

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Part 2 of the Commission's Rules)	ET Docket Nos. 00-258 and 95-18
to Allocate Spectrum Below 3 GHz for Mobile)	IB Docket No. 99-81
and Fixed Services to Support the Introduction of)	RM-9498
New Advanced Wireless Services, including)	RM-10024
Third Generation Wireless Systems)	

Comments of Siemens Corporation

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I. INTRODUCTION

Siemens Corporation ("Siemens") is pleased to submit comments in response the Commission's August 20, 2001 *Further Notice of Proposed Rule Making* in the above-captioned proceeding.¹

Since the publication of the *Advanced Services Further Notice*, the world has changed. Though headquartered in Germany, with over 85,000 employees in the United States, Siemens has been deeply affected by the terrorist attacks in New York and Washington, and knows that the security and defense concerns that are now at top of the U.S. government agenda will strongly influence the decision-making process for spectrum allocation for advanced wireless services ("3G") in the United States. In these uncertain times, however, it has never been more true, as Brian Fontes, vice president of federal relations for Cingular Wireless, has said, "It is vitally important to have long-term spectrum management in place. You can't just randomly generate bits of spectrum in time periods and expect to be fully competitive and compete with others around the world."

As a global leader in telecommunications manufacturing, Siemens would like to take this opportunity to suggest a model pursuant to which a long-term strategy for 3G spectrum can be crafted that will satisfy the critical need for additional spectrum for 3G services and harmonize that spectrum with other 3G spectrum around the world. As the record in this proceeding already shows, greater spectrum harmonization will benefit American consumers

¹ *Introduction of New Advanced Mobile and Fixed Terrestrial Wireless Services; Use of Frequencies Below 3G*, ET Docket Nos. 00-258 and 95-18 and IB Docket No. 99-81, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, FCC 01-224 (rel. Aug. 20, 2001), *summarized*, 66 Fed. Reg. 47618 (Sept. 13, 2001) ("*Advanced Services Further Notice*").

by creating greater economies of scale and scope that will drive down prices for both equipment and services.

II. DISCUSSION

Several scenarios for allocating spectrum for 3G drawing from the bands between 1710 MHz and 2200 MHz are possible and some are currently under consideration. Siemens offers the following observations and suggestions for the Commission to consider as it progresses with its decisions in this proceeding:

- It is important to note at the outset that the implementation of 3G systems solely in the 1710-1755 MHz band paired with the 2110-2150/2160-2165 MHz band would isolate the US mobile market from the rest of the world. Carrier and consumer expenditures for network infrastructure and terminals would unnecessarily rise in the absence of the cost efficiencies associated with globally harmonized spectrum, thus slowing down economic development.
- The world is in the process of implementing 3G systems in the IMT-2000 spectrum, which is incompatible with the PCS bands in the United States, and so Siemens urges the FCC to consider the PCS spectrum as part of the solution.
- With GSM technology gaining popularity in the broadband PCS bands (1850-1910 MHz paired with 1930-1990 MHz), further exploitation of existing 2G systems will occur.
- The 1910-1930 MHz frequency band, now allocated for unlicensed PCS, should be used for implementation of 3G systems based on Time Division Duplex (TDD) and Frequency Division Duplex (FDD) technology. This would improve the ability of operators to serve the hot spots and would allow for the assignment of one or two operator licenses in line with global arrangements:
 - two 5 MHz blocks for TDD use at 1910-1920 MHz, and
 - two 5 MHz blocks for FDD at 1920-1930 MHz paired with two 5 MHz blocks at 2110-2120MHz.
- Operators should be permitted to use both FDD and TDD. It should be noted that, as pointed out in the ERC decision (DEC(99)25), under certain circumstances the operation of TDD is possible in the unused parts of the uplink band 1920-1980 MHz.

- The smooth implementation of 3G systems in the United States would also be helped by adoption of the following suggestions:
 - A Block PCS licensees should be permitted to implement FDD in a band comprising 1930-1945 MHz (uplink) paired with the 2120-2135 MHz (downlink).
 - The lower 15 MHz portion of the A Block (1850-1865 MHz) used for downlink could be paired with 1755-1770 MHz as uplink of FDD when that portion of the spectrum is vacated by the Federal Government.
 - This process, if continuously repeated in small steps, would allow introduction of 3G systems in a "core" band that is comprised of the 1920-1980 MHz paired with the 2110-2170 MHz band.
- In an ideal world in which maximum spectrum harmonization is possible, an "extension" band at 1710-1785 MHz paired with 1805-1880 MHz would become free. In the current circumstances, Siemens recognizes that it may not be possible to achieve this for some time to come, but urges the Commission not to take action that would preclude this as a possibility in the future. Future implementation of 3G systems in the United States in these bands (the European DCS bands) would promote global harmonization with great benefits accruing for consumers.
- Further, at a convenient time, the implementation of 3G systems in the PCS spectrum located at 1930-1980 MHz, paired with the adequate parts of IMT-2000 core band at 2110-2170 MHz, could be started. There are great advantages to implementing 3G systems in the United States in an IMT-2000 core band.
 - In this case, the 2G systems would remain operating in the upper part of the PCS band 1850-1910 MHz paired with the upper part of the 1930-1990 MHz (C, E and F Block PCS).
 - In the transition time period, local and/or temporary implementation of guard bands between 3G and 2G systems may be necessary. The feasibility of coexistence has been studied and is described in ITU-R documents 8F/355, 8F/367, 8F/339, 8F/358, 8F/TEMP/144.
- The transition to rational, globally harmonized 3G spectrum bands in the United States will take many years, and Siemens is hopeful that the 1770-1850 MHz will become available for commercial advanced wireless services at some point. The resulting worldwide, fully harmonized WRC-92/WARC-2000 3G spectrum will bring tremendous advantages of economy of scale for all operators and suppliers, and thus, to the using public. Because the FCC has not mandated a particular standard for broadband PCS, such a transition can be more easily achieved in the United States.

III. CONCLUSION

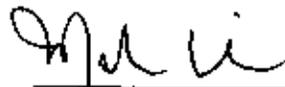
For the United States to retain its leading position in the world, it must keep its industries and economy strong. Consequently, to inform its decision in this proceeding, the FCC should look to global developments (including in Japan, where 3G services are being introduced now). As the U.S. Council of Economic Advisers has stated:

Delays in introducing 3G products could have a severe economic impact on U.S. companies competing with firms in countries such as Finland, which allocated 3G licenses last March. The overall economic impact on American consumers could be \$550 billion to \$1 trillion during the next decade.

To the extent that the FCC can craft 3G spectrum allocations with global harmonization in mind, the United States economy, and American consumers, will obtain real and concrete benefits.

Respectfully submitted,

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