

# SaskTel Comments:

Gazette Notice SMSE-019-17

Consultation on the Technical, Policy  
and Licensing Framework for  
Wireless Microphones

February 15, 2018

## INTRODUCTION

1. The following represent Saskatchewan Telecommunications' (SaskTel's) Comments in response to SMSE-019-17, *Consultation on the Technical, Policy and Licensing Framework for Wireless Microphones* ("the Consultation").
2. SaskTel has participated in the creation of the Radio Advisory Board of Canada (RABC) response to the Consultation, and supports the RABC submission.
3. The section numbering of the remainder of this document corresponds to the numbering of the consultation paper released by the Department. Failure to address any particular issue or item, or the Comments made by any other party, should not be construed as agreement with those Comments where such agreement is not in the interests of SaskTel.

## SASKTEL RESPONSE TO THE CONSULTATION

### 8. Considerations for the future use of wireless microphones

#### 8.1. Spectrum availability

**Q1. ISED is seeking comments on its proposal to allow wireless microphones to use the 3 MHz guard band (614-617 MHz) and the 11 MHz duplex gap (652-663 MHz) subject to appropriate conditions to mitigate adjacent channel interference to mobile services.**

**A. Should technical rules be harmonized with those of the FCC to allow low power wireless microphones in the guard band (614-617 MHz) and duplex gap (653-663 MHz) with a maximum transmit e.i.r.p. of 20 mW?**

**B. Should a 1 MHz frequency separation be adopted for wireless microphones around the mobile service downlink spectrum (617-653 MHz) to protect mobile service operations?**

**In providing comments, respondents are requested to include supporting arguments and rationale.**

4. SaskTel agrees with the ISED proposal to allow wireless microphones to use parts of the 600 MHz spectrum guard band and the duplex gap (614-616 and 653-663 MHz respectively, with the bandwidth reduced to include the proposed 1 MHz frequency separation), subject to appropriate conditions to mitigate adjacent channel

interference to mobile services. These conditions include adoption of the proposed 1 MHz frequency separation to protect the mobile services downlink spectrum.

5. SaskTel recommends that the technical rules for wireless microphones in Canada be harmonized with the US FCC rules to allow low power wireless microphones to operate in portions of the guard band (614-616 MHz) and the duplex gap (653-663 MHz), limited to 20 mW equivalent isotropically radiated power (e.i.r.p.), using the band plan as shown in Figure 2 of the Consultation.
6. SaskTel also recommends that a 1 MHz frequency separation be adopted for wireless microphones around the mobile service downlink spectrum (617-652 MHz) to protect licensed mobile service operations from interference. SaskTel notes that the 1 MHz frequency separation is in harmonization with FCC technical rules for wireless microphones in this band. In addition, it is anticipated that 600 MHz mobile services will be extensively deployed in urban areas, where the vast majority of wireless microphones are also expected to be used. An end-user device (e.g. smartphone) operating in the 600 MHz band in close proximity to a wireless microphone (e.g. in a concert venue or other location) could experience interference or loss of service if the 1 MHz frequency separation is not imposed.
7. SaskTel agrees with the proposal to allow low power (20 mW e.i.r.p.) wireless microphone operation in the 614-616 and 653-663 MHz bands provided that appropriate conditions are implemented to mitigate adjacent channel interference to mobile services, including harmonization with US FCC technical rules in these bands.

**Q2. ISED is seeking comments on its proposal to introduce the use of wireless microphones, on a secondary basis, into the frequency bands 941.5-952 MHz, 953-960 MHz, 6930-6955 MHz and 7100-7125 MHz with appropriate conditions to prevent interference to fixed services.**

**In providing comments, respondents are requested to include supporting arguments and rationale.**

8. SaskTel agrees with the ISED proposal to allow the use of wireless microphones on a secondary basis in 941.5-952 MHz, 953-960 MHz, 6930-6955 MHz, and 7100-7125 MHz frequency bands, with the imposition of appropriate conditions to prevent interference to fixed systems.

## 8.2. Licensing mechanisms for wireless microphones

**Q3. ISED is seeking comments on its proposal to allow wireless microphones to access the broadcasting bands (54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz), the duplex gap (652-663 MHz) and the guard band (614-617 MHz) on a licence-exempt basis, and the voluntary licensing of eligible users' wireless microphones.**

**A. ISED is seeking comments on the eligibility criteria to determine who should be permitted to voluntarily license their systems (see paragraph 62).**

**B. Should ISED consider a licence-exempt approach for wireless microphones within the broadcasting or 600 MHz bands (614-617 MHz and 652-663 MHz)?**

**In providing comments, respondents are requested to include supporting arguments and rationale.**

9. SaskTel agrees with the ISED proposal to allow wireless microphones to access the television broadcasting bands listed above, as well as the 614-616 MHz portion of the 600 MHz guard band and the 653-663 MHz portion of the duplex gap, on a licence-exempt basis, and with the inclusion of voluntary licensing of eligible users' wireless microphones.
10. SaskTel agrees with the ISED proposal to limit eligibility for voluntary licensing of wireless microphones to "professional users" only. As described in the Consultation, "professional users" would be defined as "*broadcasters and other program producers, as well as large venue operators/owners and professional sound companies employing a significant number of wireless microphones as part of their productions/events.*"<sup>1</sup> As clarified verbally during RABC discussions, this does not currently include houses of worship. SaskTel agrees with the proposed voluntary licensing eligibility criteria for "professional users", with the understanding that the Department will retain some flexibility in this criteria for special cases.
11. SaskTel supports the Department's proposal to designate portions of the 600 MHz band (i.e. 614-616 MHz and 653-663 MHz bands) exclusively for the use of wireless microphones. As SaskTel has noted in our response to Gazette Notice SMSE-018-17

<sup>1</sup> The Consultation, para 62.

on White Space Devices (WSD), SaskTel agrees with the Department's proposal to limit the use of White Space Devices to spectrum below 608 MHz to prevent interference to licensed mobile services.

12. Furthermore, it is expected that broadcasters will be using wireless microphones in the 614-616 MHz and 653-663 MHz bands for news gathering operations. By nature, news gathering operations require wireless microphones to be utilized at a moment's notice at any location. The short time frames and varying locations preclude a licensed approach, nor would there typically be time to register a location in a WSD database. Therefore, dedicating these sub-bands exclusively for wireless microphones allows for a licence exempt approach along with some certainty for use by broadcasters for news gathering.

**Q4. ISED is seeking comments on its proposal to license the operations of wireless microphones on a secondary basis in the frequency bands 941.5-952 MHz and 953-960 MHz, 6930-6955 MHz and 7100-7125 MHz, based on its eligibility criteria.**

**A. ISED is also seeking comments on the eligibility criteria (see paragraph 62).**

**In providing comments, respondents are requested to include supporting arguments and rationale.**

13. SaskTel agrees with the ISED proposal to license the operation of wireless microphones on a secondary basis in the frequency bands 941.5-952 MHz and 953-960 MHz, 6930-6955 MHz, and 7100-7125 MHz. SaskTel further agrees that the eligibility criteria for licensing should be limited to "professional users" as defined in paragraph 62 of the Consultation.

## **CONCLUSION**

14. SaskTel thanks the Department for the opportunity to provide input into the questions raised in the Consultation, and it is our hope that our comments will assist in providing guidance to the Department in making the decisions to allow current and future operation of wireless microphones as the spectrum evolves for new services.