

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Amendment of Part 2 of the	)	ET Docket No. 00-258
Commission's Rules to Allocate Spectrum	)	
Below 3 GHz for Mobile and Fixed	)	
Services to Support the Introduction of	)	
New Advanced Wireless Services,	)	
including Third Generation Wireless	)	
Systems	)	

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The Canadian Wireless Telecommunications Association (CWTA) respectfully submits the following comments in response to the Commission's Notice of Proposed Rulemaking (NPRM) in the above-captioned proceeding, with respect to modifying the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services.

CWTA represents the wireless telecommunications industry in Canada. It has a membership base of more than 300 companies. CWTA's members come from a variety of sectors, including mobile telephone service providers, paging companies, mobile radio, mobile satellite carriers, and fixed wireless service providers. In addition, CWTA represents a broad cross-section of manufacturers and equipment suppliers to the industry.

We have reviewed the comments provided in this proceeding to the FCC by the Radio Advisory Board of Canada (RABC). The CWTA and many of its members participated in the development of the RABC comments. We support the recommendations contained therein and respectfully request that the FCC look to the RABC submission for technical specifics of the Canadian industry response to the NPRM.

The CWTA believes at least 160 MHz of additional third-generation (3G) spectrum will be required by the year 2010. That amount, 160 MHz, is currently recognized internationally as the minimum amount of additional spectrum required for 3G services within this timeframe. However, given the growth of wireless Internet and Multimedia applications that has been experienced to date as well as the growth forecast by the industry, we fully anticipate that this spectrum will be required before the year 2010 and maybe as early as 2005. We also expect that it will become evident during the next World Radiocommunication Conference, scheduled for the year 2003, that much of the international community will also agree that the 2010 timeframe needs to be accelerated.

Several administrations in Europe and Asia have already completed the process of licensing and are soon expected to deploy 3G systems. Advanced mobile commerce capabilities could increase European competitiveness to the detriment of the Canadian

and US economies. As recognized by the Council of Economic Advisors<sup>1</sup> the United States, and North America as a whole, are already behind Europe and Asia. This is obviously one of the driving factors behind the FCC's examination of the use of frequency bands below 3 GHz to support the introduction of new advanced wireless services.

Canada and most other International Telecommunication Union (ITU) Region 2 countries are convinced that most of this 160 MHz of new spectrum should be identified in the 1700 MHz frequency band. This would be the best and most efficient course of action for the Americas. The Canadian wireless industry believes that to be useful, the spectrum allocated to 3G services must be contiguous. Piecemeal availability will not allow operators to achieve the potential of 3G.

It is the position of the CWTA that it is in the best interests of both Canada and the United States to harmonize their domestic frequency plans for 3G spectrum with the plans of other ITU Region 2 countries. Spectrum harmonization is critical to maximizing the economic benefits from 3G, especially the economies of scale from the manufacture of wireless equipment.

In order to achieve the maximum cost efficiency in the production of wireless equipment for 3G services, it is important to arrive at a long-term spectrum plan for the Americas so that equipment manufacturers know, on a timely basis, the technical specifications of the equipment that must be produced. This would enable manufacturers to focus design and development efforts on customer needs, rather than regulatory demands.

As wireless access to communications networks becomes increasingly prevalent, compatibility of mobile devices while traveling and roaming internationally will become correspondingly more important. One of the fundamental goals of IMT-2000, the ITU's

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<sup>1</sup> The Economic Impact of Third-Generation Wireless Technology, The Council of Economic Advisors, October 2000, 5 (<http://www.ntia.doc.gov/ntiahome/threeg/ceareportoct2000.pdf>)

vision for 3G, is maximum commonality across air interfaces and frequency bands. Common standards benefit consumers, operators and manufacturers.

Requiring operators to acquire unique equipment designed for a non-aligned North American market would unnecessarily increase costs and further inhibit the development and competitiveness of the North American wireless industry. Equipment costs today demonstrate this, as PCS network and terminal equipment developed for 1900 MHz in North America, rather than the more common 1800 MHz, are more costly.

Common standards and frequency bands will help reduce barriers to entry for new terminal equipment manufacturers. Reducing the complexity required in the access portion of the devices by using common elements will allow designers to focus on the needs of consumers.

It is widely accepted that consumers prefer technology to be transparent. As a result, the expectation is that functionality would be consistent, no matter where the consumer may be located physically. Hence, while international roaming is currently limited by technological incompatibilities, mobility of access is at the same time highly desirable to consumers. The 2000 Summer Olympics in Sydney, Australia provides an example of the effort required to meet consumer expectations while overcoming the technical limitations imposed by differing standards. During the games, wireless service provider Telstra enabled approximately 720,000 minutes of telephone conversations daily<sup>2</sup>. During the opening ceremonies alone, approximately 125,000 calls were connected inside the Olympic Stadium. Very few North American visitors to the games were able to use their own phones because of incompatibilities.

In this light, we believe it is important for administrations in the Americas to adopt Regional spectrum harmonization in the 1700 MHz frequency band in order to accommodate roaming. Regionally harmonized frequency bands that facilitate regional

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<sup>2</sup> *Sybase and Compudigm Earn "Gold Medal" for Helping Monitor Wireless Traffic During Sydney Olympics*, October 11, 2000 (<http://www.sybase.com/detail/1,3693,1010826,00.html>)

roaming could then be combined with common international roaming bands or other technical solutions such as common base transmit bands to facilitate global roaming. Perhaps there is no better example than the Canada-US relationship to stress the importance of ease of movement of wireless customers between countries and the significant productivity gains achieved as a result.

In this regard, the CWTA would note the lengthy history in both Canada and the US of harmonizing spectrum allocations between the two countries whenever possible. One only need look as far as the current spectrum allocations and associated technical standards for Cellular, PCS and Specialized Mobile Radio services to find examples where the allocations and standards have been fully harmonized between the two countries.

We believe the FCC should recognize the importance of the relationships between the United States and its North American Free Trade Agreement (NAFTA) partners, including the potential for cross-border roaming. There are over 30 million overnight trips between the United States and Canada annually<sup>3</sup>. Given the current harmonization of spectrum allocation and standards for existing services, the common use of the North American Numbering Plan (NANP), and other similarities between the two countries, cross-border roaming is very important, and consumers expect service compatibility. In addition to travel to Canada, Americans make over 15 million overnight trips to Mexico annually<sup>4</sup>.

The CWTA fully anticipates that 3G mobile services will generate significant additional cross-border traffic between Canada and the US. It is therefore extremely important that every effort be made to ensure that an efficient spectrum plan is developed for 3G, that

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<sup>3</sup> Canadian Tourism Commission  
([http://www.canadatourism.com/en/ctc/tourismresources/research/research\\_ms.cfm](http://www.canadatourism.com/en/ctc/tourismresources/research/research_ms.cfm))

<sup>4</sup> United States International Trade Administration (<http://www.tinet.ita.doc.gov/>)

the plan is made available in a timely manner and that the plan facilitates cost effective roaming throughout the Americas and worldwide.

In conclusion, the Canadian wireless telecommunications industry has put forward to the FCC a proposed spectrum plan for 3G services that is supported by most ITU Region 2 countries. This proposal is detailed in the comments submitted by the Radio Advisory Board of Canada. The CWTA supports the recommendations contained therein and wishes to emphasize the following to the Commission:

- At least 160 MHz of new spectrum must be made available for 3G services by the year 2010 if not earlier;
- Most of this new spectrum should be identified, on a contiguous basis if possible, in the 1700 MHz frequency band; and
- Regional spectrum harmonization in the 1700 MHz frequency band should be considered in order to accommodate roaming in the Americas.

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