January 30, 2013

FILED VIA EMAIL (spectrum.operations@ic.gc.ca)

Manager, Emerging Networks
Spectrum Management Operations Branch
Industry Canada
300 Slater Street, 15th Floor
Ottawa, Ontario
K1A 0C8

Dear Sir/Madam,

Subject: Canada Gazette, Part I, October 20, 2012 - Notice DGSO-006-12: Consultation on
Renewal Process for 2300 MHz and 3500 MHz Licences

1.0 INTRODUCTION

1.1 Why CNOC is participating in this Consultation

1. Canadian Network Operators Consortium Inc. (“CNOC”) is a not-for-profit organization whose members
are telecommunications service providers sharing the common objective of promoting greater competition in the
provision of telecommunications services in Canada. CNOC was founded in 2010. Since that time, CNOC has
actively participated in and initiated numerous regulatory proceedings before the Canadian Radio-television and
Telecommunications Commission (“CRTC”) in order to promote competition in the provision of communications
services for the benefit of Canadians.

2. More recently, CNOC has concluded that its selective participation in Industry Canada (the
“Department”) consultations is also important to promote Canadian spectrum policies and licensing processes that
enhance the overall evolution of a more competitive environment for the provision of communications services in
Canada.

3. CNOC is pleased to file this Reply in response to the Comments of other interested parties in this
consultation.
4. While CNOC did not participate directly in the Comment stage of this Consultation, two of its members, Andrews Wireless and Netago did. These two members that have wireless Internet service provider (“WISP”) operations determined that it would be more efficient for CNOC to file this Reply on their behalves, rather than filing separate replies. In addition, this Reply is also endorsed by CNOC as a whole and specifically by other members that have WISP operations, including B2B2C Inc., Core Broadband Inc., Execulink Telecom Inc., goZoom.ca Inc., Kingston Online Services, Ruralwave, Start Communications, Storm Internet, TekSavvy Solutions Inc. and Telnet Communications.

1.2 Fundamental principles for the establishment of sound licensing renewal policies

5. In reviewing the Comments of parties, it has become obvious to CNOC that there are three very important policy considerations that need to be addressed if Canadian consumers are to benefit to the greatest degree possible from the license renewal processes under consideration in this Consultation. These considerations are:

- To the extent that certain licensees have allowed their licensed spectrum to lay fallow for the most part where there were realistic opportunities for them to have put that spectrum to use for the benefit of Canadians, a continuation of such practices should not be condoned by the Department by way of overly lax extensions of license terms and deployment requirements. There is a pressing need for this spectrum to be used to satisfy pent-up demand by those licensees who have a demonstrated track record of utilizing their spectrum in an effective and efficient manner to provide fixed wireless broadband access service for the benefit of Canadians.

- CNOC recognizes that the uses of the 2300 MHz and 3500 MHz bands must change as technologies and the international regulatory environment evolve, and that it is desirable for Canadian band plans to be harmonized with the U.S. as much as practicable so that Canada will not be locked into unsustainable “Canadian only” ecosystems for these bands. It is equally important to ensure that the existing and increasing demand of Canadians for use of the bands in a manner that is consistent with their original purpose must not be compromised by the license renewal process adopted as a result of this Consultation. Those WISPs who have invested appropriately in utilizing the licenses granted to them should be allowed to continue and expand
that use based on the original purpose of the bands and the economics under which the license grants were made.

- The technical rules for the 2300 MHz band and the band plan for the 3500 MHz band need to be reviewed and updated as soon as possible so as to harmonize the technical rules relating to these bands with the U.S. as much as practicable. This will enable licensees to make practical use of these bands in a manner that is consistent with international trends. At the same time, in the case of the 3500 MHz band which has seen a significant amount of fixed wireless deployment, particularly in rural areas, the use of the band to provide fixed wireless broadband access services must continue to be fostered and allowed to expand to meet the demands of Canadians. Residents of many of these areas do not have other options (or, at most, only have one other option) for obtaining broadband service. It is therefore, critical for the band to continue to be used for the provision of fixed wireless access and to add more spectrum to the band to the greatest degree possible for the same purpose.

6. This is the focal lens through which CNOC is providing the balance of its reply comments herein. The following sections are structured to correspond to the questions posed in the Consultation. The failure by CNOC to address an issue or argument raised by an interested party should not be taken as acquiescence where doing so would be contrary to CNOC’s interests.

2.0 QUESTION 1

2.1 Industry Canada seeks comments of the proposed wording of the condition of licence related to deployment.

7. CNOC agrees with the proposed wording but also agrees with the comments made by TELUS Communications Company (“TELUS”) to the effect that the condition of licence reference to a Universal Resource Locater Reference should be replaced with the a reference to two separate schedules in the published 2300 MHz and 3500 MHz renewal decision document.¹ This will ensure that it is well understood that the deployment criteria cannot be changed by administrative action without further stakeholder consultation.

¹ See TELUS Comments, at para. 13.
2.2 Comments are also sought on the following proposal that deployments of fixed links not servicing an end user directly should be considered as an alternative method to meet WCS and FWA spectrum deployment licence conditions.

8. CNOC completely agrees with those interested parties who submit that fixed point-to-point ("P2P") links should not be used as an alternate means of satisfying the deployment requirement. As Saskatchewan Telecommunications ("SaskTel") points out, allowing this practice would distort the purpose for which licenses were granted in these bands, namely the provision of point to multipoint broadband services over a wide geographic area.\(^2\) CNOC also agrees with the observation of TELUS that deployments of fixed links not servicing an end user are typically relays and backhaul.\(^3\) For the same reason, CNOC opposes the proposal made by Bell Canada ("Bell"), Inukshuk Wireless Partnership ("Inukshuk") and Rogers Communications Partnership ("Rogers"), hereinafter collective called "Inukshuk Incumbents", to satisfy their deployment requirements through a combination of broadband wireless access and fixed links not servicing an end user directly within the same Tier 4 area.\(^4\)

9. While CNOC has no objection to having this spectrum used for P2P applications where it makes sense, such use should not be used to dilute artificially the deployment requirement associated with the issued licences.

2.3 Comments are also sought on the following proposal that when a requirement is considered for fixed links not servicing an end user directly, it should be set at 15 links per million population, per Tier 4 area at the end of the licence term.

10. Since it does not consider that P2P links should count toward deployment requirements under any circumstances, CNOC has nothing to say in response to this question.

---

\(^2\) See SaskTel Comments, at para. 6.
\(^3\) TELUS Comments, at para. 15.
\(^4\) See Inukshuk Incumbents Comments, at para. 16.
3.0 QUESTION 2

3.1 For the 2300 MHz band, which of the two options is preferred?

11. For the 2300 MHz band, C NOC is of the view that Option 1 (i.e., an extension of the term of existing licences) would be the most appropriate since there has hardly been any deployment so far due to lack of equipment, but as pointed out by several parties, there is a likelihood of a Long Term Evolution (“LTE”) ecosystem developing in this band in the next few years. C NOC’s preference for Option 1 is consistent with the positions expressed by NextWave Wireless Inc. and Your Link Inc., whose comments focused specifically on the 2300 MHz band in this Consultation.

4.0 QUESTION 3

4.1 For the 3500 MHz band, which of the two options is preferred?

12. For the 3500 MHz band, C NOC believes that Option 2 (i.e., renewal of licences for a fixed term) would be most appropriate in all cases where a licensee can demonstrate that it has met existing deployment requirements by the end of the tenth year for a given Tier 4 area or subdivided part of a Tier 4 area. In such cases, licensees have demonstrated that they are making good use of the spectrum licensed to them to serve the broadband access needs of Canadians. It is therefore in the public interest that they should be allowed to continue providing their services to consumers and businesses, as well as recouping the investment that they made in acquiring licensed spectrum, deploying infrastructure and providing fixed wireless broadband access services.

13. In those cases in which a licensee has not met existing deployment requirements by the end of the tenth year for a given Tier 4 area or subdivided part of a Tier 4 area, it should have to return the spectrum to the Department. This manner of treating licensees differently based on whether they did or did not meet their deployment requirements by the end of the existing term would appropriately reward those who have made investments and are serving the populations in their serving areas in a meaningful way, while allowing spectrum that lays fallow to be reclaimed at a time when the comments of most parties suggest that spectrum in this band will be in great demand in the years to come.

5 See., e.g., AT&T Services, Inc. Comments at para. 5, Huawei Canada Comments, at pg. 4 and ZTE Canada Inc. Comments, at pg. 2.
14. In this respect, CNOC commends to the Department, the following submissions made by Xplornet:

“Xplornet believes that one reason other licensees have not deployed is that they have no immediate need for the spectrum. They are sitting on large quantities of spectrum in various bands and they are not prepared to commit the capital necessary to deploy all of it at this time. This is an economic choice for them - not a lack of available technology. If Industry Canada lets them off the hook on their deployment obligations for this reason, the Department will simply be aiding and abetting spectrum hoarding.”

15. Société de Participation Financière Eidos Canada Inc. (“Eidos”) further points out the adverse consequences of having licensees squat on their licensed spectrum and letting it lay fallow:

“Unlike Rogers, which shut down its 'Portable Internet' service, and Bell, which seems to want to use the spectrum for backhaul, our company, through the Metrocom brand, wants to deliver cost-effective service in under-served and uncompetitive areas.”

16. Interestingly, the Inukshuk Incumbents admit that if the deployment requirement for licensed spectrum in this band is not modified or extended, licensees will have to deploy in order to satisfy the current deployment. That outcome is precisely what is in the public interest! The reason for deployment deadlines is to ensure that deployment occurs by the applicable deadlines as envisioned by the policies that result in the licensing of spectrum. In the case of spectrum in the 3500 MHz band, there is no reason to delay further. Companies as small as ABC Communications and as large as Xplornet Communications Inc. (“Xplornet”), as well as the members of CNOC that employ WISP operations, have all found practical and productive ways to deploy 3500 MHz infrastructure to provide broadband access services to their customers. Other licensees should not be allowed to squat on their licensed spectrum while allowing it to lay fallow.

17. Arguments, such as those made by the Inukshuk Incumbents, to the effect that it would be wasteful to require them to deploy WiMAX equipment when new and better LTE technology is just around the corner should be rejected. As Xplornet rightly points out, there will always be new technology coming just around the corner,

---

6 Xplornet Comments, at para. 9.
7 Eidos Comments, at pg. 1.
8 See Inukshuk Incumbents Comments, at para. 58.
9 For example, the Inukshuk Incumbents make such arguments at paras. 28 and 29 of their Comments.
but that does not justify allowing licensees to hoard spectrum, while other licensees have met their deployment commitments and there is a shortage of spectrum required for increased rural deployment.\(^\text{10}\)

5.0 QUESTION 4

5.1 For Option 1 (detailed in section 7.1 of this consultation):
   A. Should licence terms be extended?
      a. If so, should they be extended by the same length for all licensees?
         i. Is three years an appropriate extension?
      b. Or, should the licence terms be extended to a fixed date for all licensees?
         i. Would December 2017 be an appropriate extension date?

18. CNOC is answering this question in the context of the 2300 MHz band. For this band an extension to the licence term is appropriate, since equipment for this band has not been widely available, but as noted in response to Question 2 above, there is a likelihood of a LTE ecosystem developing in this band in the next few years.

19. CNOC is of the view that it would be appropriate for all existing licences to be extended to a fixed date and views December 2017 as being reasonable. This timeframe appears to be viewed as aggressive but realistic. For example, CNOC notes that AT&T plans to deploy FDD LTE, to cover 40% of the U.S. population in each licensed area within 4 years.\(^\text{11}\) Thus, assuming that the existing deployment requirement is extended to the end of the extended term, a shorter licence term would not provide licensees sufficient time to deploy the new technology in this band to a sufficient degree to meet the existing deployment requirement. On the other hand, a longer period could encourage spectrum hoarding and so CNOC urges the Department to err on the side of implementing the aggressive target of December 2017, rather than risking having licensed spectrum held by parties that are not aggressively deploying services supported by that spectrum.

5.2 B. Should the deployment requirement also be extended to the end of the proposed term?

20. CNOC is of the view that it makes the most sense to have the deployment requirement extended to the end of the proposed term and notes that interested parties supporting Option 1 generally supported this approach. This makes sense because the only real purpose of an extension is to assist licensees in meeting their deployment requirements.

\(^\text{10}\) See Xplornet Comments, at paras. 6, 9 and 10.
\(^\text{11}\) AT&T Comments, at para. 5.
requirements. Extending the deployment requirement to the end of the extended term would also assist in licence swaps as noted by Xplornet.  

5.3  C. In considering an extension of the licence term, do you expect equipment in the 2300 MHz band to become available soon enough to achieve the deployment requirements by December 2017?

21. As noted in response to Question 2, and further discussed in response to Question 4 A., CNOC believes that there is a likelihood of a LTE ecosystem developing in this band in the next few years, such that licensees can achieve deployment requirements by December 2017.

5.4  D. In considering an extension of the licence term, do you expect LTE equipment in the 3500 MHz band to become available soon enough to achieve the deployment requirements by December 2017?

22. CNOC does not believe that waiting for LTE to become available for the 3500 MHz band is a valid reason for license and deployment extension for this band, given that other types of equipment are available and have been deployed. Further details are provided in response to Question 3. However, if the Department does grant such an extension, it should be as short as possible, in no event later than December 2017, and end on the same date for all licensees.

5.5  E. Are there any additional considerations that should be taken into account by Industry Canada?

23. In order to meet the December 2017 deployment deadline for the 2300 MHz band, CNOC urges the Department to issue its determination in this proceeding and commence a consultation on changing the technical rules for the band at the earliest possible opportunity.

6.0  QUESTION 5

6.1  For Option 2 (detailed in section 7.2 of this consultation):

A. Given the potential upcoming changes, is 10 years an appropriate term for new licences issued through the renewal process?

24. CNOC is answering this question in the context of the 3500 MHz band. For this band, the granting of new licences licensees for ten year terms for those Tier 4 areas or subdivisions thereof where the licensees have met deployment requirements is appropriate. This approach strikes the right policy balance by discouraging spectrum

---

12 Xplornet Comments, at para. 24.
hoarding while allowing those who will have met their deployment requirements by the end of the initial term to continue their operations, and grow their businesses by serving the needs of Canadians, especially in rural areas. In addition, as noted by Xplornet, a ten year licence period allows for reasonable return on invested capital and reasonable expectation of service by customers.\(^\text{13}\)

6.2 B. Should deployment requirements apply to new licences under the renewal process? If so, what should the deployment requirements be?

25. CNOC is of the view that the existing deployment requirements should apply to the new licences, and, as noted by Xplornet, licensees should be required to continue maintaining the deployment requirement throughout the term of the new licences.\(^\text{14}\)

6.3 C. Are there any additional matters that should be considered by Industry Canada when issuing a new licence for a new term?

26. CNOC believes that it is very important for the new licences to be issued on the understanding that licensees will be allowed to continue providing fixed wireless services using the licensed spectrum and will not be required to give up any net amount of spectrum they hold as a result of any changes to the 3500 MHz band plan. In fact, more spectrum, not less, is required for these applications.

7.0 QUESTION 6

7.1 Are there any other options for the licence renewal process that Industry Canada should consider?

27. CNOC’s proposal set out in response to Question 3, whereby licence renewals would occur in all cases where a licensee can demonstrate that it has met existing deployment requirements by the end of the tenth year for a given Tier 4 area or subdivided part of a Tier 4 area, but a renewal or extension would not occur where these conditions are not met, could be viewed as either fitting within the framework set out in response to that Question or being another option. If the Department considers it to be another option, then CNOC hereby incorporates by reference its response to Question 3 into this response.

\(^{13}\) Id., at para. 29.
\(^{14}\) Id., at para. 30.
28.  CNOC notes that its proposed option is similar to the option proposed by Québecor Média Inc. (“QMI”), in which QMI argued for the return of spectrum that is not utilized or does not meet the associated deployment requirements.\textsuperscript{15} QMI states that this is justified by the fact that existing licence holders that have not deployed as required have already obtained two extensions.\textsuperscript{16} CNOC agrees with this reasoning. Bragg Communications Inc., carrying on business as Eastlink (“Eastlink”) submits that band incumbents return a portion of their spectrum if they plan to use it for anything other than the fixed wireless services for which the spectrum was originally licensed and intended.\textsuperscript{17}

29.  However, QMI also cites as a reason for the return of spectrum the possible deployment of this spectrum for mobile applications.\textsuperscript{18} TELUS goes further and suggests that there should be no licence renewals for spectrum in the 3500 MHz band and that this spectrum must be “liberated” and re-auctioned as mobile spectrum.\textsuperscript{19} The Radio Advisory Board of Canada (“RABC”) suggests that up to 175 MHz or perhaps even 300 MHz in and around the 3500 MHz band could be made available for mobile applications.\textsuperscript{20}

30.  CNOC strenuously objects to any proposal that would result in the forfeiture of licensed spectrum by licensees who will have met their deployment commitments or will do so by the end of their current license terms. In fact, as Xplornet pointed out, there is currently a shortage of spectrum that can be used for fixed wireless broadband access service in rural areas.\textsuperscript{21} Accordingly, urges the Department to ensure that an adequate amount of spectrum is at all times available for these applications. This will likely involve an increase, not a decrease, in the amount of spectrum that should be allocated to this type of service. While it acknowledges that a separate band plan consultation will be required to address this type of issue, CNOC urges the Department not to make license renewal decision as a result of this Consultation that will prevent the required amount of spectrum being available for fixed wireless applications.

31.  A sufficient amount of spectrum must be available for such applications to ensure that the CRTC’s objective of ensuring that Canadians in rural areas have access to broadband Internet access service having

\textsuperscript{15} QMI Comments, at para. 6.
\textsuperscript{16} Ibid.
\textsuperscript{17} Eastlink Comments, at para. 9
\textsuperscript{18} QMI Comments, at para. 6.
\textsuperscript{19} TELUS Comments, at para. 43.
\textsuperscript{20} RABC Comments, at page 7.
\textsuperscript{21} Xplornet Comments, at para. 10. Routcom Inc. also noted the shortage available for this type of use at pg. 2 of its Comments.
minimum delivered (as opposed to advertised) speeds of 5 Mbps for downloading and 1 Mbps for uploading. In setting this target, the CRTC noted that “numerous wireless network providers are expanding the reach of their latest network technologies, which promise greater speeds to more Canadians at reasonable rates”. Therefore, CNOC urges the Department to accept its proposal for the licence renewals for the 3500 MHz band, since the proposal is in full alignment with the CRTC’s policy objective and hence government policy, while the proposals of other parties requesting a return and reallocation of this band for mobile applications, are not. The fact that the 3500 MHz band is not particularly well suited from a technical perspective for mobile applications, as pointed out by a number of participants in this proceeding, serves to reinforce further the logic behind CNOC’s proposal.

Finally, CNOC wishes to stress two points made by many parties in this Consultation. Firstly, a band plan consultation for the 3500 MHz band and related spectrum and a consultation respecting the technical rules for the 2300 MHz band are required at the earliest possible opportunity. Secondly, it is desirable for Canada to harmonize its band plan and technical rules for the 2300 MHz and 3500 MHz bands as much as practicable with the U.S., so that Canada is not forced into a “Canada-only” LTE ecosystem in these bands. However, any such harmonization should occur in a manner that makes available sufficient spectrum for fixed wireless broadband applications services, for which significant demand is present and growing, especially in rural areas.

8.0 QUESTION 7

8.1 Industry Canada invites comments on the proposed wording of the condition of licence related to the licence term (detailed in section 8 of this consultation).

33. CNOC agrees with the many interested parties who submitted that this wording is appropriate.

Yours very truly,

William Sandiford
Chair of the Board and President

*** END OF DOCUMENT ***

---

22 Obligation to serve and other matters, Telecom Regulatory Policy CRTC 2011-291, at paras. 76 and 77.
23 Id., at para. 78.
24 These parties include AireNet Internet Solutions, Andrews Wireless, Genesis Networks Inc., GL Mobile Communications, High Speed Crow Inc., Netago and Silo Wireless Inc.