

Innovation, Science and Economic Development Canada

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Review of the Canadian Communications Legislative Framework

Comments submitted by: Michael Kedar

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I-Overview

1. Mobilexchange Ltd. is pleased to have this opportunity to provide comments according to the terms of reference laid out in the Broadcasting and Telecommunications Legislative Review. As a veteran of the telecommunications industry, the founder of Mobilexchange Ltd. and now independent of direct association with any telecom service provider or regulatory body, I would welcome the opportunity to meet with the Review Panel to share my telecom experience along with my vision and recommendations for the future.

2. These comments are primarily focused on the need for changes in the Telecommunications Policy Objectives in Section 7 of the Act. I fully agree with the **government's statement:**

There are growing concerns over safety, security, and privacy risks as more of our activities go online. It is imperative that we continue to build out affordable, high-quality services and close the digital divide. Future waves of technological change are expected with the advent of 5G wireless networks, ever-growing demand for faster network speeds, and rapid growth in the number of devices connecting everything from automobiles to sensors for precision agriculture.

3. To mitigate these concerns, the Policy Objectives in Section 7 of the Act need revisions. As we envision the future of the

telecommunications infrastructure and services being the cornerstone of Canadian social and economic wellbeing, **Canadians can't afford to continue to allow governance of these networks and services to be controlled primarily by “*market forces*”** [as cited in S7 (f)] and extensive forbearance from regulations, supervision and enforcements.

As long as telecommunication services comprised primarily the fixed and wireless telephone voice services such approaches have served to allow rapid deployments. Now, however, these networks and services are critical to Canadians' wellbeing, security and safety. The governance of securing availability, reliability and affordability must not continue to be exclusively in the hands of private commercial enterprises such as the three dominant common carriers Bell, Rogers and TELUS.

4. I envision the telecommunications infrastructure development as evolving to duality of infrastructure deployments for distinct, unique and different applications: economic/entertainment on the one hand, and social services on the other. At present, there is a policy directive for the deployment of four facilities-based infrastructures in each Canadian market combining social services and economic/entertainment applications. However, in light of the approaching 5G deployment **and as “*more of our activities go online*”**, I see the urgent need for TWO primary Network of

Networks, one serving the public at large and the other specifically serving social services such as first responders, healthcare, utilities, education and many other security and social taxpayer funded services.

5. The **Policy Objectives should now focus on “*high quality*”** [as cited in S7 (b)] which is indispensable for the social services Network of Networks, as well as enhanced efficiency, [as cited in S7 (c)] which are necessary for the public Network of Networks.

6. Without clear objectives and directives in the Act as to the deployment requirement of high quality infrastructure for the social Network of Networks, we could face total failure of current public networks serving social services’ special needs in case of emergencies. We have seen such an example at the Lac-Mégantic rail disaster of July 5, 2013.

7. First responders and other social services today are relying for interoperability requirements in on-going and emergency situations in many places across the country exclusively on public networks. These networks often fail in cases of emergencies due to congestion by public non-emergency communications. As long as First Responders do not have access to highly secure, reliable, ubiquitous and broadband networks, the safety of Canadians will continue to be compromised.

8. Further, we need to enhance the efficiencies of public **Network of Networks’ deployments by stopping the unnecessary DUPLICATIONS** of facility based networks (four currently prescribed by government in each market). These networks are still mostly closed to ubiquitous reseller markets. The Act should concentrate on an open Network of Networks (where the dominant networks, Bell/TELUS and Rogers, become closely interconnected within and with other regional and specialized networks) and all unnecessary duplications re-deployed for the benefits of all users.

9. The public Network of Networks should be totally open to everyone, resellers and end users alike. Such a Network of Networks will have the capacity and reach to meet future demands and will consolidate duplicated networks. The economy of scale and efficiencies will make broadband more affordable to **Canadians. Any arguments that such consolidation can’t be done** for market and economic reasons can be overcome by simply looking at the present joint build, interconnection and operation of the Bell and TELUS networks across the country. This model could be deployed everywhere. What is missing from the current Bell/TELUS model is the openness of the networks to everyone, resellers and end users alike.

II – Telecommunications Act, legislative questions:

1. Universal Access and Deployment

1.1 *Are the right legislative tools in place to further the objective of affordable high quality access for all Canadians, including those in rural, remote and Indigenous communities?*

Answer: As indicated in section I, the current legislative tools in the Act are insufficient to provide directives to the policy and regulatory authorities as to the high quality of access and affordability for all Canadians.

The CRTC and government regulations and policies lack the governance over the telecommunication common carriers and other service providers, not only to ensure affordable high quality access for rural remote and indigenous communities but, as I outlined above, in urban areas as well. This is especially true, where high quality broadband real-time interoperability services are required for public safety, healthcare and other social service applications. The lack of quality of service regulations, duplication of facilities based infrastructure and the ability of the licensed carriers to keep their networks closed are important weaknesses which need to be corrected in the Act.

1.2 *Given the importance of passive infrastructure for network deployment and the expected growth of 5G wireless, are the right provisions in place for governance of these assets?*

Answer: Access to passive infrastructure such as poles, ducts, and rights-of-way for deploying telecommunications infrastructure, should be addressed in the revised Telecommunications Act, both on the need for efficiencies of deployments by elimination of unnecessary duplications, as well as the priority requirements for public safety.

In light of the fact that the responsibilities over access to private and public passive infrastructure are currently shared across multiple bodies and levels of government, the Act needs to provide federal guidance as to the efficient and effective deployments on such facilities. Such objectives in the Act will then be taken into account by provincial and local governments to manage access requests for networks deployment.

2. Competition, Innovation, and Affordability

2.1 Are legislative changes warranted to better promote competition, innovation, and affordability?

Answer: Particularly now as we approach the next generation of the digital revolution, competition, innovation and affordability **will determine Canada's ability** to grow its e-economy, compete internationally and improve its citizens' safety, security and health. Improved efficiency will become increasingly important with the upcoming deployments of 5G wireless, small cells, and the universal growth in video and data transactions. As discussed

earlier, a most important change in the Act should be to incorporate the objective of increasing the efficiencies of the Network of Networks deployments by eliminating unnecessary duplications and opening access to all resellers and end users alike. Innovations and affordability will not be improved by the continuation of duplicated, concentrated, networks exclusively controlled by the dominant national licensed carriers.

3. Net Neutrality

3.1 *Are current legislative provisions well-positioned to protect net neutrality principles in the future?*

Answer: Part III of the Act, in particular sections 35, 36, and 37, cover many aspects of the “*Net Neutrality*” requirements. For clarity, however, in the revised act the term “*Net Neutrality*” should be clearly and explicitly identified as a policy objective.

4. Consumer Protection, Rights, and Accessibility

4.1 *Are further improvements pertaining to consumer protection, rights, and accessibility required in legislation?*

Answer: The most important aspect of a consumer protection framework is consumer choice. Yes, the Act at present has an objective: “*to respond to the economic and social requirements of users of telecommunications services*” [as cited in S7 (h)]. Such objectives have been lacking in policy directives in the past. The policies have never kept up with technology developments, and

have kept the onus of responding to the consumer requirements in the hands of the dominant **closed networks' owners**. Yet at present Canadians have no choice. The only way to ensure the basic right to choose is by opening up the networks for innovations. Choice will come from independent service providers willing to meet fast paced consumer demands.

The present CRTC requirements that telecommunications service providers participate in a consumer protection framework are extremely limited. They do not address many consumer choice demands apart from special services for the disabled. Pricing, **special users' plans, special VPN services** and other consumer and **social services' applications** are inadequately addressed. Such services are not available and cannot be developed and offered to the public by independent **resellers'** service providers over the basic Network of Networks, which is closed up by the **incumbents'** carriers.

5. Safety, security and privacy

5.1 *Keeping in mind the broader legislative framework, to what extent should the concepts of safety and security be included in the Telecommunications Act/Radiocommunication Act?*

Answer: Public safety in Canada is threatened by the inability of its agencies' personnel to have reliable access to multi-media information and communicate readily with one another as the

situation demands. Situations demanding such information-communication services and coordinated emergency response are: fires, toxic environmental spills, traffic accidents, acts of terrorism, missing persons, etc. Such events occur regularly in all regions of the country and often result in loss of life and property, much of which would be avoided given full interoperability of broadband communications. The public commercial telecommunications services are not designed to meet the public safety telecommunications high quality and capacity needs in all times and particularly in emergencies.

To date, public safety organizations have been using the old Land Mobile Radio systems which provide basic voice communications. These systems are made by different manufacturers employing proprietary technologies and are not interoperable, thus leading to very serious issues whenever there is need of collaboration between diverse public safety organizations. Police, fire and medical emergency agencies and hospitals often cannot talk with neighbouring services, or the RCMP, the coast guard or the military, not to mention aviation and transport officials, utility crews, doctors or the security guards in office and apartment towers.

Canada is at an important juncture in the development of the **country's infrastructure necessary for ensuring the safety of its** citizens in the 21st century. Public safety organizations – police,

fire and medical emergency services – must have access anytime and anywhere to adequate information and communication tools enabling them to respond quickly, effectively, efficiently and safely to calls for action. This requires the availability of dedicated broadband wireless digital Network of Networks with all the necessary features for public safety operations: priority, reliability, ruggedness, and survival in times of man-made and natural disasters. To achieve these results, it is necessary to have objectives in the Telecommunications Act that derive policies and clear directives for the need of a dedicated social services Network of Networks, with associated governing non-profit independent management and proper deployment and operational funding.

Please use as additional reference from 2011:

“CATAAlliance Comments on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Spectrum for Public Safety and Commercial Systems.”

In response to:
Gazette Notice No.: SMSE-018-10

6. Effective Spectrum Regulation

6.1 Are the right legislative tools in place to balance the need for flexibility to rapidly introduce new wireless technologies with the need to ensure devices can be used safely, securely, and free of interference?

Answer: We fully agree with the terms of reference as stated:

The changing nature of wireless communications will continue to drive demand for new and innovative approaches to spectrum regulation. The deployment of 5G networks and the Internet of Things, for example, will not only increase the overall demand for wireless bandwidth with billions of devices used by millions of Canadians, but result in a wide variety of smart devices and intelligent users. The context has changed dramatically since the Radiocommunication Act was introduced.

The methods and policies of Spectrum allocation and its efficient use need to be fully reassessed in light of the statement above and the recommended infrastructure evolution deployment as recommended herein: two primary Network of Networks and associated applications and services, one serving the public at large and the other specifically social services such as first responders, healthcare, utilities, education and many other security and social taxpayer funded services.

It is clear on the one hand, that the Public Safety, i.e. social services Network of Networks, will require spectrum allocation directly from the Canadian spectrum inventory without having to participate in a commercial auction. Canadian social services are funded by the Canadian taxpayer. The Canadian public owns the

spectrum as a Canadian heritage and, therefore, the free use of the spectrum for public safety and all social services is clearly every **taxpayer's right**.

On the other hand, spectrum allocation to the Network of Networks serving the public at large should continue to be provided for a fee, either spectrum auctions or annual user fees. It is my belief that eventually spectrum use will follow user fees all the way to the end user to encourage efficiencies.

7. Governance and Effective Administration

7.1 Is the current allocation of responsibilities among the CRTC and other government departments appropriate in the modern context and able to support competition in the telecommunications market?

7.2 Does the legislation strike the right balance between enabling government to set overall policy direction while maintaining regulatory independence in an efficient and effective way?

Answer: The licensing of telecommunications common carriers, the authorization associated with the provisions of telecommunications services, and the governance over telecommunications service providers are currently split between the CRTC and ISED. Enforcement of government regulations and adherence to the Telecommunications Act are handled primarily

by the CRTC. Yet spectrum licensing is handled exclusively by ISED.

Provided the appropriate resources are available to the CRTC, the licensing of spectrum and enforcement of the licenses' conditions would be more efficiently handled by the independent regulatory body, namely the CRTC.

The revised Telecommunications Act should incorporate as an objective the proper separation of responsibilities to enable supervision of the industry on an on-going basis in order to support competition in the telecommunications market.

At present, licensing and enforcement authority are exclusively in the hands of the ISED, a government department open to political lobbying. This arrangement seriously disadvantages all new entrants who seek to provide innovative independent services.

III-Telecommunication, Radio and Broadcasting Acts; Infrastructure vs. Content: Legislative Separation

In light of the explosive proliferation of the Internet, affecting all aspects of social, economic and political life, I strongly recommend that the legislations and associated responsible governance (ministry) be separated into two Acts. This does not mean that I propose structural separation. Rather I recommend that the infrastructure of a carrier be regulated by a different Act **and corresponding government department than the carrier's**

content products offered to the public. The content should be regulated by a separate Act.

Most of the key regulatory issues associated with competition, social services, security, privacy, and consumer protection are content related. This is so, regardless of whether such content is conveyed over fiber optic cables leading to and from cell sites, or cables and/or point-to-point microwave links leading to a television or to radio transmitter stations. All the content needs to be separately regulated from the regulations and licensing of **Networks' infrastructure. The definition of broadcasting has** changed dramatically with the advent of social media networks and social media platforms of companies like Google, Facebook, Twitter, YouTube and others over the infrastructure of the internet. Digital search engines, social media platforms and other digital content aggregation platforms have a profound effect on competition with the traditional media and advertising services markets. The regulation of the existing Broadcasting Act needs to be modified to cover **all** content including the social media content, which is totally unregulated today.

It is important to note that some broadcasters use the internet to circumvent broadcasting regulations. These content regulations must not infringe on Freedom of Speech, but must continue to protect the public from harm, as the Broadcasting Act does today.

What is at stake is the survival of Democracy. (See Sir Timothy John Berners-Lee “*Web Magna Charta*” Appendix I)

I propose that the Radio and Telecommunication acts be combined to be named the **Networks’ Infrastructure Act** and will govern all the policies related to infrastructure deployments. This Act will enforce the development of the Network of Networks that would meet the capacity and quality of services needed for the applications of social services on the one hand and the public at large on the other, including social networks and traditional broadcasting.

The social services and the public Network of Networks infrastructure will be governed to accommodate the content that will be supervised and regulated by the **Networks’ Content Act** (previously called the Broadcasting Act). Each of these two Acts will be the responsibility of a government minister and the **coordination between the new Networks’ Infrastructure Act and the new Networks’ Content Act will be the responsibility of the Cabinet.**

IV-Conclusion

I have put forward a number of far-reaching and fundamentally new proposals for renewed Telecommunications and Broadcasting Acts. These proposals would incorporate new policy objectives to govern the evolutionary trends of the digital age.

Further, if implemented these recommendations would improve the social services, healthcare and economic wellbeing of all Canadians.

I am available to work with the panel during 2019, in order to explore further these and other recommendations.

As shown in my attached telecommunications career resume, my experience, coupled with my current independence from direct association with any telecommunications service providers or regulatory body, make my contribution to the panel's **work a** worthwhile endeavour.

Respectfully submitted,

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