHz	2 x 20MHz
	2100MHz	2 x 15MHz	2 x 20MHz	2 x 15MHz
	2600MHz	2 x 20MHz	2 x 15MHz	
TDD	2300MHz	70MHz		
	3.5GHz	80MHz	80MHz	80MHz

11.23 There is a degree of substitutability between spectrum bands, with most spectrum in the mid-band, like 2600MHz, suitable for adding network capacity for 4G and 5G services and in the longer term 6G services. All mid-band spectrum is capable of being used to augment 5G services in the same way that the Applicant intends to use 2600MHz spectrum and the various mid-band spectrum bands have a similar coverage radius and capacity.

## Part E: Relevant Markets

### 12. Overlap between the Parties

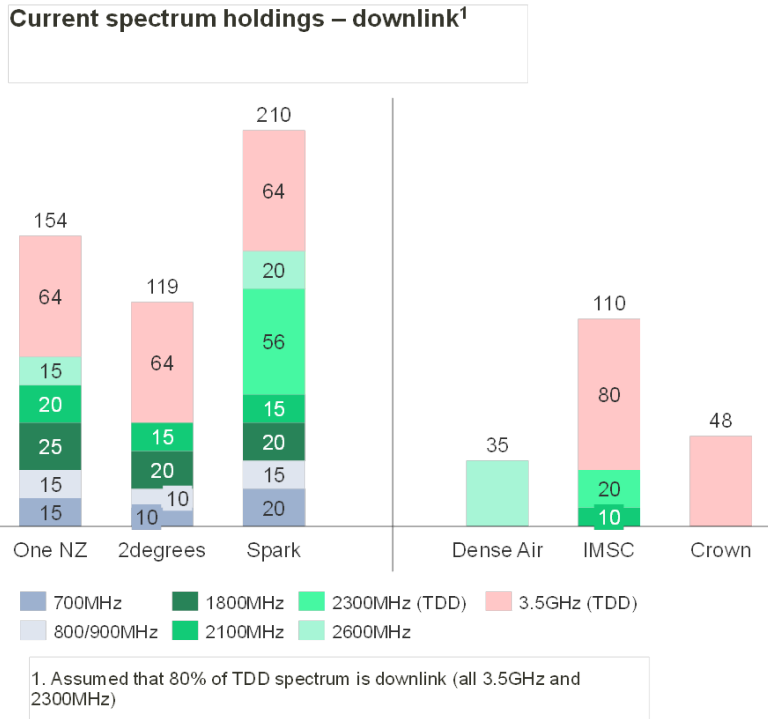
<sup>17</sup> ‘Speeds’ in this paragraph refers to end user observed throughput.

<sup>18</sup> “FDD spectrum” is a type of spectrum that uses separate frequency bands for “uplink” and “downlink” spectrum, whereas “TDD spectrum” has one frequency band and can be used flexibly for uplink and downlink.

In theory TDD is more efficient than FDD, as it's more flexible. For example, 2 x 35MHz of FDD is not equivalent to 70MHz of TDD. More capacity is needed for downlink. In FDD, the downlink and uplink are the same (in this case 35MHz each way). TDD, is more flexible to some extent, so 50MHz could be allocated to downlink and 20MHz to uplink (for example). Spectrum bands are pre-determined by RSM - so an entire band will generally be TDD or FDD to minimise interference and ensure maximum efficiency. [REDACTED]

12.1 The Parties overlap as they both hold management rights in radio spectrum. Dense Air and One NZ both hold management rights in 2600MHz mid-band spectrum. One NZ also holds spectrum in other mid-band ranges and in the low-band. Accordingly, the overlap between the Parties is specifically within mid-band radio spectrum. However, while One NZ operates as an MNO and therefore uses its spectrum holdings for its mobile telephony business, Dense Air does not currently, and will not absent the Proposed Transaction, use its spectrum holdings for any application.

12.2 The chart below shows that One NZ and Dense Air only overlap in the 2600MHz frequency spectrum band, being mid-band spectrum.



12.3 Spectrum holdings can be used across different generations of technology and MNOs can choose how best to utilise their spectrum holdings dependent on technology evolution and market needs. The table below conveys what technologies different types of spectrum can be used for and shows that mid-band spectrum can be applied to 4G mobile, 5G mobile and 4G/5G FWA services.

	4G	5G	FWA
Low-band (700MHz - 900MHz)*	✓	✓*	**
1800MHz	✓	✓	✓
2100MHz	✓	✓	✓
2300MHz	✓	✓	✓
2600MHz	✓	✓	✓
3.5GHz		✓	✓

\* Low-band can be re-farmed for 5G (e.g. following 3G shut-down).

\*\* Low-band can be used for FWA, but has lower capacity than mid-band and high-band (e.g. used more in rural areas).

### 13. Commerce Commission’s previous consideration of relevant markets

13.1 The Commission has previously considered the relevant market in other clearance applications which involved the sale of spectrum holdings.

13.2 In *Spark New Zealand Trading Limited and Craig Wireless New Zealand Spectrum Operations Limited and Woosh Wireless Holdings Limited* along with in previous spectrum clearances the Commission has defined the market in reference to the potential use of the spectrum.<sup>19</sup> In this case, the spectrum can be used to provide mobile services (in particular 4G or 5G services) and/or broadband services by way of 4G or 5G FWA.

### 14. Relevant markets

14.1 Accordingly, One NZ submits that the relevant markets are the national markets for:

- (a) mobile telephony services; and
- (b) residential broadband services.

14.2 Given that the spectrum in question is used as an input into the relevant mobile or broadband product, there is no need to separately assess other market segments based on customers or any other parameters. For example, mobile or FWA services provided to business or wholesale customers would not use different spectrum than that used by residential customers.

<sup>19</sup> *Spark New Zealand Trading Limited and Craig Wireless New Zealand Spectrum Operations Limited and Woosh Wireless Holdings Limited* [2016] NZCC 7, at [47].

## 15. **Mobile Telephony Services**

### *Product Market*

- 15.1 Customers use 2G, 3G, 4G and 5G mobile telephony services interchangeably, depending on their handset technology and the availability of these services from their mobile provider in any given location. Each of the three main MNOs are in the process of rolling out their 5G networks.
- 15.2 Spectrum can also be used to offer 2G, 3G, 4G and 5G services and it is up to the management rights holder to determine which of these technologies the spectrum is used for.

### *Geographic Market*

- 15.3 Mobile services are provided nationally by One NZ (and its competitors). There is no price discrimination for mobile services based on location (and nor is any such price discrimination expected to occur in the future). Accordingly, the appropriate geographic definition is a market defined on a national basis.

### *Conclusion on mobile market*

- 15.4 For the reasons set out above, One NZ considers it appropriate to assess competition impacts of the Proposed Transaction, to the extent it could affect provision of mobile services, by reference to the national mobile telephony market.

## 16. **Residential Broadband**

### *Product Market*

- 16.1 Previously, the Commission has concluded that FWA broadband services should, as a matter of fact and commercial common sense, be included within a broader residential broadband market.<sup>20</sup> FWA broadband services are typically provided to a set location reflecting the spectrum and network capacity and the position of sites relative to the location. The demand and capacity at sites will influence where FWA broadband is offered. The Commission has noted that the New Zealand market allows for a greater offer of FWA broadband than many other countries due to lower population densities, and that FWA is offered in urban and rural areas.<sup>21</sup>
- 16.2 Measuring Broadband New Zealand notes that even in areas where other fixed network options (copper and fibre) are available, consumers may choose FWA broadband.<sup>22</sup> This functional similarity between FWA broadband and fixed network options, coupled with the improved performance and increasing availability of 5G FWA broadband, suggests that it should be seen as closer competitors to fibre and (especially) copper-based broadband products. In addition, broadband via satellite is an alternative, primarily in rural locations. For example, Starlink offers unlimited broadband at fibre like speeds (which is primarily utilised in rural New Zealand).
- 16.3 While for some customers FWA may not be considered a close substitute to a copper or fibre optic network because of the generally lower speeds and data allowances of FWA, for the purposes of assessing the competitive impacts of the Proposed Transaction it is not necessary to consider separate markets for FWA and fibre optic and copper networks. Additionally, FWA assets are not required to successfully compete in the broadband market. Many of the market players that are experiencing the largest growth in broadband services do not have a significant FWA footprint. In addition, there are alternative low-cost broadband options becoming available. For example, Chorus now offers a low priced fibre product, Fibre Starter 50/10, which helps

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<sup>20</sup> Spark New Zealand Trading Limited and Craig Wireless New Zealand Spectrum Operations Limited and Woosh Wireless Holdings Limited [2016] NZCC 7, at 55.

<sup>21</sup> [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0028/318907/2022-Annual-Telecommunications-Monitoring-Report-15-June-2023.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0028/318907/2022-Annual-Telecommunications-Monitoring-Report-15-June-2023.pdf) at page 16.

<sup>22</sup> [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0016/320326/MBNZ-Autumn-Report-28-June-2023.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0016/320326/MBNZ-Autumn-Report-28-June-2023.pdf), page 6.

retailers compete on price at the low end of the broadband market against FWA.<sup>23</sup> Additionally, some retailers such as Contact Energy and Mercury (the fourth and fifth largest Internet Service Providers (**ISPs**)) both offer FWA that they buy through wholesale agreements. Vocus (previously the third largest ISP) also offered FWA prior to its' merger with 2degrees in mid-2022. This demonstrates that there is also supply side substitutability, as ISPs can substitute customers from fibre to FWA through the use of wholesale agreements.

#### *Geographic Market*

- 16.4 FWA (and other broadband) products are generally priced on a national basis. Customers generally pay the same price for a given product, regardless of where the customer is located.<sup>24</sup> Additionally, management rights to spectrum are not limited based on location.
- 16.5 To a limited extent there are some differences in pricing across rural and urban areas. Pricing decisions are based off capacity management mechanisms. However, the relevant spectrum in the Proposed Transaction is most likely only going to be used to provide urban FWA, as it is mid-band spectrum and is more commonly applied to urban settings. Although, the use of 2600Mhz spectrum is not limited to urban boundary areas and it may have application benefits in rural areas, subject to coverage considerations.
- 16.6 Additionally, the Applicant notes that some products are only available to customers in certain locations. Product availability will be determined by network availability or capacity. For example, 4G/5G FWA is only available in locations where there is capacity.<sup>25</sup> Customers are “qualified” at each location to confirm whether One NZ can offer particular services at each address, and that those services can be delivered in line with advertised product terms. Any distinction between customer groups based on location can be attributed to network availability or capacity, rather than a deliberate choice by One NZ or its competitors. Finally, there are ongoing efforts by the Government, One NZ and its competitors to accelerate the roll-out of 5G services to small towns and improve rural connectivity.<sup>26</sup>
- 16.7 Accordingly, the appropriate geographic market definition is one that is on a national basis.

#### *Conclusion on broadband market*

- 16.8 For the reasons set out above, One NZ considers it appropriate to assess competition impacts of the Proposed Transaction, to the extent it could affect provision of FWA services, by reference to the national market for the provision of residential broadband services.

### **17. Conclusion on market definition**

- 17.1 One NZ considers the appropriate frame of reference to assess any competition impacts of the Proposed Transaction are separate national markets for the provision of mobile telephony services and residential broadband services. For the reasons set out below, the Proposed Transaction will not adversely affect competition in either of these markets.

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<sup>23</sup> For further information on Fibre Starter, see <https://sp.chorus.co.nz/product-offer/home-fibre-starter>.

<sup>24</sup> *Spark New Zealand Trading Limited and Craig Wireless New Zealand Spectrum Operations Limited and Woosh Wireless Holdings Limited* [2016] NZCC 7 at [57].

<sup>25</sup> [REDACTED]

<sup>26</sup> <https://www.rsm.govt.nz/projects-and-auctions/current-projects/preparing-for-5g-in-new-zealand/>

## Part F: Competitive Assessment

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### 18. Introduction

18.1 The Proposed Transaction will not have the effect or likely effect of substantially lessening competition in any New Zealand market because:

- (a) mobile and broadband markets are highly competitive and all MNOs in New Zealand, including 2degrees and Spark, have access to adequate spectrum to provide high quality services (including 5G and 4G mobile and FWA services) in the national mobile and broadband markets;
- (b) there are many alternative spectrum bands that can be used to provide 4G and 5G mobile and FWA services;
- (c) there are a number of opportunities to acquire additional spectrum for use in 4G and 5G services arising in the short, medium and long term;<sup>27</sup>
- (d) the Proposed Transaction does not confer a material advantage on One NZ over Spark or 2degrees. Both Spark and 2degrees are strong competitors that have adequate spectrum holdings to provide high quality mobile services and to grow their customer bases in the future; and
- (e) Dense Air did not enter scale commercial service with its proposed RAN-as-a-Service solution, and the technology pilots conducted in four locations have been terminated.

### 19. Mobile and Broadband markets are highly competitive

19.1 The Commission frequently assesses competition in the mobile and broadband markets and has determined that these markets are competitive.

#### *Mobile market*

19.2 In its 2019 Mobile Market Study, the Commission found that competition in the retail mobile market has become “*more established with three independent, national network-based competitors*”.<sup>28</sup> The Commission further noted that “*this has resulted in mobile customers benefitting from an increasingly competitive market environment*”.<sup>29</sup>

19.3 Additionally, the Mobile Market Study found that with the entry of 2degrees, this has resulted in mobile consumers having “*the choice of three independent network-based competitors, each offering similar levels of population and geographic coverage*”.<sup>30</sup>

19.4 More recently, in its 2022 Telecommunications Monitoring Report, the Commission noted volatility in the market shares of MNOs, suggesting competitive tension.<sup>31</sup>

19.5 The Proposed Transaction will not impact the ability or incentives of these parties to compete.

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<sup>27</sup> For completeness, these timeframes are defined as follows: short term is within the next two years, medium term within next five years and long term is anything beyond this.

<sup>28</sup> Commerce Commission *Mobile Market Study – Findings* (29 September 2019) at [5.3].

<sup>29</sup> *Ibid*, at [5.3].

<sup>30</sup> *Ibid*, at [5.6].

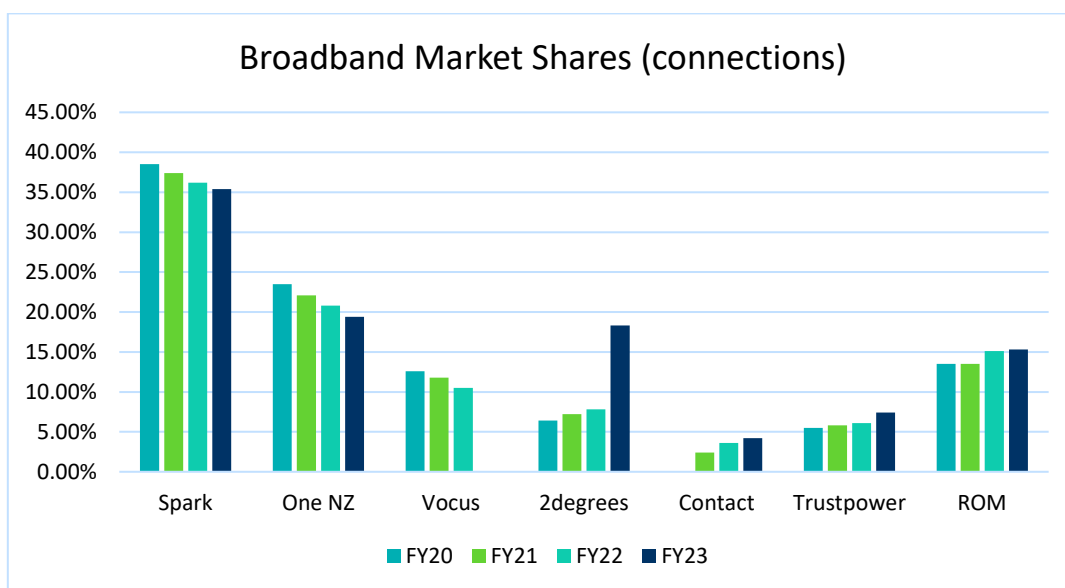
<sup>31</sup> Commerce Commission *2022 Annual Telecommunications Monitoring Report* (15 June 2023) at 121.



*Broadband market*

- 19.6 The Proposed Transaction will also not impact the competitive dynamics or incentives to compete in the broadband market. It is not necessary to sell FWA to compete in broadband, as indicated by the absence of significant (owned) FWA amongst the players that have been increasing in share of broadband connections in recent years (including, Contact Energy and Sky TV).
- 19.7 For completeness, the barriers to provide broadband in rural areas are no different than those for urban areas. The availability of broadband products and number of operators in rural areas reflects the different cost of providing broadband services in rural areas as well as different demand dynamics. The Proposed Transaction will not have any particular impact on the provision of broadband services in rural areas. Providers of broadband services can either have their own network or obtain wholesale access. In relation to accessing satellite products in rural areas, any operators can get a wholesale deal through Starlink if they wish to sell fixed satellite connectivity, or in the case of satellite to mobile then can do a deal with satellite providers. Additionally, there are Wireless Internet Service Providers (**WISPs**) who focus on providing localised broadband services in rural areas via their own networks.<sup>32</sup>
- 19.8 The below graph and table show broadband market shares by number of connections for the past four financial years.<sup>33</sup> Note, Vocus FY23 broadband connections have been amalgamated with 2degrees (with the entities merging on 1 June 2022). This shows that Spark and One NZ have been decreasing in share, while 2degrees, Contact, Trustpower and others (e.g. Sky) have seen sustained market share increases over this time.

**Broadband Market Shares (by number of connections)<sup>34</sup>**



<sup>32</sup> For further information on WISPs see <https://www.wispa.nz/#:~:text=WISPs%20%E2%80%93%20or%20Wireless%20Internet%20Service,companies%20don%27t%20b%20other%20going>.

<sup>33</sup> Based on IDC Quarterly Reporting. Rest of Market (**ROM**) includes Starlink, Sky TV, Contact Energy (pre FY21) and other smaller players (e.g. WISPs).

<sup>34</sup> For completeness, the 2degrees FY23 share includes Vocus' broadband market share, as in 2022 2degrees merged with Vocus.

**Table showing broadband market shares (by number of connections)**

	FY20	FY21	FY22	FY23
Spark	38.5%	37.4%	36.2%	35.4%
YoY change		-1.1pp	-1.2pp	-0.7pp
One NZ	23.5%	22.1%	20.8%	19.4%
YoY change		-1.4pp	-1.2pp	-1.4pp
2degrees	6.4%	7.2%	7.8%	18.3% <sup>28</sup>
YoY change		+0.8pp	+0.6pp	+10.4pp
Vocus	12.6%	11.8%	10.5%	9.5%
YoY change		-0.8pp	-1.3pp	-1.0pp
Trustpower / Mercury	5.5%	5.8%	6.1%	7.4%
YoY change		+0.3pp	+0.3pp	+1.4pp
Contact Energy	0.0%	2.4%	3.6%	4.2%
YoY change		+2.4pp	+1.2pp	+0.6pp
Rest of Market	13.5%	13.5%	15.1%	15.3%
YoY change		-0.1pp	1.6pp	0.2pp

19.9 The Commission has recently recognised that volatility between providers' broadband market shares is an indicator of competition in the market.<sup>35</sup> The Commission in the 2022 Telecommunications Monitoring Report observed a “*significant narrowing of the gap between the second and third largest broadband providers*” in the fixed broadband market, and a slight decline in the market share of the largest broadband provider.<sup>36</sup> That is, the Commission noted that 2degrees was gaining share on One NZ and that Spark was losing share. The Commission concluded that these factors indicated competitive tension and consumer switching in the market, and the potential for further shifts in the coming years.<sup>37</sup>

19.10 The Commission also recognised strong competition in the broadband market when granting clearance for the merger of Vocus and 2degrees. Deputy Chair Sue Begg stated that “*the evidence before us indicates that the merged entity will continue to face strong competition from existing competitors, including Spark and Vodafone*”.<sup>38</sup>

<sup>35</sup> Commerce Commission 2022 Annual Telecommunications Monitoring Report (15 June 2023) at 32.

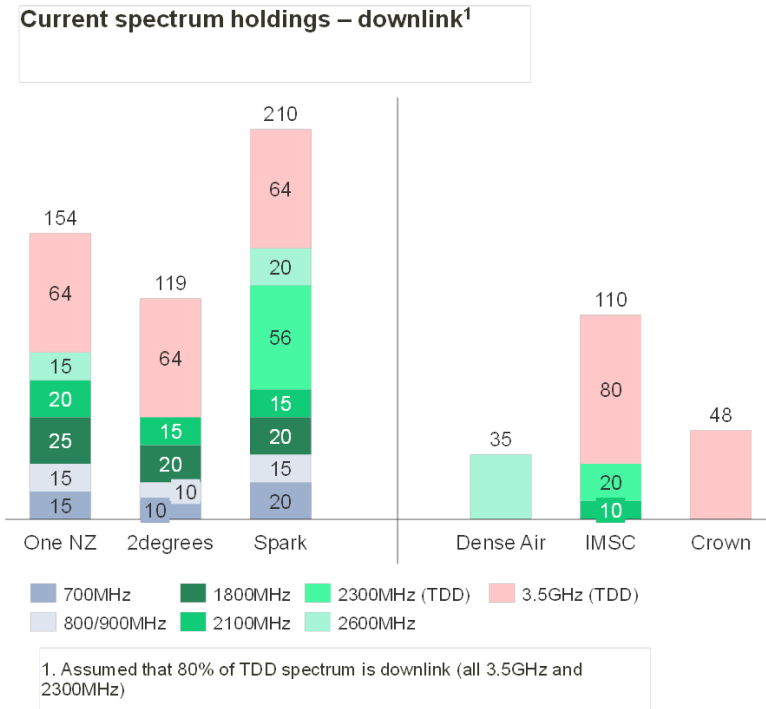
<sup>36</sup> Ibid, at 32.

<sup>37</sup> Ibid, at 32.

<sup>38</sup> Commerce Commission “Commission grants clearance for Vocus/2degrees merger” (15 March 2022) – see <https://comcom.govt.nz/news-and-media/media-releases/2022/commission-grants-clearance-for-vocus2degrees-merger>.

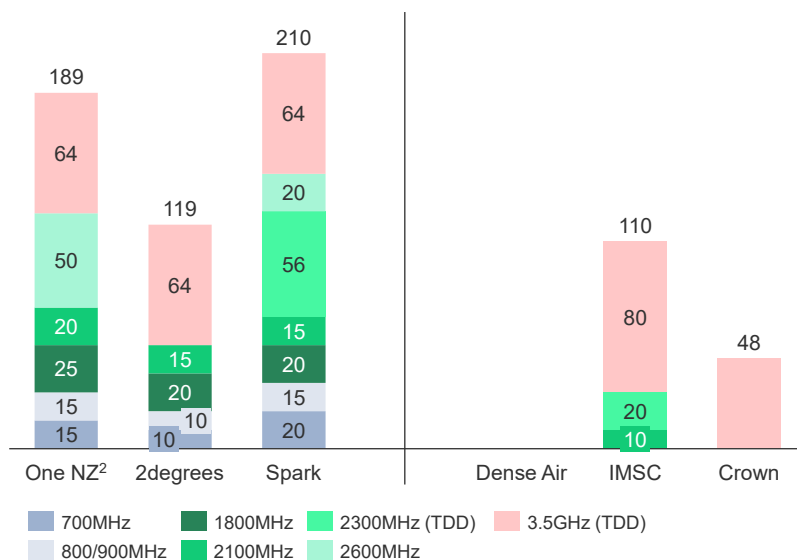
20. **Spectrum Holdings in New Zealand**

20.1 One NZ sets out below two charts demonstrating spectrum holdings in New Zealand before and after the Proposed Transaction. As the charts demonstrate, Spark is the largest holder of spectrum allocated to mobile telephony uses in New Zealand (i.e. spectrum across all bands available to MNOs for providing downstream services).<sup>39</sup>



<sup>39</sup> To accurately demonstrate the capacity available to each MNO, the charts demonstrate “downlink” spectrum only. “FDD spectrum” is a type of spectrum that uses separate frequency bands for “uplink” and “downlink” spectrum, whereas “TDD spectrum” has one frequency band and can be used flexibly for uplink and downlink. As significantly higher capacity is required for downlink than uplink, One NZ internally compares downlink spectrum holdings.

**Spectrum holdings – downlink<sup>1</sup>: post Dense Air transaction**



1. Assumed that 80% of TDD spectrum is downlink (all 3.5GHz and 2300MHz)  
 2. 2 x 5MHz of the 2600MHz spectrum is not usable for 5G, due to a low power restriction

20.2 Following the Proposed Transaction, Spark would remain the largest holder of mobile telephony spectrum in New Zealand by a significant margin.

**21. Spark and 2degrees have sufficient spectrum to provide high quality services**

21.1 One NZ measures the benefit of acquiring additional spectrum with reference to its available MHz per customer. This is because in general, the amount of spectrum an MNO has per customer dictates the quality and speed of services that can be provided. As set out in the table below, while One NZ currently has the lowest MHz to customer ratio, post transaction it will be roughly equivalent to Spark’s MHz to customer ratio.

**Table 1: MHz to customer ratios before and after the Proposed Transaction**

	One NZ	2degrees	Spark
IDC mobile connections (Mar 2023)	2,349,000	1,645,828	2,673,570
Downlink MHz <sup>40</sup> / customer ratios before the Proposed Transaction	66.56	72.30	78.55
Downlink MHz / customer ratios after the Proposed Transaction	80.46	72.30	78.55

<sup>40</sup> Downlink calculations assume that 80% of TDD spectrum is downlink (all 3.5GHz and 2300MHz).

21.2 One NZ considers that the table above demonstrates that before and after the Proposed Transaction, Spark and 2degrees are fully capable of achieving comparable or better network performance than One NZ. In addition, One NZ expects both 2degrees and Spark could expand their customer bases while maintaining comparable network performance to One NZ.

## 22. **Substitutes for 2600MHz spectrum**

22.1 Spectrum in the 2600MHz band is not essential for the provision of 4G or 5G mobile or FWA services, as mobile services can be provided on a range of spectrum bands. For example, 2degrees currently provides 4G and 5G services without holding any spectrum in the 2600MHz band.

22.2 Mid-band spectrum is most useful in urban areas to carry signal over densely populated areas using a higher number of sites. All mid-band spectrum frequencies are direct functional substitutes, including spectrum in the 1800, 2100, 2300, 2600MHz and 3.5 GHz bands. One NZ considers all these bands can be used for the provision of 4G and FWA services, and that they all will be appropriate to use for 5G services in the future. This is illustrated by the table above at paragraph [12.3].

22.3 One NZ also uses low-band spectrum, including the 700 and 900, MHz bands, to provide 2G, 3G and 4G mobile and FWA services, and will use the 900MHz band exclusively for 5G when it closes its 2G and 3G mobile network. Low-band spectrum provides greater coverage / range but lower capacity / speeds, making it more suitable for services in rural areas where the “carrying capacity” of a spectrum band is less material. [REDACTED]

22.4 High-band spectrum is also suited for the provision of 5G mobile services and 5G FWA. Globally, high-band spectrum is increasingly being used to provide 5G services, due to the higher speed requirements of 5G One NZ anticipates that further high-band “millimetre wave” spectrum will be made available in New Zealand in future, although this is conditional on government policy decisions, the timeframe for which is uncertain (as set out further below at 23.7).

22.5 Building or utilising more towers is an alternative to acquiring additional spectrum, as it provides comparable improvements to service and network quality.

22.6 MNOs frequently facilitate the operations of competitors via infrastructure sharing arrangements. [REDACTED]. Further, Spark has strong incentives to get 2degrees onto its network to achieve full network utilisation and capture third party revenues to contribute to network costs. In addition, all MNOs have recently sold their passive mobile network assets to separate tower companies FortySouth and Connexa. These tower companies are incentivised to meet network demand from MNOs in order to grow their businesses, including by offering unused space on existing towers to any MNO that wishes to place equipment.

## 23. **Opportunities to purchase additional spectrum**

23.1 There will be numerous opportunities to acquire or obtain additional spectrum of all frequencies both in the immediate future and over the next 10 years. One NZ sets out a detailed summary of the spectrum that will become available over the next 10 years at **Appendix 02**.

23.2 As expanded upon below, management rights over spectrum can be acquired in two ways:

- (a) private acquisition from an existing management rights holder;
- (b) reallocation / allocation from the Crown on the recommendation of MBIE.

23.3 In terms of private acquisition opportunities, the IMSC is increasingly becoming a significant source of acquisition opportunities (in addition to acquisitions from other MNOs). The Crown and the IMSC entered into a memorandum of understanding in February 2022 that ensures the IMSC

is allocated 20% of all future spectrum allocated by the Crown.<sup>41</sup> [REDACTED]. This process will make a sizeable amount of spectrum available for acquisition.

23.4 [REDACTED].

23.5 Subject to legislation being enacted, [REDACTED]

23.6 As the Commission is aware, new management rights are allocated or renewed by the Crown on a regular basis. Following a 20% allocation of new spectrum or spectrum up for renewal to the IMSC, One NZ expects the remaining allocations are likely to be evenly split between the three MNOs, which will ultimately lead to relatively even allocations over time. For example, in May 2023 the Crown allocated 80MHz of 3.5GHz to each MNO to facilitate the 5G roll-out. One NZ notes that this allocation alone is likely to be sufficient for 2degrees' 5G roll-out in the medium term.

23.7 In addition to spectrum offered by IMSC, One NZ anticipates further Crown awards in the near term. While the timeframe for these awards is subject to government policy and administrative decisions, One NZ's current expectation is that the following additional spectrum will become available:

- (a) Crown unallocated 3.5GHz spectrum in 2024;
- (b) 24-28GHz spectrum in 2026;
- (c) 1400MHz in 2027 (potentially); and
- (d) 600MHz spectrum in 2026 (potentially).

23.8 Any surplus spectrum that is not allocated is generally offered for use by the Crown. For example, following the allocation of 80MHz of 3.5GHz to each MNO, One NZ understands that [REDACTED]. This provides further opportunities for each MNO to grow their spectrum holding relative to the other MNOs, should they consider it desirable to do so.

23.9 The Government has recently made initial, broad allocation decisions on the 24 – 30 GHz radio spectrum range, with a programme of work underway to make this spectrum available to the market in 2026.<sup>42</sup>

- (a) In the 26 GHz band, the 24.5 – 27.5 GHz spectrum range will be primarily allocated for mobile use, with the option to include some satellite services in some areas under technical conditions.
- (b) The 28 GHz band will be split into 2 portions:
  - (i) The 27.5 – 28.35 GHz spectrum range will follow a sharing model between mobile and satellite services.
  - (ii) The 28.35 – 29.5 GHz spectrum range will be primarily allocated for satellite services, with the option to include mobile use under technical conditions.

23.10 Management rights also regularly come up for renewal as they reach the end of their term. Of the spectrum currently held by the MNOs and the IMSC:

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<sup>41</sup> The Memorandum of Understanding is available at <https://www.mbie.govt.nz/dmsdocument/18702-memorandum-of-understanding-maori-spectrum-agreement>

<sup>42</sup> <https://www.rsm.govt.nz/projects-and-auctions/current-projects/future-use-of-the-24-30-ghz-spectrum/>

- (a) 2 x 65MHz of 1800MHz spectrum and 2 x 60MHz of 2100MHz spectrum were renewed in 2022;
- (b) 2 x 70MHz of 2600MHz spectrum is due for renewal in 2028;
- (c) 95MHz of 2300MHz spectrum is due for renewal in 2031; and
- (d) 2 x 45MHz of 700MHz and 2 x 40MHz of 900MHz spectrum is due for renewal in 2031.

#### 24. **Benefits conferred on One NZ from the Proposed Transaction**

24.1 [REACTED].<sup>43</sup>

24.2 As noted elsewhere, 2degrees is equally able to compete in downstream markets based on acquiring other spectrum ranges that will be made available in the short term, including spectrum offered by the IMSC and surplus 3.5GHz spectrum held by the Crown (aside from its existing holdings). As 2degrees is at an early stage of its 5G roll-out, it has greater latitude to pursue alternative strategies – not least because it is not constrained by legacy equipment and can procure equipment that will support a range of network strategies.

24.3 [REDACTED]

24.4 [REDACTED].<sup>44</sup>

24.5 [REDACTED]

24.6 One NZ expects the other MNOs could pursue alternative business strategies to obtain similar financial savings, and that the Proposed Transaction accordingly does not provide it with a material competitive advantage over the other MNOs.

#### 25. **The existing spectrum allocations will be reviewed in 2028**

25.1 As the Commission is aware, management rights over spectrum are of limited duration. Dense Air's Management Rights will come up for renewal in 2028. As discussed above at paragraph 11.14, RMS will be conducting reviews of these rights in 2023/2024.<sup>45</sup> At the end of their specified term, the Management Rights will be either renewed by the Crown, or re-allocated to another party, on advice from the Ministry of Business, Innovation and Employment (**MBIE**). As set out in its Briefing for the Incoming Minister for the Digital Economy and Communications, when each period ends MBIE will consider whether the existing rights allocation is in New Zealand's best interests, taking into account a range of factors, including competition.<sup>46</sup>

25.2 Accordingly, MBIE will have the ability to review the spectrum allocations in the 2600MHz band in 2028 to ensure they are best serving the market. In accordance with its above analysis, One NZ expects MBIE will allocate 20% of the spectrum to the IMSC. One NZ expects that MBIE will find little need to make other reallocations as it will find the market to be highly competitive, and the spectrum allocations to be welfare maximising. Accordingly, while One NZ expects MBIE will renew the remaining spectrum in its existing proportions, the renewal forms an additional check in the unlikely event that MBIE considers existing spectrum allocations are not resulting in competitive downstream markets.

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<sup>43</sup> [REDACTED]

<sup>44</sup> [REDACTED]

<sup>45</sup> See [New Zealand Spectrum Outlook 2023 to 2027 \(rsm.govt.nz\)](https://www.rsm.govt.nz) at page 27.

<sup>46</sup> MBIE "Briefing for the Incoming Minister for the Digital Economy and Communications", accessed 25 May 2023 via <https://www.beehive.govt.nz/sites/default/files/2023-03/BIM%20-%20Minister%20for%20the%20Digital%20Economy%20and%20Communications%20-%20MBIE.pdf>

**26. The Proposed Transaction has no impact on barriers to entry or expansion in mobile and broadband markets**

- 26.1 The Proposed Transaction has no impact on barriers to entry or expansion in mobile or broadband markets. As set out above at 23 there is plenty of other spectrum available for new entrants and/or competitors who wish to expand, especially in the mid-band. Spectrum can also be applied to many different applications, so the particular spectrum being acquired here does not limit other competitors' ability to enter/expand in the downstream mobile telephony and residential broadband markets.
- 26.2 The Proposed Transaction does not increase One NZ's market power or lessen competition. Therefore, obtaining clearance does not depend on likely new entry in the mobile/broadband markets.

**27. Countervailing Power**

- 27.1 Countervailing power is not a relevant consideration for the Proposed Transaction. This is because the mobile/broadband services markets are highly competitive, and the Proposed Transaction does not result in any material change to this.

**28. No coordinated effects**

- 28.1 One NZ considers that the relevant markets do not currently exhibit signs of coordination. Additionally, the Proposed Transaction does not alter any coordination factors in the mobile/broadband markets as it simply changes to a relatively small extent the amount of a key input held by One NZ as one of the competitors. Accordingly, the Proposed Transaction cannot be said to materially increase the likelihood of coordination occurring in relation to the supply of mobile and broadband services in New Zealand.



## Part G: Confidentiality

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### 29. Reasons for seeking confidentiality

29.1 Confidentiality is sought in respect of the information in this application that is highlighted blue (being the Applicant's confidential information) and green (being the Target's confidential information) (the **Confidential Information**). Confidentiality is sought for the Confidential Information for the purposes of section 9(2)(a) and 9(2)(b) of the Official Information Act 1982 on the following grounds.

- (a) The Confidential Information is commercially sensitive and valuable information which is confidential to either, or both, Parties.
- (b) Disclosure of the Confidential Information would be likely to prejudice unreasonably the commercial position of the Parties.
- (c) To protect the privacy of natural persons.

29.2 The Applicant requests that it is notified if the Commission receives any request under the Official Information Act 1982 for the release of any part of the Confidential Information. They also request that the Commission seek and consider their views as to whether the Confidential Information remains confidential and commercially sensitive before it responds to such requests.

## Part H: Declaration

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I, Tom Hira Thursby, have prepared, or supervised the preparation, of this notice seeking clearance.

To the best of my knowledge, I confirm that:

- all information specified by the Commission has been supplied;
- if 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 the 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.

**Name and title of person authorised to sign:**

Tom Hira Thursby

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**Sign:** \_\_\_\_\_

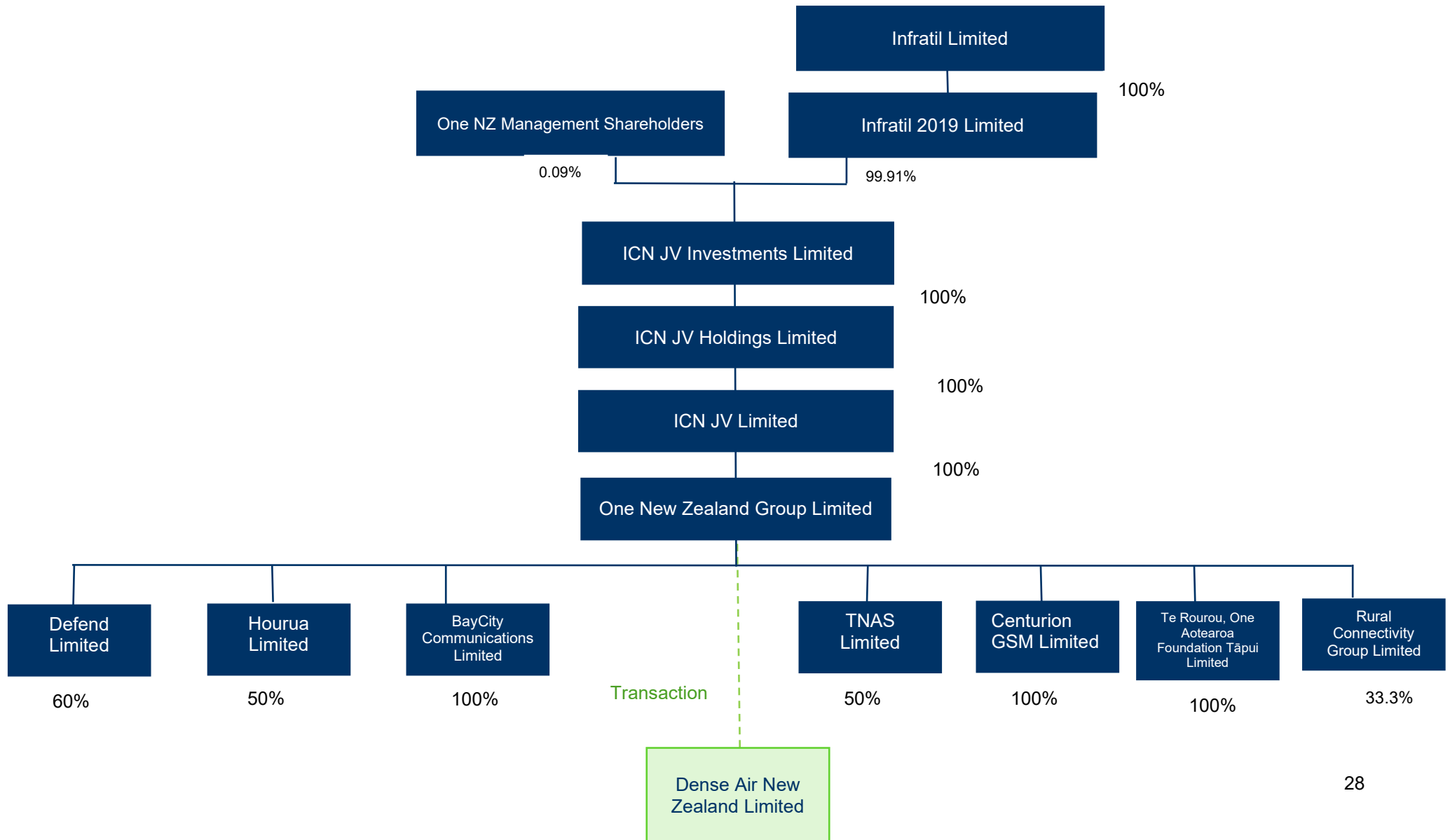
**Date:** 2 November 2023

## Part I: Appendices

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<b>Appendix 1</b>	One NZ's structure chart
<b>Appendix 2</b>	Spectrum that will become available over the next 10 years
<b>Appendix 3</b>	One NZ's 2022 and 2021 Annual Reports
<b>Appendix 4</b>	One NZ's annual revenue for the last two financial years
<b>Appendix 5</b>	One NZ's key competitors and trade or industry associations
<b>Appendix 6</b>	One NZ's key customers
<b>Confidential Appendix 7</b>	Copies of One NZ's internal documents
<b>Confidential Appendix 8</b>	Dense Air's structure chart
<b>Appendix 9</b>	Dense Air's facilities
<b>Appendix 10</b>	Dense Air's 2022 and 2021 financial statements
<b>Appendix 11</b>	Dense Air's annual revenue for the last two financial years
<b>Appendix 12</b>	Dense Air's key competitors and trade or industry associations
<b>Confidential Appendix 13</b>	Dense Air's key customers
<b>Appendix 14</b>	Sale and Purchase Agreement

Appendix 1 – Applicant’s structure chart



**Appendix 2 – Spectrum that will become available over the next 10 years**

Spectrum/ Technology	Year (spectrum use)											
	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	
<b>Existing</b> 700MHz (2x45MHz)	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G
900MHz (2x40MHz)	2G/3G/4G	2G/3G/4G	2G/3G/4G	2G/5G	5G	5G	5G	5G	5G	5G	5G	5G
1800MHz (2x75MHz)	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G
2100MHz (2x60MHz)	3G/ 4G	3G/ 4G	4G	4G	4G	4G	5G	5G	5G	5G	5G	5G
2300MHz (95MHz)	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G	4G
2600MHz (2x70MHz)	4G	4G	4G	5G	5G	5G	5G	5G	5G	5G	5G	5G
3500MHz (400MHz)	5G	5G	5G	5G	5G	5G	5G	5G	5G	5G	5G	5G
<b>Future</b> 600MHz (2x10MHz)					5G	5G	5G	5G	5G	5G	5G	5G
1400MHz (20-40MHz)						5G	5G	5G	5G	5G	5G	5G
2300MHz (20-40MHz)										5G	5G	5G
24-28GHz (800-1000MHz)				5G	5G	5G	5G	5G	5G	5G	5G	5G
<1.5GHz, 7-20GHz, 130-174GHz										6G	6G	6G

**Key:**

Renewal	Award	Re-farm
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One NZ notes that the table above does not include spectrum that can be acquired privately from an existing management rights holder, such as MNOs or the IMSC.

As demonstrated in the table above, all spectrum will be progressively re-farmed towards 4G, 5G and 6G in the future.

### **Appendix 3 – Applicant’s FY23 and FY22 Annual Reports**

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Provided as separate document.

**Appendix 4 – Applicant’s annual revenue for the last two financial years**

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<b>Financial year</b>	<b>Revenue</b>
FY23	1,577.7 million
FY22	1,515.4 million

**Appendix 5 – Applicant’s key competitors and trade or industry associations**

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<b>Key competitors</b>	<b>Contact details</b>
Spark New Zealand Trading Limited	[REDACTED]
2 Degrees Mobile Limited	[REDACTED]
Nova	[REDACTED]
Contact	[REDACTED]
Mercury	[REDACTED]

<b>Association</b>	<b>Contact details</b>
Telecommunications Carriers Forum	[REDACTED]
TUANZ (Tech Users Association New Zealand)	[REDACTED]
Business New Zealand	[REDACTED]



**Appendix 6 – Applicant’s key customers**

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No.	Key customers – nationally	Revenue (FY23)	Contact details
1.	[REDACTED]	[REDACTED]	[REDACTED]
2.	[REDACTED]	[REDACTED]	[REDACTED]
3.	[REDACTED]	[REDACTED]	[REDACTED]
4.	[REDACTED]	[REDACTED]	[REDACTED]
5.	[REDACTED]	[REDACTED]	[REDACTED]
6.	[REDACTED]	[REDACTED]	[REDACTED]

**Confidential Appendix 7 – Copies of Applicant’s internal documents**

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Copies of Applicant’s relevant internal documents will be provided with the final application as **Confidential Appendix 7**.

**Confidential Appendix 8 – Target’s Structure Chart**

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[REDACTED]

## **Appendix 9 – Target’s facilities**

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The Target previously had facilities at Data Centre 220 in Queen Street, Auckland. However, all equipment has been removed from Data Centre 220 and the leases for rack space have been terminated.

All base station equipment that was deployed by the Target has been decommissioned and removed from service.

There are no additional facilities present in New Zealand.

**Appendix 10 – Target’s 2022 and 2021 Annual Reports and financial statements**

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Provided as separate document.

**Appendix 11 – Target’s annual revenue for the last two financial years**

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<b>Financial year</b>	<b>Revenue</b>
FY22	\$22,818
FY21	\$649

## **Appendix 12 – Target’s key competitors and trade or industry associations**

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Since ceasing operations, the Target no longer has key competitors and does not belong to any trade or industry associations. For completeness, looking backwards to when the Target was operating:

(a) Key Competitors

There were no other operators providing small cell neutral host services nationwide but the mobile network operators provided non-neutral services and the RCG provided macro cell neutral host services to specific rural areas. There are equipment vendors including Nokia, Ericsson, Samsung and repeater vendors such as Cel-Fi.

(b) Association

The Target was a member of the Tech Users Association New Zealand (**TUANZ**) trade association but this is now terminated.

**Confidential Appendix 13 – Target’s key customers**

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[REDACTED]



**Confidential Appendix 14 – SPA**

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Provided as separate document.