

CanWISP Response: SLPB-006-17—Consultation on the Spectrum Outlook 2018 to 2022

March 15, 2018

Director
Spectrum Regulatory Best Practices,
Innovation, Science and Economic Development Canada,
235 Queen Street,
Ottawa, Ontario K1A 0H5

Please find attached reply comments from CanWISP (Canadian Association of Wireless ISPs) regarding Notice No. SLPB-006-17—Consultation on the Spectrum Outlook 2018 to 2022, published October 6, 2017 in Canada Gazette, Part I.

For any questions or inquiries, please contact me.

Truly yours,



Dan Barnes
Chairman
CanWISP
dan@canwisp.ca

ISED Spectrum 2018-22 Consultation

CanWISP Comments on Submissions Received

Introduction

In this document, CanWISP provides comments on the following 4 submissions: Microsoft, RABC, Bell Mobility and Seaside Communications.

1. Microsoft Submission

CanWISP agrees with Microsoft in its submission on the relatively higher efficiency (16 times) of license-exempt to licensed spectrum and consequently, the need to rebalance the portfolio between license-exempt and licensed spectrum.

"we think it is important to bear in mind that licence-exempt spectrum is carrying 16 times more internet traffic than licensed spectrum. That is remarkable considering there is substantially more commercially viable licensed spectrum than licence-exempt spectrum below 6 GHz, where the vast majority of broadband traffic resides."

CanWISP also agrees that the current licensing regime will be insufficient to meet the geometric growth in spectrum demand and an alternative regime that promotes more efficient usage of spectrum - based on-demand spectrum utilization and real-time coordination among competing users, should be considered.

"Today's spectrum management and utilization regime treats spectrum as an asset to be allocated and owned, mostly by exclusive licence holders. One can envision a new spectrum management regime where spectrum is offered as a service to be accessed on-demand by a much broader set of potential users. Just like Cloud Computing allows any individual to affordably access the exact amount of computing power in the cloud for the precise period of time needed, a Spectrum-as-a-Service regime would allow spectrum users to access specific spectrum resources in specific location at a specific time, and release the resource as soon as the transaction is done, allowing the finite spectrum resources to be shared among a much greater number of users and thereby achieving a much higher utilization. "

Thus, CanWISP asks that ISED consider the relative advantages and disadvantages of a 'Spectrum as a service' regime including holding a hearing to obtain stakeholders' inputs.

Finally, while not part of Microsoft's submission, Microsoft has developed a separate whitepaper that proposes solutions to the US broadband divide which CanWISP believes could be adapted to Canada: see <https://msblob.blob.core.windows.net/ncmedia/2017/07/Rural-Broadband-Strategy-Microsoft-Whitepaper-FINAL-7-10-17.pdf>

2. RABC Submission

CanWISP fundamentally disagrees with RABC comments regarding the ability of WiFi technology to deliver services to residential and commercial subscribers on only a "best efforts" basis.

"Increasing unlicensed spectrum alone will not meet quality-of-service needs for all applications and should be seen as a complement to licensed spectrum for the future of broadband service delivery to Canadians. "Best-in-class" service delivery is not achievable through Wi-Fi's "best-effort" Communication."

As indicated in CanWISP's submission, WISPs have demonstrated their ability to meet the previous national targets of 5Mbps / 1Mbps with WiFi technology and many have already demonstrated their ability to deliver 25Mbps / 10 Mbps and are currently investing in their networks to deliver 50Mbps / 10Mbps in the future. It should be noted that Shaw's submission makes the point that it has already rolled out 'carrier grade' WiFi services.

3. Bell Mobility Submission

CanWISP disagrees with Bell Mobility's contention that the priority for licensing new spectrum below 6GHz should be for "flexible fixed and mobile use".

"Demand for commercial mobile services will vastly outpace all other services in the coming years, and the Department's greatest priority should be allocating licensed spectrum for flexible fixed and mobile use. While Licence-Exempt spectrum may see some growth in demand, we believe that for the most part, any low band spectrum (below 6 GHz) that is released should be

exclusively reserved for licensed use. Sufficient high band spectrum exists to support all future Licence-Exempt spectrum demand."

As set out in CanWISP's submission, WISPs – including Xplornet, service hundreds of thousands of households and businesses in rural Canada and require additional spectrum to meet ever-expanding needs of their subscribers. In the scenario that ISED were to give priority only to licensed spectrum and allocate "flexible fixed and mobile use" as suggested by Bell Mobility, carriers could easily outbid other bidders and consequently, WISPs would not be able to access additional spectrum at a reasonable cost and consequently, rural citizens would be denied access to new and innovative communications services.

4. Seaside Communications Submission

CanWISP agrees with Seaside's submission that ISED should review the efficiency of the current subordinate licensing process in the 3500MHz band given the near monopoly holdings in this band by just 2 licensees Inukshuk – owned by Rogers and Bell and Xplornet:

"ISED's database shows more than 900 3500 MHz licenses in active use across Canada, plus a further 947 licenses for 3650-3700 MHz, 17 of which are held by Seaside. Two telecommunications companies, Inukshuk and Xplornet, currently hold more than 80 percent of all the 3500 MHz licenses across the country. In Atlantic Canada, these two companies enjoy a virtual monopoly over 3500 MHz licenses.^[1] Because of this monopoly position, the 3500 MHz spectrum remains substantially underused in the geographic areas of interest to Seaside. Inukshuk and Xplornet have repeatedly rebuffed our applications for subordinate licensing on grounds of continued uncertainty about future ISED policy pending consultation (SLPD-006-17)."

The 3500MHz band is essential to WISPs if they are to meet the ever-expanding needs of their rural subscribers for communications services.