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Senior Director, Spectrum Planning and Engineering
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Re: Gazette Notice No. SMSE-014-20 - Consultation on the Technical and Policy Framework for License-Exempt Use in the 6 GHz Band — Cogeco Comments

In accordance with the procedures set out in the above-noted consultation, please find attached the comments of Cogeco Communications Inc. (“Cogeco”).

Cogeco thanks ISED for the opportunity to submit comments in this proceeding and remain available to answer any questions you may have regarding this submission.

Yours very truly,

Leonard D. Eichel
Senior Director, Regulatory Affairs, Telecommunications

c.c.: Paul Beaudry, VP Regulatory Affairs, Cogeco Inc.
Marie Ginette Lepage, VP, Wireless Services & Innovation, Cogeco Communications Inc.

Introduction

1. Cogeco Communications Inc. (“Cogeco”) submits these comments on the proposal by Innovation, Science and Economic Development Canada (ISED) to consult Canadians on the technical and policy framework for license-exempt use of the 5925-7125 MHz frequency band (“6GHz Band”), in accordance with the procedures set out by ISED in *Consultation on the Technical and Policy Framework for License-Exempt Use in the 6 GHz Band*, SMSE-014-20, published November 2020 (the “Consultation Document”).

2. Cogeco is in favour of ISED’s proposed framework to allow low-power, and very low-power, indoor and outdoor devices to use the 6 GHz Band on an unlicensed basis. Cogeco currently deploys numerous Radio Local Area Network (“RLAN”) devices to our customers in the form of WiFi routers to assist those customers extend the Cogeco broadband experience throughout their home and business. As customers’ requirements expand with the addition of new, more bandwidth-intensive applications, the requirement to provide WiFi devices that can follow these requirements is essential for the provision of quality broadband services in both homes and businesses in the future.

3. As ISED has noted in its Consultation Document:

‘A viable equipment ecosystem has already emerged for RLAN technologies in the 6 GHz band. Two RLAN technologies are currently considered candidates for use in this band, namely Wi-Fi 6E and 5G New Radio-Unlicensed (NR-U), while other technologies could also be developed to operate in the band. The new Wi-Fi 6 (IEEE 802.11ax) standard introduces wider channel bandwidths (up to 160 MHz), and provides higher performance in the form of lower latency higher throughput rates. Many Wi-Fi device manufacturers are already shipping Wi-Fi 6 equipment for operation in the 2.4 GHz and 5 GHz bands, and the low-power variant of Wi-

Fi 6E IEEE 802.11ax compliant devices for operation in the 6 GHz band could become available by the end of 2020.¹

4. Given the promise of more throughput and lower latency for in-home and business WiFi devices, Cogeco is eager to deploy such devices as soon as practicable. Cogeco would note that, since ISED's Consultation Document was released, Cogeco is aware that certain WiFi device manufacturers are now releasing equipment that are operable in the 2.4 GHz, 5 GHz and 6 GHz bands, likely in response to the confirmation by the U.S. Federal Communications Commission ("FCC") of its Report and (FCC-20-51) opening up 1,200 MHz of spectrum in the 6 GHz band for license-exempt use in April of 2020.

5. For example, in a January 18, 2021 article in Cartt.ca, it was noted that the WiFi Alliance had announced the certification of its WiFi 6E standard at the beginning of 2021. Further, the article also noted that '(n)early all the major router manufacturers at CES 2021 announced new Wi-Fi 6E routers (...)'. Finally, IDC noted that 'Wi-Fi 6E will see rapid adoption in 2021 with more than 338 million devices entering the market, and nearly 20% of all Wi-Fi 6 device shipments supporting 6 GHz by 2022'.²

6. In addition to Cogeco's existing wireline broadband business, the utility of the 6 GHz Band in supporting the use of license-exempt, low and very low-power devices for mobile wireless service providers is also of interest, as well as the numerous business use cases that are being developed to support Internet of Things ("IoT") devices.

7. As ISED stated:

'Wi-Fi also serves a crucial function in support of Canadian commercial wireless service providers, who rely on it to offload traffic from their mobile cellular networks. Rural broadband service providers leverage licence-exempt spectrum to deliver broadband to residential and business customers in rural areas. Furthermore, licence-exempt spectrum is used by Internet of Things (IoT) devices, from smart watches to industrial and agricultural sensor networks. The demand is increasing for outdoor enterprise

¹ Consultation on the Technical and Policy Framework for License-Exempt Use in the 6 GHz Band, SMSE-014-20, November 2020, para. 30.

² 'CES 2021 : How WiFi 6E Could Triple Spectrum Available', Cartt.ca, 18 January 2021.

services supported by IoT for applications such as asset tracking services in container port terminals, railyards and mining and extraction. Additional spectrum for licence-exempt use will support the introduction of next-generation licence-exempt wireless technologies that are deployed both indoor and outdoor, operating over distances ranging from less than a metre to several hundred metres, and delivering increased capacity and reliability for existing use cases as well as new and emerging use cases³.

8. The promise of being able to integrate and deploy such devices to be used to offload mobile wireless data traffic becomes yet another tool for smaller wireless service providers who possess a robust wireline network to facilitate their service offerings, and to leverage existing network assets, to offer customers a robust mobile broadband experience.

9. For all of these reasons, Cogeco strongly supports ISED's proposal to make available 1,200 MHz of spectrum for license-exempt use in the 6 GHz band, as indicated in its Consultation Document, while maintaining the current use of the band.

10. In particular, Cogeco:

- a. Supports ISED's broad proposal to permit license-exempt RLAN use in the 5925-7125 MHz band;
- b. Supports ISED's proposal to permit the use of standard power RLANs under the control of an AFC system in the 5925-6875 MHz frequency range, under the maximum power limits, spectral density and vertical elevation mask as outlined by ISED in the Consultation Document;
- c. Supports ISED's proposal to allow access to an additional 100 MHz of spectrum in the 6425-6525 MHz band for standard power operation;
- d. Supports ISED's proposed rules for low-power indoor-only RLANs; and
- e. Supports ISED's proposed rules to allow very low-power RLAN devices.

³ Ibid, para. 6.

11. Cogeco anticipates having additional comments to file in the Reply phase of this consultation, based on the submissions of other parties, on the issues raised by ISED in its Consultation Document.

12. Cogeco thanks ISED for the opportunity to provide comments in this consultation, and looks forward to filing additional comments in the reply phase.

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