

Before Innovation, Science and Economic Development Canada (ISED)

Comments from RED Technologies SAS to the Consultation on the Technical and
Policy Framework for Licence-Exempt Use in the 6 GHz Band

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Dear ISED,

Please find here below, RED Technologies' answers related to the Consultation on the Technical and Policy Framework for Licence-Exempt Use in the 6 GHz Band, and in particular the automated frequency coordination (AFC) system.

Q9: ISED is seeking comments on potential business models for AFC administrators to operate their AFC systems in Canada.

Answer: RED Technologies (RED) has not yet finalized its business model choice for the AFC but the company notes that standard power AP devices may be more suitable for enterprise, education, industry than for mass market. In particular a premium service for using 5G NR-U can bear a database monthly fee per managed AP device like for CBRS in the U.S. or TVWS.

Q10: ISED is seeking comments on its proposal to permit the approval of multiple, third party AFC systems, taking into account the potential for the development of a sustainable market for AFC systems in Canada.

Answer: RED supports the approval of multiple, third party AFC systems and welcome a fair and open competition that ultimately creates a sustainable market and boost innovation. This approach has been positively demonstrated for CBRS in the U.S.

Q11: ISED is seeking comments on potential exit strategies if the AFC administrator decides to cease operation in Canada.

Answer: RED suggests to adopt similar rules than for the U.S. If the AFC administrator decides to cease operation, the AFC administrator will be required to transfer its database along with the information necessary to access the database to another designated AFC administrator and will be permitted to charge a reasonable fee for the transfer of this information. However, on a 5-year minimum period of operation, with regards to TVWS, this caused a few 'zombie' WSDBs, which for several years have supposedly provided WSDB service but in practice these aren't maintained, may not actually work correctly or at all, have 0 customers. Is there any value in an exit clause whereby either ISED or an AFC provider can demonstrate that if an AFC is unused for X months (e.g. they have transferred all/any business to another provider, or it is no longer commercially viable) can be terminated early?

Q12: ISED is seeking comments on adopting an AFC system model that is harmonized to the maximum extent possible with the AFC system model being implemented in the U.S. and other international markets.

Answer: RED suggests to harmonize, wherever possible, with the technical rules used by the U.S. in particular with regards to the use of exclusion zones and interference protection criteria for Fixed Services, quiet zones (e.g. Radio Astronomy Services), propagation models, location uncertainty, data required from fixed service links and standard-power AP including location information and antenna patterns, and Building Entry Loss (BEL) for indoor standard-power APs.

Q13: ISED is seeking comments on the implementation considerations for the operation of an AFC system.

Answer: With regards to Incumbent (Site) Data in Canada and our assumption that Canada uses the SPECTRA system (or its future replacement TSDB) to manage spectrum licensing, and to the extent that SPECTRA being the equivalent of FCC's Universal Licensing System (ULS); (a) we suggest to require that the AFC system rely on the SPECTRA system to ensure that AFC systems have the most recent information on fixed service links, (b) we suggest to require AFC systems to download the database on a daily basis. (c) If incumbent may begin operation prior to obtaining a license so long as certain criteria are met, in particular filing an application that appears in the SPECTRA System as pending, we suggest to require the AFC system to protect pending as well as granted incumbents and to require pending incumbents to register the details of their operations; (d) we suggest to require the AFC to protect incumbent operations in U.S. near the Canadian border.

Q14: ISED is seeking comments on any additional considerations, limits or general concerns that should be taken into account in setting detailed standards and procedures for AFC operation.

Answer: Harmonization, wherever possible, with the technical rules used by the U.S. will enable the use of regional or worldwide standard communication protocols being developed by international SDOs such as the Wireless Innovation Forum and the WiFi Alliance.

Q15: ISED is seeking comments on its proposal to require AFC systems to protect the following types of licensed stations from standard-power APs: fixed microwave stations, fixed point-to-point television auxiliary stations, radio astronomy stations.

Answer: We support that Radio Astronomy Service shall be protected by enforcing an exclusion zone by the AFC system onto standard-power AP devices. An alternative approach based on coordination zones (in opposition to exclusion zones) may not be fully automated and, as such, may fall outside the responsibility of the AFC system.

Q16: ISED is seeking comments on the sample agreement related to the designation and operation of an AFC system in Canada.

Answer: We agree with the "sample terms and conditions" of the AFC system administrator agreement given in annex of this consultation. In particular, we appreciate that ISED may not require the AFC system to be hosted in Canada. This allows, in particular SMEs, to seek economy of scale in the case AFC systems are deployed in several countries.

Q17: ISED is seeking comments on the proposed approach to incremental implementation of an AFC system in Canada.

Answer: We do not support the proposed approach to incremental implementation as it adds more uncertainty to the business plan and revenue projection. It may prevent small

companies to access to indirect funding requires for the design and commercialization of an AFC system in Canada. Incremental implementation benefits large companies who can self-finance such project up to its commercialization. If, instead, a probation period is foreseen, we suggest an approach similar to CBRS in the U.S. where a SAS administrator has 45 days of Initial (and limited) Commercial Deployment (ICD) to demonstrate on the field a working and compliant implementation.

Q18: ISED is seeking comments on the objective to maximize the potential for synergies, where possible, in defining the technical and administrative requirements for the respective databases addressing different bands under different technical regimes.

Answer: we agree in the benefit to maximize the potential for synergies, where possible, in particular in defining administrative requirements. For instance, we would like to point that in the case of TVWS, the hosting of the database shall be in Canada whereas it is proposed not to impose a hosting location in the case of the AFC system. In this regard, an alignment between the AFC and TVWS would be beneficial for those who intends to operate both systems such as RED Technologies.

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