

CORRIDOR COMMUNICATIONS INC. COMMENTS

INNOVATION, SCIENCE, AND ECONOMIC DEVELOPMENT CANADA

**CONSULTATION ON A NEW SET OF SERVICE AREAS FOR SPECTRUM  
LICENSING**

CANADA GAZETTE, PART I, NOVEMBER 2018 (DGSO-002-18)



JANUARY 31, 2019

## Comments on Consultation from Corridor Communications Inc. to ISED Canada

Corridor Communications Inc., operating as CCI Wireless (“CCI”), appreciates the opportunity to provide comments on the issues raised under DGSO-002-18 – Consultation on a New Set of Service Areas for Spectrum Licensing (“the Consultation”).

Under the Consultation, Innovation, Science and Economic Development Canada (“ISED”) seeks comments on creating a fifth tier of service areas for wireless services to be nested within the existing fourth tier. ISED’s goal is to prepare to maximize the utility of radio spectrum for the advantage of Canadians when wireless service providers are making use of future 5th Generation (5G) technologies, in advance of the deployment of these technologies.

CCI is the second-largest wireless internet service provider (WISP) in Canada and is operated out of the organization’s head office in Calgary, Alberta. The business supports the universal service objective and believes the key components to meeting that objective are firstly, access to spectrum that facilitates current and future service to rural and remote regions of Canada and, secondly, government policies that enables the efficient and expedited deployment of infrastructure in those regions.

CCI supports the guiding principles of this Consultation: to ensure that Canadians benefit from wireless technologies now and in the future by facilitating access to spectrum for wireless providers.

CCI responds below to ISED’s questions on its proposed options for creating the Tier 5 service area outlined under this Consultation.

### **Q1: Design principles**

#### **Q1A—ISED is seeking comments on the proposed design principles when providing responses, include supporting arguments for or against the proposed principles.**

As an Internet Service Provider focussing service in only rural and remote areas, CCI appreciates the first design principle, of recognizing “geographic differences” and differing use cases for wider population distributions and their unique set of service challenges. CCI finds that the second design principle, to “foster demand,” naturally follows the tailored service areas that result from the first design principle, providing suitably lowered fees for lower populations, to the fair benefit of wireless service providers.

Pursuant to the points above, CCI will provide critical input on the third design principle, to maintain “technological and competitive neutrality.” CCI posits that maintaining strict technological and competitive neutrality will sacrifice the integrity of design principle four, concerning “interference mitigation,” without further constraints.

As coordination of low/mid-level bands is currently not feasible within proposed Tier 5 areas, this policy is contingent on technological innovation instead of adequately meeting current needs. Insisting on total technological neutrality will fail to facilitate cohabitation of different standards, between IEEE and 3GPP-enabled equipment, unless Tier 5 service areas are restricted to millimeter wave deployments, which would not have problematic propagation characteristics in a small geographic area.

In paragraph 32 of the Consultation, ISED clarifies that maintaining neutrality in the Tier 5 service areas is intended to keep these areas as versatile as possible; however, leaving the Tier 5 service areas unrestricted will hinder the effective rollout of technology in these areas. CCI believes that ISED should support the utility of the spectrum resource within the new tier by limiting the range of spectrum that may

be deployed to millimeter wave. Because of the specific propagation effects of low/mid-level bands, ISED should prevent the specific propagation effects of conflicting technologies, choosing to be technology agnostic with the stipulation that Tier 5 service areas are restricted to millimeter wave deployments.

If a service provider purchases spectrum in a Tier 5 service area, it is in the best interest of the service provider and Canadians for the service provider to maximize their use of the resource, which the provider cannot effectively do if they are avoiding interference from other providers on the outer limits of their Tier 5 area. This risks forcing service providers to exclude rural dwellers at the geographical edges of the census subdivisions (CSDs) from wireless coverage.

Furthermore, CCI believes that, since Tier 5 service areas will naturally lend themselves to millimeter wave deployments, this logical control of either the range of spectrum that may be used or the technology type deployed does not compromise the fair and transparent manner in which ISED operates.

**Q1B—ISED is seeking any suggestions on additional design principles that should be considered.**

CCI considers the current design principles to be sufficient to meet ISED's long-term policy objectives as technologies well-suited to Tier 5 areas are developed in the future, save for CCI's comments on the impediment caused by design principle three, concerning "technological neutrality."

**Question 2: Option 1 - Boundaries based on Statistics Canada 2016 census subdivisions**

**Q2A—ISED is seeking comments on the suitability of Option 1 in addressing the proposed design principles.**

CCI believes that Option 1 as presented in this Consultation is a reasonable solution to future connectivity challenges based on the design principles, as it recognizes geographic differences, recognizes the differing commercial viability of providing service, and conforms neatly to the existing Tier 4 service areas by using the same model for subdivisions.

This option best prevents service providers from cherry-picking the most densely populated, and therefore the most profitable, areas to serve, which exacerbates the urban-rural divide, contrary to ISED's overarching social goals.

**Q2B—ISED is seeking comments on whether adjacent urban CSDs should be combined into a single service area.**

CCI believes that, under Option 1, combining adjacent CSDs into single service areas would oppose the key policy objective of increasing access to spectrum resources by increasing the price to purchase spectrum in a single area. This combination is unnecessary if the upcoming Tier 5 spectrum auction is limited to spectrum with the appropriate propagation characteristics for its geographic size.

**Q2C—ISED is seeking comments on whether there should be a minimum or maximum size for the service areas and if very small CSDs should be amalgamated into the larger surrounding or adjacent CSD.**

CCI believes that there should not be a maximum size for a service area to accommodate low-density populations. Amalgamating very small CSDs into a Tier 5 area with the larger, nearby urban areas will hinder targeted spectrum acquisitions for small and local service providers by inflating the acquisition price, which would otherwise increase the number and quality of service options that Canadians in those areas have for wireless coverage.

For example, a hamlet within a rural area being absorbing into a CSD that includes an urban centre can limit the hamlet's chance to be served, as the primary interest of a service provider would be in the larger, denser, and easier to serve area. In effect, a smaller provider equipped to handle rural business cases would be financially disincentivized from providing service if the price of spectrum covering a sparse, rural population is inflated by being included in a service area with a town or city.

**Q2D—ISED is seeking comments to gauge if this option is suitable for northern and rural areas.**

CCI believes that Option 1 is the most suitable for applications in northern and rural Canada, with reservations about the affordability of providing service to some rural areas that are geographically close to an urban centre if ISED chooses to amalgamate small CSDs into a larger CSD.

To ensure less populated regions of CSDs are covered with adequate service options, ISED should consider amendments to licenses that require specific geographic coverage for both urban and rural settings.

**Question 3: Option 2- Boundaries based on population centres**

**Q3A—ISED is seeking comments on the suitability of Option 2 in addressing the proposed design principles.**

CCI considers Option 2 to be unnecessarily complex and less suitable than Option 1 in achieving the over-arching policy objectives. While Option 2 as presented in this Consultation does take into account design principle one of “recognizing geographical differences,” it does not do so as effectively as Option 1.

**Q3B—ISED is seeking comments on the proposed minimum population for small population centre service areas. A rationale should be provided if a different population is proposed.**

CCI does not propose a different, precise minimum population. CCI finds that the basis of Option 1's divisions serves the purpose of meeting policy objective better than the hard-and-fast cut-off of a specific minimum population. The current approach, to use CSDs, takes care of this issue by its nature, as a spread-out area is likely a rural scenario that can benefit from a different application of technology. CCI believes that introducing a minimum population will unnecessarily complicate the system of subdivisions, creating more overhead and conflicting with the current system used to develop Tiers 1 through 4.

**Q3C—ISED is seeking comments on whether the “other” service areas (remainder areas in each Tier 4) should be licensed differently (e.g. on a shared or first-come, first-served basis).**

CCI believes that, should ISED choose to implement Option 2 as presented in this Consultation, or a variation of the “division by population centre” model, the “other” service areas should be licensed on a first-come, first-served basis. Additionally, in this scenario, these licenses should be granted with the stipulation that the service provider (first user of spectrum) must deploy technology within a reasonable time limit, perhaps of one year.

This time sensitivity prevents a dominant service provider from investing in some areas and holding unused resources without plans to serve immediately, with the intention of preventing competitors from serving the area. CCI’s rationale is that preventing the holding of unused resources better fosters competition. Not implementing reasonable time limit for deployment is to the detriment of small or regional wireless service providers, and thereby the under-served population that is typically served by a small provider.

**Q3D—ISED is seeking comments on whether this option is suitable for northern or rural areas.**

CCI believes that Option 2 is less suited to northern and rural areas than Option 1. Inadequately providing for these under-served areas can exacerbate the current effect of excluding small populations that has developed naturally from the challenges of providing city-like utilities to sparse populations, which can have the effect of widening the current digital divide.

**Q3E—ISED is seeking comments on whether population centres, which have adjacent boundaries, should be amalgamated to form a single service area.**

CCI does not believe that, under Option 2, population centres with adjacent boundaries should be amalgamated into a single service area. This combination will create service areas with irregular shapes and/or a lack of uniformity with which they are distributed, creating a challenge to effectively deploy wireless services and thwarting the effort to further more efficient usage of spectrum across Canada.

Additionally, spectrum for the largest service area will increase in price as a result of the overly large population, also countering the policy objective to increase accessibility of the resource.

**Question 4: Alternative proposals**

**ISED invites interested parties to submit alternative proposals for smaller service areas. All alternative service area proposals must be applicable to all of Canada and promote the federal government’s policy objectives.**

CCI does not submit an alternative proposal. CCI supports Option 1 as presented in this consultation as a sound and reasonable to support ISED’s policy objectives for Tier 5 service areas, especially from the perspective of fostering development of services for rural and remote Canada.

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