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File Internal



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Re: **Gazette Notice SLPB-004-18: Consultation on Revisions to the 3500 MHz Band to Accommodate Flexible Use and Preliminary Consultation on Changes to the 3800 MHz Band**

Introduction

Planetworks is an independent Canadian company of consulting engineers and planners with no affiliation to any vendors, service providers, public safety agencies or utilities. We are headquartered in North Vancouver, BC. Our engineers are active with community broadband service providers, public safety agencies and critical infrastructure utilities, particularly in western Canada. We understand their challenges. The services delivered by these groups are vital in rural areas, contributing to quality of life and safety. Affordable access to appropriate spectrum is essential for the last mile in areas where the density of demand is low.

Therefore, we are deeply concerned about the proposed reduction in spectrum holdings of existing licensees in the 3500 MHz band. Our understanding and position is summarized below.

Understanding

We agree with paragraph 5: Spectrum is a critical resource for wireless carriers and wish to add that spectrum is also a critical resource for public safety and critical infrastructure operations.

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We agree with paragraph 6: 5G has the potential to transform services across all sectors of the economy. We note that fixed wireless access is emerging as an early use case for 5G with high band spectrum advocated for urban service and low/mid band spectrum for rural. Mid band spectrum includes the 3500 MHz band.

We agree with paragraph 7: Spectrum releases should align with international market developments. We note that the emergence of private LTE, including in the 3500 MHz band, is a long awaited development with significant benefits for many industry verticals. In particular, public safety agencies and critical infrastructure utilities require control of their communication systems for reliability and security.

We agree with paragraph 8: Large parts of Canada are sparsely settled and have smaller community sizes. We appreciate and support the effort and policies of the Department to promote reliable and affordable access in rural areas. We see multiple use cases as an effective contribution to this policy. We are aware of rural service providers sharing their 3500 MHz spectrum as a subordinate license with utility operations to the mutual benefit of the businesses and the public. Allowing large mobile network operators to hold and under utilize large blocks of strategic spectrum in rural areas has been a serious impediment to the Department's rural policies.

Specific Comments

Re Q5 – ISED is seeking comments on the expected impacts of the following options with regards to the continuation of existing services, competition in the Canadian marketplace and availability of new 5G services for Canadians.

Existing rural service providers who are making use of their licensed spectrum should not have their spectrum reduced. This will cause service degradation and economic harm to rural communities. This is not seen as fair treatment for service providers that have made significant investments in the 3500 MHz band to serve rural areas. These service providers operate with slim margins and the cost impact of reduced spectrum can mean more sites to maintain capacity. This could be ruinous to the business case. Therefore Option 1, reduce spectrum (paragraph 46), is unreasonable. We support Option 2, which fully maintains the spectrum holdings of small rural service providers (paragraph 48). In fact, we urge ISED to make more spectrum available for rural network operators providing wireless services in rural communities where spectrum has been lying unused in any event.

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Re Q6 – ISED is seeking comments on alternative options for licensees to return spectrum to the Department to make available for a future licensing process. Respondents are asked to provide a rationale for any alternative proposals, including how they would meet ISED’s policy objectives as stated in section 3.

We see spectrum sharing where incumbent users have assured access as a potential means to improve spectrum utilization while preserving fairness. For example, using terminology from the Citizens Band Radio Service (CBRS) in the US with 3 tiers of access: where there is no incumbent usage, non incumbent users may obtain access with a Priority Access License (PAL) and General Authorized Access (GAA) would be available for all other users. This supports the policy goal of spectrum utilization and should facilitate innovation and economic benefits through harmonization with the US market. Although not without complexity, this type of spectrum sharing may be destined to more wide-spread adoption.

On behalf of broadband service providers, public safety agencies and critical infrastructure utilities that serve in rural areas, Planetworks appreciates the opportunity to contribute to this important consultation.

Sincerely,

Planetworks Consulting Corporation



Duncan S. Sharp, P.Eng.