

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

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
)  
Petition for Rulemaking of the Cellular )  
Telecommunications Industry Association )  
Concerning Implementation of WRC-2000: )  
Review of Spectrum and Regulatory )  
Requirements for IMT-2000 )

RM-9920

To: The Commission

COMMENTS OF VERIZON WIRELESS

Verizon Wireless hereby submits its comments on the Petition for Rulemaking filed by the Cellular Telecommunications Industry Association ("CTIA") requesting the Federal Communications Commission ("FCC") to hasten the process of designating additional spectrum for Third Generation ("3G") wireless services.<sup>1</sup> Verizon supports the CTIA petition. It is particularly important that the Commission take this action in light of the recent completion of the International Telecommunications Union's ("ITU") 2000 World Radiocommunication Conference ("WRC-2000"). In commencing the rulemaking, the Commission should seek to accomplish two key WRC objectives. First, it should allocate sufficient spectrum for 3G services in a timeframe that meets expected market demand. Second, it should harmonize these 3G spectrum allocations with the rest of the world, to the greatest extent possible.

<sup>1</sup> See *Third Generation Wireless/IMT-2000 Petitions*, Public Notice, DA 00-1673 (rel. July 28, 2000) and Petition for Rulemaking of the Cellular Telecommunications Industry Association, RM-9920 (filed July 12, 2000).

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Verizon Wireless has consistently stated that there is a clear need for additional spectrum to support the continued growth of mobile services and the anticipated demand for advanced mobile services such as 3G. Verizon Wireless and its predecessors have advocated actions to designate more spectrum in numerous FCC and other government proceedings.<sup>2</sup> For example, on July 19, 2000, Dennis F. Strigl, President and CEO of Verizon Wireless, testified before the United States House of Representatives Telecommunications Subcommittee, urging Congress to ensure that spectrum is allocated expeditiously and in accordance with WRC-2000.<sup>3</sup> In furtherance of this objective, Verizon was an active participant at WRC-2000 and continues to dedicate significant resources to both the domestic and international processes that are necessary to make additional spectrum available on a worldwide basis for 3G mobile services. We now ask the Commission to proceed expeditiously with a rulemaking proceeding to allocate and make available additional spectrum.

#### **I. The Wireless Industry Needs Additional Spectrum for Future Mobile Services.**

As demonstrated by CTIA's petition, the wireless industry in the United States has achieved enormous success. It provides valuable services to the American public and has helped

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<sup>2</sup> See, e.g. *In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions of Part 27 of the Commission's Rules ("700 MHz")*, Comments of Verizon Wireless, WT Docket No. 99-168 (filed Aug. 16, 2000). See also Testimony of Richard J. Lynch, Executive Vice President and Chief Technical Officer, Before the Subcommittee on Technology, Committee on Science, United States House of Representatives (Apr. 13, 2000); *In the Matter of Bell Atlantic Mobile, Inc. Petition for Limited Forbearance From the CMRS Spectrum Cap for the Reaaction of Broadband PCS License*, Petition for Limited Forbearance (filed Feb. 17, 2000) at 8-11; Testimony of Dennis F. Strigl, President and Chief Executive Officer, Before the Committee on the Budget, United States Senate (Feb. 10, 2000); *700 MHz*, Reply Comments of Bell Atlantic Mobile, Inc., WT Docket No. 99-168, (filed Aug. 13, 1999); *In the Matter of Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2GHz for Use by the Mobile-Satellite Service*, Reply Comments of Bell Atlantic, ET Docket No. 95-18 (filed Mar. 5, 1999); *1998 Biennial Regulatory Review – Spectrum Aggregation Limits for Wireless Telecommunications Carriers*, Comments of Bell Atlantic Mobile, Inc., WT Docket No. 98-205 (filed Jan. 25, 1999).

to fuel the U.S. economy. Today, more than 94 million people in the United States use wireless phones. Experts predict that wireless penetration could double to as much as 70% of the U.S. population in the next few years. The Commission's role in allocating spectrum and moving quickly to auction licenses has been pivotal to this growth. As the Commission states in its November 1999 Policy Statement on spectrum management, "[t]his tremendous growth would not have been possible without the availability of additional spectrum for new technologies and services and relaxed restrictions on the licensing of spectrum."<sup>4</sup>

Future mobile services hold even greater promise – for industry growth, productivity gains, and consumer welfare. The industry is developing innovative wireless technologies that will provide consumers and businesses with a wide range of data and multimedia applications, including high-speed wireless Internet access from a variety of mobile terminals. However, current spectrum allocations in the United States are simply not sufficient to support the continued growth of mobile voice and low-speed data services, let alone the emergence of extremely spectrum intensive high-speed 3G applications. As a result, industry cannot do it alone. As spectrum manager, the FCC must continue to carry out its critical role in the development of truly “anywhere, anytime” communications by ensuring that sufficient spectrum is available when the marketplace requires it.

In its Policy Statement, the FCC acknowledges that additional spectrum is needed to support advanced mobile services. Other nations have acknowledged and acted on the need for

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<sup>3</sup> See Testimony of Dennis F. Strigl Before the Subcommittee on Telecommunications, Committee on Commerce, United States House of Representatives, July 19, 2000.

additional spectrum to provide such services.<sup>5</sup> At WRC-2000, the ITU made its decisions regarding which bands should be implemented for such services. The Commission should act quickly on CTIA's petition for rulemaking. Now that government administrations around the world have identified additional spectrum for 3G services, it is imperative that the Commission allocate sufficient portions of these bands for such services in the United States. The allocation of sufficient spectrum for 3G should be the Commission's primary goal in adopting the rulemaking proceeding that results from this petition.

Verizon Wireless recognizes that the Commission's spectrum policies must always balance competing needs. Meeting the demand for new mobile services spectrum is complicated further because those needs can only be met by spectrum below 3 GHz – historically the most crowded bands. There is, however, hard evidence of the benefits to the U.S. economy and consumers of providing spectrum for a new generation of mobile services. The enormous growth of wireless in the 1990s was fueled by the Commission's decision to allocate additional spectrum for the second generation of cellular – personal communications services (PCS). By acting quickly to allocate new spectrum for the next generation of mobile services, the Commission has the opportunity to repeat that success.

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<sup>4</sup> See *In the Matter of Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium*, Policy Statement ("Policy Statement"), FCC 99-354 (rel. Nov. 22, 1999) at 1.

<sup>5</sup> The United Kingdom and Germany have each recently concluded 3G spectrum auctions. These auctions raised substantial sums of money for their respective governments – evidence of the tremendous interest in 3G services. Finland and Spain have awarded 3G licenses to each of four national service providers. Other government administrations – for example: Austria, Belgium, Denmark, France, Ireland, Italy, Korea, Netherlands, New Zealand, Portugal, and Sweden – are in the process of awarding 3G licenses or are expected to do so within the next six months.

## **II. The Commission Should Implement the Decisions of WRC-2000 By Promptly Allocating Spectrum for 3G.**

WRC-2000 was an important event in the ongoing development of 3G wireless services. At the 1992 World Administrative Radio Conference (“WARC-92”), the ITU identified spectrum in the 1885-2025 MHz and 2110-2200 MHz bands to support the development of International Mobile Telecommunications 2000 (“IMT-2000”), commonly referred to as 3G.<sup>6</sup> As noted above, government administrations worldwide are now taking steps to license these bands for the first phase of 3G development. For these administrations, WRC-2000 was a key step in the continued development of 3G services by ensuring the long term availability of sufficient spectrum for 3G.

For the United States, however, WRC-2000 had greater significance. Unlike many countries around the world, the Commission did not reserve the WARC-92 bands in the United States for future 3G services. Rather, it licensed portions of these bands for personal communications services (“PCS”) in the interest of creating greater competition for second generation wireless services. The decisions reached at WRC-2000, therefore, were critical to the United States Government and industry – not only to identify spectrum for 3G development but to preserve the flexibility of the United States to allocate spectrum in accordance with its own timelines based on market needs and other national considerations. Some nations may not implement the WRC-2000 bands for many years, relying instead on the WARC-92 bands for initial implementation of 3G. The United States cannot afford to wait to allocate the WRC-2000

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<sup>6</sup> IMT-2000 is the ITU vision of global mobile access and is scheduled to start service around the year 2000, subject to market and other considerations. The spectrum identified at WARC-92 is intended to support both the terrestrial and satellite components of IMT-2000.

bands. Some portions of these bands must be made available in order for 3G deployment in the United States to occur.

Prior to WRC-2000, the ITU conducted studies to assess the need for spectrum to accommodate IMT-2000 through 2010 in addition to that identified at WARC-92. It concluded that 160 MHz of additional spectrum was needed in each of the three world regions. At WRC-2000, administrations from around the world affirmed this need for additional spectrum and identified the 1710-1885 MHz and 2500-2690 MHz bands to satisfy this need. WRC-2000 resolved that administrations wishing to implement IMT-2000 should make available sufficient portions of these bands to satisfy the terrestrial component of IMT-2000.

WRC-2000 also resolved that “due consideration should be given to the benefits of harmonized utilization of the spectrum”.<sup>7</sup> It concluded that the use of common worldwide bands for 3G services will facilitate global roaming and create economies of scale that will reduce the cost of 3G equipment. We concur that there are benefits to harmonizing spectrum. Harmonization will help to promote the development of a global 3G market and lower service and equipment prices for consumers. The Commission, therefore, should strive to harmonize its 3G allocations with those of other countries. However, it should not put the cart before the horse. A failure to make sufficient spectrum available to meet demand in the United States in the interest of attempting to harmonize spectrum with the rest of the world would severely handicap U.S. operators and harm U.S. consumers. The Commission should work

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<sup>7</sup> See *Additional frequency bands identified for IMT-2000*, WRC-2000, Res. 223 (adopted June 2, 2000).

diligently to attempt to harmonize 3G spectrum with the rest of the world while ensuring that sufficient spectrum is made available in a timeframe that satisfies market demand.

### **III. The Commission Should Assess the Availability of All Candidate Bands**

The Commission should evaluate all of those bands identified at WARC-92 and WRC-2000 to determine what spectrum should be allocated for 3G services in the United States.

Moreover, it should ensure that sufficient portions of these bands are made available to satisfy expected market demand.

The FCC has already taken steps to consider spectrum requirements for 3G services. In its Policy Statement, the Commission indicated it will consider allocating the 1710-1755 MHz, 2110-2150 MHz, and 2160-2165 MHz bands for advanced mobile services, including 3G.<sup>8</sup> We strongly support the use of these bands for 3G services.<sup>9</sup> However, the Commission should take into account all of the spectrum which has been identified for 3G before making a final determination as to how this particular spectrum should be assigned. The Commission's analysis should include the timeframe in which the various bands might be made available for use in the United States and whether such use could be harmonized with the rest of the world.

Most importantly, the 90 MHz of spectrum the Commission identified in its Policy Statement is simply not sufficient to meet the needs of the mobile industry over the next decade. The Commission must allocate additional spectrum and ensure it is made available for use. Each

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<sup>8</sup> See *Policy Statement* at 10-11.

<sup>9</sup> While Verizon Wireless supports the allocation of the 2160-2165 MHz band for 3G services, it would be considerably more useful if it were contiguous to other spectrum allocated for 3G. Consequently, Verizon Wireless urges the Commission to also consider the allocation of the 2150-2160 MHz band for 3G services. This band is currently assigned to the Multipoint Distribution Service ("MDS"), and the proposed rulemaking should assess how the use of this band for 3G would affect MDS licensees.

of the bands identified at WRC-2000 has its challenges. However, a decision by the Commission not to make any of this spectrum available for 3G services could harm consumers, service providers, and manufacturers, as well as the United States's competitive position in telecommunications. The Commission must assess whether and how these bands can be made available for 3G.

The 1755-1850 MHz band is used in the United States by various federal government agencies. The National Telecommunications and Information Administration ("NTIA") has initiated studies to assess whether portions of this band can be made available for 3G. We commend NTIA for undertaking these studies, and urge the FCC and NTIA to work with the wireless industry to ensure that they are completed expeditiously. These studies should identify what systems currently operate in the band, whether spectrum sharing is feasible, whether and under what timeframe the current systems could be cleared from the band, and the costs of relocation. Verizon Wireless stands ready to support the FCC and NTIA in this important effort.

The 2500-2690 MHz band is currently assigned to the Multichannel Multipoint Distribution Service ("MMDS") and the Instructional Television Fixed Service ("ITFS"). The Commission should assess whether and under what timeframe portions of this band could be made available for 3G use. To the extent that these services cannot co-exist in the band, it should determine whether and how existing licensees could be accommodated in other frequency bands.

Verizon Wireless believes that the entire 1710-1755 MHz and 2110-2165 MHz bands and significant portions of the 1755-1850 MHz and 2500-2690 MHz bands may ultimately be required for 3G mobile services. While the ITU has estimated that 160 MHz of additional spectrum will be needed by 2010, industry estimates have historically been understated. In any

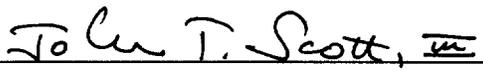
event, market demand beyond 2010 will undoubtedly increase the need for spectrum. The Commission should undertake a comprehensive assessment of all of these bands, and develop a long term plan for how each might be made available in the future. The schedule for availability of individual band segments would then help the Commission in determining the appropriate band plans for 3G services implemented now and in the future.

#### **IV. Conclusion**

Verizon Wireless urges that the Commission immediately initiate a rulemaking proceeding to allocate additional spectrum for advanced mobile services such as 3G. Moreover, the Commission should move quickly to ensure that sufficient spectrum is available in a timeframe that satisfies the growing demand for such services.

Respectfully submitted,

**VERIZON WIRELESS**

  
John T. Scott, III  
Vice President and Deputy General  
Counsel – Regulatory Law  
Verizon Wireless  
1001 Pennsylvania Avenue, N.W.  
Washington, DC 20004-2595  
(202) 624-2582

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