



March 1, 2004

Sent By Courier and E-mail

Manager, Mobile Services
Telecom Policy Branch
Industry Canada
1604A, 300 Slater Street
Ottawa, Ontario
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Dear Sirs,

Re: Consultation on Spectrum for Advanced Wireless Services and Review of the Mobile Spectrum Cap Policy – DGTP-007-03

A. Introduction

1. The Ontario Telecommunications Association (OTA) is pleased hereby to submit views and comments in response to Industry Canada's publication of Consultation on Spectrum for Advanced Wireless Services and Review of the Mobile Spectrum Cap Policy (the "AWS Consultation Paper"), DGTP-007-03, dated October, 2003.¹ While the OTA has read the AWS Consultation Paper in its entirety with interest and generally agrees with the Department's overall direction, it is specifically in relation to section 7 of the Paper that the OTA submits the following comments. As will be evident from its submission, the OTA and its member companies are strongly supportive of the Department's commercial roaming proposal to provide AWS in rural and underserved areas of Canada.
2. For decades, the small, independently-owned local exchange carriers (the "SILECs") that comprise the OTA have satisfied the telecommunications needs of Canadians residing throughout rural and remote areas of Ontario. By expanding their traditional base of wireline primary exchange services, the OTA SILECs have pioneered the deployment of new telecommunications technologies and the delivery of innovative and vital telecommunications services to Canadians in rural, remote and underserved communities throughout rural Ontario. As the "local telephone company" for thousands of residential and small and medium-sized business consumers, the OTA SILECs have, since their inception, dedicated themselves to affording rural Canadians the same high-quality, cost-

¹ Canada Gazette, Part I, October 18, 2003, Vol. 137, No. 42, p. 3282-3283.

efficient and effective communications services as Canadians in cities and suburban areas receive and take for granted. The OTA SILECs are rightfully proud of their historical traditions of serving the public interest and promoting the economic future of rural Canada.

3. As the Department is aware, the OTA SILECs have taken active steps in recent years to broaden their service offerings to rural consumers, including the provision of broadband wireline internet services, cable television services, resale-based wireline long distance services and spectrum-based mobile wireless services to complement their wireline local exchange telephone services. Their long-standing commitment to offering rural Canadians and their communities state-of-the-art telecommunications services and facilities distinguishes the OTA SILECs from national and regional telecommunications carriers offering wireline and wireless services in more densely-populated areas across Canada. The OTA SILECs have learned from decades of experience that furthering the public interest of Canadians in rural and remote locations requires innovation and accommodation to combat the high-cost, the low population densities and the terrain and climate challenges peculiar to serving these regions. So it is not surprising that the OTA SILECs now place tremendous importance and priority on enhancing their delivery of wireless services to their local customers using their own wireless infrastructure as well as wireless networks of other companies through open and transparent interconnection, resale and roaming arrangements.
4. In that context, the OTA SILECs are strongly supportive of section 7 of Industry Canada's AWS Consultation Paper. In particular, the OTA commends the Department for its foresighted approach to furthering the public interest of Canadians in underserved areas by proposing regulatory tools and offering special consideration to rural carriers. If implemented, the Department's rural carrier-related regulatory proposals will facilitate the delivery of advanced spectrum technologies and services by removing barriers that impede the spread of wireless services to sparsely-populated regions of the country. Indeed, the OTA observes in the AWS Consultation Paper, the very same spirit of innovation, special accommodation and promotion of the public interest that forms the core of the OTA SILECs' own deep commitment to the rural, high-cost serving areas of Canada:

“In order to foster the development of advanced digital mobile telephony and ancillary services in unserved and underserved areas by the national cellular and PCS carriers, the Department is predisposed to assisting non-competing rural carriers in the integration of their networks and services with the rest of the national telecommunication system.

One specific issue that this section of this paper addresses is how the Department can assist in facilitating the commercial roaming arrangements with national and regional PCS carriers for rural carriers meeting criteria outlined in the above two cases or in other similar cases. There are several mechanisms

being considered including; the statement of a Departmental policy with regards to affording commercial roaming for non-competing rural carriers in unserved or underserved areas of Canada; or, the statement of a policy and imposing a new condition of license on the existing national and regional PCS carriers.”²

5. The OTA views the foregoing statement of the Department’s predisposition to regulatory measures aimed at promoting the spread of AWS throughout underserved rural and remote areas of Canada as a potential milestone in Canadian telecommunications public policy. It is entirely consistent with the theme of serving the public interest of all Canadians that permeates the AWS Consultation Paper, as discussed more fully in the next section of this submission.

B. Public Interest Considerations in Promoting AWS

The *Spectrum Policy Framework for Canada (2002)* states that:

...the frequency spectrum is a public resource which needs to be allocated and planned to advance public policy objectives. It also states that access to the spectrum would be adapted to meet changing user requirements and to facilitate new and innovative services.³

6. Accordingly, throughout its AWS Consultation Paper, Industry Canada has made it abundantly clear that public interest considerations must and will be at the heart of any decision to allocate spectrum for AWS and to license users of AWS spectrum. Indeed, throughout the AWS Consultation Paper, Industry Canada has woven into its discussion of each of the proposed policy changes the concomitant public interest considerations for Canada and for Canadians.
7. From its review of the AWS Consultation Paper, the OTA has identified three distinct but related aspects of the public interest in spectrum for AWS: the public interest of Canada and Canadians on a global and continental scale; the public interest of Canadians within Canada; and the public interest in promoting AWS in rural and underserved areas of Canada.

The Canadian Public Interest on a Global and Continental Scale

8. The advancement of Canada’s position in the global and continental AWS market will inevitably benefit individual Canadians as well. Accordingly, throughout the AWS Consultation Paper, and indeed through its spectrum initiatives over the last several years, Industry Canada has clearly recognized the critical importance of a Canadian spectrum

² AWS Consultation Paper, section 7.3, at 27.

³ *Ibid*, at 23.

policy that is adaptable to an increasingly global and continental knowledge-based economy.

9. Fundamental to this knowledge-based economy is the ability of people in different countries, or on different continents, and indeed within North America, to communicate contemporaneously with one another in real time. As Industry Canada is keenly aware, additional spectrum will promote the development and availability of innovative services that will provide Canadians with that opportunity. In the AWS Consultation Paper, the Department clearly indicates its intention to realize this goal through its spectrum utilization policies generally and its AWS policy specifically, and notes that:

The public interest for additional spectrum has been advanced by the Department and the wireless industry since 1998 in the Canadian preparations to the WRC-2000...The additional spectrum will facilitate a range of advanced service offerings including high-speed internet, which will further enable Canadians to participate in the new knowledge-based economy.⁴

10. In addition to these spectrum utilization policies, as noted in the AWS Consultation Paper, the Department has been very active in the international fora since 1998 in promoting the designation of spectrum in the bands 1710–1850 MHz and 2110-2150 MHz as additional resources for AWS networks. Again, this international activity was pursued to enhance Canadian interests on the basis that “large-scale commercial deployments of these networks are essential to ensure the success of these bands in Canada and to allow ubiquitous operations throughout North America and abroad.”⁵
11. With respect to the aim of ubiquitous operations throughout North America and abroad, the Department noted the benefits of identifying new spectrum, and in particular the band 2120-2155 MHz, since it “...can provide for a globally harmonized base-station band, which facilitates world-wide roaming capabilities and provides economies of scale.”⁶ The harmonization of Canada’s wireless infrastructure and telecommunications systems with those of the United States will be especially important in achieving these objectives.
12. Mobile-satellite service is but one example of the importance of global and continental harmonization to Canadians and to the Canadian economy. As noted at page 10 of the AWS Consultation Paper:

...the commercial viability of new generations of mobile satellites will require access to the North American market and beyond. As such, it is important to

⁴ AWS Consultation Paper, at 4.

⁵ *Ibid.*, at 3.

⁶ *Ibid.*, at 9.

harmonize spectrum allocations and assignments under a common North American frequency plan.

13. Similarly, as noted in the AWS Consultation Paper, "...the successful development of licence-exempt products for mass distribution requires a large market, such as North America."⁷ The existence of a North American market is particularly important to Canadian providers of consumer and business products. The Department points to Canada's experience in adopting digital cordless telephony in the 900 MHz band as "...a strong reminder that for consumer and business products to be successful, there is a compelling rationale to align with the US market."⁸
14. Accordingly, the Department indicated its clear intention to ensure that Canada's spectrum utilization policies reflect this reality, at page 17 of the AWS Consultation Paper, as follows:

As indicated in Section 3.2, the industry has been informed of the proposal that the spectrum in the bands 1 710-1 755 MHz and 2 110-2 155 MHz be re-allocated for new services to better serve Canadians. Other bands as proposed in Sections 4.2 and 4.3 would be added through this consultation based on the fact that the US has made allocation decisions and are considering further re-allocation in certain bands such as the licence-exempt PCS band. Such changes can impact equipment availability in Canada. Preparing for similar changes would ensure a harmonized North American mobile infrastructure.

The Canadian Public Interest on a National Scale

15. In addition to public interest considerations that are global or continental in scope, the AWS Consultation Paper recognizes that the public interest of all Canadians living and working within Canada is inextricably linked to Canadian spectrum policy. In this regard, it is of paramount importance that Canadian service providers meet the needs of all Canadian business and residential consumers irrespective of their location across this country.
16. To this end, Industry Canada's spectrum cap policy was implemented in 1995 in order to:
 - ...establish a level playing field among the licensees with the aim to foster competition and choice of services to consumers. Other policy provisions were also introduced to advance competition, such as issuing national licences, imposing resale and roaming of analog cellular service, requiring the resale of

⁷ *Ibid.*, at 10.

⁸ *Ibid.*, at 10.

PCS among carriers and establishing a minimum roll-out of services in each region of Canada.⁹

17. In line with the overriding policy objective that access to the spectrum should be adapted to meet changing user requirements and to facilitate new and innovative services, the Department now undertakes to consider "...whether the spectrum cap continues to be relevant and serve the public interest in advancing competition and ensuring choice of services to consumers."¹⁰

The Canadian Public Interest in Promoting AWS in Rural Canada

18. In addition to the public interest concerns with respect to spectrum for AWS that are shared by all Canadians, for those Canadians living in underserved and unserved communities there are added special concerns that result from the economics of rural and remote area communications. Specifically, as noted in section 7 of the AWS Consultation Paper, the availability of advanced and innovative telecommunications services in these areas tends to lag behind the services available in urban and suburban areas.¹¹

19. In light of the telecommunications policy objective of the *Telecommunications Act* to promote the availability of reliable and affordable telecommunications service to all regions of Canada, the Department, and other regulatory authorities, have rightfully acknowledged that the rate of development of advanced digital mobile telephony services in underserved rural and remote areas of Canada is unacceptably low. Accordingly, government and regulatory authorities have taken steps

...in the areas of communications satellites, single party-line telephone service, dial-tone Internet access, increasing access to broadband Internet, increasing the availability of spectrum for fixed wireless access and extending mobile cellular service in rural areas.¹²

20. In the AWS Consultation Paper, the Department recognizes that since "...mobile telephony services have become an essential service to many Canadians" any steps towards fully integrating rural networks into the national telecommunications system

⁹ *Ibid.*, at 19. In this regard, Industry Canada's spectrum policy is also fully consistent with Canada's telecommunications policy objectives embodied in section 7 of the Telecommunications Act, and notably section 7(b) which encourages the provision of "...reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada."

¹⁰ *Ibid.*, at 22.

¹¹ *Ibid.*, at 25.

¹² *Ibid.*, at 25.

must be made without distorting competition in urban areas of Canada.¹³ Consequently, the Department expressed the view that:

New rural carriers, that do not compete in any other area with national cellular or PCS carriers, warrant special consideration in reaching commercial digital roaming arrangements to assist the integration of their services with other national or regional telecommunication systems. Permitting non-competing operators to enter into preferential digital roaming arrangements with established national and regional carriers, may be justified due to their unique situation and the public interest, in view of the *Telecommunications Act*.

21. The OTA appreciates the Department's commitment to this end as evidenced by the Department's willingness to "...assist in facilitating the commercial roaming arrangements with national and regional PCS carriers for rural carriers meeting the criteria outlined in the above two cases or in other similar cases" through spectrum policy initiatives and regulatory mechanisms such as policy expectations and binding conditions of licence.¹⁴
22. From the foregoing discussion of the myriad public interest considerations that have guided the Department and informed the AWS Consultation Paper, the OTA has distilled four key public interest considerations for Canada and for all Canadians linked to the promotion and deployment of AWS, namely:
 - All Canadians must have the opportunity and ability to communicate ubiquitously if they are to reap the benefits of the global and continental knowledge-based economies;
 - To achieve this objective, Canadian spectrum policy must seek to harmonize wireless infrastructure and telecommunications systems and equipment at the local, national, continental and global levels;
 - All Canadians must benefit from the competitive supply of wireless spectrum, and spectrum-based service providers must meet the changing needs of business and residential consumers across Canada with new and innovative services; and
 - To achieve this objective, Canadian spectrum policy must "establish a level playing field" among all wireless service providers, imposing resale and roaming requirements, and taking further steps as required to promote the availability of

¹³ *Ibid.*, at 27.

¹⁴ *Ibid.*, at 27.

advanced digital mobile telephony services and technologies in rural and underserved regions of Canada.

C. The OTA's Role in Promoting Canada's Public Interest in a Wireless Future

23. The OTA understands that a successful spectrum policy for advanced wireless services – and for all Canadians – is one that extends in its reach both to the farthest corner of the globe and to the smallest outpost of remote Canada. In the OTA's view, the Department's AWS Consultation Paper provides a basis for successful spectrum policy because its outlook is, at one and the same time, both global and local. In order to ensure that all Canadians partake of globally-harmonized wireless networks and world-wide roaming capabilities, it is incumbent upon Canada's spectrum policy that all Canadians must be afforded access to the all-important first link – the first mile – beyond their rural or remote community.

24. The Department appears to recognize, in the AWS Consultation Paper, that in promoting wireless communications – like in transportation – the longest journey must always begin with the first step:

The Department notes that digital telephony roaming service is commonly available to foreigners travelling in Canada or to Canadians travelling in many regions of the world. It is expected the Canadian subscribers of rural carriers benefit from similar roaming services. As mobile telephony services have become an essential service to many Canadians, it is important that, without affecting or distorting competition in urban areas of Canada, these rural networks be fully integrated into the national telecommunications system.”¹⁵

25. As it has done for many decades, the OTA and its member SILECs serve the public interest of Canadians in rural and underserved areas of Ontario by striving to meet the communications needs of the people and the businesses in the communities we serve. Despite evolving communications services and technologies, the OTA SILECs have consistently delivered to their rural customers the world-wide, continental, national and local access they require to participate as meaningfully in the global forum as in their own communities. Through their wireline local and resold long distance telephone services, the OTA SILECs provide their customers with communications connections equivalent to those offered to any Canadians, and extending around the world. Those SILECs that also offer distribution of video programming provide their customers the fullest range of domestic and international channels, similar to those offered by the national cable carriers in larger metropolitan areas. The rural Canadians served by the OTA SILECs enjoy global connectivity as well through high-speed broadband services available to them from all of the member companies. In this way, through these service

¹⁵ *Ibid*, at 27.

offerings, the OTA SILECs provide their local customers with access to the world and to the global economy.

26. Interestingly, it is in relation to offering their rural customer base innovative mobile wireless telephony and other spectrum-based services that the OTA SILECs encounter their greatest challenges. These challenges are precisely those that the Department has identified in the AWS Consultation Paper as barriers to the development of spectrum-based advanced digital telephony and ancillary services using digital technology. Despite their interest and intent to furnish their rural customers with innovative mobile wireless services in furtherance of the Canadian public interest and the policy objectives embodied in the *Telecommunications Act*, the OTA SILECs cannot extend their wireless services beyond their serving-territories without the “first mile” link to the national or regional carriers and their telecommunications systems.
27. On behalf of their member companies, the OTA has actively pursued spectrum authorizations to permit the SILECs to complement their range of telecommunications, broadcast and broadband services with a suite of mobile wireless offerings. The SILECs have gained licences in respect of 800 MHz cellular spectrum and have pending applications for 2 GHz PCS spectrum. As this submission indicates, the OTA SILECs are also keenly interested in the spectrum the Department will make available for AWS in the 1700 and 2100 MHz ranges. However, to date, the OTA SILECs have been largely unsuccessful in securing interconnection, resale and roaming arrangements with the national and regional cellular and PCS providers. The OTA SILECs currently find themselves in the same situation that the Department describes at pages 26 and 27 of the AWS Consultation Paper:

“(…) some of these small rural carriers have requested that the Department facilitate the development of commercial roaming arrangements due to their unique circumstances. The Department believes that the public interest would be served if these rural wireless carriers acquiring 800 MHz spectrum could be readily afforded commercial roaming arrangements with the 800 MHz networks of the national PCS carriers in cases where the rural carriers do not compete with the national PCS carriers in their network serving territories.”

The Department reaches the same conclusion regarding the benefits to the public interest of affording rural carriers preferential commercial roaming arrangements with national and regional PCS carriers operating at 2 GHz spectrum.

28. The OTA SILECs cannot hope to offer their own digital mobile wireless services to their base of business and residential customers in rural Ontario unless the services offer the same local, national, continental and global connectivity as do the services of the national and regional PCS carriers. To date, these carriers have evidenced an indifference or disinclination to permit the integration of their national networks with the wireless networks of the OTA SILECs on efficient and effective terms. Absent interconnection

and roaming arrangements with the networks of the national carriers, the OTA SILECs face an insurmountable barrier to effectively providing digital mobile wireless services that satisfy the needs of rural customers and further the public interest in delivering advanced digital spectrum-based services to all Canadians.

29. Specifically, without integration of the networks of rural carriers and national/regional PCS carriers, customers of the OTA SILECs could face lack of service, service disruptions, inconvenience and emergencies that customers of the national carriers in urban and suburban areas would not experience, including:

- no mobile telephony service (analog, digital or advanced digital) available while travelling outside the serving area of the OTA SILECs, resulting in the following further implications:
 - loss of access to call for assistance in the event of a roadside emergency;
 - loss of contact with business associates and clientele while travelling away from the rural serving area;
 - lack of access to critical information normally obtained through text messaging, web browsing or through use of the mobile phone as a modem for data connectivity for laptops and PDAs; and
 - loss of ability to be contacted by family members;
- in-transit mobile calls will be “dropped” on leaving the serving area of the rural carrier; and
- a customer of the rural carrier travelling beyond the carrier’s serving area would need to subscribe to services of a second mobile telephony carrier to reap the same benefits and privileges as would a customer of an urban carrier or even a foreign carrier with roaming rights.

30. The OTA SILECs, in short, cannot provide a commercially viable and attractive range of advanced mobile wireless services to their rural and remote area customer base in Ontario if the geographic range of their services is confined to the SILECs’ own serving territory. Neither can the SILECs exploit their spectrum licences and provide innovative new wireless services to satisfy their rural customers’ needs without commercial roaming arrangements with the national and regional carriers. For all of the foregoing reasons, the Department’s proposal to afford preferential commercial roaming arrangements to small rural carriers with national and regional cellular and PCS carriers is of vital importance to the OTA SILECs and to their customers in rural Ontario. Absent such arrangements, the SILECs cannot fulfill their tradition of serving the public interest of rural Canadians, at

least in respect of the provision of spectrum-based advanced digital mobile telephony services.

D. The OTA and the Department's Commercial Roaming Proposal

31. At page 28 of the AWS Consultation Paper, the Department invites comments on:
1. The proposal to afford preferential commercial roaming arrangements to small rural carriers with national and regional cellular and PCS carriers where the rural carriers;
 - (a) Do not operate in the same serving territories having network facilities, and
 - (b) Operate solely in an unserved or underserved area.
 2. The mechanisms that may best implement this proposal.
32. In the following paragraphs, the OTA comments specifically on the Department's commercial roaming proposal and the mechanisms best suited to implement the proposal. As already noted, the OTA and its member companies enthusiastically support the proposal, in large measure because it will only be through access to mandated commercial roaming arrangements with national and regional wireless carriers that the OTA SILECs can hope to offer innovative mobile digital wireless services to their rural and remote area customer base.
33. First and foremost, the OTA SILECs are small rural carriers within the contemplation of the Department's proposal. Collectively, the 19 OTA SILECs serve in total approximately 81,000 NAS, with no SILEC serving more than 21,500 NAS. The CRTC has determined in *Regulatory framework for the small incumbent telephone companies*, Telecom Decision CRTC 2001-756 that the entire serving territory of each of the OTA SILECs qualifies as a high cost serving area, since none of the SILECs' exchanges exceeds 8,000 in total NAS. Of the total markets served by the OTA SILECs, no one market exceeds 7,100 in total population. By any definition of market size, the OTA SILECs operate exclusively as small carriers within rural and remote areas of rural Ontario
34. Nor do the OTA SILECs compete in any meaningful manner with the national or regional wireless carriers in their network serving territories. Clearly, if the Department were to implement mandated commercial arrangements between the OTA SILECs and the national and regional wireless carriers, there would be no distorting impact upon the latter carriers' competitive position in their relevant marketplaces. Put differently, in the words of the AWS Consultation Paper, "these rural networks (could) be fully integrated into the

national telecommunications system (...) without affecting or distorting competition in urban areas of Canada.”¹⁶

35. Nor could one reasonably conclude that the successful deployment of AWS by the OTA SILECs in their serving areas would impact the competitive position or market share of the national or regional wireless carriers in any meaningful sense. While the serving areas of some of the OTA ILECs may overlap to some degree with the coverage contour of one or more national or regional wireless carriers, this in and of itself cannot be seen to have a distorting effect, or frankly, any effect on competition. The OTA has assumed that the Department’s proposal was intended to distinguish between meaningful threats to or distortion of wireless competition, on the one hand, and incidental coverage overlap in portions of a predominantly rural SILEC serving area, on the other hand. In short, the OTA SILECs do not compete directly with national or regional wireless carriers, nor is it foreseeable even if they did that the level of any such competition would distort the Canadian market for wireless services or imperil in any sense the operations of the large carriers.
36. Accordingly, the OTA and its member companies believe that the Department’s proposal for preferential commercial roaming arrangements is entirely applicable to the OTA SILECs, who satisfy the Department’s criteria outlined in the two examples discussed at pages 26 and 27 of the AWS Consultation Paper. The OTA notes, in any event, that the Department intended to facilitate commercial roaming arrangements and to this end, it anticipated in section 7.3 of the AWS Consultation Paper that there were “other similar cases” to those discussed in the Paper where mandated roaming would be appropriate.
37. As for the mechanisms to implement preferential commercial roaming arrangements, the OTA SILECs urge the Department to bind national and regional carriers to enter into such arrangements through the imposition of a new condition of licence on the recalcitrant carriers. In the OTA’s view, it would be useful for the Department to issue a statement of policy regarding its reasons for imposing mandated roaming for rural carriers through conditions of licence. However, it would not suffice in the OTA’s opinion to issue a policy statement in lieu of imposing a binding new condition of licence. This is the case because the binding and mandatory force of licence conditions is required in this instance to offset the lack of incentive that national or regional carriers have to provide preferential access to and integration of their networks with small rural carriers. At present, owing to existing CRTC decisions relating to wireless forbearance and resale, these carriers face no meaningful pressure to offer rural carriers reasonable and economic arrangements or terms for network interconnection and resale of their wireless services. While this represents a serious concern to the OTA and the member companies, it is beyond the scope of this proceeding to address these issues. Fortunately,

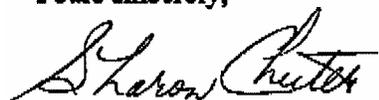
¹⁶ *Ibid.*, at 27.

for its part, Industry Canada has demonstrated a recognition that certain issues of wireless resale and roaming cannot in the public interest be left entirely to the discretion of the national or regional wireless carriers, and has accordingly bound these carriers in the past through conditions of licence.

E. Conclusion

38. In closing, the OTA SILECs consider that the Department has taken a significant policy step forward in relation to facilitating the deployment of AWS in rural and remote areas of Canada. The OTA urges the Department to impose upon the national and regional cellular and PCS service providers a condition of licence that requires them to afford rural carriers such as the OTA SILECs preferential commercial roaming arrangements to permit the SILECs to deploy innovative wireless services such as AWS to their rural and remote area customer base. Only in this way can the OTA SILECs continue their tradition of extending urban-grade telecommunications services to their base of rural Ontario customers in furtherance of the public interest.

Yours sincerely,



Sharon Chuter
Chairperson
OTA Wireless Committee

- c. Fernand Léger, Industry Canada
Debbie Girard, Ontario Telecommunications Association