

technology.¹ Two years later, the Commission again revised its rules to allow operators to provide two-way digital services,² and in 2001 the Commission adopted a mobile allocation in the band.³ These regulatory changes have opened the door to the revitalization of the 2500-2690 MHz band. As the Commission recognizes, however, more needs to be done. Vestiges of past regulatory barriers remain, and they inhibit many potential uses of the band. Unless and until those barriers are removed, the band will never realize its full potential.

The Proposal under consideration here takes a number of important steps toward updating regulation of this band. For example, it would rationalize the spectrum allocation by replacing the existing interleaved blocks with contiguous blocks that are more flexible and usable by a variety of technologies. It would also segregate high-power and low-power operations in the band to create a better interference environment. And the Proposal would eliminate cumbersome site-by-site licensing and suspend build-out requirements to accommodate the transition process. Microsoft believes that revising the Commission's rules in these ways will significantly improve the regulatory environment in the MMDS/ITFS band and make it more hospitable to a wider array of potential technologies and licensed services. The initial round of comments show that many others also support this regulatory reform effort.

¹ See *Request for Declaratory Ruling on the Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations*, 11 FCC Rcd. 18839 (1996).

² See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, 13 FCC Rcd. 19112 (1998).

³ See *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Service to Support the Introduction of New Advanced Wireless Services*, 16 FCC Rcd. 17222 (2001).

While the Proposal constitutes an important first step in revitalizing the band, Microsoft believes the Commission must go further still to ensure that it does not needlessly block market forces that could lead to more robust uses of this spectrum. Technological innovation continues unabated in the wireless industry, and a new breed of frequency-agile equipment with “opportunistic” capabilities holds the promise for spectrum utilization that only now is becoming apparent. As the Spectrum Policy Task Force concluded in its Report issued earlier this month, “[i]n order to be responsive to these increased technological capabilities, the Commission’s spectrum policies can and should remain technology agnostic, but they should not be technology antagonistic.”⁴ The Commission can avoid such antagonism by adopting rules with the greatest capacity to accommodate a range of technologies and services, within technical limits.

For example, the Task Force recommended that the Commission expand its use of the “commons” approach to spectrum use, whereby operations below an established interference temperature threshold are authorized for low-power, low-impact applications.⁵ Such “underlay” or “easement” rights are not incompatible with licensed services in a band; rather, they ensure that valuable spectrum resources are put to their most efficient and intensive use while also protecting the licensed services in the band.⁶ As explained by the Task Force, once an interference threshold has been established to protect licensed services,

the spectrum environment that is created below the temperature threshold has the characteristics that weigh most heavily in favor of the commons

⁴ Spectrum Policy Task Force Report, ET Docket No. 02-135, at p. 14 (November 2002).

⁵ *See id.* at p. 5.

⁶ *See id.* at p. 39.

approach: low scarcity due to technical restrictions on the power and operating range of devices and high transaction costs associated with negotiating access. Therefore, the commons approach should presumptively be used for operations below the interference temperature threshold.⁷

Allowing decentralized deployment of such unlicensed underlay services unleashes technological innovation and enhances consumer choices. Accordingly, the Commission should ensure that its actions to update the regulatory regime for licensed MMDS/ITFS services do not unintentionally preclude the introduction of unlicensed services in the band.

This is clearly a band in transition, and Microsoft believes that there will still be more to do in this band even after some or all of the concepts in the Proposal have been implemented.⁸ For that reason, the Commission should be cognizant that its actions in response to the Proposal will be but another step in the evolution of the 2500-2690 MHz band that has accelerated since 1996 – but not necessarily the final step. Accordingly, Microsoft urges the Commission to adopt rules in a manner that retains the flexibility necessary to accommodate further regulatory reforms, technological developments, and revised business models in this band.

⁷ *Id.* at p. 40.

⁸ The 2500-2690 MHz band has also been targeted in a recent Working Paper issued by the Office of Plans and Policy as one of the first candidates for transition from a “command and control” regime to a more market-oriented system. *See* E. Kwerel and J. Williams, “A Proposal for a Rapid Transition to Market Allocation of Spectrum,” at pp. 28, 3435 (Nov. 2002).

Respectfully submitted,

MICROSOFT CORPORATION

By: _____
Scott Blake Harris
William M. Wiltshire

HARRIS, WILTSHIRE & GRANNIS LLP
1200 Eighteenth Street, NW
Washington, DC 20036
(202) 730-1300

Counsel for Microsoft Corporation

Dated: November 29, 2002