

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

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| In the Matter of  | ) |                      |
|   | ) |                      |
| Implementing a Nationwide, Broadband,<br>Interoperable Public Safety Network in the<br>700 MHz Band | ) | PS Docket No. 06-229 |
|   | ) |                      |
| Amendment of Part 90 of the Commission’s Rules  | ) | WP Docket No. 07-100 |

**COMMENTS OF T-MOBILE USA, INC.**

T-Mobile USA, Inc. (“T-Mobile”), by its attorneys and pursuant to the invitation of the Federal Communications Commission (“FCC” or “Commission”) hereby submits its comments regarding the use of the 4940-4990 MHz band (the “4.9 GHz band”) by public safety entities.<sup>1/</sup> The 4.9 GHz band represents a valuable tool for first responders to satisfy short-range, off-network broadband communications requirements and should be used in connection with 700 MHz broadband public safety spectrum to meet public safety entities’ needs for broadband capacity.

**Introduction and Summary**

The Public Notice announcing the workshop notes that the Commission will focus on how public safety can increase utilization of the 4.9 GHz band.<sup>2/</sup> T-Mobile endorses the Commission’s timely evaluation of the use of the 4.9 GHz band. As Congress contemplates how

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<sup>1/</sup> *Federal Communications Commission Announces Agenda for Workshop on the 4.9 GHz Band: Spectrum Dedicated to Public Safety for Broadband Use*, Public Notice, PS Docket No. 06-229 (rel. Feb. 17, 2011) (“*February 17 Public Notice*”); *Federal Communications Commission Announces Workshop on the 4.9 GHz Band: Spectrum Dedicated to Public Safety for Broadband Use*, Public Notice, PS Docket No. 06-229 (rel. Feb. 4, 2011) (“*February 4 Public Notice*”).

<sup>2/</sup> *February 4 Public Notice* at 1.

public safety broadband requirements may be satisfied,<sup>3/</sup> it is important for the Commission to ensure that public safety makes the maximum and most appropriate use of the spectrum already dedicated for broadband capacity. Using the 4.9 GHz band effectively will validate the FCC’s conclusion that public safety has been allocated sufficient spectrum to satisfy critical first responder requirements and avoid the false conclusion that additional spectrum beyond what has already been allocated to public safety is required to meet public safety’s broadband requirements.<sup>4/</sup>

## Comments

As a recent FCC report demonstrates, “public safety users can ensure adequate capacity through good stewardship of the broadband spectrum that is allocated to them.”<sup>5/</sup> While public safety has been allocated 10 megahertz of spectrum at 700 MHz for broadband use, not all public safety broadband requirements need be met using that 10 megahertz of spectrum.<sup>6/</sup> To the contrary, as the *Capacity Study* pointed out:

The 700 MHz public safety broadband spectrum has excellent propagation characteristics for mobile wireless broadband services and the public safety community should manage it as efficiently as possible. This includes ensuring that the public safety broadband spectrum is used for its best use: mobile use. Public safety should look to utilize fixed wireline and fixed wireless systems for some applications that are better supported by these technologies.<sup>7/</sup>

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<sup>3/</sup> See, e.g., Wireless Innovation and Spectrum Enhancement Act, S. \_\_\_, 112th Cong. (2011); Broadband for First Responders Act of 2011, H.R. 607, 112th Cong. (2011); Public Safety Spectrum and Wireless Innovation Act, S. 28, 112th Cong. (2011).

<sup>4/</sup> *The Public Safety Nationwide Interoperable Broadband Network: A New Model for Capacity, Performance and Cost*, FCC White Paper (June 2010), available at <http://fcc.gov/pshs/docs/releases/DOC-298799A1.pdf> (“*Capacity Study*”).

<sup>5/</sup> *Capacity Study* at 12.

<sup>6/</sup> Congress designated 24 megahertz of spectrum at 700 MHz for public safety operations. 47 U.S.C. § 337(a)(1). However, only 10 megahertz of that spectrum is designated for broadband use – the other 14 megahertz has been designated for narrowband (12 megahertz) and guard band (2 megahertz) use. Some or all of this additional 14 megahertz should be subject to more flexible use rules so that it may also be used to satisfy mobile broadband requirements.

<sup>7/</sup> *Capacity Study* at 12.

The *Capacity Study* identified the 4.9 GHz band as one such class of fixed wireless system. In particular, the Commission noted that: “public safety has exclusive use of 50 megahertz of the 4.9 GHz band on a flexible basis which is well-suited for fixed uses, such as video surveillance.”<sup>8/</sup>

The *Capacity Study*’s conclusions are consistent with the approach the Commission takes in the *February 4 Public Notice*. There, the FCC recognizes that “[m]any public safety agencies have identified specific mission-critical applications, day-to-day fixed use and unique solutions using the 50 megahertz of spectrum dedicated to public safety in 4.9 GHz band.”<sup>9/</sup> Yet, the *February 4 Public Notice* correctly proposes that the upcoming workshop also address possible improvements of the 4.9 GHz band related to policy, rules and regulations.<sup>10/</sup>

T-Mobile agrees with the Commission’s focus on improving the utility of the 4.9 GHz band. It is critical that the 4.9 GHz band be used responsibly in a manner that complements the 700 MHz broadband spectrum, which is optimized for mobile services.<sup>11/</sup> By using the 4.9 GHz band most productively, the Commission’s assessment of the public safety’s requirements will remain accurate. By failing to employ the 4.9 GHz band responsibly, *e.g.*, for on-scene, location-specific broadband applications that supplement other broadband capacity, such as the existing public safety 700 MHz allocation, public safety will exacerbate spectrum shortages and create an artificial need for additional broadband spectrum.

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<sup>8/</sup> *Id.*

<sup>9/</sup> *February 4 Public Notice* at 1.

<sup>10/</sup> *Id.*

<sup>11/</sup> *Capacity Study* at n. 6 (noting that there is over 23 megahertz of spectrum available to public safety in addition to the spectrum at 4.9 GHz – 50 megahertz—and at 700 MHz – 24 megahertz).

T-Mobile is not alone in recognizing the complementary nature of the 700 MHz and 4.9 GHz bands. The Association of Public-Safety Communications Officials – International, Inc. (“APCO”) pointed out when the FCC was considering the allocation of the 4.9 GHz band for public safety communications that the 700 MHz band is *not* ideal for high-speed broadband transmissions over short distances; it is better suited to address the “very high demand among public safety agencies for *wide-area* mobile communications.”<sup>12/</sup> This, among other factors, prompted Motorola to recognize that the 4.9 GHz band best serves the public safety community’s need for on-scene communications.<sup>13/</sup> Accordingly, the presumption that the 4.9 GHz band is ideally used for local, on-scene coverage reflects the manner in which the FCC and public safety anticipated that the band would be deployed.<sup>14/</sup>

While the 4.9 GHz band is used today in some parts of the country,<sup>15/</sup> the workshop is an excellent opportunity to explore management practices to increase use of the band throughout the nation. As Motorola pointed out, the 4.9 GHz band can be re-used multiple times in a city.<sup>16/</sup> In fact, Motorola’s analysis shows that different functions can be performed at a single scene using

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<sup>12/</sup> Comments of the Association of Public-Safety Communications Officials – International, Inc., ET Docket No. 98-237 at 2 (filed Dec. 18, 2000) (emphasis added).

<sup>13/</sup> Motorola, *4.9 GHz Allocation to Public Safety: Motorola White Paper for Submission to FCC*, filed as an attachment to Letter from John Lyons, Motorola, to Maggie Roman Salas, Secretary, FCC, WT Docket No. 00-32 (filed July 31, 2001) (“*Motorola White Paper*”).

<sup>14/</sup> Because the 4.9 GHz band is used for on-scene, local communications, there is no need to standardize the technology employed in the band. First, the 4.9 GHz band can support a variety of different technologies and specifying a required technology will unnecessarily limit the use of the band. Second, each technology used can be an independent addition to the local public safety ecosystem without interfering with the use of the band in a different ecosystem.

<sup>15/</sup> Andrew Seybold, *Response to Roberson and Associates, LLC White Paper, Technical Analysis of the Proposed 700 MHz D-Block, Dated August 23, 2010, Contracted for by T-Mobile USA, Inc.*, filed as an attachment to Letter from Andrew Seybold, CEO and Principal Analyst, Andrew Seybold, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 06-150 (filed Sept. 10, 2010); *see also* Sam Churchill, 4.9 GHz Band Growing, [dailywireless.org](http://www.dailywireless.org), July 31, 2008, *available at* <http://www.dailywireless.org/2008/07/31/49-ghz-band-growing/>.

<sup>16/</sup> *Motorola White Paper* at 17.

the 50 megahertz allocation of 4.9 GHz spectrum.<sup>17/</sup> One means by which the spectrum can be even more efficiently deployed is to require coordination among entities using the 4.9 GHz band. The Commission has already permitted the creation of regional plans for the use of the 4.9 GHz band.<sup>18/</sup> The Commission should use the opportunity of the workshop to further explore potential coordination procedures governing the 4.9 GHz band and other spectrum management techniques to ensure that this valuable public safety spectrum asset is being deployed most effectively.

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<sup>17/</sup> *Id.*

<sup>18/</sup> *The 4.9 GHz Band Transferred from Federal Government Use*, Memorandum Opinion and Order and Third Report and Order, 18 FCC Rcd 9152 ¶ 40 (2003) (directing each 700 MHz regional planning committee to consider coordination procedures for the 4.9 GHz band).

## Conclusion

The Commission's upcoming 4.9 GHz workshop presents a valuable opportunity to ensure that public safety makes the most productive use of the spectrum already dedicated for broadband, and to validate the Commission's conclusion that public safety has been allocated sufficient spectrum for critical first responder broadband requirements.

Respectfully submitted,

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