April 6, 2011

Manager, Mobile Technology and Services, DGEPS
Industry Canada
300 Slater Street
Ottawa, Ontario K1A 0C8

Dear Sir:

Re: Notice No. SMSE-009-11 – Extension to the Reply Comment Period for the Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum

In reviewing fifty-five submission of companies, organization, and federal, provincial and municipal governments, as well as those of private individuals, nowhere did we find the direct voice of Canadians looking to improve their healthcare services with wireless mobility – mHealth – implementation.

Neither have we seen, at least in the public submissions, any proposals that address the truly urgent need of the Canadian healthcare industry for a SECURE mobility network.

Although the Federal government, the Provinces and Territories have for a number of years addressed the digitalization of the Healthcare industry through Infoway and provincial e-Health organizations, no one has addressed one central and critical problem: there is at present no secure way, to our knowledge, to link health care information centres with end users via a dedicated mobility network which guarantees privacy, integrity and real-time availability, under Canada Health regulations. Dedicated spectrum allocation, as proposed in our submission, provides a solution to the problem.

Canada is unique in the world in that our healthcare infrastructure is largely funded and managed by Governments as a true social service. This presents a unique opportunity to make the best use of the Canadian spectrum assets owned by all Canadians to improve healthcare services.

And so it does not make sense to argue that since no other country has allocated mobile spectrum to the healthcare industry, we should not consider it for Canada.
We are fortunate that through Federal and Provincial leadership we can guide the industry to adopt a SWHN concept to provide “best practice” mobility information everywhere.

WHY CANADIANS NEED HEALTHCARE MOBILITY

The healthcare worker needs instant and accurate information to make the best decisions and deliver the very best care. With a Secure Wireless Health Network (SWHN), healthcare professionals will have the mobile voice, video and data which will allow them to attain a new level of efficiency, accuracy, patient safety and healthcare excellence everywhere. With SWHN, doctors, nurses and other healthcare workers inside hospitals, long term care facilities, clinics and other physician offices as well as paramedics on the scene of an accident can get secure, accurate up-to-date information in just seconds – able to instantly access data in a patient’s record, verify a medication order or reach a co-worker to collaborate on a clinical decision. The SWHN can be deployed to Health Canada standards.

A recent article by Arthur D. Little 2011 (www.adl.com/mHealth) (Download File: ADL_mHealth.pdf) addresses the issues confronting the European Mobile Network Operators (MNOs), an industry structure quite different than the Canadian wireless industry. What is clear from their report is that secure mHealth has the potential to “transform the Healthcare industry from physician-centric to patient-centric healthcare delivery”.

THERE IS SUFFICIENT SPECTRUM TO MEET THE HEALTHCARE NEEDS

Many of the submissions focused on the urgent need for additional public commercial mobile spectrum in Canadian urban communities and the phenomenal increase in mobile data use forecasted over the next few years. Very little was presented on the public record on current wireless technology innovations and future developments that would increase dramatically the efficiencies of the networks in accommodating this exponentially-growing traffic demand.

We cite a recent (March 21, 2011) article describing a new development by Alcatel-Lucent (ALU) that may revolutionize the industry by significantly lowering capital network investment and increasing network’s capacity. (http://money.com/2011/03/21/technology/light_radio/index.htm)

We also include an article from “Technology Review” that states “Stanford engineers argue that outmoded protocols and business rules, not technology, are why 95 percent of spectrum goes unused”: (http://www.technologyreview.com/blog/mimssbits/25520/)

Current wireless networks should not be congested in major Canadian cities, as the existing incumbent wireless carriers have sufficient spectrum in comparison to other wireless carriers in metropolitan centres around the world. If, however,
current networks have not been designed efficiently enough to carry the load, then we have a proposal that could immediately solve any such concerns but would need a regulatory intervention.

**THE OPEN ACCESS TWO-WAY ROAMING PROPOSAL**

An interoperable wireless infrastructure would allow, in real-time, roaming and the transfer of traffic in a congested area between networks (carriers). This will immediately provide relief to any carrier that has a capacity constraint in certain areas, at certain times. It is clear that many – probably all – of the new entrants who launched service subsequent to the AWS 2008 Auction have capacity to accommodate such transfers (overflow), now and in the foreseeable future.

Therefore, between new technology, development and interconnections amongst the carriers, sufficient mobile spectrum has been licensed and deployed (or is waiting to be deployed, in the case of the incumbents’ AWS spectrum) to meet existing and future commercial demand, to justify a dedicated allocation (out of the proposed 700 MHz spectrum) to the Canadian Healthcare Industry as advocated in our submission.

**2011 to 2014: TIME TO REVIEW THE SWHN ALLOCATION**

This consultation will undoubtedly demonstrate that the incumbents, the new entrants and the traditional public safety agencies have sufficient spectrum today to accommodate the demand for the next few years.

Government should incorporate our recommendation and set aside about 20% of the 700 MHz under consideration for potential allocation to the Provinces as part of the 2014 Federal/Provincial Healthcare funding formula.

During the two years following the 700 MHz auction, and the time leading up to the 2012 auction, the provinces’ health departments, in conjunction with the Federal health department/Industry Canada and the private sector, would study the operational, technical and financial parameters of the SWHN leading to a PPP (Public/Private/Partnership) agreement toward the deployment of the SWHN system in 2014/15.

Should the review conclude that the SWHN project is not viable and agreements cannot be reached, Industry Canada may include these 20 MHz in its subsequent auction.

No risk is involved in preserving the 20 MHz SWHN spectrum, as it can be auctioned for public use at any time subsequent to the proposed review.

Respectfully submitted,

Michael Kedar