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*Submitted Electronically via ECFS*

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street S.W.  
Washington, D.C. 20554

Re: **Written Ex Parte Communications**  
**RM-11592**  
**WT Docket 06-150**

Dear Ms. Dortch:

The FCC recently announced that it expects to consider a Notice of Proposed Rulemaking (“NPRM”) at its March 21, 2012 meeting concerning interoperability in the commercial 700 MHz spectrum.<sup>1/</sup> Based on the description of the NPRM contained in the News Release, T-Mobile USA, Inc. (“T-Mobile”) believes that the scope of the NPRM may be too narrow. The Commission should examine more broadly the requirement of interoperability throughout the 700 MHz band instead of focusing on the potential for harmful interference to Lower 700 MHz B and C Block licensees. Requiring interoperability throughout the band will promote roaming among commercial wireless providers and enhance public safety use of the 700 MHz broadband spectrum.

The anticipated NPRM is responsive, in part, to the commitment that the FCC made in the Order approving AT&T Inc.’s acquisition of 700 MHz spectrum from Qualcomm Incorporated.<sup>2/</sup> In that proceeding, several parties asked the FCC to impose conditions relating to 700 MHz device interoperability, including requests by several carriers to impose interoperability across the entire 700 MHz band.<sup>3/</sup> The Commission declined to impose the requested conditions but agreed that

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<sup>1/</sup> *FCC Announces Tentative Agenda for March Open Meeting*, News Release (rel. Feb. 29, 2012) (“News Release”), available at <http://www.fcc.gov/document/fcc-announces-tentative-agenda-march-open-meeting>.

<sup>2/</sup> *Application of AT&T Inc. and Qualcomm Incorporated for Consent to Assign Licenses and Authorizations*, Order, 26 FCC Rcd 17589 (2011) (“AT&T/Qualcomm Order”).

<sup>3/</sup> *Id.* ¶ 69.

the “lack of interoperability in the 700 MHz band raises important public interest concerns.”<sup>4/</sup> It noted that:

Promoting interoperability in the 700 MHz band may bring substantial public interest benefits, such as encouraging the affordability and availability of 4G equipment, enhancing competition by facilitating consumer choice, and facilitating the widespread deployment of broadband services and competition, including access to broadband in rural and underserved areas. Interoperability may also create greater roaming opportunities between 700 MHz licensees.<sup>5/</sup>

The News Release suggests that the NPRM may not cover these important issues, but may address only the potential for harmful interference to Lower 700 MHz B and C Block licensees. However, as the Commission realized in the *AT&T/Qualcomm Order*, the issue is broader than that.<sup>6/</sup> Accordingly, the NPRM should examine whether devices across the 700 MHz band should be interoperable.

### **Interoperability at 700 MHz Will Affect Commercial Roaming Across All Bands**

While the *AT&T/Qualcomm Order* recognized that 700 MHz interoperability will affect roaming between 700 MHz licensees, it will also affect roaming between wireless providers using 700 MHz spectrum and those using spectrum in other bands. In the past, roaming has been limited to carriers using the same air interface. Customers of carriers like T-Mobile that use GSM technology can only roam onto other systems that use GSM technology. However, in the future, commercial licensees that now use different air interfaces and that operate in different spectrum bands will all likely migrate to Long Term Evolution (“LTE”) technology.<sup>7/</sup> As the Commission has recognized, LTE is likely to be the technology that is used throughout the 700 MHz band.<sup>8/</sup>

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<sup>4/</sup> *Id.* ¶ 70.

<sup>5/</sup> *Id.*

<sup>6/</sup> Indeed, the FCC already considered many of the interference issues related to AT&T’s acquisition of the Qualcomm spectrum in the *AT&T/Qualcomm Order*. *Id.* ¶¶ 59-68.

<sup>7/</sup> T-Mobile has announced that it plans to refarm existing AWS spectrum and utilize AT&T “break up” spectrum to deploy LTE in 2013. *See, http://newsroom.t-mobile.com/articles/ReinvigoratedChallengerStrategy* (last visited Mar. 13, 2012).

<sup>8/</sup> *See, e.g., Service Rules for the 698-746, 747-762 and 777-792 MHz Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Amendment of Part 90 of the Commission’s Rules*, Third Report and Order and Fourth Notice of Proposed Rulemaking, 26 FCC Rcd 733, ¶ 10 (2011) (determining that “[g]iven the overwhelming record support for LTE among public safety organizations and other stakeholders, and the importance of ensuring that all public safety broadband networks adopt a common air interface in order to establish an important building block for interoperability, we will require that all networks deployed in the 700 MHz public safety broadband spectrum adopt LTE” and that such “requirement simply acknowledges the fact that, at this stage, LTE has become the technology of choice for the 700 MHz band”) (internal quotations omitted); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fifteenth Report, 26 FCC Rcd 9664, ¶ 275 (2011) (discussing AT&T and Verizon

Therefore, carriers in other bands that currently use other technologies will be able to enter into roaming agreements with 700 MHz licensees in the future. As the Commission has recognized, roaming allows carriers to be more competitive and provides important benefits to consumers.<sup>9/</sup> Moreover, because of the concentration in the wireless marketplace, roaming is an increasingly important tool for carriers to be able to compete.<sup>10/</sup> Therefore, current carriers' ability to provide roaming on 700 MHz systems will promote competition in the wireless marketplace, to the ultimate benefit of wireless consumers.

However, those goals will be frustrated if there are multiple band classes at 700 MHz, and all 700 MHz handsets are not interoperable. While devices using LTE technology can accommodate multiple bands, there is a practical limit to the number that can be accommodated and incorporating the multiple band classes that may be used throughout the 700 MHz band may be problematic, particularly for carriers that operate outside the 700 MHz band. Those carriers may be required to choose among 700 MHz licensees for roaming partners, rather than potentially roaming with all 700 MHz licensees. If there is a single 700 MHz band class, then consumers will have more choices of systems on which to roam, supporting the Commission's goals of promoting roaming among carriers, which will ultimately benefit wireless consumers.

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deployment of LTE in the 700 MHz band); *Federal Communications Commission Announces Agenda for Workshop on the Interoperability of Customer Mobile Equipment Across Commercial Spectrum Blocks in the 700 MHz Band*, Public Notice, 26 FCC Rcd 6075 (2011) (noting that the workshop regarding equipment in the 700 MHz Band will include a discussion of "providers' technology choices for the 700 MHz band, including the planned deployment of Long Term Evolution (LTE) technology").

<sup>9/</sup> See, e.g., *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, Second Report and Order, 26 FCC Rcd 5411, ¶ 20 (2011) ("*Data Roaming Order*") (finding that "availability of roaming arrangements helps provide consumers with greater competitive choices in mobile broadband by encouraging investment and network deployments and ensuring that providers wanting to invest in their networks or to enter into a new market can offer subscribers a competitive level of mobile network coverage and service"); *id.* ¶ 31 (discussing that roaming enables carriers to be more competitive, resulting in lower prices and better services for consumers and estimating that the competitive benefits of imposing a data roaming rule "would be in the billion of dollars per year").

<sup>10/</sup> See, e.g., *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, 26 FCC Rcd 9664, ¶¶ 77-78, 81-82, 126 (2011) (discussing industry consolidation within the wireless industry and finding that "roaming can be particularly important for small and regional providers with limited network population coverage to remain competitive"); *Data Roaming Order* ¶ 27 ("Consolidation in the mobile wireless industry has reduced the number of potential roaming partners for some of the smaller, regional and rural providers. In addition, this consolidation may have simultaneously reduced the incentives of the largest two providers to enter into such arrangements by reducing their need for reciprocal roaming. . . . We agree . . . that, given the coverage of [AT&T and Verizon Wireless], there is a serious risk they might halt the negotiations of roaming on their advanced mobile data networks altogether in the future in the absence of Commission oversight, harming competition and consumers. Given these developments in the mobile services marketplace, and in light of past difficulties that providers have experienced obtaining data roaming arrangements, we find that adopting a balanced, flexible requirement will help to promote the availability of data roaming in the future.").

## Roaming Across the Entire 700 MHz Band will Promote Public Safety

In the recently enacted Middle Class Tax Relief and Job Creation Act, Congress allocated additional 700 MHz spectrum for a nationwide, interoperable public safety network, to be used in connection with the 700 MHz broadband spectrum already allocated to public safety.<sup>11/</sup> A critical component of the Act is the requirement that the public safety network make use of commercial networks.<sup>12/</sup> Similarly, the Act envisions that 700 MHz public safety broadband equipment will be compatible with commercial 700 MHz systems to, for example, take advantage of economies of scope and scale and the latest developments in commercial handset technologies.<sup>13/</sup> The Act also requires that FirstNet, the operator of the public safety 700 MHz broadband network, enter into roaming agreements with commercial carriers and will support itself through usage and lease fees.<sup>14/</sup>

Without interoperability across the entire 700 MHz band, FirstNet will be unable to fulfill its obligations under the Act. Like commercial carriers in other bands, it will be problematic for FirstNet to include a large number of multiple band classes in its equipment, limiting interoperability with all 700 MHz licensees. Unless there is interoperability across the entire 700 MHz band, public safety entities will be limited in the carriers with whom they can potentially share infrastructure, roam, and enter into usage and lease agreements. Not only will this limit FirstNet's ability to comply with the Act, it will restrict the number of commercial systems onto which first responders can roam – negatively affecting their ability to respond to emergency situations. Similarly, if there are multiple band classes at 700 MHz, the equipment marketplace for that band will be fractured and public safety entities will be denied the benefit of the economies of scope and scale that it could realize for public safety 700 MHz equipment.

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<sup>11/</sup> Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156, § 6101 (2012). The law was enacted on February 22, 2012 (H.R. 3630, 112th Cong.) (the “Act”).

<sup>12/</sup> See, e.g., § 6206(c)(3) (requiring FirstNet to enter into agreements to utilize, “to the maximum extent economically desirable, existing commercial or other communications infrastructure”). See also *id.* § 6206(b)(1)(C) (requiring FirstNet to take all actions necessary to encourage requests for proposals to leverage existing commercial wireless infrastructure to speed deployment of the network).

<sup>13/</sup> *Id.* § 6206(b)(2) (requiring that FirstNet promote competition in the equipment marketplace, including devices for public safety communications, by requiring that equipment for use on the network be built on open, non-proprietary, commercially available standards, and be capable of being “used by any public safety entity and by multiple vendors across all public safety broadband networks operating in the 700 MHz band.”). The Act similarly requires that equipment for use on the network be backward-compatible with existing commercial networks to the extent that such capabilities are necessary and technically and economically feasible.

<sup>14/</sup> *Id.* at § 6206(c)(5) (requiring FirstNet to negotiate and enter into, as it deems appropriate, “roaming agreements with commercial network providers to allow the nationwide public safety broadband network to roam onto commercial networks and gain prioritization of public safety communications over such networks in times of an emergency.”); § 6208(a)(1)-(2) (authorizing FirstNet to assess and collect network user fees from any entities seeking access or use of the public safety network, and to enter into covered leasing agreements with secondary users to permit access to network capacity on a secondary basis for non-public safety services). See also *id.* § 6211 (authorizing the FCC to adopt rules to improve the ability of public safety networks to gain priority access to commercial networks in an emergency if certain conditions are met).

Therefore, in order to enhance the utility of the 700 MHz public safety network, the Commission should consider interoperability across the entire 700 MHz and not limit the NPRM to interference issues related to the Lower 700 MHz B and C Block.

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T-Mobile looks forward to working with the FCC on this important matter. If there are any questions, please contact me.

Very truly yours,

/s/Kathleen O'Brien Ham

Kathleen O'Brien Ham  
Vice President, Federal Regulatory Affairs