

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Wireless E911 Location Accuracy Requirements) PS Docket No. 07-114
)

**REPLY COMMENTS OF
PCIA – THE WIRELESS INFRASTRUCTURE ASSOCIATION**

I. INTRODUCTION AND SUMMARY

PCIA – The Wireless Infrastructure Association (“PCIA”)¹ submits these reply comments in response to the Public Notice (“PN”)² in the above-captioned proceeding seeking comment on the 9-1-1 location accuracy “Roadmap” submitted by the Association of Public-Safety Communications Officials (“APCO”) International, the National Emergency Number Association (“NENA”), and the four national wireless carriers (AT&T, Verizon, Sprint, and T-Mobile) (collectively, “signatories”).³ PCIA supports the months of important work the signatories have put toward the development of this consensus-based approach to improving 9-1-1 location accuracy, particularly indoor location accuracy, and welcomes the signatories’

¹ PCIA is the national trade association representing the wireless infrastructure industry. PCIA’s members develop, own, manage, and operate towers, rooftop wireless sites, and other facilities for the provision of all types of wireless, telecommunications, and broadcasting services. PCIA and its members partner with communities across the nation to affect solutions for wireless infrastructure deployment that are responsive to the unique sensitivities and concerns of each community.

² Public Safety and Homeland Security Bureau Seek Comment in the E911 Location Accuracy proceeding on the Location Accuracy “Roadmap” submitted by APCO, NENA and the Four National Wireless Carriers, *Public Notice*, PS Docket 07-114 (rel. Nov. 20, 2014) (“PN”).

³ See Letter from Scott Bergman, CTIA—The Wireless Association, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket No. 07-114 (filed Nov. 18, 2014) (“Roadmap”). The Roadmap was submitted in response to the Third Further Notice of Proposed Rulemaking in the docket to improve 9-1-1 location accuracy. See *in re* Wireless E911 Location Accuracy Requirements, *Third Further Notice of Proposed Rulemaking*, 29 FCC Rcd 2374 (“FNPRM”).

commitment to sustaining this proposal in the months to come. We encourage the FCC to adopt the Roadmap.

II. THE ROADMAP WILL IMPROVE BOTH INDOOR AND OUTDOOR 9-1-1 LOCATION INFORMATION, PER THE FCC'S GOALS, AND DELIVER A "DISPATCHABLE LOCATION" TO FIRST RESPONDERS.

More and more Americans have "cut the cord," relying exclusively on wireless service for their voice calling needs; estimates released this month show that 44% of American households are wireless-only.⁴ As consumers increasingly rely on wireless service, there has been an influx in wireless 9-1-1 calls, a majority of which now originate inside buildings.⁵ This influx has created the need for wireless location technologies that can accurately relay a caller's location information to a public safety answering point ("PSAP") in an emergency. As such, we applaud the progress of the multi-stakeholder group that created the Roadmap, laying out a plan to improve location accuracy for 9-1-1 calls placed both indoors and outdoors, and look forward to watching the signatories' progress toward effectuating this plan and continuing this important work.⁶

The Roadmap outlines a clear path to delivering first responders the necessary "dispatchable location" information in an accelerated timeframe. Dispatchable location, referred to as the "gold standard" for public safety positioning,⁷ will provide first responders with the physical civic address, plus additional information such as floor, suite, or apartment number,

⁴ *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January-June 2014*, CENTERS FOR DISEASE CONTROL NATIONAL HEALTH STATISTICS REPORTS 1 (Dec. 2014), available at <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201412.pdf>. This number represents "an increase of 3.0 percentage points since the second half of 2013." *Id.*

⁵ *FNPRM* at 2; Comments of APCO at 1 (filed Dec. 15, 2014) ("APCO Comments"); Comments of NENA at 6 (filed Dec. 15, 2014) ("NENA Comments").

⁶ See Comments of CTIA at 12-13 (filed Dec. 15, 2014) ("CTIA Comments").

⁷ APCO Comments at 3; NENA Comments at 3; CTIA Comments at 6-7.

allowing first responders to adequately identify which door to knock on.⁸ Further, within 36 months of date of the Roadmap, the signatories commit to the development of a National Emergency Address Database (“NEAD”) to further refine dispatchable location solutions.⁹

III. THE ROADMAP IS TECHNOLOGY-NEUTRAL, AND WILL LEVERAGE EXISTING COMMERCIAL LOCATION ACCURACY TECHNOLOGY.

The Roadmap leverages technologies that have been proven successful in commercial location services—technologies like Wi-Fi and Bluetooth Low Energy (“LE”) beacons—rather than proprietary technologies without a commercial track record.¹⁰ Wi-Fi and Bluetooth enjoy ubiquity in the handset marketplace and have already been harnessed to relay indoor location for commercial purposes, which will help speed adoption in the public safety sphere and will ensure these technologies continue improving through market-driven evolution.¹¹ Further, as advances in wireless infrastructure technology places antennas closer to the end user, be it through in-building small cells or distributed antenna systems (“DAS”), targeted wireless infrastructure deployments could help increase the accuracy of location information. The Roadmap wisely remains technology- and vendor-neutral, leaving no technology left uninvestigated,¹² and will promote an innovative and competitive marketplace for location technologies.¹³

⁸ Roadmap § 2; *see* Comments of Sprint Corporation at 4 (filed Dec. 15, 2014); CTIA Comments at 7; Comments of T-Mobile USA at 12 (filed Dec. 15, 2014) (“T-Mobile Comments”).

⁹ Roadmap § 2.

¹⁰ T-Mobile Comments at 5-6; Comments of AT&T at 2-3 (filed Dec. 15, 2014) (“AT&T Comments”); CTIA Comments at 9.

¹¹ T-Mobile Comments at 5.

¹² T-Mobile Comments at 3-6.

¹³ APCO Comments at 4.

PCIA also commends the signatories for laying the groundwork for a technology-neutral test bed that will allow a given carrier to consider and/or implement any technology that will allow them to meet the required benchmarks. Importantly, the test bed will be operated under real-world conditions, giving public safety the opportunity to assess a given technology's performance "in a realistic call and response environment."¹⁴ This will clear the way for the development of new technologies and the deployment of nascent technologies not yet contemplated for improving location accuracy.¹⁵ Further, the Roadmap will allow stakeholders access to live 9-1-1 call data to gauge the performance of various location accuracy technologies.¹⁶

¹⁴ See Comments of Verizon at 2 (filed Dec. 15, 2014) ("Verizon Comments") ("[T]he Roadmap will allow E911 location technology to improve on a parallel track with commercial technologies."); APCO Comments at 5.

¹⁵ For instance, Bluetooth was originally conceived for use as a wireless alternative to data cables. See *Bluetooth*, WIKIPEDIA, <http://en.wikipedia.org/wiki/Bluetooth> (last visited Dec. 22, 2014).

¹⁶ Roadmap § 4; NENA Comments at 5; Verizon Comments at 3-4; AT&T Comments at 5 ("[Live call data] will give public safety insight into actual carrier performance and compliance . . . that drive testing alone simply cannot.").

IV. CONCLUSION

For the foregoing reasons, the Commission should act on this joint industry/public safety consensus-based approach by swiftly adopting and codifying elements of the Roadmap. In doing so, the Commission will help improve 9-1-1 location accuracy by leveraging existing technology to deliver first responders the dispatchable location necessary to find those in need of help.

Respectfully submitted,

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