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WRITTEN EX PARTE

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

RE: 700 MHz Interoperable Broadband Public Safety Network
WT Docket No. 06-150, PS Docket No. 06-229,
GN Docket Nos. 09-47, 09-51, 09-137

Dear Ms. Dortch:

AT&T submits the following response to the December 22, 2009 *ex-parte* letter by T-Mobile USA, Inc. (“T-Mobile”) regarding the 700 MHz Interoperable Broadband Public Safety Network.¹

AT&T Supports Public Safety Organizations

AT&T supports the consensus of the public safety organizations² and the principles they agreed upon in May 2009 and applauds their efforts of January 12, 2010, when they met with key members of Congress and the Commission to explain why it is critical to take swift action to provide public safety organizations with the spectrum and funding that they need to protect the citizens of this country. These public safety organizations, representing a majority of the nationwide public safety community, have agreed to:

- 1) Petition Congress to reallocate the D-Block, creating a single 20 MHz block of broadband spectrum for use by public safety;
- 2) Support the approval of public safety entities’ waiver requests for use and early build-out of the

¹ T-Mobile USA, Inc. *Ex Parte* Letter, WT Docket No. 06-150, PS Docket No. 06-229, GN Docket Nos. 09-47, 09-51, and 09-137 (filed Dec. 22, 2009) (“T-Mobile *ex parte* letter”).

² The organizations included the Association of Public-Safety Communications Officials – International (“APCO”), the International Association of Chiefs of Police (IACP), International Association of Fire Chiefs (IAFC), Major Cities Chiefs Association (MCC), Major County Sheriffs' Association (MCS), Metropolitan Fire Chiefs Association (MFCA), National Emergency Numbering Association (NENA), National Emergency Management Association (NEMA), and the National Sheriffs' Association (NSA)

700 MHz public safety broadband spectrum in areas defined by the requesting entities;

- 3) Seek a sustainable funding solution for the operations of the Public Safety Broadband Licensee; and
- 4) Develop and utilize consistent approaches regarding levels of service, roaming access, licensing and technical requirements.

AT&T believes that public safety is promoting the correct core principles that will meet the goals of Congress and the Commission to build a national interoperable broadband network.

Wireless Broadband Spectrum Requirements Analysis by T-Mobile

The T-Mobile *ex parte* letter advocates the reauction of the 700 MHz D-block spectrum solely for commercial purposes. T-Mobile supports its position with a wireless broadband spectrum analysis by the Sun Fire Group LLC. A close review of the Sun Fire Group's analysis reveals flaws in key areas and a lack of adequate support for its ultimate conclusions. Reliance on T-Mobile's letter and Sun Fire Group's conclusions is fraught with risks of another failed D-block auction and further delays in the deployment of a national interoperable broadband network.

T-Mobile's wireless broadband spectrum analysis paper concludes that:

- 10 MHz of spectrum will be adequate for the future requirements of public safety;
- There currently exists almost 100 MHz of public safety spectrum that can be utilized for building an interoperable broadband network; and
- A reauction of the D-block spectrum for commercial purposes will fund the build out of a national interoperable broadband network.

AT&T respectfully disagrees with all of these conclusions. AT&T believes that 10 MHz of spectrum will be inadequate for public safety's future capacity needs. The full 20 MHz (10+10) allocation of 700 MHz spectrum will be needed to meet public safety demands over the next decade and beyond. The 700 MHz block can be described as beachfront property in terms of the availability of spectrum and channel bandwidth. The advantages of allocating the full 20 MHz of 700 MHz spectrum to public safety are:

- Approximately the same cost for 10+10 MHz LTE compared to 5+5 MHz LTE;
- Allows higher peak data rates and higher overall network throughput;
- The best "bang for the buck" for public safety, as it provides true broadband and multimedia capability with the capacity for future growth; and
- Incremental technology advances, while improving overall spectral efficiency, will be insufficient to meet the demands for mobile, broadband, and multimedia services.

T-Mobile indicates that 50 MHz of spectrum in the 4.9 GHz range can also be used for this purpose.³ In fact, 4.9 GHz spectrum is not suitable for mobile use and cannot replicate the advantages

³ See T-Mobile *ex parte* letter at 1.

to public safety offered by the 700 MHz spectrum band, that is, superior propagation, better line of sight capabilities, greater call density capability, and it is uniquely suited to the needs of a national interoperable broadband network. The remaining 50 MHz of narrowband spectrum proposed by T-Mobile is also not practical for public safety use. 10 MHz of the spectrum is below 200 MHz, which is too low for broadband use. 18 MHz of the spectrum is already allocated to narrowband Land Mobile Radio (LMR) systems. This LMR spectrum would be very difficult to reallocate for broadband use and does not contain the large segments of contiguous spectrum that is generally required for broadband technologies like LTE.

T-Mobile also suggests that reallocating the existing 12 MHz of narrowband public safety spectrum for broadband use is a potential solution for future capacity needs.⁴ However, this narrowband reallocation is not viable and should not be considered for the following reasons:

- Millions of dollars have already been spent in implementing traditional land mobile public safety voice systems in the narrowband spectrum and many more are already planned. To stop that progress would be disastrous to public safety and the communities they serve.
- In the near term, wireless broadband cannot replace the current LMR mission critical public safety voice systems currently in use in the narrowband space.
- Current and planned broadband standards and technologies depend on a network approach, while

public safety must also have a non-network capability to communicate in emergencies when a

network cannot be reached or is out of service.

- Before LMR systems could be supplanted, broadband services would first need to be deployed to the level that provides the same extensive coverage that mission critical voice systems provide, including in-building coverage.

The Sun Fire Group analysis recognizes that the D-block auction was unsuccessful because it “failed the market test.”⁵ Yet, it then concludes that the spectrum should be reaucted, without an adequate explanation as to why a second commercially funded auction would not also “fail the market test.” As justification, the analysis mentions the opportunity cost of reserving the D-block for public safety, but that presupposes a successful reauction of the D-block and does not explain why such a reauction for commercial purposes would be viable. AT&T’s view is that another auction of the D-block spectrum would likely fail to bring adequate revenue to build out a public safety network, or it would fail altogether resulting in years of delay to build out a network for public safety.

Congress and the Commission have a responsibility to provide for the future of public safety by ensuring that the public safety community has enough spectrum to meet their demands for the next 20 years. In the last three to five years, the demand for data has driven the need for large blocks of spectrum in the commercial sector. It is expected that the spectrum needs of public safety will mirror

⁴ *Id.* at 17.

⁵ *Id.* at 15.

the needs of the commercial sector. AT&T has experienced a growth in data demand of approximately 5000% in the last three years.⁶ As AT&T testified during the recent House Subcommittee hearing, data usage in the government sector, which includes public safety, has grown from 11 MB per month, per user in 2005 to nearly 200 MB per month, per user.⁷ These same demands will threaten public safety if their networks are not engineered with enough capacity for future broadband demand.

Conclusion

This goal of a nationwide interoperable public safety broadband network cannot become a reality without the combined efforts of Congress, the Commission, public safety, wireless carriers, and device manufacturers. The following steps must be taken:

- The Commission should support public safety's request that Congress reallocate the 700 MHz D-block spectrum to public safety. The 700 MHz D-block spectrum is public safety's last opportunity for building a cost effective, interoperable broadband network for the 21st Century.
- Congress should allow public safety to use new or existing grant programs to fund the purchase of dedicated RAN equipment and managed broadband services. This is especially important for rural public safety agencies.
- The Commission should grant waiver requests by public safety entities to deploy networks on the 700 MHz public safety broadband spectrum and establish minimum standards for those broadband networks to ensure interoperability, including an endorsement of LTE as the standard technology, as recommended by the public safety community
- The Commission, following Congressional reallocation, should grant 20 MHz broadband licenses to local or regional public safety applicants wishing to begin build out of their networks.
- Wireless carriers can aid and support the expansion of public safety equipment by encouraging the development of devices utilizing Band 14 chipsets that are supported by the LTE standard.
- Wireless carriers and public safety can collaborate to best leverage the benefits of commercial core networks.

Pursuant to Section 1.1206 of the Commission's rules, an electronic copy of this letter is being filed for inclusion in the above-referenced docket.

⁶ See AT&T Inc. *Ex Parte* Letter, WT Docket No. 06-150, PS Docket No. 06-229, at 1 and Presentation at 9-10 (filed Dec. 18, 2009).

⁷ *Id.*

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January 21, 2010
Page 5

Respectfully Submitted,

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