Delivered Via E-mail: spectrum.operations@ic.gc.ca

January 30, 2013

Manager, Emerging Networks, DGSO,
Industry Canada,
300 Slater Street
Ottawa, ON K1A 0C8

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

1. Pursuant to paragraph 73 of 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”), Shaw Communications Inc. (Shaw) is pleased to provide its reply 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. Shaw’s reply comments focus on issues raised with respect to the 3500 MHz band. Failure by Shaw to address any specific proposals or statements made by other parties ought not to be assumed to indicate agreement with such proposals or statements.

2. In summary, no parties to this proceeding dispute the uncertainty surrounding the future state of the 3500 MHz band. Parties generally acknowledge that ongoing international developments will directly impact the future of this spectrum. Given this instability, it is critical that Industry Canada’s determinations in this proceeding must not tie our hands in such a way that could limit Canada’s ability to tap into international developments in this band. Industry Canada cannot extend the terms of existing licenses unless it maintains flexibility to implement any necessary changes to keep up with international developments so that Canadian consumers can maximize the benefits of the band.
3. As Ericsson Canada warns:

Having a Canadian band plan that is not fully harmonized with global or regional markets or using equipment that is partially compliant with globally accepted standards could lead to a Canada specific ecosystem which will ultimately impede growth of Canadian industry and disadvantage Canadian users.¹

4. Ericsson Canada’s comments highlight the need to maintain maximum flexibility during this period of uncertainty. If long term license extensions or renewals are granted to incumbent licensees at this time, it could compromise the ability for Canadian consumers to take advantage of new global device ecosystems and technological developments.

5. The Radio Advisory Board of Canada (RABC) proposes that a consultation on 3500 MHz spectrum utilization policy, the band plan and the authorized frequencies should be initiated.² Although Shaw supports the initiation of such a consultation (which we refer to below as the “Policy Consultation”) as soon as possible, it is clear we need more information about the direction of the band internationally before fully informed assessments can be made and positions developed. To do otherwise would jeopardize Canada’s ability to harmonize appropriately. As the RABC points out:

The Board has consistently favored spectrum arrangements that are harmonized with global or regional band plans permitting Canadian industry to gain access to a large equipment ecosystem, readily available standardized products and services at reasonable costs. Only harmonized band plans will ensure the most effective use [of] spectrum which is a scarce public resource.³

6. Bell Canada, Inukshuk Wireless Partnership and Rogers Communications Partnership ask Industry Canada in their comments to add a mobile allocation to the 3500 MHz band as soon as possible to permit licensees to implement mobile services⁴. At the same time, Telus submits in its comments that “FWA spectrum must be liberated and re-auctioned as mobile spectrum.”⁵

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¹ Ericsson Canada comments of 17 December 2012, pg. 2, para 2.
² RABC comments of 17 December 2012, page 2.
³ RABC comments of 17 December 2012, page 2.
⁵ TELUS comments of 17 December 2012, para. 43.
7. Industry Canada cannot make changes to spectrum utilization policies or the band plan in the absence of a public consultation and those matters are not directly at issue in this proceeding. The proposal to add a mobile allocation to the 3500 MHz band would need to be considered in the separate Policy Consultation that RABC and other parties have proposed. However, the proposal to add a mobile allocation is one of several options that would need to be addressed in such a consultation. In order to ensure that interested parties have the necessary information to meaningfully comment in the Policy Consultation, Shaw submits that it would be prudent to wait until we have more certainty in international developments, including those taking place in the United States, so that we can avoid isolating Canadian consumers to the maximum extent possible.

8. In particular, as Shaw and other parties have noted in their initial comments, the Federal Communications Commission (FCC) in the United States has proposed to allocate 150 MHz of contiguous spectrum in the 3550-3650 MHz and 3650-3700 MHz bands to a “new Citizens Broadband Service” as part of a new Notice of Proposed Rulemaking (NPRM). In the face of these developments, Ericsson warns about the risks of adopting rules at this point in time which would prevent Canada from taking these developments into account:

Until the U.S. situation is finalized, the equipment ecosystem and the possibility for Canadian users roaming to the U.S. are unknown. Clearly, besides the already defined 3GPP band plans, Canada has to take into account the ongoing U.S. process and the eventual FCC decision in selecting the most suitable option for the Canadian 3.5 GHz spectrum.

9. It is important to note, in this regard, that the FCC’s NPRM recognizes the suitability of the 3.5 GHz band for small cell deployments:

Wireless service providers and organizations responding to the Public Notice were somewhat restrained as to the usefulness of the 3.5 GHz Band for traditional, macrocell mobile broadband. Notably, AT&T stated that, due to the extensive exclusion zones proposed by NTIA, it would be questionable whether mobile broadband service providers

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7 Ericsson comments of 17 December 2012, page 5.
could effectively provide service in the 3.5 GHz Band. However, AT&T did suggest that the 3.5 GHz Band could be “quite useful for fixed broadband or for unlicensed use.” CTIA has also noted that, while spectrum above 3 GHz is not suitable for “greenfield” mobile broadband deployment due to its less favorable propagation characteristics (as compared to spectrum below 3 GHz), the 3.5 GHz Band has significant potential to be used for the small cell components of a heterogeneous network. 8

10. The NPRM also notes the potential suitability of the 3.5 GHz band for alternative approaches to spectrum licensing. In particular, the NPRM cites the following conclusion from a report of the President’s Council of Advisors on Science and Technology (PCAST):

The PCAST Report concludes that, given the exploding demand for commercial wireless spectrum and the continuing spectrum needs of federal users, the traditional practice of clearing portions of federally held spectrum for exclusive commercial use is not a sustainable basis for future spectrum policy. 9

11. At this point, Shaw expresses no firm opinion on the relative merits of the proposals contained in the NPRM, given that they are outside the scope of this proceeding. Furthermore, the appropriate venue in which to discuss these issues will be during the Policy Consultation. As a result, at this stage, the Department should disregard submissions made in this proceeding that support the adoption of the European or U.S. approach to the band or that presume that the spectrum would be made available for mobile use on an exclusive basis through auction or otherwise.

12. The primary issue in this proceeding is how to resolve the question of whether to renew or extend the existing 3.5 GHz licences in light of the uncertainty surrounding the band. In this regard, we note the following submissions by MTS Inc. and MTS Allstream Inc. (collectively referred to as MTS):

10. With regards to the 3500 MHz band MTS Allstream recommends no extension for existing licensees.

11. As noted by Industry Canada, the 3500 MHz band is in considerable flux around the world. The 3500 MHz band could be a large and valuable source of spectrum, up to 175 MHz, for mobile

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8 NPRM, para. 46.
9 NPRM, para. 40.
broadband services in the future. The band is now under review in the US National Broadband Plan but no decisions have been made by the FCC.

12. Industry Canada itself has noted that it expects “significant changes over the next few years to international allocations for the mobile service and frequency arrangements in the 3500 MHz band” and that it is already giving “advance notification that changes to the existing allocation and band plan may be considered in the next two to three years.”

13. Given the importance and uncertainty surrounding the future of the band, MTS Allstream does not believe it would be prudent to grant further extensions to 3500 MHz band licenses.

14. It is in Canada’s best interest to align with US policy and take advantage of a broader technology ecosystem. A further extension of licenses up to 2017 and beyond could limit Canada’s options moving forward and lead to a misallocation of licenses. A large shift in the frequency plan and mobile technology may leave spectrum in the hands of those that could not maximize its benefits.

15. MTS Allstream recommends that Canada wait to determine the direction taken by the FCC with respect to the 3500 MHz band before deciding on how best to extend or re-allocate licenses.\textsuperscript{10}

13. Shaw supports MTS’ position in principle. However, it does not fully address the challenge that the Department faces in dealing with those licenses that will expire prior to the Department making its determinations following the Policy Consultation. In its comments, TELUS notes that while FWA spectrum is “essentially fallow,” the term of all FWA licences should be extended to a single date. TELUS proposes that a reasonable date would be December 31, 2017.\textsuperscript{11} For its part, Xplornet believes that no extensions should be granted and, if they are, December 31, 2016 would be “appropriate and more than adequate.”\textsuperscript{12}

14. From Shaw’s perspective, any extension should be as short as possible, but the more important point is that any extensions must be conditional on the Department maintaining flexibility to implement fundamental changes following the Policy Consultation that would include measures similar to what the FCC has proposed in the United States. As a result, Shaw reiterates its position that, at a minimum,

\textsuperscript{10} MTS Inc. and MTS Allstream Inc. comments of 17 December 17 2012.
\textsuperscript{11} Telus comments of 17 December 2012, para. 49.
\textsuperscript{12} Xplornet comments of 17 December 2012, paras. 19 and 23.
Industry Canada must incorporate the following words as a condition of all FWA licenses:

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.13

15. In summary, any discussion regarding changes to spectrum utilization policies or band plans in the 3.5 GHz band are not within the scope of this proceeding and can only be considered in a Public Consultation initiated by the Department. This Consultation should only be initiated after there is more certainty regarding international developments, including the FCC’s NPRM proceeding regarding the 3.5 GHz band.

16. To the extent that the Department extends the terms of existing licences, those extensions must be as short as possible and must maintain the Department’s flexibility to implement any necessary changes following its determinations in the Public Consultation. To this end, the Department should incorporate the wording proposed by Shaw in paragraph 14 above as a condition of licence. This proposed wording combined with short term extensions places all licensees on notice of impending changes and provides greater flexibility for Industry Canada to respond to international developments in this band for maximum benefit to Canadian consumers.

17. We thank you for the opportunity to provide our comments in this proceeding and look forward to the Department’s determinations on the issues raised in the Consultation Document.

Yours truly,

Shaw Communications Inc.

13 Shaw’s proposed wording is based on the wording contained in paragraphs 51 and 52 of the Consultation Document, with minor modifications.
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