

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Wireless E911 Location Accuracy Requirements)	PS Docket No. 07-114
)	
)	
Revision of the Commission’s Rules to)	
Ensure Compatibility with Enhanced 911)	
Emergency Calling Systems)	CC Docket No. 94-102
)	
Association of Public-Safety Communications)	
Officials-International, Inc. Request for)	
Declaratory Ruling)	
)	
911 Requirements for IP-Enabled Service Providers)	WC Docket No. 05-196

**REPLY COMMENTS OF
SPRINT NEXTEL CORPORATION**

The record before the Federal Communications Commission (“Commission” or “FCC”) is unequivocal. Current technology cannot provide accuracy at the levels proposed in the Notice of Proposed Rulemaking (“NPRM”) and imposition of such a mandate is premature. This fact was confirmed by wireless carriers, vendors and even members of public safety. While Sprint Nextel Corporation (“Sprint Nextel”) applauds the Commission’s desire to increase the accuracy of wireless 911 systems, Sprint Nextel continues to believe the Commission could best address the concerns of public safety by adopting the recommendations of the Commission-chartered Network Reliability Interoperability Council (“NRIC”) VII in its Focus Group 1A Final Report (“FG1A Report”).¹ Sprint Nextel, however, would also support the development of a technical

¹ NRIC VII, Focus Group 1A, *Near Term Issues for Emergency/E911 Services, Final Report*, (December 2005) (“FG1A Report”).

advisory group to evaluate possible technical solutions to meet the Commission's wireless location accuracy goals along the lines proposed by AT&T, Inc.

I. The Comments Confirm that PSAP Level Accuracy is Not Technically Feasible With Current Technology.

Wireless carriers are unanimous in their assessment that the proposed new accuracy standard, while commendable, cannot be achieved with current technology.²

The vendors that provide wireless carriers the systems to perform location calculation are likewise in agreement that existing systems do not permit this level of accuracy.³

Specifically, the two vendors relied upon by Sprint Nextel to provide location calculations agree that the new standard is not achievable. Qualcomm, the primary technology provider for Sprint Nextel's CDMA location solution states:

[T]oday and for the foreseeable future, current technology will not enable the carriers who use AGPS technology to meet the Phase II E911 accuracy rules on a PSAP-by-PSAP basis.⁴

Likewise, Motorola, the provider of location technology on Sprint Nextel's iDEN network, notes:

In implementing the FCC's current requirements, manufacturers and service providers relied on the best practical technology available. This technology, however, cannot necessarily meet PSAP-level accuracy.⁵

Even public safety acknowledges the limitations of the current technology.⁶ In opposing the Commission's proposal, the State of Montana notes that:

² Comments of Verizon Wireless at p. 14; Comments of T-Mobile at p.5; Comments of AT&T Inc. at p. 7; Comments of United States Cellular Corporation at p. 2; Comments of SunCom Wireless, Inc. at p. 2; Comments of Cincinnati Bell Wireless LLC at p. 3; Comments of Corr Wireless Communications, LLC at p. 2; Comments of Nsighttel Wireless, LLC at p. 2; Comments of Rural Cellular Association at p. 4.

³ Comments of Polaris Wireless, Inc. at p. 4; Comments of TechnoCom Corporation at p. 3; Comments of Qualcomm Incorporated at p. 3; Comments of Motorola, Inc. and Nokia, Inc. at p. 8; Comments of Intrado Inc. at p. 2.

⁴ Comments of Qualcomm Incorporated at p. 3.

⁵ Comments of Motorola, Inc. and Nokia, Inc. at p. 8.

⁶ *See, e.g.*, Comments of NENA at p. 1.

If the Commission adopts Phase II accuracy testing requirements that currently available location technologies cannot meet (such as a requirement for PSAP level testing), states like Montana with carrier cost recovery will be responsible for the cost of new technologies that have not yet been developed to meet those requirements.⁷

Only one vendor, TruePosition, suggested that its technology could meet the FCC’s mandate at the PSAP level “with additional investments.”⁸ These additional investments would include the addition of cell sites, sharing of information across carrier networks, and/or deployment of hybrid location technologies.⁹ A closer reading of TruePosition’s pleading, however, shows that even this limited claim is highly qualified. TruePosition’s projection is based on the assumption that its technology would be deployed on top of existing AGPS systems which already provide highly accurate information in most circumstances, and even then they claim they could meet the new standard in a “majority” of PSAPs – not all.

Assuming carriers deployed dual systems, TruePosition conjectures that it “would meet the 100/300 meter accuracy standard in *virtually* all cases and the 50/150 accuracy standard in the *vast majority* of cases.”¹⁰ Sprint Nextel, however, already provides location within the 50/150 meter standard in the “vast majority” of cases. That is not, however, the standard being proposed by the Commission. Instead, the NPRM proposes compliance with that standard in *every* PSAP within the United States regardless of size, shape, topology, or population density.¹¹

⁷ Comments of the State of Montana at p. 1.

⁸ Comments of TruePosition, Inc. at p. 3. Specifically, TruePosition appears to be claiming that it could meet the 100/300 standard, not the 50/150 standard.

⁹ *Id.*

¹⁰ *Id.* at 5 (emphasis added).

¹¹ It is also noteworthy that the carriers using TruePosition’s Uplink-Time Difference of Arrival (“U-TDOA”) solution do not appear to have the same confidence in the performance of that technology. *See, e.g.*, T-Mobile Comments at p. 5.

If the Commission imposes this new technical standard, it must have more than a salesman's qualified promise that such accuracy is technically feasible. For this reason, Sprint Nextel agrees with the Comments of AT&T, Inc. that any new technology must be subject to rigorous scrutiny, including field testing with each part of the wireless E911 system, including carriers (across the varying carrier technologies), vendors, LECs, and the PSAP community.¹² As noted by Verizon Wireless, the "record must establish that the required technology is feasible, not merely possibly feasible."¹³

II. The Concerns of Public Safety are Best Met by Adoption of NRIC VII

The comments of the King County E911 Program are indicative of the concerns expressed by many of the public safety groups that participated in the NRIC VII discussions which led to the nearly-unanimously adopted recommendations in the FG1A Report. King County has a litany of issues, only some of which relate to location accuracy, which it would like the wireless industry to address. The adoption of PSAP level accuracy testing, however, will not resolve these issues. The FG1A Report recommendations, on the other hand, would provide PSAPs much of the information that King County seeks and address many of their concerns.

For example, King County raises the concern that some carriers require a "rebid" to obtain location information and that the time within which a location fix is available varies by carrier. These differences, however, are the result of the technologies deployed to provide 911 services and relate to the underlying air interface used by the carrier, not the accuracy standard. Creating a PSAP level accuracy standard (or even a single uniform standard) will not change the fact that wireless technologies are not uniform, or

¹² Comments of AT&T at p. 5.

¹³ Comments of Verizon Wireless at p. 8 (citing *Bunker Hill Co. v. EPA*, 572 F. 2d 427, 433 (D.C. Cir. 1973)).

eliminate the need for King County’s chart outlining the differences between carriers.¹⁴ In fact, if carriers are forced to deploy “hybrid” (*i.e.*, two) location technologies, King County’s carrier chart could grow even more complicated as every carrier would have two different processes – one handset based and one network based – for providing location information to the PSAP. As recommended in the FG1A Report, however, carriers would provide detailed information on the performance of their systems and how those systems vary in different topologies, thus alleviating the need for PSAPs to develop this information on their own.¹⁵

Similarly, King County complains that location fixes can sometimes be more than a mile off from the actual location of the caller.¹⁶ The imposition of a new accuracy standard, however, cannot eliminate inaccurate location calculations, no matter how stringent. No wireless location system will ever be able to guarantee that every location calculation is correct.¹⁷ Indeed, as noted by T-Mobile, even fixed wireline services do not provide 100% accuracy and frequently provide addresses of large office buildings or multi-dwelling units without specific information regarding the location of the caller.¹⁸ By adopting the recommendations in the FG1A Report, the Commission could ensure, however, that confidence and uncertainty factors are provided on each call, thus allowing

¹⁴ Comments of King County E911 Program at p. 2 (“it became necessary to create a chart that is kept at the PSAP call answering positions that explains the characteristics of each carrier’s Phase II services....”).

¹⁵ FG1A Report at p 4-5.

¹⁶ *Id.* at 7.

¹⁷ See Comments of Verizon Wireless at p. 10, citing, *In the Matter of Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Third Report and Order, FCC 99-245, 14 FCC Rcd 17388, ¶ 75 “any location system may fail or provide highly erroneous readings occasionally . . . because these systems are based on radio technologies, which confront inherent difficulties in achieving 100 percent reliability.”

¹⁸ Comments of T-Mobile at p. 13.

the call taker to assess the value of the location information without the need to consult a chart.¹⁹

These and other issues were extensively discussed at NRIC VII and the nearly-unanimous recommendations that resulted are a reflection of the needs of public safety and the limits of the technology available to wireless carriers. Once again, Sprint Nextel urges the Commission to adopt the recommendations in the FG1A Report rather than impose a new accuracy standard that cannot be met with current technology.

III. Sprint Nextel Would Support the Development of a Technical Advisory Group

AT&T, Inc. proposes the creation of an E911 Technical Advisory Group (“ETAG”) to evaluate the issue of wireless location accuracy along the lines of the WARN Act.²⁰ Given the inherent limitations of wireless technology, the needs of public safety and the complex issues to be resolved, Sprint Nextel agrees that such an approach may be the most practical means of achieving real progress in the area of E911. The history of wireless 911 has demonstrated that the public interest is best served when all parties have worked cooperatively. In contrast, where carriers and Public Safety have been placed in confrontational situations, the only result has been delay.

The ETAG would be particularly helpful in developing reliable data on new technologies and the feasibility of deployment in the thousands of PSAPs within the United States. ETAG could, for example, provide a certification that a particular technology met the FCC’s accuracy standard, providing assurances that if carriers did deploy the technology in thousands of PSAPs that they would not then be subject to questions regarding reliability, thus preventing wasted investment.

¹⁹ FG1A Report at p. 5.

²⁰ Comments of AT&T, Inc. at p. 3-6.

CONCLUSION

Sprint Nextel continues to support the improvement of E911 technologies, but a mandate that would require current location standards to be met at the PSAP level is not technologically feasible. Given this reality, Sprint Nextel urges the Commission to adopt the recommendations in the NRIC VII FG1A Report.

Respectfully submitted,

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