CANADA GAZETTE PART I NOTICE SMSE-005-11: CONSULTATION ON A POLICY AND TECHNICAL FRAMEWORK TO LICENSE SPECTRUM IN THE BAND 2500-2690 MHZ

COMMENTS OF RESEARCH IN MOTION LIMITED April 19, 2011

A. INTRODUCTION

- 1. Research In Motion Limited ("RIM") is pleased to offer the following comments in response to Canada Gazette Part I Notice SMSE-005-11: Consultation on a Policy and Technical Framework to License Spectrum in the Band 2500-2690 MHz.
- 2. RIM is Canada's leading designer, manufacturer and marketer of innovative wireless solutions for the worldwide mobile communications market. Through the development of integrated hardware, software and services that support multiple wireless network standards and frequency bands, RIM provides platforms and solutions for seamless access to time-sensitive information including email, phone, text messaging (SMS and MMS), Internet and intranet-based applications. RIM technology also enables a broad array of third party developers and manufacturers to enhance their products and services with wireless connectivity to data. RIM's portfolio of award-winning products, services and embedded technologies are used by thousands of organizations around the world and include the BlackBerry wireless platform, the RIM Wireless Handheld product line, software development tools, radio-modems and other hardware and software. RIM's flagship BlackBerry platform of wireless devices, software and services is available in over 175 countries, and serves approximately 55 million subscribers worldwide.
- 3. RIM notes that it participated in the development of the response to this Gazette notice filed by the Radio Advisory Board of Canada (RABC). RIM would, however, like to highlight a few key issues.
- 4. RIM's approach to this consultation is guided by the following perspectives:
 - a. The need to harmonize and consolidate the Canadian 2500 MHz band plan with large markets in order to reduce mobile hardware complexity and to improve performance;
 - b. The need to provide for the most efficient use of this new spectrum for next generation broadband services; and
 - c. The need for additional spectrum to meet the growing demand for mobile services and applications.
- 5. RIM considers that its approach to this consultation is consistent with the objective of Industry Canada's Spectrum Policy Framework (Canada Gazette Notice DGTP -001-07), namely to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource. We believe that this approach will ensure that Canadians have access to world-class wireless broadband service by maximizing the bandwidth available, minimizing deployment costs and enhancing competition for broadband services.

 RIM is strongly supportive of Industry Canada's decision to adopt the ITU band plan for the 2500 MHz band. We believe that, Industry Canada should make every effort to harmonize the 2500 MHz band plan with other jurisdictions in order to reduce mobile hardware complexity and to improve performance.

B. BLOCK SIZES (QUESTIONS 1.1 AND 1.2)

- 7. RIM notes that the 2500 MHz band is most likely to be the primary, globally harmonized band for delivering the largest portion of broadband mobile services. Considering the projected demand for mobile broadband services in the coming years, the 2500 MHz band must be organized in a manner that will maximize its capacity. In RIM's view, the fragmentation of the 2500 MHz band into smaller sizes would significantly reduce the efficient use of this spectrum and diminish the future availability of broadband services for Canadians. We believe that, for example, LTE and WiMax technologies will deliver greater efficiencies when operating with channels of 20 MHz or more. As Industry Canada noted on page 33 of the Notice, the wider the channel, the greater the data speeds and spectrum efficiencies. While a mobile network may compensate for a lack of capacity by deploying additional sites, broadband services cannot be delivered without channels of sufficient width. Furthermore, as demand for service increases, even more sites would be required to provide capacity. In addition to making the business case for mobile broadband less attractive, this approach could have detrimental environmental and aesthetic impacts as it would entail deploying more sites in the service areas. We therefore consider that narrow spectrum assignments by Industry Canada would have a detrimental impact on the capacity as well as restricting the quality of broadband services that can be offered to Canadians in this band.
- 8. Accordingly, RIM considers that channel sizes of 30+30 MHz would maximize the benefits of the 2500 MHz band for Canadians. However, if the assignee is allowed to aggregate its spectrum assignments a 2X20 MHz and a 2X10 MHz assignment may be practical. In RIM's view, having sufficient spectrum to offer a true broadband service is preferable to having multiple deployments without sufficient spectrum to offer true broadband services.
- 9. We note that an assignment of 20 + 20 MHz or more is the natural evolution of the actions taken by Industry Canada in previous spectrum assignments and auctions. In the very first assignment of cellular spectrum in 1985 the Department licensed the wirelne service provider and a non wireline service provider each with spectrum that included 10+10 MHz of contiguous spectrum. In the first PCS assignment of spectrum, Industry Canada licensed a number of blocks including two pairs of 15 MHz + 15 MHz. These bandwidth blocks were never envisioned to carry the enormous broadband traffic expected to be carried in the 2.5 GHz band.
- 10. Furthermore, an assignment of 20 + 20 MHz or more in the 2500 MHz band is consistent with the approach taken by regulators in other jurisdictions. A number of countries have already licensed spectrum for wireless broadband service in the 2.5/2.6 GHz band. Of those licensed or pending, close to 75% of the blocks are 15 MHz + 15 MHz or larger and 67% were 20 MHz + 20 MHz or larger¹. These assignments are illustrated in the following graphic.

¹ Based on media reports of auction results for 2500 MHz to 2690 MHz bands



- 11. In Question 1-1, Industry Canada asks for comments on whether blocks should be uniform in size. If a uniform size is preferred, the Notice asks what size should be considered. If a mix of block sizes is preferred, the Notice asks what combinations and arrangements should be considered. In RIM's view, the priority must be to have at least one block of significant size to offer a class-leading high speed and high capacity network. The best solution to achieve this objective would be to assign one 2X30 MHz channel. RIM considers that, if smaller blocks are allowed, the bidders must be required to have contiguous assignments to enable the creation of wider blocks.
- 12. In Question 1-2, Industry Canada asks for comments on the block size options that should be adopted in the geographic regions shown in Appendix A of the Notice, and whether the combinations and arrangements of block sizes should be the same or different in different areas. After carefully reviewing these options, RIM recommends that, for regions A and C, Industry Canada should assign one 2X30 MHz block and one 2X20 MHz block. Alternatively, the assignment of two 2X20 MHz and one 2X10 MHz blocks would be acceptable (although less desirable). For region B, RIM recommends that the assignment of one 2X30 MHz block would be optimal.

C. PROMOTING COMPETITION (QUESTIONS 3-3-3 and 3-4)

13. In response to Question 3-3, RIM recommends that the auction be structured in a manner to avoid the fragmentation of the 2500 MHz band. If, for example, the auction causes the band to be fragmented into smaller channels, we propose that a mechanism be established to ensure that the winners of multiple channels be assigned contiguous spectrum. We note that this can

be achieved with auction procedures which lock out non contiguous bids or through post auction assignment of individual channels to ensure they are contiguous..

14. In Question 3-4, Industry Canada also asks whether the proposed changes to the foreign investment restriction in the telecommunications sector would affect responses to the previous questions. We confirm that these proposed changes would not have any impact on RIM's responses to the previous questions.

D. SUMMARY

- 15. RIM recommends that the 2500 MHz blocks be organized in a manner that maximizes the spectrum efficiency of the band and allows it to provide true broadband services. We believe that this can be achieved by licensing one block across all regions of 30+30 MHz to maximize the benefits to Canadians.
- 16. RIM supports Industry Canada's decision to adopt the ITU band plan for the 2500 MHz band. In RIM's view, the Department must make every effort to ensure that the Canadian 2500 MHz band plan is harmonized with other jurisdictions to ensure interoperability and roaming across national borders.