



Reply Comments for:

Consultation on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band

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Introduction

1. Iris Technologies, Inc. (“Iristel”) is pleased to submit its reply comments, on behalf of itself and its affiliate Ice Wireless Inc., in response to comments made by various participants to Innovation, Science, and Economic Development Canada’s (“ISED”) *Consultation on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band* (the “Consultation”).
2. Iristel has reviewed submissions to the Consultation, and in particular submissions from industry participants, and organisations representing industry groups such as BCBA and CanWISP. Having reviewed these comments, Iristel maintains the positions it put forward in its comments.

Treatment of WBS licensees

3. Iristel maintains that the best option for the WBS band is its proposal to keep WBS at 3650 MHz and extend the top of the WBS band to 3730 MHz.
4. Many participants agreed with Iristel that the lack of equipment ecosystem in the 3900-3980 MHz range presents a major roadblock for WISPs who must rely on the WBS to maintain and expand their broadband service. Participants such as BCE, Rogers, Shaw, Cogeco, the BCBA and CanWISP all acknowledge this challenge. Those commenters in favour of displacing WBS to 3900 MHz did not address the lack of ecosystem in this band and made no recommendations on how WISPs could mitigate this issue.
5. Those parties who recommended displacing WBS were of the opinion that clearing 3650-3700 MHz in order to allocate this band to flexible use was necessary in order to maximize the possibility of creating contiguous blocks for 5G. This ignores the fact that only a single party in any given licence area will potentially benefit from making the 3500 MHz flexible use blocks contiguous with the 3800 MHz flexible use blocks. In order to create a continuous block from the displaced 3650-3700 MHz blocks, a party would have to win sufficient blocks in both the 3500 MHz and 3800 MHz auctions. Only a single party, likely an incumbent national mobile operator with sufficient capital to burn on the assignment rounds, will benefit from this reassignment. On the other hand, every WISP that relies on the current WBS band, and their rural broadband customers, will suffer the consequences especially if the WBS band is moved to 3900-3980 MHz where WISPs will struggle to find suitable equipment, and the time and capital needed to deploy it.
6. Iristel notes that several parties, such as BCE and Rogers, suggested moving the WBS band to 3400-3450 MHz, stating that 50 MHz is sufficient for WISPs to meet the 50/10 universal service objective

set by the CRTC, while at the same time stating that this move is needed in order to provide the opportunity to create contiguous 100 MHz blocks, which are needed to provide sufficient performance for a modern 5G network. It is difficult to reconcile how one can argue that WISPs should settle for 50 MHz in order to provide incumbents with 100 MHz. What is good for the goose is only half as good for the gander, it seems.

7. While Iristel strongly maintains that ISED should retain option 1 while adding 30 MHz to place the WBS band at 3650-3730 MHz, should ISED decide that moving the current WBS band is essential, it should retain the proposal put forth by the BCBA and assign both 3400-3450 MHz and 3900-3980 MHz to WBS. For WBS users who deployed standard-based equipment, most CPEs deployed support LTE bands 42 and 43, which means that while those WBS users would need to deploy new radios at tower sites to make use of the 3400-3450 MHz band, they might not need to revisit customer premises. This would provide an avenue for some WISPs to maintain some of their current infrastructure and reduce the amount of compensation needed as a result of being displaced. The additional 80 MHz provided at 3900-3980MHz would futureproof WISPs who rely on WBS by allowing them to increase their network capacity when equipment at 3900 MHz eventually becomes available.
8. Iristel notes that most participants agreed that should ISED decide to displace the current WBS band, existing WBS licensees should be compensated for this costly endeavour. In its comments, Iristel estimated that a WISP with 5000 end users would incur costs of at least \$7,240,000 to relocate to the 3900 MHz band. BCE provided an estimate of \$15-20 million¹ for the same exercise, which if correct, represents at least one billion dollars of cost to the WISP industry in Canada. The auctions for 3500 MHz and the auction for 3800 MHz both present a ready source of financing for this move. ISED should not rely on the existing Universal Broadband Fund or the CRTC's Broadband Fund to compensate WISPs as the eligibility criteria of these programs exclude areas already served and will prevent compensation of WBS operators who may have some overlap in their coverage with other Internet service providers.
9. Lastly, Iristel strongly disagrees with Telus' proposal to convert the WBS band to a first-come-first-serve with no contention protocol licence. Telus' proposal is contrary to ISED's policy objective of promoting spectrum sharing. Rather, ISED should continue to promote the use of contention protocols and use dispute resolution mechanisms in the event that a WBS licensee refuses to coordinate with an overlapping licensee.

¹ *Consultation on the Technical and Policy Framework for 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band, published in the Canada Gazette, Part 1 on 12 September 2020, Comments of BCE Inc.* BCE Inc., 26 October 2020, paragraph 7.

FSS reallocation and Telesat proposal

10. Iristel maintains its opposition to Telesat's proposal, while also maintaining its position that satellite operators, both foreign and domestic, should be compensated for the reallocation of FSS from 3700-4200 MHz to 4000-4200 MHz.
11. Iristel carefully reviewed the submissions from Intelsat, SES, and Radio-Canada and notes that both the ISED proposal to vacate 3700-4000 MHz and the Telesat proposal to vacate 3700-4100 MHz are far too aggressive where timeframe is concerned. It is unlikely that all existing satellite services could be migrated to the 4000-4200 MHz band by 2023 absent incentives that are similar to those used in the United States.
12. Telesat's proposal met with almost unanimous disagreement from participants. The Telesat proposal would represent an abdication of ISED's responsibilities where it comes to spectrum policy. And while the vast majority of participants to the Consultation made this point, none were more succinct than Shaw Communications when it said:

*The Clearing Proposal, by contrast, is in the best interest of Telesat, not Canadians. The Clearing Proposal would give Telesat the responsibilities that are at the core of the Department's mandate, positioning Telesat as the arbiter of Canada's digital future. This is ISED's role and responsibility, not Telesat's.*²
13. Iristel also notes that both Intelsat and SES identified major concerns with the reduction of C-band available in Canada under Telesat's proposal to vacate all but 100 MHz.
14. Telesat, in its comments, continues to place a high degree of importance on its LEO satellite project. Iristel agrees that this project has enormous potential to solve connectivity issues in rural and remote Canada, however Iristel also maintains its position as set forth in its comments to the Consultation and cautions ISED from making a major policy decision that relies on the future availability, on a highly aggressive timeframe, of a technology whose viability remains untested.

² Consultation on the Technical and Policy Framework for 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band, Notice No. SLPB-002-20 Comments of Shaw Communications Inc., Shaw communications Inc., 26 October 2020, paragraph 21.

Combining 3500 MHz and 3800 MHz allocation

15. A number of participants suggested that ISED should take a holistic approach with regard to the 3500 MHz spectrum and the 3800 MHz spectrum as together they represent one band. Rogers, in particular, calls on ISED to use this Consultation as "...Canada's last, best chance to create the right policies³..." Iristel is not opposed to the idea of creating a single auction that would encompass both the 3500 MHz band and the 3800 MHz band, on the condition that ISED launch an addendum consultation for the addition of the 3800 MHz band to the 3500 MHz auction, and on the condition that the 3650-3730 MHz band be excluded from this auction and reserved for WBS.
16. Iristel would expect that this would delay the upcoming 3500 MHz auction somewhat as ISED concludes the additional consultation and adjusts its auction software. ISED should also be wary of holding an auction too early that includes spectrum bands that will take years to clear. This would greatly favour the national incumbents who are better capitalized and prejudice smaller operators who must show a more rapid return on investment and cannot afford to spend large amounts of money on spectrum assets only to have to wait for years before they have access to the spectrum they acquired.

Moratorium on the deployment of new WBS stations in urban Tier-4

17. Iristel maintains its position that ISED's moratorium on the deployment of new WBS stations in Urban Tier-4 is unwarranted. The moratorium will prevent WBS users from adequately serving customers near urban centers without providing for a readily available cost-effective alternative. At the bare minimum, if ISED persists in its desire to vacate the WBS band, the decision resulting from this Consultation should allow the use of the 3400-3450 MHz immediately to allow existing WBS users near urban centers to continue to deploy additional capacity needed to serve customers.
18. Cogeco stated in their response that the moratorium achieves little. Iristel agrees and believes it should be rescinded as soon as possible to avoid creating harm to WBS users and their subscribers. ISED could maintain a moratorium on the award of new WBS licences if it is concerned that these could be

³ *Consultation on the Technical and Policy Framework for 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band, Notice No. SLPB-002-20 Comments of Rogers Communications Canada Inc., Rogers Communications Canada Inc., 26 October 2020, paragraph E2.*

requested on a speculative basis, but there should be no moratorium for the deployment of equipment by existing licensees.

Conclusion

19. ISED's proposed reassignment of the 3800 MHz band to mobile and fixed wireless represents an opportunity not only for mobile network operators to transition to the next generation of mobile networks, but also for rural and remote wireless ISPs to continue the important task of bridging Canada's digital divide. Without minimizing the importance of the upcoming 5G transition, Iristel sincerely hopes that ISED's spectrum policy will find a balance between the interests of large mobile network operators looking to provide enhanced speeds to the lucrative urban markets with the interests of rural and remote ISPs who struggle to provide high quality broadband services to their customers.
20. Iristel thanks ISED for the opportunity to provide these reply comments.

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