

CANADA GAZETTE NOTICE NO. DGRB – 005 – 09
CONSULTATION ON TRANSITION TO BROADBAND
RADIO SERVICE (BRS) IN THE BAND 2500-2690 MHZ

AND

CANADA GAZETTE NOTICE NO. DGRB – 010 – 09
EXTENSION TO THE COMMENT PERIOD:
CONSULTATION ON TRANSITION TO BROADBAND
RADIO SERVICE (BRS) IN THE BAND 2500-2690 MHZ

Comments submitted by:

SSI MICRO LTD.

June 15, 2009

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	CONSULTATION ON A FIRM TRANSITION DATE	1
3.0	QUALIFICATION REQUIREMENTS AND TREATMENT OF INCUMBENTS	5
4.0	LICENCE CONDITIONS	6
5.0	CONCLUSION.....	6

1.0 INTRODUCTION

1. SSI Micro Ltd. (“SSI”) is pleased to provide these comments in response to the consultation initiated by Industry Canada (the “Department”) in *Canada Gazette*, Part I Notice Nos. DGRB-005-09¹ and DGRB-010-09² and the accompanying Public Consultation Paper³ (collectively, the “*Consultation Paper*”).

2. In this submission, SSI is providing its comments with respect to those issues raised in the *Consultation Paper* that bear on its operations.

2.0 CONSULTATION ON A FIRM TRANSITION DATE

3. In section 3 of the *Consultation Paper*, the Department is seeking comments on its proposal to adopt a firm transition date of March 31, 2011 to Broadband Radio Service (“BRS”), rather than renew Multipoint Communication System (“MCS”) and Multipoint Distribution Service (“MDS”) licences. For the reasons that follow, SSI submits that the Department should renew the existing MCS licences held by SSI for the Northwest Territories (“NWT”) and Nunavut, irrespective of whether it chooses to impose a firm transition date of March 31, 2011 to BRS for other existing MCS and MDS licensees.

4. SSI currently holds two MCS licences in the NWT and Nunavut that it employs to bring Internet service to 54 of the most remote communities in Canada. Conversion to BRS will require SSI to return some of its MCS spectrum to the Department. In addition, whatever band plan is adopted by the Department for BRS in the interest of international harmonization will result in channels that are narrower than the 6 MHz MCS channels

¹ *Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz*, March 6, 2009

² *Extension to the Comment Period: Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz*, April 20, 2009.

³ Industry Canada, Spectrum Management and Telecommunications, *Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz*, March, 2009.

presently employed by SSI. These two factors taken together will significantly reduce the operational efficiency of SSI's network. For example, a narrower channel width will require the addition of approximately one more base station for every 12 base stations in use in order to maintain current capacity. The loss of returned spectrum associated with conversion to BRS will translate directly into reduced throughput.

5. In the case of Yellowknife, SSI's network is already employing the entire MCS spectrum allocated to SSI. Therefore, conversion to BRS will result in degraded service to customers with a consequential loss of customers. Due to the small geographic area of Yellowknife, SSI's ability to alleviate the situation through the reuse of spectrum is limited and may not be practicable at all. Deploying new infrastructure to address the problem is not financially feasible. Accordingly, SSI will not be able to meet additional demand for its services or roll out new services in Yellowknife if it is forced to convert to BRS in 2011.

6. In the case of three other locations, namely, Iqaluit, Rankin Inlet and Cambridge Bay, SSI would be able to accommodate the proposed loss of spectrum and narrower channels associated with BRS in the short-term, but these constraints will severely limit SSI's ability to add customers and provide new services in these locations over the ten year period ending in March 31, 2021 corresponding to the MCS licence renewal period. In addition, smaller channel sizes associated with BRS may also require the addition of base stations in order to maintain the capacity of the SSI network in these three locations in the near term and such an upgrade is prohibitively expensive due to the remote locations of these communities.

7. The smaller channel width associated with BRS may also require the installation of additional base stations in other NWT and Nunavut communities served by SSI in order for the existing capacity of the SSI network to be maintained. As discussed above, such an upgrade is prohibitively expensive due to the remote locations of these communities.

8. Finally, if a BRS band plan would require SSI to operate in frequency division duplex (“FDD”) rather than time division duplex (“TDD”) mode SSI’s operations would be crippled, since such a change would require a complete replacement of the equipment that SSI employs to provide its services. Such a change is not economically feasible for SSI prior to March 31, 2021, given the characteristics of the markets SSI serves, already discussed above.

9. For all of these reasons, SSI requests a renewal of its NWT and Nunavut MCS licences for the ten period ending March 31, 2021. Should market developments provide SSI with a solid business case to convert to BRS in one or more communities that it serves prior to that date, SSI will request a conversion to BRS for the corresponding portion(s) of its licence(s) at that time, while retaining its MCS licence(s) in the balance of its operating territory until their expiry in 2021.

10. SSI submits that its request for the renewal of its MCS licences makes a lot of sense for NWT and Nunavut, not only for the reasons already discussed above, but also because there is no other provider of MDS in NWT or Nunavut either. Thus, even if a new BRS competitor that wishes to operate within a frequency range that conforms to a new BRS band plan from the commencement date of its operations were to enter these territories prior to March 31, 2021, such entry could be readily accommodated by having SSI move to another portion or other portions of a new BRS band while still operating under the current MCS band plans (i.e., without the loss of any spectrum, narrowing of channels or shift to FDD by SSI). The fact is that forcing SSI off the MCS band plan prior to March 31, 2021 is not necessary because, given the small size of the NWT and Nunavut markets, BRS entry by a third competitor is extremely unlikely to occur prior to that date.

11. As discussed above and noted at page 1 of the *Consultation Paper*, in a 2006 policy decision⁴ (“2006 Policy”) the Department provided for the ability of MCS and MDS operators to convert to new spectrum licences (for what is now called BRS) that will enable licensees to offer mobile, fixed and broadcasting services in approximately two thirds of the originally authorized spectrum. SSI urges the Department not adhere slavishly to the requirement for MCS and MDS licensees to return one third of their spectrum in order to be allowed to convert to BRS licences either on any mandatory conversion date to BRS or as existing MCS and/or MDS providers convert to BRS.

12. The amount of spectrum that the Department reclaims should be limited to the amount that is strictly necessary for the addition of a third BRS competitor within an internationally harmonized BRS band plan, without disadvantaging incumbents by requiring them to operate both TDD and FDD systems in the same geographic regions. Forcing incumbents to operate in both the TDD and FDD modes in the same geographic region is not financially feasible, spectrally efficient and would not allow incumbents to make full use of the entire spectrum allocated to them in a manner facilitates the use of the full capabilities of the spectrum allocated to them in the design and delivery of new and innovative services.

13. In other words, the quality of the BRS licences issued for reclaimed MCS and MDS spectrum should not be greater than that of the spectrum that any MCS or MDS incumbent retains after converting its licence to BRS. After all, it is the incumbents who have made the financial investments and taken the business risks associated with the deployment of MCS and MDS networks, and they should not be placed at a disadvantage relative to new BRS licensees.

14. It is a fundamental tenet of the Canadian legal system that the conduct of a Minister or other public authority in the exercise of a discretionary power must take into account

⁴ *Canada Gazette*, Part I, DGTP-006-02, *Policy Provisions for the Band 2500-2690 MHz to Facilitate Future mobile Service*,

established practices, conduct or representations that can be characterized as clear, unambiguous and unqualified, that have induced in a party (here the MCS and MDS spectrum licensees) a reasonable expectation that they will retain a benefit.⁵

15. In the present case, MCS and MDS licensees have a reasonable expectation that their BRS licences will not be inferior in quality to new BRS licences issued in respect of reclaimed MCS and MDS spectrum. Accordingly, depending on the band plan adopted for BRS spectrum (which SSI acknowledges to be a matter that is beyond the scope of this consultation), the Department may have to reclaim less than one third of the BRS spectrum presently held by incumbents in order to ensure that the amount of spectrum they give up is nothing more than the *quid pro quo* for obtaining the right to provide mobile services, but does not otherwise disadvantage them relative to the original reasonable and legitimate expectations that they had when they obtained their MCS and MDS licences.

3.0 QUALIFICATION REQUIREMENTS AND TREATMENT OF INCUMBENTS

16. In section 4.2 of the *Consultation Paper*, the Department seeks comments on how existing MCS site licences in Manitoba, and MDS as well as radiocommunication distribution undertaking (“RDU”) area licences throughout Canada, should be treated in light of the introduction of BRS. In section 4.3 of the *Consultation Paper*, the Department seeks comments on whether Tier 3 or Tier 4 geographic areas are most appropriate for the conversion of site-specific MCS licences to BRS spectrum licences, where applicable, and for the conversion of MDS authorizations, including Industry Canada spectrum licences issued in the 2596-2690 MHz band.

17. SSI has no views on this topic since it does not hold any of these types of licence. However, as noted in section 2.0 of these Comments, SSI requests that it be allowed to

⁵ *Canadian Union of Public Employees (C.U.P.E.) v. Ontario (Minister of Labour)*, [2003] 1 S.C.R. 539 at 603.

convert its MCS licences to BRS voluntarily on a community-by-community basis to BRS up to March 31, 2021, at which time the conversion of any remaining MCS licences would be converted to BRS licences on a mandatory basis.

4.0 LICENCE CONDITIONS

18. In section 6 of the Consultation Paper, the Department is seeking comments on the conditions of licence that would apply to voluntarily converted BRS licences. Subject to the exceptions and qualifications set out in the preceding section of these Comments, the proposed licence conditions are acceptable to SSI, however, the proposed condition relating to lawful interception should only be applied if and when SSI is provided compensation sufficient to fund the network and operational capabilities required for SSI to be able to comply with that condition. Given the already higher than average costs that SSI faces in providing services in NWT and Nunavut given the challenging nature, size and low population density of these operating territories and correspondingly high costs of operating in the territories, SSI cannot afford to bear the cost of implementing lawful access capabilities.

5.0 CONCLUSION

19. SSI concurs with many of the Department's proposals as set out in the *Consultation Paper*. However, as noted above, SSI's operating territory is challenging in its nature, size and low population density resulting in correspondingly high costs of operation in that territory for SSI. Accordingly, exceptions are required for SSI with respect to the timing of a full transition to BRS. For the same reasons, SSI requires funding for any lawful interception capabilities that it is required to adopt.

20. For all of these reasons, SSI urges the Department to adopt the proposals contained in these Comments, at least in NWT and Nunavut.