

**Before the  
Federal Communications Commission  
Washington, DC 20054**

In the Matter of	)	
	)	
Technical and Operational Feasibility of	)	PS Docket No. 06-229
Enabling Flexible Use of the 700 MHz Public	)	
Safety Narrowband Allocation and Guard	)	
Band for Broadband Services	)	

**REPLY COMMENTS OF AT&T, INC.**

AT&T Inc. (“AT&T”) files these Reply Comments in response to the Public Notice (“*Notice*”) released by the Federal Communications Commission (the “Commission”) pertaining to the feasibility of allowing for flexible use of the 700 MHz public safety narrowband spectrum.<sup>1</sup>

**I. INTRODUCTION**

To date, over 50 entities have filed comments in this docket in response to the Public Notice soliciting input on the feasibility of allowing the flexible use of the public safety narrowband spectrum allocation for broadband operations. The comments from these 50+ entities, representing the views of a diverse group consisting of telecommunications providers and organizations, equipment manufacturers, public safety organizations, and state and local governments, present an overwhelming consensus that the Commission should not consider

---

<sup>1</sup> Technical and Operational Feasibility of Enabling Flexible Use of the 700 MHz Public Safety Narrowband Allocation and Guard Band for Broadband Services, PS Docket No. 06-229, *Public Notice* (rel. Sept. 28, 2010) (“*Notice*”).

repurposing the public safety narrowband spectrum allocation to allow for broadband use within the band.

Only two entities, Sprint and T-Mobile, filed comments providing unqualified support of flexible use of the 700 MHz narrowband channels.<sup>2</sup> They advocate for the flexible use of the public safety narrowband allocation on the basis that it is more efficient utilization of spectrum and that it would support the transition of traffic to broadband operations. Sprint and T-Mobile are incorrect that allowing for the flexible use of the public safety narrowband spectrum is more efficient. In fact, it would be less efficient because of the significant risk of interference to both narrowband and broadband services and the need to protect against that potential, such as by creating internal guard bands. Further, while broadband data traffic is increasing, it would be a mistake to cannibalize the narrowband spectrum to support that traffic to the detriment of narrowband communications, which are mission-critical now and will continue to be mission-critical for many years to come. Sprint and T-Mobile simply assign too little significance to public safety's need for narrowband service, a need that is emphasized by nearly all public safety and state and local government commenters in this docket.

Though they support flexible use of the narrowband spectrum, Sprint and T-Mobile fail to resolve the main objections in the comments to the possible flexible use of narrowband spectrum—interference, costs, interoperability, and continued narrowband use. These problems are significant and not reasonably resolved in the short term. In contrast, public safety's need for more broadband spectrum can more easily be resolved through reallocation of the D-block to public safety. That path, rather than flexible use of the narrowband spectrum, better serves the public interest.

---

<sup>2</sup> Comments of Sprint Nextel Corporation, PS Docket No. 06-229 (filed Dec. 3, 2010); Comments of T-Mobile USA, Inc., PS Docket No. 06-229 (filed Dec. 3, 2010) (“T-Mobile Comments”).

## II. DISCUSSION

### A. Allowing Broadband Use in the Narrowband Spectrum is Contrary to the Public Interest.

The record in this docket is clear that allowing the flexible use of the public safety narrowband spectrum allocation would present significant problems for public safety. The County of Riverside explains that repurposing the narrowband channels to allow broadband use “creates a monumental engineering and structure interference protection problem” and that by taking such action, the Commission would “undermine everything accomplished to date and expect local governments to have the economic resources to recoup ongoing telecommunications investments and start over again.”<sup>3</sup> The California Statewide Interoperability Executive Committee, an advisory group that is responsible for managing designated interoperability spectrum in California for public safety, opines that “[s]hifting the spectrum between narrowband voice and broadband data services will compromise the safety of first responders and negatively affect investments currently planned for 700 MHz systems.”<sup>4</sup> And, the major state and local government organizations indicate that any proposal to “share 700 MHz spectrum between narrowband and broadband services is flawed because the two cannot compatibly coexist using existing technologies.”<sup>5</sup>

---

<sup>3</sup> Comments of County of Riverside, CA, PS Docket No. 06-229, p.3 (filed Nov. 30, 2010) (“Riverside County Comments”).

<sup>4</sup> Comments of the California Statewide Interoperability Executive Committee, PS Docket No. 06-229, p.1 (filed Dec. 9, 2010) (“CSIEC Comments”).

<sup>5</sup> Comments of National Governors Association, National Conference of State Legislatures, The Council of State Governments, National Association of Counties, National League of Cities, The U.S. Conference of Mayors, International City/County Management Association, PS Docket No. 06-229, p.1 (filed Nov. 23, 2010).

Among the reasons provided by commenters for opposing the flexible use of the public safety narrowband spectrum for broadband use is the potential interference. The Consolidated Communications Network of Colorado, which is responsible for governance and operations oversight of the Colorado statewide digital trunked radio system, argues that “[p]ermitting flexible use of the narrowband spectrum has a strong potential for interference in border areas where both narrowband and broadband services might be deployed.”<sup>6</sup> Motorola agrees: “History shows that mixing system technologies in the same spectrum is a recipe for interference.”<sup>7</sup> Motorola elaborates that interference is likely “at border areas where one agency uses the 700 MHz spectrum for narrowband and the agency in the adjacent jurisdiction uses broadband on the same frequency channels” and “when a roaming narrowband radio enters a mutual aid situation in an area where the narrowband channels have been redirected for broadband use.”<sup>8</sup>

Commenters also generally agree that repurposing the narrowband allocation in a manner that cannibalizes the band would impose significant burdens and costs on public safety entities and state and local governments. The Region 6 700 MHz Regional Planning Committee opposes further reorganization of the 700 MHz band in part because “[w]ith thirty-five 700 MHz Regional Plans approved, four completed 700 MHz Plans pending at the FCC and several Region-approved plans in the adjacent regions concurrence phase, the contemplated Commission action would require those plans to be re-written - some for a second/third time.”<sup>9</sup> The

---

<sup>6</sup> Comments of the Consolidated Communications Network of Colorado, Inc., PS Docket No. 06-229, p.3 (filed Dec. 1, 2010).

<sup>7</sup> Comments of Motorola, Inc., PS Docket No. 6-229, p.14 (filed Dec. 3, 2010).

<sup>8</sup> *Id.* at 15.

<sup>9</sup> Comments of the Region 6 700 MHz Regional Planning Committee, PS Docket No. 06-229, p.4 (filed Dec. 3, 2010).

Commonwealth of Virginia expresses concerns about the cost of transitioning to other bands for voice communications.<sup>10</sup> And, Riverside County, California indicates that “changing the Region V-700 MHz narrowband plan at this juncture would be detrimental and unacceptable.”<sup>11</sup>

Sprint Nextel and T-Mobile do not adequately address these complications. In fact, these problems are substantial and likely impossible to resolve in the short term, which explains why the Commission allocated distinct spectrum bands for narrowband and broadband services and separated them with a guard band. It is also the reason why all commenters, but Sprint and T-Mobile, oppose flexible use of the public safety narrowband spectrum.

**B. Flexible Use of the Public Safety Narrowband Allocation is Inefficient.**

Sprint argues that public safety narrowband spectrum should be shared for broadband services because flexible use leads to greater spectrum efficiency. While the general principle that flexible use can promote spectrum efficiency and other benefits is accurate, flexible use is not universally beneficial. Flexible use should not be adopted when it will cause interference. In fact, the Commission’s authority to impose flexible use is statutorily limited to situations where no harmful interference occurs.<sup>12</sup> The record in this docket demonstrates that interference is likely to occur between narrowband and broadband operations within the same spectrum band, and therefore, this issue alone should dispose of any flexible use proposal.

---

<sup>10</sup> Comments of the Commonwealth of Virginia, PS Docket No. 06-229, p.6 (filed Dec. 3, 2010).

<sup>11</sup> Riverside County Comments at 2.

<sup>12</sup> 47 U.S.C.A. §303(y)(2)(c) (“Commission has authority to allocate electromagnetic spectrum so as to provide flexibility of use, if . . . such use would not result in harmful interference among users.”)

AT&T and other commenters also disagree with Sprint's proposition that flexible use in the public safety narrowband allocation would result in greater spectrum efficiency.<sup>13</sup> Rather, the use of narrowband and broadband operations within a shared spectrum band would result in less spectrum efficiency because out-of-band emissions and "near-far" interference concerns would compromise voice and data communications or necessitate internal guard bands and other measures to avoid the interference. Harris Corporation succinctly explains:

Harris believes it is in the public interest for the Commission to mandate the highest spectrum efficiency in order to optimize the use of scarce spectrum, however mandates providing increased spectrum efficiency or flexibility should not be imposed in a vacuum. The interference that would be caused by allowing broadband operations in the 700 MHz narrowband public safety spectrum or 700 MHz guard band spectrum will degrade the operations of both broadband and narrowband networks, set back public safety interoperability efforts, and render moot any possible benefits of providing such spectrum flexibility.<sup>14</sup>

Adams County, Colorado argues that flexible use of the public safety narrowband spectrum is less efficient because it would encourage encroachment upon extremely efficient narrowband voice operations: "Adcom911 believes offering broadband services in the guard band or any of the narrowband spectrum would create less efficiencies. Narrowband operations in the spectrum are typically broadcast operations which are extremely efficient at delivering basic public safety information to the many responders that need it. Delivery of these dispatch services from one to many using broadband technology is not yet as efficient as narrowband voice."<sup>15</sup> In fact, if Sprint and T-Mobile are truly interested in spectrum efficiency, they would support the reallocation of the D-block to public safety.

---

<sup>13</sup> Sprint's reliance on the National Broadband Plan recommendation to reform spectrum policy to make more spectrum available on a flexible basis is misplaced, as this recommendation relates to the availability of commercial wireless spectrum only. See Federal Communications Commission, *Connecting America: The National Broadband Plan* at 75 (rel. Mar. 16, 2010).

<sup>14</sup> Comments of Harris Corp., PS Docket No. 6-229, pp. 11-12 (filed Dec. 3, 2010).

<sup>15</sup> Comments of Adams County Communications Center, PS Docket No. 6-229, p.4 (filed Oct. 28, 2010).

**C. Migration of Public Safety Voice Communications to Broadband is Years Away and is Insufficient Justification to Impose Flexible Use on Narrowband Spectrum.**

T-Mobile argues that flexible use of the narrowband allocation is appropriate, in part, because traffic is increasingly moving from voice-centric narrowband technologies to data-centric broadband systems.<sup>16</sup> While it is generally correct that traffic is migrating to broadband, this migration will take years and narrowband spectrum supports mission critical applications now, which cannot be abandoned and for which there is no current replacement. Sprint and T-Mobile suggest that narrowband spectrum is in danger of lying fallow and unused. To the contrary, public safety has a dire need for this spectrum. The Commonwealth of Kentucky is among the commenters that directly refutes the claim that there is less of a need for narrowband services: “Although the Commonwealth sees the convergence of RF Voice Systems and Broadband, the Commonwealth will still depend on RF based public safety communications for years to come. Although no funding has been identified to expand communications into the 700 MHz spectrum, access to this spectrum for voice is critical to our future public safety requirements.”<sup>17</sup>

Although T-Mobile acknowledges that narrowband voice will continue to be important for meeting mission critical communications for many years, it suggests that public safety could utilize frequency bands that have inferior propagation and penetration characteristics to 700MHz narrowband spectrum. It seems unlikely that public safety would accept a suggestion to degrade their service on a voluntary basis.

---

<sup>16</sup> T-Mobile Comments at 3-6.

<sup>17</sup> Comments of the Commonwealth of Kentucky, PS Docket No. 06-229, p.1 (filed Dec. 2, 2010).

T-Mobile gives lip service to the idea of promoting interoperability.<sup>18</sup> In reality, the consensus among the commenters in this docket is that flexible use of the narrowband allocation will discourage interoperability. The California Statewide Interoperability Executive Committee observes that “[v]arying the use of the spectrum nationwide could potentially work against current efforts to improve interoperable communications. If a catastrophic disaster were to take place in a region that primarily uses 700 MHz narrowband for data, responding agencies outside the region could experience communication challenges if they use narrowband primarily for voice. This could potentially affect response time and put lives at risk. It would be best to keep the current 700 MHz allocations and the guard band unchanged.”<sup>19</sup> APCO is more definitive about the harms to interoperability: “[E]xisting interoperability plans across the nation depend upon the 700 MHz band for common narrowband channels using standardized, interoperable radio equipment. Inserting broadband in narrowband spectrum would break down the interoperability benefits that have long been a fundamental aspect of the 700 MHz public safety band.”<sup>20</sup> King County, Washington agrees that interoperability will be inhibited by shared use of the narrowband spectrum.<sup>21</sup> AT&T also agrees with this assessment and encourages the Commission to not abandon the idea of interoperable public safety communications by imposing flexible use rules on the public safety narrowband spectrum.

### **III. SUMMARY**

---

<sup>18</sup> T-Mobile Comments at n.10.

<sup>19</sup> CSIEC Comments at 3.

<sup>20</sup> Comments of The Association of Public-Safety Communications Officials-International, Inc., p.2 (filed Dec. 3, 2010).

<sup>21</sup> Comments of King County Radio Communication Services, PS Docket No. 6-229, p.7 (filed Dec. 2, 2010).

AT&T opposes any effort to impinge on the public safety narrowband channels with broadband operations. Over 50 commenters in this docket agree, pointing out many issues that should cause the Commission pause in any attempt to advance this T-Mobile proposal, including the likelihood of interference to narrowband and broadband communications, forcing public safety to abandon 700 MHz narrowband plans, and frustrating the goal of interoperable voice and data networks for public safety. Notwithstanding the supporting comments of T-Mobile and Sprint, imposing flexible use rules on the public safety narrowband spectrum would be detrimental to the public interest for all the reasons provided above. These difficulties are easily avoided by reallocation of the D-block to public safety, which AT&T encourages the Commission to support.

Dated: January 7, 2011

Respectfully submitted,

/s/ Robert Vitanza

Robert Vitanza

Gary L. Phillips

Paul K. Mancini

AT&T Services, Inc.  
1120 20th Street, N.W.  
Suite 1000  
Washington, D.C. 20036  
(202) 457-3076 (Phone)  
(202) 457-3073 (Fax)  
[robert.vitanza@att.com](mailto:robert.vitanza@att.com)