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

In the Matter of	)	
	)	
Amendment of Part 2 of the 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	)	CC Docket No. 00-258

COMMENTS OF SIEMENS CORPORATION

Siemens Corporation provides the following comments in response to the Commission's Memorandum Opinion and Order and the Further Notice of Proposed Rulemaking (MO&O and FNPRM) that examines additional spectrum band options to support advanced wireless services. In particular, Siemens focuses on questions raised about the 1910-1930 MHz band. Specifically, Siemens recommends that:

- the Commission retains the isochronous UPCS band and extends it to 1910 MHz; and
- the Commission also uses this band for deployment **of** IMT-2000 FDMA/TDMA terrestrial radio interface.

Respectfully submitted,

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The Siemens Information and Communication Mobile Group covers the entire mobile communication spectrum, offering terminals, network infrastructure, and mobile applications. The product range for terminals extends from mobile phones and wireless transmission modules through mobile organizers to cordless phones and products for wireless home networks. The infrastructure portfolio includes GSM, GPRS and 3G network engineering, from base stations through switching systems to intelligent networks, for example for prepaid services. The range of mobile applications comprises end-to-end solutions such as messaging, local services, or solutions for mobile payment. In the United States, Siemens operates from offices in California, Florida, Georgia and Washington. San Diego, California serves as the home for the U.S. Mobile Phones division, while the Networks division operates in Boca Raton, Florida.

The 1910 – 1930 MHz Band for Deployment of IMT-2000 FDMA/TDMA

The 1910 – 1930 MHz UPCS band is the only unlicensed band in the United States and Canada that provides protected spectrum for real-time services such as voice. Therefore, it is important to retain the isochronous UPCS band and even extend it to 1910 MHz since the asynchronous UPCS sub-band 1910-1920 MHz is not in use.

One advantage to allowing the use of 1910 – 1930 MHz for voice, voice related and advanced services is that currently the unlicensed spectrum of 2.4 GHz and 5.8 GHz is shared with the proliferation of wireless data in the form of WiFi and other technologies. These expanded operations interfere with the quality of voice transmission by products currently being offered in

- Peak power and spectral density: The current parameters are not sufficient for products to cover a US-standard house. These Parameters should be aligned with those of the ISM bands for voice and voice related services.

The Commission should adopt a Peak transmit power not exceeding 250 (currently 100) microwatts multiplied by the square root of the emission bandwidth in hertz. Furthermore, we recommend that the Commission adopt a Power spectral density not exceeding **10** (currently **3)** milliwatts in any **3** KHz bandwidth.

These changes would not cause inferior protection of real-time services, or interfere with the adjacent PCS band since the out-of band emission for this band shall not be changed.

Conclusion

In conclusion, Siemens is grateful for the opportunity to comment on this important proceeding. We support the FCC's Policy Statement that argues that "a flexible allocation approach will allow licensees freedom in determining the services to be offered and the technologies to be used in providing these services." FCC action to retain the isochronous UPCS band and extend it to 1910 MHz is consistent with the goals of allowing new advanced wireless services and products to rapidly reach the U.S. marketplace.

the United States. Furthermore the dedicated allocation for isochronous services improves spectrum efficiency and reduces levels of interferences.

We also expect a strong growth of cordless communication in the United States using an increasing variety of digital technologies. This will also result in the unlicensed 2.4 GHz and 5.8 GHz band becoming increasingly crowded.

Since the UPCS band (1910 - 1930 MHz) will be available for primary use and free from existing cost-sharing obligations after April 20, 2005, we expect more and more voice, voice related and advanced services moving from the other bands to this band. Additionally, the wireless data services in the 2.4 GHz and 5.8 GHz bands benefit from moving isochronous services to the UPCS band because there is less interference in the band, thereby enhancing their Quality of Service.

The IMT-2000 FDMMTDMA radio interface, as recommended by the International Telecommunication Union (ITU) for IMT-2000 deployment, meets the basic rules for unlicensed operation in the 1910– 1930 MHz band. This radio interface is the only IMT-2000 radio interface optimized for uncoordinated, unlicensed operation. It is a low power radio interface ideally suited for in-building operation.

U.S. consumers will benefit from the fact that IMT-2000 FDMMTDMA products have been widely accepted internationally for domestic, business and industrial applications. Since the IMT-2000 FDMA/TDMA terrestrial radio interface operates internationally in the 1.9 GHz band,

U.S. industry will be able to offer products in this frequency band upon adoption of this standard as new applications continue to emerge.

The use of inexpensive and widely available technology in the U.S. market will offer a benchmark for voice quality and a standard that all manufacturers can address and utilize. Ideally, this standard will be for voice services what the WiFi standard of interoperability is for data products. Additionally, other products can be added to this "base" system, including the integration of telephony and personal security technology and home automation applications.

Rules Changes with Respect to the 1910-1930 MHz Band

The Commission seeks comment on whether the isochronous rules should be changed. There is no need to change the basic rules for the 1910-1930 MHz band since these rules ensure the coexistence of real-time services and improve spectrum efficiency.

We recommend, however, *two* minor changes to secondary rules to enhance the use of this band:

- Channelization: The enhancement of channel spacing would provide more flexible carrier positions and higher data rates, especially for voice related messaging and advanced. Therefore, we recommend that the Commission adopt a maximum channel spacing of 2 MHz (currently 1.25 MHz).