

# ORIGINAL

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

In the Matter of: )  
)  
Petition for Rulemaking to Allocate )  
the 5,1 - 5.35 GHz Band and Adopt )  
Service Rules for a Shared Unlicensed )  
Personal Radio Network )

RM-8648  
*[Signature]*  
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JUL 25 1995  
FEDERAL COMMUNICATIONS COMMISSION  
DEPUTY SECRETARY

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In the Matter of )  
)  
Allocation of Spectrum in the )  
5 GHz Band To Establish a Wireless )  
Component of the National Information )  
Infrastructure )

RM-8653

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REPLY COMMENTS

AT&T respectfully submits the following reply comments on the Petitions for Rulemaking ("Petitions") filed by Wireless Information Networks Forum ("WINForum") and by Apple Computer, Inc. ("Apple") proposing allocation of several hundred MHz of spectrum in the 5 GHz range for unlicensed high-speed wireless data.

The comments<sup>1</sup> demonstrate widespread support for such an allocation. As Motorola (pp. 2-3) and HP (p. 1) pointed out, the Petitions share many important characteristics. The differences between the Petitions and the comments of WINForum

<sup>1</sup> The comments discussed in these Reply Comments, and the abbreviations used to identify them, are set forth in the Appendix.

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(pp. 1-2) and Apple (p. 22) principally concerned the technical rules that would govern use of the new spectrum. Both Petitions urge that these rules be developed by industry consensus, a position endorsed by commenters.<sup>2</sup> Microsoft is correct that, today, the "concept is far too young to begin discussion of standards" (p. 5), at least with any degree of precision. Most commenters did not focus on the technical differences between the two proposals,<sup>3</sup> although Apple's "community networks" proposal, including the range and power needed to implement that proposal, were challenged.<sup>4</sup>

While the commenters largely agreed that technical issues regarding use of the high speed wireless data spectrum should be passed over at this time, the same is not true regarding the precise spectrum for this new use. Concerns with

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<sup>2</sup> AT&T (p. 9), CDT (p. 7), Compaq (p. 3), HP (p. 6), ITI (p. 6), Microsoft (p. 5). AT&T agrees with ITI (*id.*) that "a broad cross-section of the affected industries" should be involved in this process, rather than merely "the information industry," as Apple still insists (p. 22).

<sup>3</sup> Neither the WINForum nor Apple comments disputed technical points made in the Petition of the other. Apple noted that there is no need to resolve those differences at this point (p. 23).

<sup>4</sup> ARRL (p. 13), AT&T (pp. 6-7), DMC (p. 2), Harris (p. 3), TIA (p. 3). AT&T (pp. 6-7) and ARRL (p. 6) also pointed out that Apple's proposal appeared to contemplate a service competitive with PCS. AT&T (*id.*) added that such competition would be from parties who paid nothing for the spectrum, thereby jeopardizing the incentive and ability of PCS licensees to construct and operate their networks.

much of the spectrum proposed by both WINForum and Apple were expressed in the comments. WINForum proposed 5100-5350 MHz while Apple advocated 5150-5300 MHz and 5725-5875 MHz. The FAA opposed the 5100-5150 MHz portion of the WINForum proposal, alleging that the United States is not de-emphasizing the Microwave Landing System ("MLS") as claimed by WINForum. Rather, according to the FAA, there are "plans" for at least 26 MLS installations and "possibly many more" (p. 1). The FAA opposed the 5150-5250 MHz aspect of both the WINForum and Apple proposals until there are studies showing that sharing is possible with airport surface detection and terminal Doppler weather radar equipment (pp. 2-3).

Responding to these FAA points, including detailed assessment of the potential for sharing the spectrum, would appear to require more information on the plans for deployment of MLS and technical information on the specified equipment. Because there was no opposition to the 5250-5350 MHz aspect of WINForum's proposal,<sup>5</sup> a good solution would be to add spectrum between 5350 and 5500 MHz to make up for any spectrum between 5100 and 5250 MHz that is not allocated to high speed wireless data because of the FAA's concerns.

LQP and Constellation opposed 5100-5250 MHz, fearing interference with Mobile Satellite Service feeder links. Those parties claim that the Petitions rely on data that is not

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<sup>5</sup> Apple proposed 5250-5300 MHz.

representative of the actual operation of the proposed systems. However, the contrary data which they supply unrealistically assumes 50 million of the new devices operating simultaneously. AT&T expects that WINForum and Apple will present additional material responding to LQP and Constellation.

Commenters also opposed the 5725-5875 MHz aspects of Apple's proposal. Amateur interests worried that Apple's proposed use would be incompatible with amateur operations.<sup>6</sup> Other commenters echoed AT&T's concern (p. 5) that spread spectrum Part 15 devices might not be able to share the 5.8 GHz band with high speed wireless data.<sup>7</sup>

WINForum and Apple have convincingly demonstrated that the public interest would be served by an allocation of several hundred MHz in the 5 GHz range for high speed wireless data.<sup>8</sup> The Commission should therefore issue a Notice of Proposed Rulemaking to allocate 250 to 300 MHz of contiguous spectrum between 5100 and 5500 MHz to high speed wireless data. The

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<sup>6</sup> ARRL (pp. 12-13), NARCC (p. 5), SCRRBA (p. 11).

<sup>7</sup> Andrew (pp. 5-6), Part 15 Coalition (pp. 8-9).

<sup>8</sup> AT&T's Comments expressed concern with some of the spectrum proposed by Apple and objected to some of Apple's proposed principles to govern operation of the new service, but recognized that Apple, as well as WINForum, had shown the need for an allocation of spectrum.

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precise spectrum should emerge from activities in connection with that rulemaking proceeding. Technical issues would thereafter be resolved by industry consensus.

Respectfully submitted,

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Dated: July 25, 1995

APPENDIX

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Apple Computer, Inc. - Apple  
Center for Democracy & Technology - CDT  
Compaq Computer Corporation - Compaq  
Constellation Communications Inc. - Constellation  
Digital Microwave Corp. - DMC  
Federal Aviation Administration - FAA  
Harris Corporation - Farinon Division - Harris  
Hewlett-Packard Company - HP  
Information Technology Industry Council - ITI  
Loral/Qualcomm Partnership, L.L.P. - LQP  
Microsoft Corporation - Microsoft  
Motorola, Inc. - Motorola  
National Amateur Relay Council of California - NARCC  
Part 15 Coalition  
Southern California Repeater and Remote Base Association - SCRRBA  
Fixed Point to Point Section of the Telecommunications Industry  
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