

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Petition for Rulemaking of the)	RM-10371
Wireless Ethernet Compatibility)	
Alliance To Permit Unlicensed)	
National Information Infrastructure)	
Devices To Operate in the 5.470-)	
5.725 GHz Band)	

COMMENTS OF PROXIM, INC.

Proxim, Inc. (“Proxim”), by its attorneys, hereby submits comments in the above referenced proceeding. In this proceeding, the Wireless Ethernet Compatibility Alliance (“WECA”) requests that the Commission amend its rules to permit the operation of Unlicensed National Information Infrastructure (“U-NII”) devices in the 5470-5725 MHz band. As a world leader in wireless local area networking (“LAN”) devices, as the first company to gain FCC certification for a 5 GHz, 802.11a-complaint device, and as a member of WECA, Proxim strongly supports WECA’s Petition for Rulemaking.

I. Wireless Systems Offer Flexible Broadband and Networking Capability

With initiatives pending before Congress, the Administration, and the Federal Communications Commission, the deployment of broadband pathways, networks, and software has become “the central communications policy objective in America.”¹ Wireless systems are an integral part of this framework.

Since Proxim began developing wireless LAN solutions in 1984, its systems have been used to improve the efficiency of educational institutions, as well as health care and manufacturing facilities. In recent years, Proxim wireless LANs also have become

important components of business networks. In addition, wireless LANs continue to be used in less conventional ways, such as for-profit “hot spot” access networks and as so-called “free-nets.”

As set forth in more detail in WECA’s Petition, unlicensed wireless LANs offer many advantages to users. The unlicensed aspect of the devices permits users to deploy systems where and when they are needed, without requiring a license to operate. Another advantage is the low price of wireless systems compared to hardwire alternatives. Additionally, wireless LANs are user-friendly, making them ideal for use in schools, homes and other locations where technical assistance is not readily available.

II. Next Generation U-NII Devices Require Greater Bandwidth

In 1997, the Commission allocated 300 MHz in the 5 GHz band for use by U-NIII devices.² The Commission anticipated that its rules would “foster the development of a broad range of new devices and service offerings that will stimulate economic development and the growth of new industries.”³ In fact, the Commission’s prognostication has been correct; wireless LANs using 5 GHz offer significantly improved networking and broadband capabilities.

These capabilities, however, require large amounts of bandwidth and will require even more as they gain popularity. Therefore, the original 300 MHz allocation is no longer sufficient. In a study of spectrum requirements for HIPERLAN systems, the HIPERLAN/2 Global Forum concluded that 540 MHz of spectrum will be required to satisfy the market demand for these 5 GHz unlicensed networks by the year 2010.

¹ Remarks of Michael K. Powell, Chairman, Federal Communications Commission, At the National Summit on Broadband Deployment, Washington, D.C. (Oct. 25, 2001).

² See In the Matter of Amendment of the Commission's Rules to Provide for Operation of Unlicensed NII Devices in the 5 GHz Frequency Range, *Report and Order*, 12 FCC Rcd 1576 (1997) (the Commission allocated three, 100 MHz bands: 5.15-5.25 GHz, 5.25-5.35 GHz, 5.725-5.825 GHz).

³ *Id.* at 1577.

This study, when coupled with the rapid increase in the popularity and use of unlicensed wireless LANs, leads Proxim to support WECA's call for the Commission to address this likely spectrum shortfall.

III. The Commission Should Act Now To Expand The Spectrum Available To 5 GHz Wireless LANs And Harmonize U.S. Spectrum Allocations With European Allocations.

Part of the current explosion in the popularity of wireless devices is due to the worldwide availability of identical devices, made possible by worldwide harmonization of spectrum rules. In the 2.4 GHz band, manufacturers are able to take advantage of large economies of scale for the devices. The same 802.11b, HomeRF, and Bluetooth devices can be used in countries around the world, with few exceptions.

The next phase of evolution for these devices makes use of the spectrum set aside by many administrations in the 5 GHz band. With the first generation of these products already available to consumers, now is the right time to ensure that the worldwide spectrum conditions that have fueled the success of wireless LANs in the 2.4 GHz band will continue to do so in the 5 GHz band.

The allocation of the 5470-5725 MHz band for use in the United States would align this country with European countries. The Commission recognized in 1997 that worldwide uniformity of regulation "will promote the ability of U.S. manufacturers, including small businesses, to compete globally by enabling them to develop unlicensed digital communications products for the world market."⁴ It has been this uniformity and the corresponding ability of manufacturers to mass produce wireless LAN devices, that has kept 2.4 GHz devices reasonably priced and popular with consumers.

⁴ *Id.*

Finally, prompt action on this petition will open a public dialog that will be invaluable in helping the United States to form its position on 5 GHz and other wireless multimedia spectrum issues at the upcoming WRC 2003 and future WRC meetings.

CONCLUSION

In order to ensure wireless LAN devices have access to sufficient spectrum for the next generation of networking and broadband applications, Proxim urges the Commission to grant WECA's petition for rulemaking and to begin the process by which additional spectrum can be freed for use by these products.

Respectfully submitted,

PROXIM, INC.

A handwritten signature in black ink that reads "Henry Goldberg". The signature is written in a cursive style with a large, prominent "H" and "G".

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