



**Submission to the Ministry of Economic Development
on the discussion paper
“Radio Frequency Auction: 2.3 GHz and 2.5 GHz Bands”**

14 September 2007

Public Version

(There is no confidential version)

Introduction

1. This submission is from InternetNZ, the Internet Society of New Zealand (Inc), and is in response to the discussion paper “Radio Frequency Auction: 2.3 GHz and 2.5 GHz Bands”.
2. InternetNZ is a membership-based not-for-profit organisation responsible for the administration of the .nz domain name registry. Our mission is to protect and promote the Internet in New Zealand; we advocate the ongoing development of an open and uncaptureable Internet, available to all New Zealanders.
3. InternetNZ is very supportive of the development of the Managed Spectrum Park (MSP) concept. MSP is the major interest for us in the Ministry’s discussion paper but we have sought to comment on all issues raised because of our desire to see improvements in the availability of affordable broadband access both nationally and regionally.

Question 1: Considerations Relating to Lot Design

(a) Expected technical developments and likely demand

4. We note the general trend in design of FDD equipment is towards working within 5MHz blocks. The general trend in design of TDD equipment is towards increments of 3.5MHz contiguous blocks, hence they could fit into the 5MHz lots with guard band or into MSP blocks of 15MHz to 35MHz blocks. There should be sufficient opportunity to obtain blocks and combinations of licenced and MSP blocks to accommodate both technologies in the bands.
5. We suggest as a general principle that auction design decisions should be technology agnostic because of the rate of technological change and the start dates for usage of this spectrum. Nevertheless, technology requirements should be taken into consideration if auction design decisions would impact the benefits of current or known future technologies.

(b) Size and location of the managed spectrum park or parks

6. InternetNZ agrees that at least two MSPs should be provided for in the 2.5GHz band as it will enable more opportunity for use of technologies such as FDD.
7. However, the higher MSP block of 15MHz proposed in the subsequent Lot Design options is too small. It should be at least 35MHz as well, so as to match the lower block in 2.5GHz, enabling any frequency bands within the lower MSP to have a counterpart in the higher one. This protects options for operators.

(c) Acquisition Limits

8. We support the Cabinet goal of ensuring opportunity for multiple providers to utilise spectrum and the setting of a limit of 35MHz per un-associated bidder to allow for provision for up to six nationwide service providers.

(d) Technical Issues

9. We support the Ministry’s preference that management rights holders take responsibility for managing interference issues and acquire sufficient spectrum to do so. However, we propose that the Ministry provide dispute mediation and resolution processes for the situations where management rights owners cannot resolve interference issues.

(e) Preferences regarding auction type

10. Our preference is for the SAA auction process, particularly as we support the more complex Option B in the Lot Design. We believe SAA will avoid excessively priced lots and blocking tactics.

Question 2: Proposed Lot Design

11. We prefer Option B because it gives the maximum flexibility for the future but with a caveat, that we would like the MSP block at the top of the 2.5GHz band to be at least 35MHz. The impact of increasing the size of this block would be minimal as there are plenty of other 5MHz blocks and pairs available. Alternatively, consideration could be given to including another MSP block in the 2.5GHz band next to the top block with both being 20-25MHz each.
12. The 5MHz blocks in Option B provide a lot of flexibility for FDD technologies. For example adjacent or non-adjacent blocks of 5MHz can be used.
13. Option C is our next-best choice but again the MSP block at the top of the 2.5GHz needs to be 35MHz, which can be done at the expense of the non-MSP 35MHz block in the 2.5GHz band.
14. We do not consider Option A as suitable as it has insufficient opportunity for small bidders to participate.
15. The 2.3GHz block plan in Options A and C appears to be non-optimal for building a large network as it does not provide for sufficient separation under an FDD scenario. For example a provider might generally need blocks of 15MHz separated by 30MHz and so would have to purchase both available 35MHz blocks to achieve this.

Question 3: Māori Interests

16. We note point 79 in the discussion paper that "...the MSPs are specifically intended to provide for regional and local services, including Māori Service Providers, although no specific reservations for Māori language and culture have been provided for".
17. The points for discussion here are technology and spectrum related and the proposals do not appear to prevent or disadvantage delivery of Maori language and culture as content or service across wireless broadband.

Question 4: Eligibility to Bid

18. In line with the use or lose policy advocated by Cabinet, and that we endorse, restrictions should be placed on bidders if they have unused spectrum capable of providing similar services. Such bidders should be required to divest themselves of that unused spectrum.

Question 5: Duration of Acquisition Limits

19. We would question the need for an expiry date at all, and particularly given that we are looking for the shorter use or lose time of three years.

Question 6: Use or Lose Provisions

20. Of the options given, we would prefer a use or lose date of December 2014. This should be

more than sufficient time to establish that the business is successful. It also allows for a typical new technology lifecycle and implementation within the timeframe.

21. Use or lose provisions and expiry of acquisition limits will need to be reviewed on an ongoing basis in terms of technology development.
22. As the test for use, Option B is our preference, on the basis that it is not punitive. There is the possibility that genuine emerging infrastructure businesses could be punished unreasonably under Option A or C. The concept of use or lose is to prevent spectrum hoarders, and should not punish other players, who make a genuine investment yet fail to meet the “use it” criteria.

Question 7: Settlement

23. We agree with the proposed settlement terms of 30 days following completion of the auction, on the basis that this will deter speculation.

Question 8: Managed Spectrum Parks: Proposed Allocation Procedures and Usage Rules

(a) Suggested eligibility criteria

24. We agree with the suggested eligibility criteria, with a caveat that the definition of regional area needs to be reviewed. The 3.5GHz auction does not provide a strong point of reference for a regional plan for an MSP, which is a new concept. Feedback from our membership suggests that the 3.5GHz regional plan dis-incented investment. A population-based model would be preferable, rather than geographic, and with equal distributions of population.

(b) Suggested core technical and usage requirement

25. Each region will need a user group. There will be both intra-region issues, and inter-region issues on boundaries. Therefore, there needs to be a neutral third party to ensure inter-group coordination
26. InternetNZ would be willing to consider taking a role in facilitating coordination and communication between user groups.
27. There also needs to be a disputes mediation and resolution process within the MED for when user groups cannot agree.

(c and d) Preferred method for implementing options

28. Option 3 is the preferred option because it bridges the chasm between general licence and management rights in terms of the licencing regime itself. Further, it is technology agnostic, thereby providing a more fertile environment for investment and innovation.

(e) Incentives for gaming

29. InternetNZ proposes that the Managed Spectrum Park regime include a two-year use or lose provision. The technologies that will be used are very quick to implement and to generate cash flow from, and a two-year use or lose provision will reduce the likelihood of gaming.

(f) Fees or resource charges

- 30. We anticipate that cost recovery application and annual charges will be required under our preferred Option C.
- 31. The application fees should apply per TLA.
- 32. The annual fees should apply with respect to population within a TLA. We understand these relativities have already been analysed in respect to the 3.5GHz market. It is our view that market value of spectrum should be a consideration under a management rights approach, but not under a MSP approach. Given a variable number of participants in a MSP, calculating the value of the share of the spectrum could be problematic.
- 33. We don't think there should be a resource charge under our preferred Option C because under that option the applicants are doing the work.
- 34. It may be appropriate to have a disputes resolution charge for when issues can't be resolved in the user group. This would create an incentive to reach agreement at the user group level.

Question 9: Managed Spectrum Parks: Proposed Allocation Procedures and Usage Rules

- 35. We support the transition plan.

Thank You

Thank you for this opportunity to submit on this discussion paper. We are available for any further discussion or queries.

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