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**RE: DGTP-007-03 Advanced Wireless Services and Mobile Spectrum Cap**

The following are the comments respectfully submitted by Wispra Inc. in response to DGTP-007-03.

**3.1.1 Band 1710-1755 MHz**

Wispra supports the proposal of the Department for the band 1710-1755 MHz.

Harmonization of spectrum allocations with the United States wherever and whenever possible (and with Europe as second choice) is essential to the availability and viability of wireless services and equipment in Canada.

Increasing the amount of Advance Wireless Spectrum (AWS) with the same bandplan as the US is essential to the increased availability of advanced wireless services in Canada.

**3.1.2 Band 2110-2155 MHz**

Wispra supports the proposal of the Department for the band 2110-2155 MHz.

The same comments as in 3.1.1 apply here.

**3.2.1 Band 1850-1990 MHz**

There has been sufficient time for license exempt PCS products to be developed if they were going to happen. They have not.

Wispra supports extending the PCS band as proposed by the US.

Repeat comments from 3.1.1.

**3.2.2 Bands 1990-2025 MHz and 2160-2200 MHz**

Agreed as per 3.1.1.

### **3.3 Band 2155-2160 MHz**

Agreed as per 3.1.1.

### **4.12 Proposals for the Bands 1710-1755 MHz and 2110-2155 MHz**

Wispra supports the proposed spectrum policy to designate these bands for AWS including 3G.

Wispra proposes that this spectrum be allocated in four paired blocks of (10+10) MHz and one paired block of (5+5) MHz. When combined with the additional (10+10) MHz block at 1901-1920 MHz and 19990-2000 MHz would provide 6 additional blocks times 14 service areas or a total of 84 new blocks. Each (10+10) MHz block is of a reasonable size for providing services and in total there are not too many blocks so that the proposed spectrum auction would be unwieldy. The pairings of channels should match the US.

In the unlikely event that the spectrum cap were increased by 10 MHz or less then nine (5+5) MHz blocks would be preferred.

### **4.2 Proposal for a Spectrum Utilization Policy in the Bands 1910-1920 MHz and 1990-2000 MHz**

License exempt PCS has had sufficient time to get started and has not. Go with the US flow and allocate the spectrum the same as the US.

The comments from 3.1.1 apply here too.

### **4.3 Proposal for the bands 2020-2025 MHz and 2155-2180 MHz**

Wispra supports reclaiming these bands from MSS and designating them for mobile and fixed services (possibly AWS) as was done by the FCC.

When the US determines a specific band plan, Canada should match the US and then make it available as soon as possible.

### **5.4 Spectrum Cap Policy Review**

The Spectrum Cap Policy is a substantially more complex issue. The right answer is not so evident as the spectrum allocations above.

- **Would the retention of a mobile spectrum cap continue to play an important role in fostering competition and choice of services to Canadians?**

Yes. The mobile spectrum cap (the Cap) is the single most important policy that determines the structure of the Canadian wireless industry and thereby the nature and degree of competition and the choice of wireless services to Canadians. For wireless, the Cap may well be more important than the foreign ownership restrictions. And, unlike foreign ownership, the Cap lies solely within the purview of the Department to change or not.

Although the Department's objectives for the Cap may appear clear, to paraphrase a recent US President, it depends what the meaning of "fostering competition and choice of services" is.

In 1984 incumbents were given half the cellular spectrum without the need to apply, in 1995 they essentially received PCS spectrum on demand (albeit less than others who successfully competed for it) and in 2000 they won almost all of the auctioned spectrum solely by virtue of their overwhelming financial strength.

- **Would the removal of the mobile spectrum cap enable the wireless carriers to offer greater choice of services to consumers and foster competition?**

No, removal of the Cap would neither enable the wireless carriers to offer greater choice of services to consumers nor would it foster competition. More likely it would lead to consolidation of the mobile industry to three major carriers or less, prevent the entry of new competitors, create significant dominance in spectrum holdings lead to significant underutilization of mobile spectrum and increase prices to consumers. Perhaps this would be a good thing if the remaining carriers were larger and more capable.

Removal of the Cap is unlikely to have any material impact on choice of services to consumers. Canadians already have as great a choice of services as anywhere in the world and at prices that are lower than most countries. Removal of the Cap is unlikely to either increase or decrease this already great choice of services. More likely it would lead to price increases.

Removal of the Cap would not foster competition but rather would reduce competition in Canada. Section 5.2 refers to the US decision to rescind the spectrum cap “on the basis that there was sufficient competition in the US marketplace with 6 national and 2 regional carriers.” Canada with the Cap has less competition than the United States has without one. Removal of the US spectrum cap has already enabled the number of major US wireless carriers to reduce from six to five with more mergers likely to follow. With no Cap, Canada’s four major wireless carriers would likely reduce to three or less. No Cap would also allow the incumbents to block the entry of new competitors by purchasing all of the new spectrum.

Section 5.2 also refers to the Cap in the context of “advanc[ing] fair competition in the mobile industry and [safeguarding] against spectrum dominance that could undermine competition and affordable services.” Increased spectrum dominance is also a likely result of removing the Cap as the incumbents could acquire all of the new spectrum without giving up any that they already own.

The Cap served its intended purposes well when TELUS acquired Clearnet. TELUS had to choose which of its spectrum holdings were the most important and to divest the remainder to stay under the Cap. Keeping the Cap for AWS spectrum should require incumbents to make the tough decisions about whether AWS is more important than some of their significant cellular, PCS and ESMR spectrum holdings. If some “old” spectrum were divested perhaps others would make more efficient use of it.

- **Could concern regarding significant dominance in spectrum holdings be addressed through other mechanisms?**

The Cap is a policy specifically designed to limit significant dominance in spectrum holdings – a job it does quite well. Other mechanisms not designed expressly for this purpose are unlikely to produce this same desired result. For example, were the Competition Act to be relied on instead, it would likely be only applied retroactively to a spectrum auction and be uncertain as to its results. Such delay and uncertainty are unnecessary and harmful to the industry.

Should the Department choose to change its policy to allow significant dominance in spectrum holdings then it should remove the Cap knowingly. It should not retain the policy, remove the Cap and expect other mechanisms to do the same job.

- **If the Department was to determine that retention of a mobile spectrum cap is in the public interest, at what limit should it be set?**

Suppose that the Department has determined to retain the Cap for good and sufficient reasons such as: to prevent significant dominance in spectrum holdings, to enable the wireless carriers to offer greater choice of services to consumers, to foster competition and/or to promote efficient use of the spectrum, etc. Then what should the limit be?

Wispra submits that the Department's choice of the size of the Cap will determine the structure of the Canadian wireless industry structure and the amount of competition more than any other government decision except perhaps changing the foreign ownership restrictions.

Keeping the Cap as is or increasing it somewhat will both limit consolidation and encourage new entrants while increasing the Cap substantially or eliminating it entirely will encourage consolidation and discourage new entrants. Wispra recommends that the Department first decide what industry structure it wants and then set the Cap accordingly.

The Canadian wireless industry now has essentially has three major carriers at or near the current 55 MHz cap and one smaller carrier at 30 MHz. About 180 MHz of cellular, PCS and ESMR spectrum is available across Canada and subject to the Cap.

The Cap is sufficiently low now to prevent consolidation among these four carriers without divesting current spectrum holdings. The Cap is also sufficiently high to enable the incumbents to prevent any new entrants from acquiring meaningful amounts of spectrum. Major barriers to both entry and exit create a very stable industry structure. Perhaps too stable.

However, the impending issuance of up to 110 MHz of new AWS spectrum cannot help but upset this equilibrium. The available spectrum will increase to about 290 MHz per service area. So what industry structure does the Department want to result when the new spectrum hits the market? Choosing the right Cap will make it so. The following may help to provide some insight.

The cellular, PCS and ESMR spectrum holdings of the four incumbents vary by service area across the country such that a comprehensive analysis is impractical here. Rather, the Toronto service area has been chosen as a significant example. Toronto is the largest service area in Canada with over five million population and was the decisive battleground for the recent PCS auction. Current Toronto spectrum holdings are as shown in the following table and Toronto is used for the tables throughout:

**Current Toronto Spectrum**

<b>MHz</b>	<b>Bell</b>	<b>TELUS</b>	<b>Rogers</b>	<b>Microcell</b>	<b>Total</b>
Cellular	25	0	25	0	50
PCS	30	40	20	30	120
ESMR	0	10	0	0	10
<b>Total</b>	<b>55</b>	<b>50</b>	<b>45</b>	<b>30</b>	<b>180</b>

### 55 MHz Cap (0 MHz Increase):

At first blush, retention of the Spectrum Cap at its current 55 MHz level would appear unworthy of consideration. One would think that it would necessarily prevent three of the four incumbents who are at or near this limit in major markets from bringing the benefits of advanced mobile services to waiting Canadians across the nation. But perhaps not.

Keeping the 55 MHz Cap would likely prevent industry consolidation and would open the mobile wireless market to new entrants. However, these incumbents would not be shut out of AWS by such a decision. If needs be, they could and undoubtedly would divest some of their less important existing spectrum in order to get some of the more valuable spectrum, as was done in the past.

Divesting only up to 15 to 20 MHz of existing spectrum holdings each would allow them to buy essentially all of the 110 MHz of AWS spectrum. However, the four incumbents could not block 70 MHz of mobile spectrum (likely little of it being AWS) becoming available to new entrants.

So the no increase scenario is not that unreasonable after all. That said, although no increase in the Cap is a dream scenario for new entrants, the cries of unfairness would make it a nightmare for the Department. This straw man has no legs.

#### 55 MHz Cap: No Consolidation (Toronto)

MHz	Bell	TELUS	Rogers	Microcell	Available	Total
Current	55	50	45	30		180
Divest	(20)	(15)	(20)	(5)	60	
AWS	20	20	30	30	10	110
Total	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>70</b>	<b>290</b>

### 65 MHz Cap (10 MHz Increase):

If the Cap were increased by 10 MHz to a limit of 65 MHz, three incumbents could each acquire 10 to 20 MHz of new spectrum and the smallest one 30 MHz without divesting any existing spectrum. More likely, incumbents would divest some less valuable (mostly cellular) spectrum to obtain even more AWS spectrum, perhaps all of it as suggested in the table below. With an increase in the Cap of as little as 10 MHz, new entrants could easily be left with as little as 45 MHz of mobile spectrum to bid on with none of it being AWS.

That notwithstanding, unless the Department were firmly committed to increased competition as it was in 1995, it is unlikely that the three major incumbents would accept being limited to a 10 MHz Cap increase when 110 MHz of new spectrum was being auctioned.

Increasing the Cap by only 10 MHz is not that unreasonable but, like keeping it at 55 MHz, it would seem to be another unlikely event.

### 65 MHz Cap

MHz	Bell	TELUS	Rogers	Microcell	Available	Total
Current	55	50	45	30		180
Divest	(20)	(15)	(10)		45	
AWS	30	30	30	20		110
<b>Total</b>	<b>65</b>	<b>65</b>	<b>65</b>	<b>50</b>	<b>45</b>	<b>290</b>

### 75 MHz Cap (20 MHz Increase):

The prospects for new entrants and increased competition darken the more the Cap limit increases. With Cap increased by 20 MHz to 75 MHz, the four incumbents together could acquire all of the new spectrum without divesting any of their existing spectrum. Even with no participation from the smallest incumbent, the three larger ones could acquire all of the new AWS spectrum by divesting from 5 to 20 MHz of less valuable spectrum each. This would leave any new entrants with only 35 MHz of uncoordinated cellular and perhaps PCS spectrum to bid on. Not the most attractive prospect.

Consolidation, whereby one of the larger incumbents acquires the smallest, could improve the opportunities for a new entrant. The then three incumbents would still likely divest old spectrum to jointly acquire all of the shiny new AWS spectrum. But the then available 75 MHz of old returned spectrum would have some prospect of being stitched together for some good and useful purpose.

### 75 MHz Cap: No Consolidation

MHz	Bell	TELUS	Rogers	Microcell	Available	Total
Current	55	50	45	30		180
Divest	(20)	(5)	(10)		35	
AWS	40	30	40			110
<b>Total</b>	<b>75</b>	<b>75</b>	<b>75</b>	<b>30</b>	<b>35</b>	<b>290</b>

### 75 MHz Cap: With Consolidation

MHz	Bell	TELUS	Rogers	Microcell	Available	Total
Current	55	50	45	30		180
Divest	(20)	(25)	(30)		75	
Transfer			30	(30)		
AWS	40	40	30			110
<b>Total</b>	<b>75</b>	<b>75</b>	<b>75</b>	<b>0</b>	<b>75</b>	<b>290</b>

**85 MHz (30 MHz Increase) or higher:**

If the Cap were increased by 30 MHz, and there were no consolidation, just the three larger incumbents could acquire all of the new spectrum with only one of them needing to divest just 5 MHz of current (likely cellular) spectrum.

Alternatively, one of the larger three could acquire the fourth and the three remaining incumbents still acquire all of the AWS spectrum by giving up a mishmash of just 35 MHz of less useful current spectrum.

A challenging prospect for a new entrant against three entrenched rivals each with 75MHz of the most preferred spectrum. Some new entrants may be interested in trying.

**85 MHz Cap: No Consolidation**

<b>MHz</b>	<b>Bell</b>	<b>TELUS</b>	<b>Rogers</b>	<b>Microcell</b>	<b>Available</b>	<b>Total</b>
Current	55	50	45	30		180
Divest		(5)			5	
Add	30	40	40			110
<b>Total</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>30</b>	<b>5</b>	<b>290</b>

**85 MHz Cap: With Consolidation**

<b>MHz</b>	<b>Bell</b>	<b>TELUS</b>	<b>Rogers</b>	<b>Microcell</b>	<b>Available</b>	<b>Total</b>
Current	55	50	45	30		180
Divest	(10)	(5)	(20)		35	
Transfer			30	(30)		
AWS	40	40	30			110
<b>Total</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>0</b>	<b>35</b>	<b>290</b>

**95 MHz (40 MHz Increase):**

If the Cap were increased by 40 MHz, the three largest incumbents could acquire all 110 MHz of AWS spectrum and shut out any new entrants without divesting any existing spectrum. All of this with room to spare under the Cap. Even acquisition of the smallest one, the three remaining incumbent could arrange to leave only 5 or 10 MHz of non-AWS spectrum on the table. The only interesting question would be who gets to be the acquirer and who gets the most AWS spectrum.

The only real effect of the Cap at this level is to prevent one or two of the incumbents from acquiring all of the new spectrum. Preventing just this is not worth having a policy and administering it. More interesting would be to forget about the Cap and let the three heavyweights have a free-for-all.

### 95 MHz Cap: No Consolidation

MHz	Bell	TELUS	Rogers	Microcell	Available	Total
Current	55	50	45	30		180
Divest						
AWS	30	40	40			110
<b>Total</b>	<b>85</b>	<b>90</b>	<b>85</b>	<b>30</b>	<b>0</b>	<b>290</b>

### 95 MHz Cap: With Consolidation

MHz	Bell	TELUS	Rogers	Microcell	Available	Total
Current	55	50	45	30		180
Divest			(10)		10	
Transfer			30	(30)		
AWS	40	40	30			110
<b>Total</b>	<b>95</b>	<b>90</b>	<b>95</b>	<b>0</b>	<b>10</b>	<b>290</b>

There appears little point considering Cap increase higher than 40 MHz. Removing the Cap would be preferred.

So given all of the above, what is the right increase in the Cap, if any. A bit like Goldilocks, the right answer appears by elimination:

- An increase of 10 MHz or less is too small given its apparent (but perhaps not actual) unfairness to the incumbents.
- An increase of more than 30 MHz is too large and more of a nuisance than a policy. No Cap is better than this.
- An increase of 20 MHz is just right. (30 MHz being a poor second choice.)

With a Cap of 75 MHz, incumbents are not guaranteed to get all of the new spectrum but still could. Consolidation can occur but at the cost of giving up other spectrum. New entrants have a reasonable chance but no guarantee of spectrum. Barriers to entry and exit are reduced. Spectrum hoarding is reduced. Spectrum efficiency is increased. All have to make tough decisions. No one gets it easy. All to the benefit of Canadians.

#### • When should the decision on the spectrum cap become effective?

Potential participants in the AWS auction should know the state of spectrum relating to the auction with adequate time to make informed judgments. Substantial changes should not be allowed at the last moment, as happened in the PCS auction. To that end, it is recommended that no transaction involving Cap spectrum be allowed within six months of the planned start of the AWS auction. Any divestiture, transfer, consolidation, etc. that occurs within that time interval

should be disallowed. Any Cap spectrum returned to the Department prior to that time should be included in the auction.

This leads to the effective date for the spectrum cap decision being soon enough to allow such changes to occur. Given that we are now in early 2004 and the auction will be in 2005 or 2006 would suggest that the new spectrum cap be effective when the policy decision is released. This is consistent with previous Cap changes.

- **What other information could assist the Department in determining the public interest in considering changes to the mobile spectrum cap?**

Just a reiteration that the Cap determines the structure of the Canadian mobile wireless industry. Choose the Cap that produces the structure that meets the Department's objectives. Otherwise, just eliminate it.

### ***6.5 Proposed Transition Policy for Displacement of Fixed Assignments***

Agreed as proposed.

## ***7. Measures to Promote Advanced Mobile Telephony Services in Rural Canada***

Rural mobile wireless services with capabilities and at prices similar to urban areas is no less important than the available of broadband services in rural areas. Tourism is one of the few growth industries for rural areas. City folk expect to have mobile service wherever they go. If their cell phones don't work they won't be back. Mobile service is also a major safety capability both for residents and visitors when they are driving, walking, hiking, boating, skiing or snowmobiling in remote areas.

The Department has the opportunity to extend mobile services into rural areas for the cost a good policy decision, far less than the cost of bringing broadband there.

Wherever they are willing and able to provide mobile services where the major carriers are not, rural carriers should be provided with preferential commercial roaming arrangements to do so. Such arrangements would have minimal negative impact, if any at all, on the major carriers who have had sufficient time to provide mobile services anywhere they want. Roaming is essential to the viability of rural mobile carriers and for the utility of wireless services to rural subscribers. No one wants a mobile phone that only works in the woods.

Roaming arrangements with rural carriers are of relatively little importance to major carriers who have little incentive to making such arrangements. Negotiating and managing individual contracts with rural carriers are not worth the effort. Rural carriers are at a substantial disadvantage since there is nothing that they offer that the major carriers want in return. To reduce the administrative overhead and to level the playing field, it is recommended that a simple standard industry wide roaming agreement apply in such cases.

It is recommended that such a standard agreement be developed by the Canadian Wireless Telecommunications Association (CWTA) acting as an impartial body in consultation with and on behalf of all parties.

The CWTA should be given a reasonably short time to develop such a contract, say 60 days. If consensus cannot be reached within that time, the points of agreement and disagreement should be referred to the Department for resolution.

All respectfully submitted,

Joe Church

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