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Via email: ic.spectrumengineering-genieduspectre.ic@canada.ca

Director, Space Services Planning
Innovation, Science and Economic Development Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5

Re: Canada Gazette Notice No. SMSE-016-18 — Consultation on the Utilization of the Bands 18.8-19.3 GHz and 28.6-29.1 GHz, and the Bands 17.3-17.7 GHz, 19.3-19.7 GHz and 29.1-29.25 GHz by the Fixed-Satellite Service

Attached, please find Comments of Rogers Communications Canada Inc. (Rogers) in response to *Canada Gazette Notice, October 25, 2018, Consultation on the Utilization of the Bands 18.8-19.3 GHz and 28.6-29.1 GHz, and the Bands 17.3-17.7 GHz, 19.3-19.7 GHz and 29.1-29.25 GHz by the Fixed-Satellite Service (SMS-016-18)*.

Rogers thanks the Department for the opportunity to provide input on this important issue.

Yours very truly,



Howard Slawner
Vice President – Regulatory Telecom
HS/pg

Attach.

Consultation on the Utilization of the Bands
18.8-19.3 GHz and 28.6-29.1 GHz, and the Bands
17.3-17.7 GHz, 19.3-19.7 GHz and 29.1-29.25 GHz by
the Fixed-Satellite Service
SMSE-016-18

Comments of
Rogers Communications Canada Inc.
January 21, 2019



Executive Summary

- E1. Spectrum is a critical input for satisfying the growth in demand for advanced connectivity services in Canada. As such, continued access to interference free, exclusively licensed fixed service spectrum is needed to meet Canadians' growing demand for data services. Indeed, the deployment of 5th generation wireless access technology will increase the need for additional fixed service spectrum to provide backhaul to networks.
- E2. Rogers generally supports Innovation, Science and Economic Development Canada's consultation on modernizing spectrum frameworks for fixed satellite services. However, the Department should take care that any changes will not impact fixed services in the 19.3-19.7 GHz band. Use of this frequency range remains important to terrestrial network operators and fixed services should retain its primary status in the band.

Introduction

1. Rogers Communications Canada Inc. (Rogers) is pleased to provide Innovation, Science and Economic Development Canada (ISED or the Department) with the following comments in response to *SMSE-016-18: Consultation on the Utilization of the Bands 18.8-19.3 GHz and 28.6-29.1 GHz, and the Bands 17.3-17.7 GHz, 19.3-19.7 GHz and 29.1-29.25 GHz by the Fixed-Satellite Service*¹ (the Consultation), published on the Department's website October 25, 2018.
2. The Department should modernize its spectrum frameworks for fixed satellite services (FSS) provided by geostationary orbit (GSO) and non-geostationary orbit (NGSO) satellites. These services can be effective in providing connectivity to Canadians living in deep rural and very remote locations, which may be economically challenging to serve by terrestrial networks. However, the Department should take care that any changes to improve GSO-NGSO coordination issues will not impact fixed services (FS) in the 19.3-19.7 GHz band. Use of this frequency range remains important to terrestrial network operators, supporting nationwide connectivity for large numbers of Canadian consumers and businesses. As such, fixed services must retain its primary status in the band.
3. Effective spectrum policy frameworks will help Canadian network operators meet the increasing demand for data and innovative new services. Ensuring that there is

¹ ISED, *SMSE-016-18: Consultation on the Utilization of the Bands 18.8-19.3 GHz and 28.6-29.1 GHz, and the Bands 17.3-17.7 GHz, 19.3-19.7 GHz and 29.1-29.25 GHz by the Fixed-Satellite Service (Consultation)*; <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11441.html>.

sufficient exclusively licensed spectrum for terrestrial wireless backhaul for the current and growing capacity demands of 4th generation (4G) Long Term Evolution (LTE) and 5th generation (5G) is especially critical to maintaining effective competition with the local telephone companies, who have extensive wireline backhaul facilities constructed during their monopoly periods.

4. As a large wireless operator focused on the provision of advanced new broadband services, including capacity-hungry streaming video services such as Rogers NHL LIVE and being a leader in 4K programming and distribution, Rogers knows that operators require additional capacity, that is economical to deploy, to keep pace with Canadians' demand for data services. In order to address the dramatic growth in demand for mobile data services, Rogers has already made significant investments to deploy 4G LTE mobile broadband technology to approximately 95% of the Canadian population.² Rogers was the first to deploy LTE in Canada and continues to deliver innovative broadband services through the trialing and deployment of new technologies such as carrier aggregation of licensed spectrum bands, 256-QAM transmission, and Licence-Assisted Access LTE (LTE-LAA). Such innovation is vital on the march to 5G. Rogers is currently working with our network infrastructure vendor, Ericsson, on 5G trials in Toronto and Ottawa, in addition to other select cities over the next year.³
5. In the context of this consultation, it means that the Rogers' national network – Canada's largest single operator terrestrial network – may experience a much greater need for wireless backhaul spectrum than other Canadian operators, especially those that emerged from local telephone monopolies. The 18 GHz band (17.8-18.3 / 19.3-19.7 GHz) is already an important fixed service band for terrestrial networks, including Rogers. As a result of the Department's fixed service spectrum fee consultation, deployments in the 18 GHz band are likely to materially increase in the near term. It is therefore essential that in modernizing any FSS frameworks that overlap with FS bands, such as 19.3-19.7 GHz, the Department ensures terrestrial operators maintain interference-free access to exclusively licensed fixed service spectrum.
6. The remainder of Rogers' comments will respond to the specific issues raised in the Consultation.

² Rogers, *Rogers Communications Reports First Quarter 2017 Results*, April 2017.

³ Rogers, *Rogers and Ericsson partner to bring 5G to Canadians*, April 2018;

<https://about.rogers.com/2018/04/16/rogers-ericsson-partner-bring-5g-canadians/>.

Q1: ISED is seeking comments on the proposal to give co-primary status to both GSO networks and NGSO systems in the FSS in the bands 18.8-19.3 GHz and 28.6-29.1 GHz.

7. Rogers has no comments on the Department's proposal at this time but after reviewing other submissions may offer input in the reply stage of the consultation.

Q2: ISED is seeking comments on the proposal to use the original date of authorization for domestic systems for domestic coordination purposes.

8. Rogers has no comments on the Department's proposal at this time but after reviewing other submissions may offer input in the reply stage of the consultation.

Q3: Is there additional information on coordination practices for GSO networks and NGSO systems in the FSS that should be considered? If so, please explain in detail.

9. Rogers has no additional information to share with the Department but after reviewing other submissions may offer input in the reply stage of the consultation.

Q4: ISED seeks comments on its view that, at this time, the existing approach to addressing domestic coordination disputes is sufficient.

10. Rogers has no additional information to share with the Department but after reviewing other submissions may offer input in the reply stage of the consultation.

Q5: ISED is seeking comments on the proposed changes to the CTFA. In providing responses, include supporting arguments for or against the proposed changes.

11. Rogers has no comments on the Department's proposal at this time but after reviewing other submissions may offer input in the reply stage of the consultation.

Q6: ISED is seeking comments on the above proposed changes to the CTFA. In providing responses, include supporting arguments for or against the proposed changes.

12. Rogers supports the Department's proposal to modify the Canadian Table of Frequency Allocations (CTFA), as well as *RP-008: Policy Framework for Fixed-Satellite Service (FSS) and Broadcasting-Satellite Service (BSS)*, allowing GSO FSS to use 19.3-19.7 GHz for low-density applications other than "feeder links for other services", such as gateways and feeder links.⁴ However, Rogers also strongly supports ISED's recognition of "priority designation to the fixed service" in the 19.3-19.7 GHz (and 29.1-29.25 GHz) band⁵ and the goal of ensuring "no constraints to other services in the band" by allowing new low-density FSS applications,⁶ demonstrated through maintaining Canadian footnote C16D.
13. The importance of fixed service usage in the 19.3-19.7 GHz band, covered by *SRSP-317.8: Technical Requirements for Fixed Line-of-Sight Radio Systems Operating in the Bands 17.8-18.3 GHz and 19.3-19.7 GHz*, remains critical to terrestrial network operations. Therefore, the Department should ensure FS stays primary in the band and will not be impacted by any of the proposed changes in the Consultation.
14. Rogers thanks the Department for the opportunity to share its views and participate in this consultation process.

⁴ ISED, *Consultation*, para 62 & 65-66.

⁵ ISED, *Consultation*, para 61.

⁶ ISED, *Consultation*, para 62.