

**Consultation on a Framework to Auction  
Spectrum in the 2 GHz Range including  
Advanced Wireless Services**

**Reply Comments**

**of**

**Cybersurf Corp.**

**27 June 2007**

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## **Introduction**

1. Cybersurf Corp. (“Cybersurf” or the “Company”) is pleased to provide these reply comments to Industry Canada (the “Department”) in accordance with Notice No. DGTP-002-07 – *Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*, February 16, 2007 (“Notice” DGTP-002-07 or the “Notice”).

### **1. Addressing the Potential for New Entry**

#### **1.1 General**

*In section 2.7 of the Notice, the Department seeks comments on whether there is a need for measures intended to enable market entry in the AWS spectrum auction.*

2. In their comments in this consultation process (“AWS Consultation”), Bell Canada (“Bell”), Rogers Communications Inc. (“Rogers”) and Telus Communications Company (“Telus”), which are the affiliates of the three national incumbent mobile wireless service providers,<sup>1</sup> attempt to portray the Canadian mobile wireless market as being leading edge relative to other countries.

3. Other parties have demonstrated that: (1) Canada lags other OECD countries in mobile wireless adoption; (2) mobile wireless penetration rates have grown more slowly following periods of industry consolidation; (3) Canada’s wireless data usage is much lower than that of other developed countries; (4) Canada has been slower than other developed countries to roll out wireless local number portability and to deploy the next generation of wireless services and features; (5) Canada is home to some of the highest mobile services pricing in the OECD, particularly in the case of data access rates; and (6)

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<sup>1</sup> The entities capable of providing mobile wireless services in most markets are Bell Mobility, which is owned by BCE Inc., Rogers Wireless/Microcell owned by Rogers, and Telus Mobility owned by Telus Corp.

Canada's national wireless operators invested approximately 40% less per person on wireless infrastructure than wireless operators in the United States in 2006.<sup>2</sup>

4. These conclusions reinforce the views expressed by Cybersurf in its Comments in this AWS Consultation to the effect that the Canadian mobile wireless industry is not yet sufficiently competitive.

5. The lack of more competitive facilities-based mobile wireless operators may well be exacerbated if Telus is ever successful in taking over BCE Inc,<sup>3</sup> or if some other combination involving incumbent mobile wireless operators is formed.

6. Given all of these circumstances, Cybersurf continues to believe that the case for measures intended to enable market entry in the AWS spectrum auction can easily be made on a balance of probabilities. Moreover, Cybersurf agrees with those parties who endorse a balance of probabilities as the appropriate burden of proof for the assessment of this issue.

## 1.2 Spectrum Set-aside

*In section 2.7.1 of the Notice, the Department seeks comments on whether a certain amount of spectrum should be set aside for new entrants, including a precise description of those who should or should not be entitled to bid.*

7. For the reasons set out in section 1.1 of these Reply Comments above and reasons set out in section 1.1 of its Comments in the AWS Consultation, Cybersurf continues to be of the view that a certain amount of spectrum should be set aside for new entrants as means of ensuring that incumbent carriers, which have very significant financial resources, do not block the entry of new entrants by bidding-up the price of all of the spectrum being auctioned.

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<sup>2</sup> See, .e.g., Comments of MTS Allstream Inc. at paragraphs 21 to 33.

<sup>3</sup> The announcement of such a take-over bid (which is, as of June 27, 2006, not in play but may still be revived) is described in "Telus's BCE bid may drive off rival bids", <http://www.theglobeandmail.com/servlet/story/LAC.20070622.RBELUSMAIN22/TPStory/Business>

8. After reviewing the submissions of parties regarding which carriers should be prohibited from bidding for spectrum earmarked for new entrants, Cybersurf is amending its definition of those parties that should not be able to bid on set aside spectrum. In particular, the three existing national mobile wireless carriers and all of their wireline *or wireless* affiliates, *and any combination of any of the foregoing*, should be prohibited from being allowed to bid on any spectrum that is set aside. For this purpose, Cybersurf defines an affiliate as a person who controls or is controlled by the mobile wireless carrier or who is controlled by a person who also controls the mobile wireless carrier. In all cases, control means control in any manner that results in control in fact, whether directly through the ownership of securities or indirectly through a trust, agreement or arrangement, the ownership of any body corporate or otherwise. The italicized amendments proposed above are designed to ensure that the national mobile wireless carriers do not defeat any set aside rules by any indirect means.

***In section 2.7.1 of the Notice, the Department seeks comments on the amount of spectrum that could potentially be set aside, including whether a single block should be set aside or if the set-aside could be broken up into two or more blocks.***

9. After reviewing all of the Comments of parties (and more particularly in light of revisions to its views regarding the AWS band plan and tier sizes for licensing) Cybersurf is still of the view that a total of 60 MHz of AWS spectrum should be set aside for new entrants in the 1710-1755 MHz and 2110-2155 MHz frequency ranges, but the blocks set aside would be blocks A, B and F of Table 1 set out in section 3.1 below. However, no set aside would be required for any other band.

***In section 2.7.1 of the Notice, the Department also seeks justification for proposals in this area that stipulate how such provisions would be in the public interest, with supporting evidence or rationale.***

10. Cybersurf is proposing that the set-asides described in the preceding paragraph be reserved because: (1) the competitive telecommunications landscape would be greatly improved by the addition of between one and three new entrants in each market in which the

incumbents presently operate; (2) the incumbent mobile wireless carriers together with their affiliates also have wireline means available for delivering advanced services that are not available to all potential new wireless entrants; and (3) the incumbent mobile wireless carriers also possess other spectrum for the delivery of mobile services (including AWS) not available to new entrants.

***In section 2.7.1 of the Notice, the Department seeks comments on the implementation of the set-aside post auction and the duration of any conditions of licence specific to the set-aside that may affect the licence such as divisibility and transferability.***

11. Cybersurf's views have not change with respect to this issue. In order for the licensing of spectrum allocated through set-asides to continue promoting the pro-competitive objectives of a set-aside policy, a condition of licence should exist that prevents the spectrum in question from falling into the hands of incumbent mobile wireless carriers or their affiliates, even in cases of the division and/or transfer of such spectrum.

12. In other words, in order to promote a pro-competitive policy that could be defeated or diminished if spectrum aggregation occurs over time after the completion of the auction, set-asides should continue for an indeterminate period. Additional consultation by the Department should take place before any set-asides are reduced or eliminated, should that ever be contemplated.

### **1.3 Spectrum Aggregation Limit on Auctioned Spectrum**

***In section 2.7.1 of the Notice, the Department seeks comments as to whether an auction spectrum aggregation limit should be placed on the amount of spectrum that can be acquired by a single wireless service provider and its affiliates. Such comments should include the amount of spectrum for the auction spectrum aggregation limit, to which bands it should apply and the duration.***

13. After reviewing the Comments of parties in the AWS Consultation, and assuming that the band plan and set asides proposed in Table 1 of section 3.1 below are adopted, Cybersurf is of the view that no aggregation limit on auctioned spectrum would be required.

14. However, should the band plan and set asides proposed by Cybersurf not be adopted, an aggregation limit would be required to prevent the concentration of spectrum by any single entity. The limit required to achieve this purpose will depend on the band plan adopted and the characteristics of any set asides.

15. If no set asides are adopted at all, Cybersurf concurs with the proposal made by Mr. Robert C. Simmonds (the founder of Clearnet Communications) in his Comments in the AWS Consultation for a spectrum aggregation limit of 50 MHz for this auction. Cybersurf also agrees with Mr. Simmonds's reasoning that under such circumstances any spectrum aggregation limit smaller than 40 MHz becomes problematic, since a 30 MHz limit would effectively eliminate bidding competition among the three large incumbent carriers, while a 20 MHz limit would amount to a set aside.

16. Cybersurf still believes that a two year period is too short a duration for the application of any aggregation limit, given the time it takes network operators to build and expand networks and deploy services. In addition, in order to promote a pro-competitive policy that could be defeated or diminished if spectrum aggregation occurs over time after the completion of the auction, the spectrum aggregation limit should continue for the term of the licenses granted in the auction. Additional consultation by the Department should take place before any limits are reduced or eliminated, should that ever be contemplated.

## **2. Mandated Roaming**

*In section 3 of the Notice, the Department seeks comments on mandating incumbent mobile wireless operators to offer roaming services – to both competing and non-competing Canadian carriers – to foster the development of competitive wireless communications services. Comments are also invited on the extent to which the lack of mandated roaming could be a barrier into the wireless market. Comments are sought on what services should be included in any mandated roaming and to what specific frequency band(s) roaming should apply. Comments are sought on the mechanisms that would best implement the policy objectives regarding roaming.*

17. Cybersurf agrees with the comments made by MTS Allstream Inc. to the effect that “a condition of licence should be applied consistently across all cellular, PCS and AWS licences

that all licensees must provide non-discriminatory access to seamless or other automatic digital roaming and resale services to other wireless licensees”.<sup>4</sup>

18. The kinds of enhanced roaming and resale arrangements that Bell Mobility and Telus Mobility share among each other in order to avoid build out costs in each other’s traditional operating territories should be available to all mobile wireless competitors using the cellular, PCS and AWS bands.

19. As noted by EastLink in its Comments in the AWS Consultation, the Federal Communications Commission (“FCC”) has applied a mandatory roaming requirement for both competing and non-competing carriers for seven years in the United States. This requirement (which has worked well in the US), calls for technology neutral roaming on a mandatory basis as long as the service is offered and the end user equipment is compatible with the service. These qualifications on the roaming requirement are reasonable. They ensure that competitors are not required to expand their networks or deploy multiple technologies that they do not otherwise intend to deploy for the sole purpose of meeting the roaming requirement.

20. Cybersurf urges the Department to adopt this requirement in Canada as well, and to include mandatory resale, as proposed by MTS Allstream. Cybersurf also recommends that additional consultation should take place before either mandated roaming or resale is reduced or eliminated, should that ever be contemplated.

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<sup>4</sup> MTS Allstream Inc. Comments at paragraph 132.

### 3. Technical Considerations

#### 3.1 General

*In sections 4.1.1, 4.2.2 and 4.2.3 of the Notice, the Department seeks comments on whether the band plans described therein should be adopted in Canada and whether: (1) in the case of AWS band plans the Department should allow TDD operation in the corresponding sub-bands if the meet certain conditions listed by the Department; (2) in the case of the band 1670-1675 MHz, technological neutrality related to duplexing should be adopted in Canada and; (3) in the case of the bands 1910-1915 MHz and 1990-1995 MHz, the standards for PCS should be applicable.*

21. Following a review of the Comments of other parties in the AWS Consultation, Cybersurf is now of the view that the AWS band plan adopted by the Department should be coordinated with that already approved by the FCC for AWS, as set out in Table 1 below. This approach would reduce the difficulties associated with interference and roaming at Canadian-US border areas. As noted by Rogers, the FCC’s band plan is more flexible than the Department’s proposal in that the FCC plan has more blocks “providing potential bidders with a greater opportunity to compete and obtain spectrum”.<sup>5</sup> Adoption of the FCC band plan in Canada would also enable Canadian mobile wireless operators to deploy the equipment that is developing for the large US AWS market, and avoid the necessity of having unique equipment developed at a higher cost for the smaller Canadian market.

Table 1 – Proposed AWS Band Plan and Related Requirements

<u>Block</u>	<u>Frequencies</u>	<u>Pairing</u>	<u>Bandwidth</u>	<u>Area</u>	<u>Licences</u>	<u>Set Aside</u>
A	1710-1720 and 2110-2120 MHz	2 x 10 MHz	20 MHz	Tier 2	14	Yes
B	1720-1730 and 2120-2130 MHz	2 x 10 MHz	20 MHz	Tier 3	59	Yes
C	1730-1735 and 2130-2135 MHz	2 x 5 MHz	10 MHz	Tier 2	14	No
D	1735-1740 and 2135-2140 MHz	2 x 5 MHz	10 MHz	Tier 3	59	No
E	1740-1745 and 2140-2145 MHz	2 x 5 MHz	10 MHz	Tier 4	172	No
F	1745-1755 and 2145-2155 MHz	2 x 10 MHz	20 MHz	Tier 4	172	Yes

<sup>5</sup> Rogers Comments at page 60.

22. Contrary to Cybersurf's previous position, it may also be necessary for the Department not to allow TDD operation in the corresponding AWS sub-bands in the interest of harmonization with the US AWS band plan and in order to reduce interference with FDD systems, but the technical aspects of this issue may need further study before a final determination is made regarding whether allowing TDD systems will create interference for FDD systems and make cross-border coordination more difficult.

23. Cybersurf continues to agree with the band plans for the 1670-1675 MHz, 1910-1915 MHz and 1990-1995 MHz bands proposed by the Department.

24. In the case of the band 1670-1675 MHz, Cybersurf continues to be of the view that technological neutrality related to duplexing should be adopted in Canada. In the case of the bands 1910-1915 MHz and 1990-1995 MHz, Cybersurf continues to be of the view that the standards for PCS should be applicable.

### 3.2 Service Areas

*In section 4.2.1 of the Notice, the Department seeks comments on its proposed tier sizes for AWS spectrum and on whether the block and tier sizes proposed will allow the entry of new carriers in the market.*

25. After reviewing the Comments of parties in the AWS Consultation and, Cybersurf is now recommending that the AWS service areas be deployed as proposed in Table 1 above.

26. Cybersurf notes that it agrees with the Department's recommendation not to licence a Tier 1 AWS area. Cybersurf agrees with the Department's conclusion that "the services likely to be offered with AWS spectrum would be amenable to licensing both on a local and a larger regional level basis, by both incumbent and new carriers".<sup>6</sup>

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<sup>6</sup> Notice DGTP-002-07 at page 29.

27. Cybersurf's revised service area proposal takes into account its proposed revised band plan that is harmonized with the US, while providing both new entrants and incumbents with the flexibility to acquire local and regional licenses.

28. Cybersurf also notes that not many new entrants will necessarily have the financial means or desire to acquire Tier 2 licenses. For that reason, Cybersurf considers it crucial that the Commission structure license choices for new entrants at the Tier 3 and 4 levels, as well.

29. Offering licenses at the Tier 4 level will also increase the likelihood that rural and more remote areas will obtain AWS services as well. Licensees obtaining licenses for smaller areas that are more uniform in their population density characteristics will do so because their business plans drive them to serve those specific areas, and in that context such licensees will have every incentive to maximize the revenues generated throughout their licensed territories. On the other hand, it will be easier for rural and remote areas to be overlooked by licensees who obtain licenses for larger geographic areas and who are more likely to focus on the highest population density areas within those large territories, at least initially, if not in the longer term.

30. Tier 4 licensing will also enable bidders who do not have the means to bid for larger geographic areas to participate in the auction, thereby increasing the probability of a more diverse competitive outcome.

31. For all of these reasons, Cybersurf urges the Department to adopt the service areas proposed by Cybersurf herein.

***In sections 4.2.2 and 4.2.3 of the Notice, the Department seeks comments on the proposal of Tier 2 service areas for PCS expansion spectrum and the 1670-1675 MHz band, respectively.***

32. Cybersurf still concurs with the Department's proposal of Tier 2 service areas for PCS expansion spectrum and for the 1670-1675 MHz band.

### **3.3 Co-channel/Adjacent Area Coordination and Adjacent Channel/Same Area Coordination**

*In sections 4.3 and 4.4 of the Notice, the Department seeks comments on technical considerations for AWS systems in the applicable bands.*

33. Cybersurf has nothing to add to the discussion contained in those sections of the Notice.

### **3.4 Sharing Issues with Other Services**

*In section 4.5 of the Notice, the Department seeks comments on technical considerations for sharing AWS systems with other services in the applicable bands.*

34. Cybersurf has nothing to add to the discussion contained in this section of the Notice.

## **4. Licensing Process**

### **4.1 License Term, Renewal and Implementation Requirements**

*In section 5.3 of the Notice, the Department seeks comments on the licence term, implementation and renewals.*

35. Upon review of the Comments of parties in the AWS Consultation, Cybersurf is now of the view that a fifteen-year licence term is appropriate and is more consistent with International practice and the lengthy periods required by new entrants to recover their investments in network build-outs.

36. However, the Cybersurf also remains of the view that an interim implementation requirement should also be imposed, in order to ensure that auctioned spectrum does not sit idle, thereby diminishing the competitive benefits and innovation associated with the licensing of that spectrum.

37. Cybersurf believes that an implementation review at the five year mark of the fifteen-year licence term is appropriate. By this point in time, licensees should have substantially implemented services supported by the licensed spectrum in the serving areas to which the licenses apply. As previously noted by Cybersurf, licensees should not be allowed to use spectrum as a speculative commodity and sit on it pending technological developments without putting it to productive use.

38. Cybersurf acknowledges that a variety of business plans and technologies may be employed in the licensed bands across markets of various sizes, leading to various deployment strategies. Therefore, Cybersurf continues to be of the view that the criteria for substantial implementation must be flexible. Accordingly, the Company proposes that implementation be based on the straightforward principle that the licensed spectrum is being used by the licensee in the geographic area to which the license applies so as to provide one or more wireless services accessible by at least 50 percent of the population of that area. If this test is not met, the licences in question should typically be revoked.

39. In order to keep the process associated with the implementation review as simple as possible, the means of determining compliance would be affidavits from two senior officers of the entity in question. At the same time, Cybersurf continues to be of the view that the affidavits should be sufficiently detailed with regards to the services offered, population base reached, as well as numbers of subscribers, base stations and towers in a given market to ensure that the review is, in fact, meaningful.

40. Cybersurf considers the renewal expectancy provisions and process proposed by the Department to be appropriate. Cybersurf notes MTS Allstream's observation that the Department's proposal for renewal expectancy in the Notice is the same as that included in the most recent conditions for both PCS and cellular spectrum licences.<sup>7</sup> Therefore, changing the approach for AWS licensees should only be done in a manner that applies to all AWS, PCS and cellular licensees.

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<sup>7</sup> MTS Allstream Inc. Comments at paragraph 167.

41. Cybersurf continues to be of the view that requiring an application for renewal two years before licence expiry is also appropriate.

42. Cybersurf is also still of the view that the means of determining compliance for the purpose of a renewal application should be an affidavit, as in the case of an implementation review.

43. Cybersurf remains of the opinion that non-compliance with the provisions of the *Radiocommunication Act*, *Radiocommunication Regulations* or conditions of licence should typically lead to a revocation of the licence. However, in circumstances in which compliance could be achieved quickly and with little effort following non-compliance which is not serious in nature, providing the licensee an opportunity for a short period of time to become compliant may be appropriate, whether the non-compliance comes to light during an implementation review, license renewal process or at any other time.

#### **4.2 Conditions of Licence**

***In section 5.4 of the Notice, the Department seeks comments on the proposed conditions for the AWS, PCS expansion and 1670-1675 MHz spectrum bands.***

44. Following its review of Comments of parties in the AWS Consultation, Cybersurf generally concurs with the licence conditions proposed by the Department, with the exception of the R&D investment condition. Cybersurf agrees that this condition is unique to Canada, is not warranted and should be removed.

45. Cybersurf is also requesting that additional conditions be added by the Department as necessary to incorporate Cybersurf's submissions in these Reply Comments.

### **4.3 Post-auction Licensing Process**

*In section 5.5 of the Notice, the Department seeks comments on the proposed post-auction licensing process for AWS, PCS expansion and 1670-1675 MHz spectrum.*

46. Cybersurf is of the view that a public consultation should be held before any spectrum not licensed through the auction is assigned.

### **5. Financial Aspects of the Auction**

*In section 6.2 of the Notice, the Department is seeking comments with respect to the opening bids and pre-auction deposits for AWS licences.*

47. Cybersurf continues to concur with the pre-auction deposits proposed by the Department.

48. Cybersurf continues to find the proposed opening bids excessive. These amounts may deter participation and ultimately entry by new competitors that would otherwise deliver many benefits to consumers and the Canadian economy as a whole. The setting of minimum opening bids is by definition an arbitrary process that is not grounded in sound economic policy. For these reasons, Cybersurf is of the view that there should be no minimum opening bids. While this may mean that the auction process is lengthier, the outcome will be more reflective of the real value that the market places on the auctioned spectrum and potential entrants will not be arbitrarily excluded from the auction process.

49. In addition, a number of parties have noted that the incumbent mobile wireless service providers obtained the bulk of their existing spectrum without paying auction fees up front. Cybersurf is concerned that a requirement for the payment of high auction fees up front in the AWS auction may deter or prevent new entry that is otherwise economic. Accordingly, while Cybersurf does not object to a requirement for bidders to submit 20% of their high bids and 100% of any withdrawal penalties incurred within ten business days of the auction's close,

Cybersurf is now proposing that bidders be permitted to submit the remaining 80% of their high bids in increasing annual payments over the balance of the initial terms of their licenses. In this manner the payments required to cover the applicable auction fees will be more closely matched by corresponding revenues earned from mobile wireless revenues. This approach will increase the likelihood that new entrants will be able to participate to a greater extent in the auction, obtain spectrum and have sufficient means to implement their business plans.

### **Conclusion**

50. Cybersurf is pleased to provide these Reply Comments in this AWS Consultation and looks forward to reviewing the policy articulated by the Department following this process.