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)

MOBILEEXCHANGE REPLY COMMENTS

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1.1 - Mobilexchange is pleased to submit its reply comments to the SMSE-007-12 Consultation process on a Policy, Technical and Licensing Framework for use of the Public Safety Broadband Spectrum in the Bands 758-763 MHz and 788-793MHz (D Block) and 763-768 and 793-798MHz (PSBB Block) jointly named Band 14. (Please excuse the error in the title of our submission. The bands should be written, 758MHz (not 785MHz) and 788 MHz (not 789).

1.2 - In reviewing the 37 submissions to this proceeding, we are very pleased to note that all participants unanimously recommended support of Industry Canada’s proposal to designate the D Block (augment the PSBB block to the full Band 14-[10+10] MHz) for the deployment of Broadband mobile wireless wide area dedicated networks for the redefined “public safety” use.

1.3 - Based on this unanimous response, Industry Canada would move, we would expect, to review how best to finalize its Policy, Technical and Licensing framework so as to best adhere to 3 fundamental existing government policies:

1. The “Spectrum Policy Framework Canada (SPFC)
2. The Telecom Act

The prime objectives of these policies are: “to maximize the economic and social benefits that Canadians would derive from the use of the radio frequency (band 14 in this case) for public safety/healthcare and other government agencies.

“To maximize the economic and social benefits” requires deployment of interoperable broadband secure and reliable mobile network infrastructures, which will enhance the security of first respondents, improve innovations and efficiencies in healthcare as well as other social services and will enable government agencies to benefit from wireless ITC innovation cost reductions and quality improvements throughout.
It is not in the best interest of Canadians to set licensing rules for narrowly defined “first respondents”, without considering the ability of the recipients to fund accelerated wide area deployments.

It is also not in the best interest of Canadians to prevent through licensing policies full interoperability and transparency of operations between first respondents and supporting governments’ social services.

Expanded access to the band 14 infrastructure, particularly the engagement of the Provincial, Territorial and Federal healthcare agencies, will greatly improve early deployment viability and innovative benefits for social services national interoperable broadband wireless networks.

1.4 - We find most appropriate the tabling, as a reference in the proceedings, by the Canadian Electricity Association, of the “National Strategy for critical infrastructure 2009” (http://www.publicsafety.gc.ca/prg/ns/ci/fl/ntnl-eng.pdf):

This document represents the present Canadian National Strategy for the deployment of critical infrastructure for a: “safer, more secure and more resilient Canada.” The documents define: “Critical infrastructure as: processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of Canadians and the effective functioning of government.”

1.5 - It is certainly clear from the responses received and previous proceedings, that a deployment of dedicated reliable, secure and wide area broadband wireless (nationally interoperable) networks represents such critical infrastructure.

1.6 - It is clear as well, that in order to adhere to the National Strategy for critical infrastructure and improve “Canadian resiliency” deployment and upgrade of critical infrastructure such as “systems and facilities essential to the health, safety and security” it is essential to incorporate in addition to first respondents also healthcare, energy and utilities, Local, Provincial and Federal governments’ social services.
1.7 - The two key drivers, in our opinion, to adoption of a policy that would “maximize the economic and social benefits for Canadians” are:

1. A licensing framework that would adhere to the objectives of the Telecommunications Act and the National Strategy for Critical Infrastructure which would allow all interrelated and collaborative agencies engaged in the building of a “safer, more secure and more resilient Canada” to securely and seamlessly interoperate wirelessly over dedicated and reliable mobile networks. These networks would be operated with priorities of access managed by first responders, everywhere, whenever needed, all of the time, both in emergency situations and in day to day operations.
2. A licensing framework that would enable funding and rapid deployment across the country.

1.8 - The regulatory and governance structure of public services in Canada is quite different from that of the U.S and other Canadian trading partners. In the U.S., the Federal authorities (FCC and the President) have allocated 7 Billion dollars for the deployment of national 700MHz broadband LTE networks in Band 14, for public safety and associated services. (http://broadband.about.com/b/2011/01/26/obama-announces-support-for-d-block-for-public-safety.htm).

Further, as announced on September 24th 2012, “FCC Chairman Genachowski announced FCC plans to act on recommendations from a new M-health Task Force report unveiled at an event hosted at the Information Technology and Innovation Foundation (ITIF). Chairman Genachowski also announced that the FCC would collaborate with its federal partners and the private sector to meet the M-health Task Force’s goal that M-health technology be a routine medical best practice within five years.

At the event, the M-health Task Force released its report outlining recommendations to the FCC, other federal agencies, and to industry, to accelerate the adoption of M-health technologies for improved health outcomes and reduced costs across the health care system.”
In Canada however, while we are structured differently and are behind in allocation of funding for government services’ dedicated broadband secure wireless networks, and behind in adoption of such m-Health policies, we do have a significant advantage over the U.S.:

With the approval of the full 20 MHz band 14 for Public safety/healthcare and associated services, yet with deployed wireless networks’ capacity demands of only 1/10 of those in the U.S., Canadian “economic and social benefits” can be more quickly achieved. This can be done by including healthcare in the definition of public safety. Provincial and Territorial deployments of these secure and reliable broadband networks, will become the “model” for the U.S. and our other trading partners so that Canadian users of healthcare and other social and public safety services innovations in wireless ICT will benefit from worldwide economy of scale.

1.9 - In our submission we have provided ample evidence for the need of a secure, reliable broadband mobile wireless infrastructure for the Provincial, Territorial and Federal healthcare communities. These needs expand to both day to day efficiency improvements and co-ordinations with first responders during emergencies that come with wireless ICT deployment.

1.10 - As in Quebec: “la réponse en case de sinistres majeurs est basée sur le Plan national de sécurité civile dans lequel plus de 40 ministères et organismes gouvernementaux ont un rôle à jouer en soutien aux municipalités et à leur population.” Similarly most Provincial, Territorial and Federal governments have emergency plans and support day to day organizational activities for emergencies that involve many departments including healthcare.

1.11 - Many Provinces and Territories government services currently have access to dedicated broadband fixed (fiber optic and microwave) networks. Such systems for example are: “SuperNet” in Alberta, “Smart Systems for Health Agencies (SSHA)” and “Orion” in Ontario, and “Canarie” across the country. These networks support secure fixed ICT applications for social services such as healthcare, as well as public safety (first respondents). The operational quality and efficiency improvements which can be achieved with today’s technology are predicated
on wireless broadband secure and reliable mobile extensions. These mobile extensions (last miles) to these systems will allow secure and reliable “emergencies proof” ICT access in a ubiquitous manner.

In analyzing wireless ICT needs for emergencies and day to day operations requirements in the healthcare and other social services, and in reviewing the needs of municipal first respondents’ public safety agencies, it is obvious that only one dedicated network mobile extension per area is required. To build two parallel dedicated wireless extensions to the dedicated fixed infrastructure in each area would not make economic or operational sense.

The country needs only one dedicated wireless broadband infrastructure to serve all these non-commercial emergency and non-emergency wireless ICT services.

1.12 - Many of the respondents representing provincial and municipal authorities supported wider access to the dedicated, non-commercial 700 band\textsuperscript{14} future networks. Very few interveners, however, have suggested ways for funding that will accommodate rapid deployment post licensing. We believe our submission addresses such Provincial-Public, Private, Partnership (P3) funding and operational undertakings that would meet the national interest and provide maximum benefits to Canadians.

1.13 - See quote below;

From the Digital Economy in Canada proceeding (http://www.ic.gc.ca/ric/site/028.nsf/eng/00036.html)

“In the March 3, 2010 — \textit{Speech from the Throne} the Government of Canada committed to “launch a digital economy strategy to drive the adoption of new technology across the economy. To encourage new ideas and protect the rights of Canadians whose research, development and artistic creativity contribute to Canada's prosperity, our Government will also strengthen laws governing intellectual property and copyright.” This commitment was reinforced in Budget 2010 where the Government of Canada committed to “develop a Digital Economy Strategy that will enable the ICT sector to create new products and services, accelerate the adoption of digital technologies, and contribute to improved cyber security practices by industry and consumers.” The purpose of this paper is to seek advice that will shape a multi-year digital economy strategy for Canada. The world is going digital, and the evidence is all around us.
Digital technologies are ubiquitous, enabling all sectors across the economy to be innovative, productive and competitive. The Internet and the proliferation of digital information and communications technologies (ICT) have given rise to new products and services - changing the way we live. The way our children learn and study, how we communicate with each other, how medical professionals keep us healthy, how we conduct research and how we conduct business across all sectors - all have been fundamentally transformed by digital technologies."

Despite the fact that the final “National Digital Economy Strategy for Canada has not been announced yet, the opportunity of bringing healthcare into the Digital Economy (m-health) fold now, is too critical to miss. With one small change, as recommended here, by the inclusion of healthcare in the definition of “public safety”, Canada can take a giant step forward toward its digital strategy aspirations notably ahead of the U.S. and many of its trading partners.

1.14 - In Summary:

- Adoption of healthcare (m-Health) policies by Provincial and Territorial health agencies. These m-Health enabled policies will instill confidence for healthcare providers for a broad use of m-Health over dedicated, secure and reliable ubiquitous wireless networks, fully interoperable, through federal spectrum access policies.
- Such policies will greatly improve healthcare outcomes, reduce operational costs and make Canada a leader in exportable m-Health innovations.
- Inclusion of healthcare as part of the Public Safety definition for the purpose of band 14 spectrum access will accelerate deployments through earlier funding.
- Earlier deployment (within the next 2 to 4 years) means great opportunities for thousands of valuable high-tech jobs for Canadians, and worldwide development of exportable expertise.
- Such early deployment could be achieved through Public - Private - Partnerships (P3)* or the new “Social Bonds” strategy. These funding strategies have proven “to accelerate delivery of Public infrastructure”
“Across Canada, there are 180 P3 projects (the development of public services or infrastructure through a mix of private and public funding) worth more than $58-billion. Much of the activity is concentrated in sectors such as transportation and healthcare (50 hospitals have been built under the P3 model since 2004).”

“And so far, the municipal sector has been slow to embrace P3s. There still is not as much growth in the municipal sector as people had hoped to pick up the slack,” said Tim Murphy, a partner at McMillan LLP in Toronto.

The process still needs to be simplified to fit smaller projects. On top of this, “municipalities in B.C. in particular, are going to face a real problem,” Mr. Sanders said. “Provincial legislation prohibits borrowing for a project for more than five years,” while the typical time frame for P3 projects spans decades.

“You’ll have to go to a referendum to achieve more than five years.”

“The province, at least, is a leader in the industry and shares its expertise with jurisdictions around the world; last year, 15% of Partnerships British Columbia’s revenue came from outside of the province (the agency plans and delivers infrastructure projects).” (Source: Financial Post November 23rd, 2012)

In addition, please review the latest U.S. based commonwealth fund report discussed in Mr. Jeffrey Simpson’s article in the Globe and Mail (November 23rd, 2012): Best healthcare System? The numbers say no. “As for the capacity of Canadian physicians to exchange patient summaries and test results with doctors outside their practice, Canada stood last.”

A ubiquitous, secure and reliable infrastructure will make all the difference.

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