

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

In the Matter of)	
)	
Amendment of Part 90 of the Commission's Rules)	WP Docket No. 07-100
)	
Implementation a Nationwide Broadband, Interoperable Public Safety Network in the 700 MHz Band)	PS Docket No. 06-229
)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands)	WT Docket No. 06-150
)	

COMMENTS OF MOTOROLA SOLUTIONS INC.

Motorola Solutions, Inc. hereby submits these comments in response to the Federal Communications Commission's ("Commission") Fifth Further Notice of Proposed Rulemaking considering rule changes to promote the effective use of the 4940-4990 MHz ("4.9 GHz") band for fixed and mobile services in support of public safety.¹

I. INTRODUCTION

Motorola Solutions supports the Commission's efforts to expand use of the 4.9 GHz band. The 50 megahertz of 4.9 GHz band spectrum available for public safety services is capable of supporting a broad range of applications across the country, and the Commission should continue to promote and facilitate this diversity of uses through its licensing and coordination policies. As the Commission suggests, one important use for the 4.9 GHz band may be in backhaul operations to support the nationwide 700 MHz Public Safety Broadband Network ("PSBN"). Particularly in rural areas, where there are no fiber deployments or other

¹ Amendment of Part 90 of the Commission's Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WP Docket No. 07-100, PS Docket No. 06-229, WT Docket No. 06-150, *Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking*, 27 FCC Rcd 6577 (2012) ("Notice").

pre-existing robust backhaul options, the 4.9 GHz band could be of significant benefit to the future 700 MHz Public Safety Broadband Network (“PSBN”). However, the band also has other significant current and contemplated uses. For example, many public safety narrowband systems contemplate use of this spectrum for backhaul. Additionally, various other point-to-multipoint direct access uses have been deployed throughout the country, and appropriate, limited rule modifications could stimulate greater interest in these additional applications.

The Commission’s actions in this proceeding should seek to preserve existing uses of the band while enabling continued innovation and efficiency in 4.9 GHz applications. To achieve these goals, the Commission should improve frequency coordination procedures for the 4.9 GHz band through leveraging the capabilities and expertise of private land mobile radio (“PLMR”) frequency coordinators and the Regional Planning Committees (“RPCs”). The Commission also should revise its 4.9 GHz band licensing policies to promote a diversity of public safety uses, including by expanding eligibility to critical infrastructure industry users and by encouraging jurisdictional licensing. Finally, the Commission should not adopt mandatory interoperability standards for the 4.9 GHz band, as this may limit the development of innovative services.

II. THE COMMISSION SHOULD BRING ADDITIONAL CERTAINTY TO FREQUENCY COORDINATION IN THE 4.9 GHZ BAND.

The Commission should revise the 4.9 GHz frequency coordination requirements to bring more certainty to operators of 4.9 GHz systems regarding other activities in the band. Providing additional certainty for 4.9 GHz operators will help to expand use of the band, which has been hampered by lack of information and concerns about potential interference. To this end, the Commission should implement a coordination process that relies upon the respective strengths and expertise of the PLMR frequency coordinators and RPCs. The Commission also should supplement this process with a robust database of operational information for the 4.9 GHz band.

The PLMR frequency coordinators and RPCs can administer the registration and frequency coordination mechanism for the 4.9 GHz band. These are the most qualified entities to drive the coordination process. Frequency coordinators have significant expertise and experience managing coordination processes and facilitating effective sharing of scarce spectrum resources. Additionally, active RPCs have significant local and regional knowledge that will contribute greatly to coordination. These RPCs are familiar with the composition and needs of regional public safety communities, and with the existing public safety communications landscape.

As suggested in the Notice, frequency coordination in the 4.9 GHz band should be facilitated through the development of a mandatory informational database.² The information currently available to 4.9 GHz operators is insufficient to allow for coordination and certainty about other uses of the band. Frequency coordination would be served by establishing a database with more granular information about the specific characteristics of 4.9 GHz applications currently in use. This detailed technical information would give 4.9 GHz systems developers awareness about interference conditions and spectrum availability, allowing them to plan new 4.9 GHz deployments and promoting more effective use of the band.

To establish the database, the Commission could consider requiring all 4.9 GHz licensees to submit a one-time report describing their current operations. Future 4.9 GHz licensees would register in the database. Current 4.9 GHz operators also would be required to update the database if they modify or discontinue service. RPCs and frequency coordinators would administer the database and oversee the registration and ongoing update processes. Mandating reporting to the database would have the added benefit of obviating the need for additional

² See Notice, ¶¶ 25-29.

detailed 4.9 GHz rules, such as the power and polarization restrictions and deployment reports contemplated by the Notice.³

III. 4.9 GHZ LICENSING RULES SHOULD ENCOURAGE A MULTITUDE OF PUBLIC SAFETY AND CRITICAL INFRASTRUCTURE USES.

The 4.9 GHz band has significant potential for use in support of public safety; however some modifications to the Commission's eligibility and licensing policies could help maximize the effective use of the band. The Commission's rules should facilitate the widest possible range of uses of the band in the service of public safety. Therefore, the Commission should allow critical infrastructure industry users to hold 4.9 GHz licenses, pursuant to frequency coordination. Additionally, to promote efficient use of the band while preserving maximum flexibility, the Commission should encourage licensing of the 4.9 GHz band on a jurisdictional basis as well as continuing to issue licenses to individual agencies.

A. The Commission Should Expand Licensing Eligibility for the 4.9 GHz Band to Critical Infrastructure Industry Users.

Provided it is done pursuant to coordination, Motorola Solutions supports allowing critical infrastructure industry users to hold licenses for 4.9 GHz operations. Consistent with the goal of promoting robust and effective use of the band, the Commission should ensure that the 4.9 GHz eligibility rules facilitate a broad range of activities in support of public safety. Critical infrastructure industry users already can operate on the 4.9 GHz band frequencies pursuant to an agreement with a public safety licensee when the use is in support of public safety activities. The Commission should remove the unnecessary regulatory hurdle that prevents critical infrastructure industry users from holding 4.9 GHz licenses in their own right.

³ *Id.*, ¶¶ 58-59, 68.

The 4.9 GHz band licensing rules limit eligibility to entities providing public safety services, as that term is defined by Section 90.523 of the Commission's rules.⁴ Section 90.523, in turn, refers to the definition of public safety services applied to the 700 MHz band by Section 337 of the Communications Act.⁵ Unlike the 700 MHz band, however, the eligibility restriction for the 4.9 GHz band was imposed by Commission regulation, and not by statute. Therefore, the Commission is empowered to revise these eligibility restrictions as serves the public interest.

To be clear, Motorola Solutions believes that the 4.9 GHz band should remain dedicated to public safety activities. As the Commission is aware, critical infrastructure industry communications are important to public safety, there is an identified lack of available dedicated channels for these operations, and there is a large demand for additional critical infrastructure communications equipment. Critical infrastructure industry use of the band could be coordinated through RPCs and frequency coordinators to ensure interference-free coexistence with public safety use. The band should not be opened up to commercial users, however, as this could quickly exhaust the available supply of 4.9 GHz licenses, as well as cause interference issues to critical public safety uses that would be difficult to track, control, and coordinate. Allowing commercial equipment to operate in the 4.9GHz band would alter adversely and permanently the very nature of the public safety band.

B. The Commission Should Encourage Jurisdictional Licensing in Addition to Licensing to Individual Agencies.

A variety of licensing models should be facilitated in the 4.9 GHz band, in order to make most efficient use of the spectrum by a variety of users. There are efficiencies and coordination advantages in licensing the 4.9 GHz band on a jurisdictional basis. Jurisdictional licensing could

⁴ 47 C.F.R. § 90.1203.

⁵ See 47 C.F.R. § 90.523; 47 U.S.C. § 337.

be an effective mechanism for managing demand for the 4.9 GHz spectrum across a range of public safety and critical infrastructure industry users, especially in areas where there are no active RPCs. Additionally, jurisdictional licensing could facilitate the pooling of limited resources in areas where multiple agencies might have a use for 4.9 GHz band spectrum, but no individual agency has sufficient resources to register, design, coordinate, and deploy the system.

Jurisdictional licensing should not, however, preclude individual agencies from obtaining licenses where the jurisdiction as a whole does not. Individual licensing might be more effective also where multiple agencies within a jurisdiction want to make divergent but not conflicting uses of the spectrum. In many cases, issues that might arise under divergent individual licensing could be resolved through the enhanced frequency coordination processes discussed above and in the Notice.

Importantly, the licensing framework should be flexible enough to facilitate the multitude of different 4.9 GHz applications contemplated. For example, when it comes to use in backhaul operations to support 700 MHz public safety networks, local needs will vary significantly from jurisdiction to jurisdiction. There is no need to go through the complicated legal process of reallocating the spectrum, seeking Congressional action, or figuring out how else to accomplish the issuance of a license to FirstNet – a Federal agency – when jurisdictional licensing will serve the public interest more effectively.

IV. THE COMMISSION SHOULD NOT SET INTEROPERABILITY STANDARDS FOR THE 4.9 GHZ BAND.

The Commission was correct in 2003 and 2004 to decline to adopt technical standards for interoperability in the 4.9 GHz band, and there is no basis for it to reconsider that determination

now.⁶ The Commission explains in the Notice that it previously decided not to adopt technical standards for the band because: “(1) the variety of services supported by the band did not readily lend themselves to standardization or interoperability, and (2) standards likely would have cemented the 4.9 GHz band in 2004 technology such that public safety would have been denied the benefits of emerging broadband technologies.”⁷ These considerations remain equally valid today.

It is still the case that a variety of services are supported by the band now, and an even greater variety may be deployed in the future. This multitude of uses enables innovation and allows 4.9 GHz licensees to put the band to the highest and best use under specific circumstances. Interoperability standards for the 700 MHz band are essential to ensuring the realization of the nationwide interoperable public safety broadband system contemplated for that band. Technical rules for the 4.9 GHz band, however, should remain sufficiently flexible for use of that band to be optimized for local needs. Adopting specific interoperability standards in the band would limit unnecessarily the current use and evolution of the band. The significant technical, legal, and economic developments since 2004 underscore the wisdom of the Commission’s decision, and reinforce its continuing appropriateness.

V. CONCLUSION

Motorola Solutions supports the Commission’s continued efforts to promote robust and effective use of the 4.9 GHz band in support of public safety activities. Important and exciting new applications for this band continue to develop. As the Commission considers additional rule

⁶ See Notice, ¶ 64 (*citing* The 4.9 GHz Band Transferred from Federal Government Use, WT Docket No. 00-32, *Memorandum Opinion and Order and Third Report and Order*, 18 FCC Rcd 9152, 9172 ¶ 48 (2003); The 4.9 GHz Band Transferred from Federal Government Use, WT Docket No. 00-32, *Memorandum Opinion and Order*, 19 FCC Rcd 22325, 22331 ¶¶ 16 (2004)).

⁷ Notice, ¶ 64

changes, it should seek to ensure that its 4.9 GHz band policies bring additional certainty for current and future 4.9 GHz systems operators and facilitate a variety of uses for the band for a wide range of users.

Respectfully submitted,

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