



August 8, 2014

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114

Dear Ms. Dortch:

4G Americas commends the Federal Communications Commission (“FCC” or “Commission”) for continuing to explore ways in which location accuracy for wireless 911 calls can be improved. 4G Americas is a trade association dedicated to supporting the deployment of 4G mobile broadband technologies throughout the Americas, and agrees with the Commission that “it is increasingly important for Public Safety Answering Points (PSAPs) to have the ability to accurately identify the location of wireless 911 callers regardless of whether the caller is located indoors or outdoors.”¹ 4G Americas partners with the Third-Generation Partnership Project (3GPP) to ensure that the development of standards, including those for emergency service, result from broad and thorough deliberation, for the benefit of customers. 4G Americas and its members will engage in the new 3GPP study item on improving indoor positioning.

Notwithstanding the critical importance of improved indoor location accuracy, 4G Americas encourages the Commission to refrain from adopting an indoor location accuracy mandate that cannot be met, particularly where such a mandate relies on single-source or unproved technologies. It is vital that any indoor location accuracy solution be not only an improvement on today’s A-GPS and network-based technologies, but also be commercially available through a robust technological ecosystem.

In particular, 4G Americas does not believe that the Commission’s proposed indoor location accuracy rules—which would require wireless carriers to provide location estimates within 50 meters of a caller for 67 percent of calls within two years, and for 80 percent of calls within five years, as well as provide z-axis information within 3 meters of a caller for 67 percent of calls within three years and 80 percent of calls within five years—can be met with any existing or near-term technology. The Commission cites to tests involving one company’s proposed beacon-based system, as well as to another’s U-TDOA, but those tests do not show that either technology can meet the proposed benchmarks. Nor will either be capable of meeting the

¹ *Wireless E911 Location Accuracy Requirements*, Third Further Notice of Proposed Rulemaking, FCC 14-13, PS Docket No. 07-114 (rel. Feb. 21, 2014) (“*Third FNPRM*”).

benchmarks within the proposed timeframes due to necessary standards development, handset integration, and network deployment.²

Even 4G LTE Observed Time Difference of Arrival (“OTDOA”) technology will likely be unable to meet the Commission’s proposed indoor location benchmarks. But OTDOA is a far more likely candidate for improvement to location accuracy—both indoor and outdoor—than the other technologies considered by the Commission, given the broad range of companies who have deliberated on the technology. Not only have early tests shown OTDOA is “able to provide accuracy to within a few tens of meters both indoors and outdoors,”³ OTDOA is part of the LTE standard and all of the major carriers have committed to implement it as they move to Voice over LTE (“VoLTE”). OTDOA, in other words, has the best chance of demonstrably improving location accuracy in the near term. But OTDOA still needs to be fully tested and carriers are still in the early stages of rolling out VoLTE. Thus even OTDOA will likely be unable to meet the proposed benchmarks in the proposed timeframe. Given this reality, and recent approval of a 3GPP study item on indoor positioning, the Commission should reconsider its proposed mandate.

4G Americas believes that industry, public safety, and the Commission should focus their combined efforts to improve location estimates for emergency calls on a dispatchable address solution, as Commissioner Rosenworcel suggested this week. Location accuracy solutions that rely on an ever-narrowing radius for latitude and longitude will never reach the level of accuracy needed to provide a dispatchable address. Even a 50 meter search radius cannot provide public safety with location information that is guaranteed to be in the same building—or even the same block—as the wireless caller.

Commissioner Rosenworcel also noted the importance of having any technical solution be flexible. As she mentioned at the recently concluded APCO conference, technologies advance rapidly and any solution must be sufficiently flexible to accommodate technological advancements.⁴ A small cell solution—utilizing location data available in Bluetooth beacons, WiFi access points, or distributed antenna systems (“DAS”), among other technologies—may hold the most promise for providing dispatchable addresses to public safety. 4G Americas recognizes that much work is required to implement such a solution—stakeholders must

² See Reply Comments of AT&T, Inc., PS Docket No. 07-114, at 2-5 (filed July 14, 2014); Reply Comments of Qualcomm Incorporated, PS Docket No. 07-114, at 9-11 (filed July 14, 2014); Reply Comments of Sprint Corporation, PS Docket No. 07-114, at 2-7 (filed July 14, 2014); Reply Comments of T-Mobile USA, Inc., PS Docket No. 07-114, at 16-25 (filed July 14, 2014).

³ Reply Comments of Qualcomm at 6.

⁴ See Prepared Remarks of Commissioner Rosenworcel, APCO International 80th Conference and Expo, New Orleans, Louisiana (August 6, 2014) available at <http://www.fcc.gov/document/remarks-commissioner-rosenworcel-apco-international-conference>

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undertake development of the appropriate database methodology to ensure the information is accessible and useable by public safety. And of course the small cells themselves must be deployed and provisioned by premises owners, in some cases in partnership with local government and public safety involvement.⁵ But that effort would be a much better use of limited resources than “chasing after unproven technologies”⁶ that will, at best, only provide a narrowed search radius.

4G Americas encourages the Commission to support and facilitate multi-stakeholder efforts to move toward a true, dispatchable address solution rather than expending time and effort on further mandates for narrowed search radii. Our focus should be on the future—and, in particular, on the transition to IP networks and Next Generation 911—rather than on continued regulation of legacy networks and equipment that will only result in stranded investment.

Please do not hesitate to contact me if you have any questions.

Sincerely,

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cc: Renee Gregory
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⁵ See Reply Comments of Qualcomm at 7-8; Reply Comments of T-Mobile at 11-15

⁶ Reply Comments of AT&T at 4.