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Submission on the 2.1 GHz Acquisition Limits Review

Introduction

1. Vector Limited ("Vector") welcomes the opportunity to make this submission on the Ministry of Business, Innovation and Employment's ("the Ministry") *Review of Acquisition Limits in the 2.1 GHz Band: technical consultation*, released for public consultation in April 2013.
2. No part of this submission is confidential and Vector is happy for it to be made publicly available.
3. Vector's contact person for this submission is:

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4. Vector generally agrees with the Ministry's assessment of the implications of the three options it presented: allowing the limits to lapse (Option 1), or relaxing the limits to 2x30 MHz (Option 2), or retaining the current 2x25 MHz limits (Option 3). Despite this review being focused on a particular frequency band, Vector considers that a more strategic approach is required, given its impact on incentives for various parties to acquire/access or offload spectrum across different bands in the future. This would have implications for market competition and consumer outcomes.
5. This submission proposes a more strategic approach that incorporates elements of the Ministry's Options.

Greater diversity of spectrum access seekers

6. The need for a more strategic approach in making decisions regarding particular frequency bands is highlighted by the responses to the Ministry's consultation in October 2012 on its *Draft Five Year Spectrum Outlook 2012-2016* ("Draft Outlook"). That consultation indicated that there is an increasing diversity of parties interested in accessing spectrum and how spectrum will be priced and allocated in the very near future. These parties include 'non-traditional' spectrum users such as utilities operating critical infrastructure services and intending to deploy smart grids.
7. The increasing applicability and use of information and communications technologies to deliver productivity increases across various sectors implies that the demand for spectrum from these sectors can only be expected to grow. For example, in Australia, the transport and mining sectors are also looking into gaining access to spectrum.¹
8. Greater diversity in the use of spectrum and the nature of access seekers requires that future allocation of particular frequency bands, including the 2.1 GHz band, should not be confined to mobile network operators, as represented by existing holdings in this band. The emergence of large machine-to-machine (M2M) communications is part of the development of smarter grids, smarter distributed generation, and smarter energy consumption by commercial and residential consumers. In some instances, M2M communications may require network characteristics that are radically different to those offered by today's mobile network operators.
9. Some potential users may not require big chunks of spectrum; for example, a 5 MHz pair of dedicated spectrum may be sufficient to meet their commercial and other needs. Vector **recommends** that the Ministry proactively engage with potential spectrum users to ascertain their particular spectrum requirements.
10. Vector does not consider any of the Options in the consultation document on the 2.1 GHz acquisition limits to be sufficient, on their own, to contribute to meeting the spectrum needs of an increasingly diverse set of stakeholders. It is important that this emerging development is taken into account in any policy or technical decisions, so as not to hold New Zealand back from achieving step changes in productivity across various sectors and competing at a global level.

Alternative approach - limits on overall holdings

11. Taking into account the above, Vector **recommends** that the Ministry consider a more strategic, alternative approach, which involves:

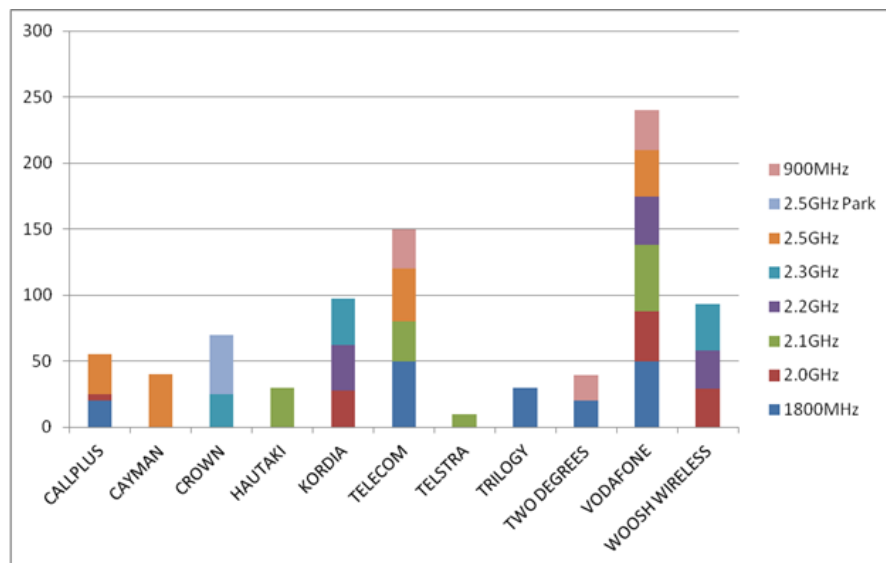
¹ http://www.acma.gov.au/webwr/assets/main/lib550036/ifc41_12-paper_2-spectrum_licences-1800mhz_band.pdf, page 10-11

- a. setting a ubiquitous management rights cap in any single band of, say, 40% for any right holder; and
- b. imposing limits on the overall holdings of right holders separately below and above the 1 GHz mark; and
- c. retaining the 'use-it-or-lose-it' requirements for all bands regardless of use/technology, i.e. technology-neutral policy.

12. The above approach would:

- a. provide incentives and greater flexibility for right holders to use spectrum more efficiently and manage a portfolio of spectrum property rights to meet the unique needs of their business and consumers, rather than look at their holdings in each band in isolation. Right holders can dispose of spectrum that is least valuable to them, promoting allocative efficiency;
- b. promote economies of scale as right holders can choose to increase their holdings of spectrum that are of highest value to them, lowering their costs and costs to consumers;
- c. ensure no party can acquire, if not hoard, spectrum that is not necessary for their efficient operation, retaining competitive pressures in the spectrum market. Figure 1 shows the high degree of concentration of spectrum holdings in New Zealand. Promoting competition in this market would ensure that prohibitive spectrum prices do not become barriers for other potential users who wish to deploy new and smarter technologies and networks in future years;

d. Figure 1. UHF Spectrum Right Holdings in New Zealand



Data Source: Radio Spectrum Management Website, 10 April 2013

- e. promote policy consistency across bands (at least of similar use), ensuring greater regulatory and investment certainty for current and future right holders;
 - f. potentially release some spectrum in the 2.1 GHz band for 'non-traditional' users. This would benefit not only the telecommunications and broadcasting sectors but also the wider economy; and
 - g. promote dynamic efficiency. This would be consistent with the Ministry's "flexible approach to spectrum allocation that tracks potential scenarios...[as] the best way for a "fast technology follower" approach to provide for economic growth".² The greater flexibility provided by this approach would incentivise future spectrum owners to move away from focusing mainly on voice (lower-value services) to more service-oriented approaches (higher-value services), i.e. managed data services that would meet the requirements of the digital economy, including future quality-of-service requirements and enhanced consumer expectations.
13. Some elements of the above approach, for example, the imposition of limits on overall spectrum holdings, may require amendments to the Radiocommunications Act 1989 ("the Act"). The Ministry should consider this in light of its impending review of the Act, as signalled in the Draft Outlook.
14. Vector reiterates that the review of the Act should take into account existing and potential interrelationships with the Telecommunications Act 1986, Broadcasting Act, Commerce Act 1986, and other relevant legislation and regulations. This would ensure that regulatory frameworks are aligned and confusion and unnecessary compliance costs are minimised, if not avoided.³

Future reviews

15. Vector disagrees that this consultation is purely "technical" in nature. As indicated above, this review has implications beyond technical matters, particularly on market competition and the evolution of spectrum use across the wider economy.
16. Vector **recommends** that stakeholders be provided sufficient time to respond to future reviews of wide-ranging significance in order to have meaningful consultation. It is standard practice of other regulators to widely communicate reviews of this nature and provide a consultation period of at least four weeks.
17. In future reviews, the Ministry may consider aligning, in some way, the duration of management rights for cellular services to (shorter) technology lifecycles to further ensure the efficient use of radio spectrum and investment certainty.

² <http://www.rsm.govt.nz/cms/policy-and-planning/consultation/radio-spectrum-five-year-outlook-2012-2016/Radio%20Spectrum%20Five-Year%20Outlook%20-%20Release%20version.pdf/view>, page 7

³ This view was expressed in Vector's submission on the Draft Spectrum Outlook, <http://www.vector.co.nz/sites/vector.co.nz/files/Vector%20Submission%20Five%20Year%20Spectrum%20Outlook.pdf>, paragraph 67.g.

18. Shorter duration of management rights would also provide incentives for trading in the secondary market, creating a more liquid spectrum market. In its submission on the Draft Outlook, Vector recommended that the Ministry commission a study to identify the reasons for the lack of trading in the secondary spectrum market in New Zealand and make recommendations on how trading may be facilitated.⁴ Vector notes that the Australian Department of Broadband, Communications and the Digital Economy has investigated this issue recently.⁵ Vector **recommends** that the Ministry also look into this matter.

Yours sincerely



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⁴<http://www.vector.co.nz/sites/vector.co.nz/files/Vector%20Submission%20Five%20Year%20Spectrum%20Outlook.pdf>, paragraph 67.d

⁵<http://s2.dbcde.gov.au/2013/03/28/secondary-markets-for-spectrum-2/>