

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of )  
 )  
Spectrum Policy Task Force ) ET Docket No. 02-135  
Seeks Public Comment on Issues )  
Related to the Commission's )  
Spectrum Policies )

**COMMENTS OF PROXIM, INC.**

Proxim, Inc. (“Proxim”) respectfully submits these Comments in response to the request for public comment from the Commission’s Spectrum Policy Task Force (“Task Force”) on issues relating to the Commission’s spectrum policies.<sup>1</sup> In particular, the Task Force has sought comment and information on the Commission’s market-oriented allocation and assignment policies (item numbers 1 through 6 in the *Public Notice*).<sup>2</sup>

Proxim is a world leader in wireless local area networking (“LAN”) devices and participates actively in the IEEE 802.11 Wireless Local Area Network Standards Working Group and other industry groups that promote LAN products.

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<sup>1</sup> See *Spectrum Policy Task Force Seeks Public Comment on Issues Related to Commission’s Spectrum Policies*, Public Notice, DA 02-1211, ET Docket No. 02-135 (rel. June 6, 2002) (the “*Public Notice*”).

<sup>2</sup> *Public Notice* at 2-3.

Proxim's detailed responses to the Task Force's inquiries on these issues are set forth in the Attachment to these Comments. Question numbers correspond to the numbering used in the Public Notice dated June 6, 2002 (DA 02-1311).

Respectfully submitted,

PROXIM, INC.

By: /s/Kevin Negus  
Kevin Negus, PhD.  
Chief Technology Officer

July 8, 2002

ATTACHMENT**RESPONSES OF PROXIM, INC. TO  
SPECTRUM POLICY TASK FORCE'S INQUIRIES**

**QUESTION 1:** What specific policy and rule changes are needed to migrate from current spectrum allocations to more market-oriented allocations?

**PROXIM RESPONSE:** Make spectrum rights a marketable asset. Allow owners of spectrum rights to sell their rights freely to others on a Primary and/or Secondary basis subject to broad usage requirements and the restrictions on interference to others as set forth by the Commission. Allow spectrum to be bundled or divided in the frequency, geographic or spatial orientation domains by downstream owners so long as the impact to other users remains within the Commission's requirements.

**QUESTION 2:** Should current, restrictive service and operating rules applicable in many bands be changed to provide licensees with greater flexibility? If so, in which bands and how?

**PROXIM RESPONSE:** Yes. In every licensed band in the USA, including government-allocated spectrum, a change to a market-based system should be made.

**QUESTION 2(a):** Should incumbent users be given flexibility within their existing spectrum?

**PROXIM RESPONSE:** Yes.

**QUESTION 2(b):** Should "site" licenses (*e.g.*, broadcasting, private land mobile) be converted to geographic area licenses? If so, how should such licenses be defined (*e.g.*, by power limits at geographic and frequency boundaries)?

**PROXIM RESPONSE:** No opinion beyond general guidelines above.

**QUESTION 2(c):** How should spectrum not currently licensed by geographic areas be assigned or re-assigned, *e.g.*, by auctioning Commission-defined "overlays" or by other means?

**PROXIM RESPONSE:** No opinion beyond general guidelines above.

**QUESTION 2(d):** What are the relative efficiencies and inefficiencies of different licensing models?

**PROXIM RESPONSE:** The free market approach broadly outlined above will maximize efficiency.

**QUESTION 2(e):** How would the interference rights of incumbents and new licensees be redefined under flexibility?

**PROXIM RESPONSE:** Incumbents' rights should not be re-defined. The Commission already sets limits on emissions both within band and out of band. These should be broadly maintained especially with regard to out of band restrictions. Broad usage restrictions, for example satellite vs. terrestrial vs. mobile, should remain where such in-band usage restrictions have a clear effect on out of band emission profiles.

**QUESTION 2(f):** What, if anything, should the Commission do to facilitate efficient restructuring of spectrum held by new licensees and incumbents, *i.e.*, reduce transactions costs, avoid strategic holdouts, and create greater certainty about costs?

**PROXIM RESPONSE:** Let the market decide.

**QUESTION 3:** Should spectrum policy be different in different portions of the spectrum or in different geographic areas?

**PROXIM RESPONSE:** Yes.

**QUESTION 3(a):** For instance, should the more congested region of the spectrum (*i.e.*, that below 3 GHz) be governed by different policies than the less congested portions of the spectrum?

**PROXIM RESPONSE:** This is one approach. The key is to let the market decide subject to broad usage restrictions and specific out of band emission limits. The actual restrictions can certainly vary tremendously across different parts of the spectrum.

**QUESTION 3(a) (cont.):** Should different licensing concepts be applied to upper millimeter wave spectrum where propagation characteristics limit the range and small wavelengths enable very narrow beams?

**PROXIM RESPONSE:** This is a good example of how the Commission could apply different requirements to different parts of the spectrum within a market-based approach.

**QUESTION 3(b):** Should spectrum policies vary by geographic area according to the relative level of spectrum congestion or use? For instance, should the rules be different in urban areas where spectrum is generally in high demand, than in rural areas where the demand for spectrum is typically low, or in the transition areas – where spectrum demand is somewhere between high and low demand regions?

**PROXIM RESPONSE:** This is another possible approach, but a market-based system could also deal with this simply by valuation in different geographic areas.

**QUESTION 3(c):** How can spectrum use, congestion and demand be accurately measured and predicted?

**PROXIM RESPONSE:** These attributes are very difficult to predict but a market-based system can discount or value such risk factors efficiently.

**QUESTION 4:** Are there circumstances under which adopting more market-oriented allocation and assignment policies would affect other important Commission objectives? For example, could the optimal provision of radio services to or by public safety and public service entities be helped or hindered by more market-oriented spectrum policies?

**PROXIM RESPONSE:** Market-oriented spectrum policies do not mean “taking away” from government or public safety spectrum users. Rather this approach means giving such entities flexibility to monetize such assets as they best see fit to achieve their missions. Furthermore, market-based policies can enable such radically new advanced wireless services at much lower cost such that public safety services can be much improved by leveraging standard systems instead of their current specialized equipment.

**QUESTION 4 (cont.):** Are there specific market failures that would produce such adverse affects, and what should the Commission do to address these market failures?

**PROXIM RESPONSE:** The market will correct market failures more efficiently than the government ever can.

**QUESTION 5:** Should more spectrum be set aside for operating unlicensed devices?

**PROXIM RESPONSE:** If a completely market-based approach is adopted, then this is probably unnecessary. However, under the current command and control approach to spectrum, such a move would have huge economic benefits for the citizens of this country and is greatly encouraged.

**QUESTION 5 (cont.):** Should the kinds of permissible unlicensed operations be expanded? What changes, if any, should be made to the rules to accomplish this? Because of the commons aspects of unlicensed use, is there concern that, as congestion rises, spectrum may not be put to its highest valued use? If so, what policies might be considered to anticipate this problem?

**PROXIM RESPONSE:** The existing UNII rules provide an excellent framework for access to unlicensed spectrum. The major improvement that could be made is to permit much more flexibility for EIRP limits when higher antenna gain is employed. “Highest value” use is very subjective and difficult to “legislate” in an unlicensed environment. However, a market-based system will very quickly ensure that spectrum is put to its highest value use and is probably the best way to anticipate this problem.

**QUESTION 6:** How can the Commission better facilitate the experimentation, innovation and development of new spectrum-based technologies and services through, for example, changes in its experimental licensing rules, increased use of developmental authorizations or promoting demonstration projects?

**PROXIM RESPONSE:** These are all good areas for increased efficiency and benefit within the constraints of the current regulatory framework. However, they may be largely unneeded in a market based system.

Proxim has no position at this time on the remainder of the Spectrum Policy Task Force’s inquiries.