Gazette Notice SMSE 007-12

Consultation on a Policy, Technical and Licensing Framework for Use of the Public Safety Broadband Spectrum in the Bands 758-763 MHz and 788-793 MHz (D Block) and 763-768 MHz and 793-798 MHz (PSBB Block)

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Reply Comments
of
Bell Mobility Inc.

26 November 2012
Introduction

1. In accordance with the procedure set out in Industry Canada Notice No. SMSE-007-12, Consultation on a Policy, Technical and Licensing Framework for Use of the Public Safety Broadband Spectrum in the Bands 758-763 MHz and 788-793 MHz (D Block) and 763-768 MHz and 793-798 MHz (PSBB Block) as published in the Canada Gazette, Part 1, dated 24 August 2012 (the Notice), Bell Mobility (Bell or the Company) is pleased to provide the following reply comments based on its review of the comments posted on the Department's website.

2. Bell notes that it filed comments (the Comments) along with 35 other parties listed on the Department's website.

3. The Company’s Comments were supportive of additional public safety broadband spectrum being made available to the Public Safety (PS) community to ensure that a state of the art interoperable network, capable of delivering secure wireless data and video broadband services when responding to emergency situations is available.

4. The Company's review of the comments filed, clearly indicate that the overall majority of respondents to the Department's notice clearly supported the allocation of the 758-763 MHz and 788-793 MHz (D Block) as well as 763-768-MHz and 793-798 MHz (PSBB Block) for the use of PS in Canada.

5. Further, the Company believes that from our detailed review of the submitted comments to each of the consultation questions, that there is nothing that has been submitted that would lead Bell to change any of our positions from our original 24 October 2012 submission.

6. Bell is pleased to provide the following Reply Comments for the Department's consideration. Bell will address the questions raised in the order of their appearance in the Notice.

Part A – Policy and Technical Framework for Use of the D Block

4. **Designation of Use for the D Block**

A-1 Comments are being sought on Industry Canada's Proposal to designate the D Block (758-763 MHz and 7880793 MHz) for public safety broadband use.
7. As outlined in our original submission, Bell supports the overwhelming majority of respondents who indicated that the D Block should be allocated for PS broadband use.

8. Bell does not support the views expressed by Public Mobile Inc.:¹

Public Mobile continues to advocate for the commercial release of the D Block spectrum with built-in priority access features to serve Canada's public safety needs.

9. Bell would like to reaffirm its position that this block be designated for PS broadband use in Canada. Bell also remains of the view that the PS broadband (793-798 MHz) should also be made available to PS for broadband deployment.

A-2 Comments are being sought on Industry Canada's assumptions concerning the commercial equipment availability for the D Block (i.e. that consumer devices will not be readily available).

10. Bell remains of the view that commercial equipment availability will continue to evolve over the coming 24 to 48 months driven by developments in the U.S. Early adopters amongst the PS community are likely to trial the use of commercial devices for broadband, as well as early generation PS devices in this period.

11. As noted by a number of leading members from the PS community and as outlined in the comments submitted by the Canadian Public Safety Community:² ³

The public safety community believes the availability of consumer user equipment in both the U.S. and Canada will be heavily influenced by major communication carriers in the U.S. and will be driven by market forces.

12. As further elaborated in the Radio Advisory Board of Canada (RABC) response:⁴

The commercial availability of equipment for D-block use continues to evolve. Decisions made in the U.S. by First Net considering the acceptance of commercial users into 3GPP Band 14 will be a factor in determining equipment availability in the future.

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¹ Public Mobile Inc. Comments, page 2, paragraph 1.
² Canadian Public Safety Community - Joint Response by Federal, Provincial, Territorial Authorities and Federation of Canadian Municipalities together with the First Responder Community.
³ Canadian Public Safety Community Comments, page 2, paragraph 3.
⁴ Radio Advisory Board of Canada (RABC) Comments, page 3, paragraph 1.
13. As outlined above, Canadian stakeholders are most likely to be adopters of products that are primarily driven by the U.S. market. This provides additional support for harmonization of the broadband framework (spectrum and standards) with the U.S. to ensure maximum functionality being available to Canadian PS stakeholders.

A-3 As stated above, responses to the 700 MHz consultation indicated that there was no support for the option of designating spectrum for commercial use with obligations to serve public safety. Does this view still apply for the D Block?

14. One of the key reasons why such an approach was not successful in the U.S. was the apparent uncertainty surrounding PS needs and regulatory requirements. As outlined by Motorola Solutions Canada Inc. in their response:

   The FCC unsuccessfully tried to auction the D Block in March, 2008, which due to carrier uncertainty of public safety needs and regulatory requirements, resulted in little carrier interest and no carrier meeting the minimum bid requirements.

15. Bell continues to be of the view, that spectrum shared between public service and commercial entities result in too many variables and uncertainties associated with its use. For this reason, the U.S. decided not to pursue such an option.

16. As further indicated by the Canadian Public Safety Community in their response they state that:

   The position of the public safety community remains unchanged on this point. Under this scenario, there does not appear to be any business or operational incentive to provide priority of service to public safety by commercial operators; in fact there is a disincentive as public safety would not be in a position to pay premium fees for priority service.

17. Further, the complexity associated with managing capacity, access and reliability of broadband services in the D Block to a user group that extends beyond PS could certainly delay a reliable secure early deployment of PS services. Maintaining this band for exclusive PS use is the most logical and expedient approach at this point in time.

18. As a result, Bell remains of the view that, as was decided in the U.S., the option of designating spectrum for commercial use with obligations to service PS remains unfeasible.

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5 Motorola Solutions Canada Inc. Comments, page 8, paragraph 1.
6 Canadian Public Safety Community Comments, page 3, paragraph 3.
Part B – Use of the 700 MHz Spectrum Designated for Public Safety Broadband

5. **Access to the Spectrum Designated for Public Safety (Categories of Users)**

**B-1** Under what circumstances should Category 2 users have access to the 700 MHz public safety broadband network (e.g. for day-to-day operations, only in emergencies)?

19. Bell supports the notion that the 700 MHz broadband network should be made available to Category 2 users for day-to-day operations.

20. As indicated in the response provided by the Municipal Information Systems Association of Canada in their response:7

   MISA/ASIM Canada believes that it is essential to allow municipalities to use this network for day-to-day operations as well as during emergencies for both Category 1 and 2 groups.

21. As further elaborated on by General Dynamics Canada in their comments, they are of the view that the priority capabilities inherent in the technology that will ultimately be utilized in the network will facilitate management of capacity and access to network resources and therefore will ensure that Category 1 users continue to have priority access to the network. General Dynamics Canada state:8

   Prioritization policies can be defined on a semi-static and dynamic basis. As such, Category 2 can be provided with access to the 700 MHz public safety broadband network without risk of degrading network performance required for Category 1 users during both day-to–day and emergency operations.

22. The requirement for making additional PS broadband spectrum available is to ensure that in case of emergencies, sufficient network capacity exists to ensure that first responders have reliable access to the network. With this in mind, Bell also supports the views expressed by the Canadian Public Safety Community in their comments wherein they indicate that access to the network should be provided to any PS agency in the event of an emergency as long as priority access capability exists. The Canadian Public Safety Community state:9

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7 Municipal Information Systems Association of Canada Comments, Response to Question B1, page 2.
8 General Dynamics Canada Comments, Response to Question B1, paragraph 3, page 4.
Any agency broadly aiding the safety of the public should be permitted to use the entire spectrum under consideration as long as there are appropriate priority of access designations, which is readily achieved with current technologies.

**B-2** In the context of the 700 MHz public safety broadband network, which entities/organizations should be covered under Category 3?

23. Bell believes, that as presently outlined in the Department's Radio Systems Policy RP-25 Policy Principles for Public Safety Radio Interoperability the current definition of users falling under Category 3 (i.e. other government agencies and certain non-governmental organizations or entities that play a role in ensuring the safety of the public) is sufficiently broad to allow those agencies that are required to aid during times of emergency to have access to the network.

24. The above view was also supported and expressed by the Royal Canadian Mounted Police (RCMP) in their comments wherein they stated:10

> Category 3 agencies should be broadly defined as any agency that plays a role or impact 'public safety'.

25. Bell remains of the view that the present description of the categories of service are sufficiently broad to allow PS to ensure that the correct agencies have access to the network during emergencies.

**B-3** Under what circumstances should Category 3 users have access to that network (e.g. for day-to-day operations, only in emergencies)?

26. While Bell has no issues with Category 1 and 2 users having access to the network for day-to-day operations, we do remain of the view that Category 3 users should only have access to the network in times of emergencies (and only when their specific services are required) especially in major urban centres and that these users should be directed to use commercial facilities for their day-to-day operation.

27. Such an approach would ensure that sufficient capacity exists to accommodate Category 1 and 2 users during times of emergencies and disaster relief.

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6. **Commercial Use of Spectrum in the 700 MHz Band Designated for Public Safety**

B-4 Should industry Canada permit any commercial use of unused capacity in the 700 MHz spectrum designated for public safety broadband?

B-5 whose needs must be met before 700 MHz spectrum designated for public safety broadband can be used for commercial services?

B-6 Should commercial services, i.e. services with purposes other than protection of life and property, be restricted to users that fall under the public safety categories described in Section 5?

28. We agree with many of the submitted comments which indicate that commercial users should not have access to unused capacity in the 700 MHz band designated for PS use.

29. As noted earlier in Bell's response under Question A-3, the prospect of commercial use of unused capacity may bring a level of complexity, and uncertainty amongst PS users that could delay adoption of the spectrum and trial usage. Exclusively set aside for PS use makes the spectrum more secure (perceived and real), and will make it easier for the oversight and operational bodies to judge the effectiveness of the networks and to make them most efficient to meet the needs of the PS community.

30. Bell agrees with the views provided in the City of Calgary's response to the consultation, where they state:11

The City of Calgary prefers not to permit any commercial use of unused capacity in the 700 MHz spectrum designated for public safety broadband as there may be conflicting priorities with commercial use which may have a negative impact on public safety use.

31. Further Bell notes the views expressed by MobilExchange Ltd, wherein they state that:12

We strongly recommend that no access to commercial services providers to the PSBB and / or D Block should be allowed in competition with commercial public wireless networks. The public commercial networks have been built mostly on spectrum that has been auctioned and the cost of the spectrum acquisition is embedded in the price rates to consumers. The PSBB and D Block spectrum should only be accessed by public safety, healthcare and other publicly funded and social services.

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11 City of Calgary Comments, Response to Question B-4, page 2.
12 MobilExchange Ltd. Comments, Response to Question B-4, page 18.
32. MTS Allstream also addresses the issue and expresses the view that the 700 MHz broadband PS spectrum not be used for any commercial purposes. In their response they state that:\footnote{MTS Allstream Comments, page 4, paragraph 10.}

At this time it would be prudent if the 700 MHz Broadband Spectrum designated for public safety not be permitted to be used for any commercial purposes. Commercial uses would be difficult to control once established and could compromise the primary purpose of the public safety network.

33. Bell would like to reaffirm its position that Industry Canada should not permit any commercial use of unused capacity in the 700 MHz PS broadband spectrum. In our view, the comments submitted to the consultation did not make a case for the allocation of any unused capacity for commercial use.

34. Bell further retains our original position however, that in the event that the Department allows the use of unused capacity for commercial use that such use is made available through a competitive licensing process and that the spectrum is held by commercial operators directly.

\begin{itemize}
  \item[B-7] Should the licensee or licensees be permitted to provide commercial services directly to the public?
  \item[B-8] Should the licensee or licensees be permitted to wholesale unused capacity to a commercial operator?
  \item[B-9] Should there be other limits to any commercial user (e.g. should such use be limited to particular amounts of time and throughput, or to specific geographic areas)?
\end{itemize}

35. With respect as to whether licensee or licensees be permitted to provide commercial services directly to the public, Bell firmly believes that since the 700 MHz spectrum is being designated for PS broadband use and that the spectrum should be used strictly for PS related activities. Allowing commercial services to be made available to the public would create an unlevel playing field.

36. Bell does not believe that PS should be engaged in providing commercial services, as it detracts from their core mission and capabilities.
37. Bell wholeheartedly agrees with the views contained in the comments submitted by the Canadian Public Safety Community, where they clearly state:\textsuperscript{14}

No. It is not the intent of public safety to compete with commercial communications service providers.

38. Bell further supports the views expressed by the Municipal Information Systems Association of Canada (MISA) in this regard, where they indicated that such use is in the best interest of PS organizations. MISA states:\textsuperscript{15}

MISA/ASIM Canada does not believe that commercial use of unused capacity in the narrow spectrum set aside for public safety broadband is in the best interests of public safety organizations, including municipalities.

39. The Canadian Advanced Technology Alliance further indicates, that providing commercial services is not the mandate of the Public Safety Network entity. CATA states:\textsuperscript{16}

No. Whereby it is expected that the PSNE will need to employ and/or build some capacity in network management, it will not have the ability to provide these services directly to the public nor should it as this is not its mandate. Partnerships with commercial carriers will be required to pursue these ends.

40. PS entities should remain focused on the vision of how technology may support and ensure their successful completion of their primary missions, and defining specific requirements for the broadband product services. Any activity beyond this, including commercial services, is likely to significantly detract from the early and successful launch of the D Block domiciled services for PS.

41. The Department has also clearly indicated under Section 11 Next Steps that a further consultation will be initiated following a decision being rendered on the outcome of this specific consultation. Industry Canada proposes to initiate a further consultation seeking more in-depth analysis of the operation and technical requirements that should apply to the 700 MHz broadband spectrum designated for PS use. The Department further indicates that the consultation would possibly include, but would not be limited to the following:

- Proposed licensing process;

\textsuperscript{14} Canadian Public Safety Community Comments, Response to Question B-7, page 7.
\textsuperscript{15} Municipal Information Systems Association of Canada Comments, Response to Question B-7, page 3.
\textsuperscript{16} Canadian Advanced Technology Alliance (CATA) Comments, Response to B-7, page 9.
Proposed licence fees; and
- Conditions of licence (including licence terms and deployment requirements).

42. An important consideration for PS is that in the event that the PS community is allowed to provide commercial services they would by definition become radiocommunication carriers and, in Bell's view, by extension, be bound by the same Conditions of License obligations being applied to radiocommunication carriers with respect to license terms and conditions. Some of the more notable key requirements that would equally apply to PS entities who provide commercial services include:

- Implementation of Spectrum Usage/Rollout requirements;
- Intercept requirements;
- Research and Development; and
- Annual reporting.

43. It must also be realized, that even though the issue of licence fees applicable to PS entities operating in 700 MHz would be part of a separate consultation as outlined above, it would be reasonable to assume that PS entities that are engaged in the provision of commercial services would be equally subject to the same fees charged to radiocommunication carriers. This could result in a possible two-pronged fee structure that PS entities would need to be taken into consideration.

B-10 Which mechanism or mechanisms (e.g. priority access, pre-emption, or others), if any, would have to be in place to ensure that the public safety community's communications requirements are met?

B-11 Should industry Canada mandate such a mechanism or mechanisms?

44. Bell reaffirms and stands by our view as previously submitted, that commercial use should not be permitted in the 700 MHz PS spectrum.

45. However, should the Department allow some commercial use of the spectrum, Bell continues to believe that the technology that will ultimately be utilized in the network (i.e. LTE) must include priority access and pre-emption capability to ensure that high priority users/services would continue to have access to the necessary network resources when required.
46. Bell agrees with the views expressed by the Canadian Public Safety Community in this regard, that the priority and Quality of Service (QoS) mechanisms specified in the LTE standard could be used to ensure that PS maintains service in the event of an emergency. Further the local incident commander should be provided with the ability to prioritize users at the scene. The Canadian Public Safety Community state:\textsuperscript{17}

   All priority and Quality of Service (QoS) mechanisms specified by 3GPP for LTE could potentially be used....

47. They go on to state:

   ...In an emergency, the local public safety incident commander could be provided with the means to prioritize users and to control the QoS allocated to various applications.

48. The issue of flexibility to prioritize was further supported in Motorola Solutions Canada Inc.'s response to the consultation where they stated:\textsuperscript{18}

   The PSBN (public safety broadband network) should be designed to automatically assign priority access on an operational, real-time basis to public safety users on the network for day-to-day public safety operation. As described above, public safety command must be able to adjust priority on a real-time jurisdictional basis in emergencies, including potential exclusion or immediate pre-emption of non-public safety users on the PSBN in the affected area.

8. \textbf{Radio Interoperability}

B-12 Which technical measure or measures, if any, should Industry Canada consider mandating to address radio interoperability requirements?

B-13 Should Industry Canada mandate a specific technology? If so, under which standard or standards?

49. Bell continues to be of the view, that the single most important element in ensuring interoperability, is licensing of a single PS governing body to manage the 700 MHz broadband spectrum. This entity should then ensure that access to the spectrum requires interoperability between systems as well as meet the priority access and pre-emption requirements of the PS community.

\textsuperscript{17} Canadian Public Safety Community Comments, Response to Question B-10, page 8.
\textsuperscript{18} Motorola Solutions Canada Inc. Comments, page 15, paragraph 3.
Bell agrees with the Canadian Public Safety Community comments wherein they caution the Department against implementing technical measure or measures to address interoperability. The Canadian Public Safety community state\(^{19}\) in their response:

> We would caution against IC mandating a specific technology. In order to accommodate flexibility and in an environment where technology evolves rapidly, mandated technologies may hinder interoperability more than help. However, technical measures will be essential to interoperability and the obligation should be written in contractual agreements with service operators. These will be defined in service level agreements (SLAs).

Further, with respect to the issue of mandating a specific technology, Bell agrees with the Canadian Public Safety Community views as expressed in their comments which state:\(^{20}\)

> IC should not mandate specific technology as it evolves too quickly for a mandate to be effective. It is rarely possible for every party to maintain the same version of technology in a national network as is envisioned here.

Bell believes that there should be no requirement to mandate a specific technology or technical standard(s) however we are of the view that the Department has an important role to play to ensure that spectrum is deployed in an efficient and effective manner and that interoperability is maintained between users.

**Part C – Licensing Options for the 700 MHz Spectrum Designated for Public Safety Broadband Use (PSBB block and D block)**

9. **Licensing of 700 MHz Spectrum Designated for Public Safety Broadband Use**

C-1 Comments are being sought on Industry Canada’s proposal to assign the 700 MHz broadband public safety licences (the PSBB block and potentially the D block) directly to one or more PSNE’s, rather than via an auction with obligation to serve public safety.

Bell generally concurs with the majority of respondents to the consultation which support the Department’s proposal wherein the spectrum should not be auctioned but assigned to one or more public safety network entities (PSNEs).

Bell further supports the views as expressed by the City of Calgary wherein they indicate that they support the Department’s proposal of assigning the spectrum directly to one or more

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\(^{19}\) Canadian Public Safety Community Comments, Response to Question B-12, page 9.

PSNE’s would better enable the PS community to better define their requirements. They state\(^{21}\):

> The City of Calgary agrees that Industry Canada’s proposal to assign the 700 MHz broadband public safety licenses directly to one or more PSNEs is preferred. This will enable the public safety community to fully define their requirements to meet their needs.

55. Bell remains of the view that the 700 MHz broadband PS licences (PSBB and potentially the D Block) be assigned directly to a single PSNE and, if required, subordinated to regional public service entities.

**C-2** If capacity for commercial use were allowed, would this change the response to question C-1?

56. Bell does not agree with Public Mobile's proposal that the spectrum should be allocated to commercial providers with obligations to serve. Public Mobile states\(^{22}\):

> Public Mobile believes that public safety spectrum should be allocated to commercial providers with very specific obligations to serve public safety agencies with this spectrum.

57. Bell continues to maintain the view that given the unsuccessful U.S. experience with the auction of the D Block/commercial use of the spectrum, that the spectrum be allocated and used exclusively for PS broadband users.

**C-3** If assigned via auction, given the U.S. experience with the auction of the D block, what considerations are critical to increase the likelihood of timely deployment of a public safety network?

58. Refer to Bell's response to Question C-2 above.

10. **Eligibility**

**C-4** Based on the proposal in Section 9.3, should Industry Canada assign a single licence to a national PSNE or multiple licenses to provincial, territorial and or regional (e.g. multiple provinces?) PSNEs.

\(^{21}\) City of Calgary Comments, Response to Question C-1, page 3.
\(^{22}\) Public Mobile Comments, Response to Question C-2, page 4.
59. Bell agrees with the views expressed in the Canadian Public Service Community's comments where in they indicate that the licence should be assigned to a single PSNE but allow subordination of the licence. They further suggest the formation of a non-profit entity to govern a PS broadband data system using the 700 MHz PS spectrum. As regions develop their business plans it is envisioned that all provinces and territories may form part of this entity. The Canadian Public Service Community stated:\(^23\)

> IC should assign the licence to a single PSNE but allow the PSNE to partner with RSDE so that these can apply for subordinate licences. A cohesive and focused body of representatives of the Senior Officials Responsible for Emergency Management, the Canadian Association of Chiefs of Police (CACP), the Canadian Association of Fire Chiefs (CAFC), the Emergency Medical Services Chiefs of Canada (EMSCC), the Canadian Interoperability Technology Interest Group (CITIG) and Federation of Canadian Municipalities (FCM) have jointly expressed the intent to form a national non-profit entity to govern a public safety broadband data system using 700 MHz spectrum to establish infrastructure, standards and policies that will ensure interoperability across Canada and with our U.S. public safety partners. As this entity develops and regions develop business plans for the construction and operation of technology, the potential composition of regions (e.g. multiple provinces) will become clearer. One obvious potential composition is that of all provinces and territories.

60. Bell reiterates our view, that in order to ensure a successful deployment of 700 MHz PS spectrum that Industry Canada should assign a single licence to a national PSNE representing the widest possible PS users.

61. The PSNE should also be able to further subordinate the licence, along with the condition and responsibility to deploy the spectrum in an efficient and effective manner as well as to ensure that interoperability is maintained.

**C-5 Which criteria should be used to assess whether a PSNE is eligible to hold a license?**

(A) Should the PSNE be required to represent the permitted categories of users, taking into consideration that the categories include municipal, provincial, territorial and national agencies? (See Section 5 for discussion on categories of users.) Specifically, should the PSNE represent:

- Category 1 users only?
- Category 1 and 2 users only?
- Category 1, 2 and 3 users?

\(^23\) Canadian Public Safety Community Comments, Response to Question C-4, page 12.
62. Bell believes that the PSNE should represent the widest possible users. Such wide-ranging representation would ensure that the PSNE has buy-in from those entities that are engaged in PS activities and as a consequence contribute to the successful and timely deployment of a PSBB network in Canada.

63. Bell supports the response provided by the Canadian Public Safety Community in this regard indicating that Category 1, 2 and 3 users should be represented. The Canadian Public Safety Community input states:24

   Yes. The PSNE and the RSDEs should represent category 1, 2 and 3 users as this best facilitates opportunities to ensure full interoperability and most economy of scale.

   (B) Should the PSNE be required to demonstrate how it will represent the permitted categories of users?

64. It would seem reasonable that the PSNE would need to demonstrate how it will be representing the permitted categories of users. In this regard, Bell notes and supports the views expressed by the Canadian Public Safety Community input which states:25

   A cohesive and focused body of representatives of the Senior Officials Responsible for Emergency Management CACP, CAFC, EMSCC, CITIG and FCM have jointly expressed the intent to form a national non-profit entity (a National Entity) to govern a public safety broadband data system using 700 MHz spectrum to establish infrastructure, standards and policies that will ensure interoperability across Canada and with our US public safety partners.

   (C) Must the PSNE be endorsed by certain national, federal, provincial and territorial organizations responsible for public safety and emergency management (e.g. Public Safety Canada, Senior Officials Responsible for Emergency Management [SOREM], provincial and territorial emergency management organizations [EMO], the Federation of Canadian Municipalities)? If so, which ones?

65. No comment.

All of which is respectfully submitted.

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