Re: Consultation on Renewal Process for 2300 MHz and 3500 MHz Licences
Gazette Notice No. DGSO-006-12, October 2012

1. Shaw Communications Inc. (Shaw) is pleased to provide comments on Canada Gazette, Part I, October 20, 2012, Notice No. DGSO-006-12 – Consultation on Renewal Process for 2300 MHz and 3500 MHz Licences (the “Consultation Document”). In the Consultation Document, Industry Canada seeks comments on the renewal process for licences for wireless communication services (WCS) and fixed wireless access (FWA) operating in the frequency bands 2305-2320 MHz, 2345-2360 MHz and 3475-3650 MHz, respectively.

2. The Consultation Document provides a summary of the current status of international deployments of the 2300 MHz and 3500 MHz bands and the associated device ecosystems. In the United States, the Federal Communications Commission (FCC) is currently reviewing licensing requirements for the 2300 MHz band and has adopted new licensing rules in an attempt to better utilize the spectrum while addressing concerns over interference with satellite digital audio radio services. Yet, many issues remain unresolved and current proposals before the FCC may substantially change spectrum usage policy for the 2300 MHz band in the United States.

3. The same international uncertainty applies to the 3500 MHz band with both the United States and European countries currently reviewing their approaches to these bands. These international developments will have a tremendous impact on the potential development of services in the 2300 MHz and 3500 MHz bands within Canada. It is important that Canada aligns its approach with international developments as much as possible to maximize Canadian consumers’ access to international device ecosystems.

4. With respect to the 3500 MHz band, Industry Canada explicitly acknowledges the uncertainty described above in the Consultation Document and puts 3500 MHz licensees on notice of potentially significant upcoming changes:
51. In light of the international developments discussed above, Industry Canada expects significant changes over the next few years to international allocations for the mobile service and frequency arrangements in the 3500 MHz band. The Department will consider changes to the band plan and will modify current allocations in the Canadian Table of Frequency Allocations to harmonize with those of other countries, as appropriate. The Department reserves the right to decide whether to implement a new band plan, as well as the right to take any action necessary to ensure that a new band plan can be implemented.

52. Licensees in the 3500 MHz band are hereby given advance notification that changes to the existing allocation and band plan may be considered in the next two to three years. Changes may include review of, and possibly revision to, the spectrum utilization policy, the band plan and the authorized frequencies. A consultation process will precede any such changes.

5. Several weeks after the release of the Consultation Document, on December 12, 2012, the FCC released a Notice for Proposed Rulemaking and Order for the 3.5 GHz band (NPRM).[1] The NPRM proposes to allocate the 3550-3650 MHz and 3650-3700 MHz bands (150 MHz of contiguous spectrum) for small cell deployments and shared spectrum use. The proposal would create a “new Citizens Broadband Service” in order “to unleash the benefits of wireless broadband access for a substantial number of consumers” and “maximize the utility of the 3.5 GHz Band for the greatest number of consumers, businesses, and critical users…”[2]

6. As explained in the NPRM, “small cells are low-powered wireless base stations intended to cover targeted indoor or localized outdoor areas ranging in size from homes and offices to stadiums, shopping malls, hospitals and metropolitan outdoor spaces.”[3] The NPRM also explains that “spectrum sharing in this context refers to the use of automated techniques to facilitate the coexistence of disparate unaffiliated spectrum dependent systems.”[4] The spectrum sharing mechanism proposed in the NPRM is based on the database concept used for TV White Spaces spectrum in the United States.

7. As also explained in the NPRM, the 3.5 GHz band is particularly well-suited to small cell applications:

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[2] See NPRM, footnote 1, at paragraph 156.
The 3.5 GHz Band, considered purely from a radio propagation standpoint, holds great potential for small cell applications. Small cell use could turn some of the perceived disadvantages of the band into advantages. Small cell deployments inherently require less range to meet users’ needs than macrocell networks. Moreover, limited signal propagation can facilitate dense deployment of small cells with a reduced risk of harmful interference to geographically or spectrally adjacent users, greatly increasing frequency reuse and available network capacity. On the other hand, the signal propagation at 3.5 GHz is still viable for non-line-of-site use, allowing for flexible network topologies. In short, given the characteristics of the band, the 3.5 GHz Band appears to be a good candidate for small cell uses.⁵

8. The release of the NPRM is a critical development for the 3.5 MHz band. As the NPRM acknowledges, it is a “complex proceeding, presenting a variety of novel issues.”⁶ For Canadian spectrum policy purposes, the release of the NPRM increases the urgency for Industry Canada to proceed sooner, rather than later, with a review of the spectrum utilization policy and band plan for the 3.5 GHz band. In fact, given developments in the United States and internationally in relation to this band, it is imperative that Industry Canada retain flexibility to review and revise the spectrum utilization policy and band plan for the 3.5 GHz band.

9. For this reason, Shaw submits that the notification set out in paragraphs 51 and 52 of the Consultation Document, and copied above, should be added as a condition of licence for all holders of spectrum licences in the 3.5 GHz band. For this purpose, Shaw proposes the following language, which is based on the language in paragraphs 51 and 52 with minor modifications, in order to provide Industry Canada with the ability to move sooner, rather than later, to ensure that Canadian spectrum policy does not fall out of step with international developments:

   The Department reserves the right to decide whether to implement a new band plan and allocation, as well as the right to take any action necessary to ensure that a new band plan and allocation can be implemented. Licensees in the 3500 MHz band are hereby given advance notification that changes to the existing allocation and band plan may be considered during the term of the licences. Changes may include review of, and revision to, the spectrum utilization policy, the band plan and the authorized frequencies. A consultation process will precede any such changes.

10. Shaw’s proposal, as described above, will ensure clarity for all licensees and other parties of the potential impact of an Industry Canada review while also retaining the

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⁵ See NPRM, footnote 1, at paragraph 20.
⁶ See NPRM, footnote 1, at paragraph 157.
regulatory flexibility that is needed in order to respond to evolving international developments expected to occur in the near future.

Yours truly,

Shaw Communications Inc.

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