

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

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| |) | |
| In the Matter of |) | |
| |) | |
| Revision of the Commission's Rules to Ensure |) | PS Docket No. 07-114 |
| Compatibility with Enhanced 911 Emergency |) | |
| Calling Systems |) | |
| |) | |

COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION

Competitive Carriers Association (“CCA”)¹ submits these comments to the Federal Communications Commission (the “FCC” or “Commission”) in response to the *Public Notice* (“*Public Notice*”)² in the above-captioned proceeding, in which the Public Safety and Homeland Security Bureau (the “Bureau”) seeks comment on the “Roadmap for Improving E911 Location Accuracy” (the “Roadmap”),³ filed in the E911 Location Accuracy proceeding (PS Docket No. 07-114) by the APCO International (APCO), NENA-The 9-1-1 Association (NENA), AT&T

¹ CCA is the principal association for competitive wireless providers across the United States, representing the interests of more than 100 members—including rural, regional, and national wireless carriers. CCA’s members support the Commission’s important public safety initiatives including improved 911 location accuracy.

² *Public Safety and Homeland Security Bureau Seeks Comment on the E911 Location Accuracy Proceeding on the Location Accuracy “Roadmap” Submitted by APCO, NENA and the Four National Wireless Carriers*, Public Notice, PS. Docket No. 07-114, DA 14-1680 (rel. Nov. 20, 2014) (“*Public Notice*”).

³ See *Ex Parte* Letter from John Wright, President, APCO International *et al.* to Marlene H. Dortch, Secretary, Federal Communications Commission, PS Docket No. 07-114 (filed Nov. 18, 2014) (the “Roadmap Cover Letter”), Attachment A, “Roadmap for Improving E911 Location Accuracy” (“Roadmap”).

Mobility, Sprint, T-Mobile USA, and Verizon (the “Parties”).”⁴ CCA supports the approach and the concepts in the Roadmap, but encourages the FCC to take into account technical and economic realities that improved location accuracy requirements present for smaller carriers and the consumers they serve.

I. CCA IS EXPLORING A POTENTIAL AGREEMENT WITH PUBLIC SAFETY FOR SMALLER CARRIERS, SIMILAR TO THE ROADMAP

CCA is pleased the Parties have made progress towards improved location accuracy. In many respects, the Roadmap is preferable to the proposals contained in the Commission’s *Third Further Notice of Proposed Rulemaking* (the “*Third FNPRM*”)⁵ in this proceeding. For example, the commitment by the nationwide carriers to provide tiered percentages of location fixes using heightened location accuracy technologies is an elegant way to move towards better accuracy standards, while at the same time safeguarding against the potential that new technologies do not develop on the timelines suggested by particular vendors. As CCA noted in its Reply Comments to the *Third FNPRM*, there are significant identified gaps in location technologies tested in the initial iteration of the CSRIC test bed.⁶ Based on our understanding, this gap can be bridged by the Roadmap’s proposal, which allows mobile operators to leverage their existing location accuracy technologies while continuing to explore and test improved technical solutions.

Assuming enough lead-time, this has the benefit of allowing smaller carriers to implement the

⁴ *Public Notice* at 1.

⁵ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Third Further Notice of Proposed Rulemaking, 29 FCC Rcd 2374 (2014) (“*Third FNPRM*”).

⁶ Reply Comments of Competitive Carriers Association, PS Docket No. 07-114 at 3-7 (filed July 14, 2014) (“*CCA Reply Comments*”) (“recognizing that “no product tested by CSRIC to date has proven reliable in all testing environments.”). *Id.* at 6. *See also* “Final – Location Accuracy and Testing for Voice-over-LTE Networks,” CSRIC IV, Working Group 1, Next Generation 9-1-1, Task 2, September 2014, *available at* <http://transition.fcc.gov/pshs/advisory/csric4/CSRIC%20IV%20WG1%20TG2%20Report.pdf>.

latest location accuracy technologies – some of which may not be promptly available to them due to resource constraints, and equipment and interoperability concerns – while ensuring that consumers retain a baseline expectation of location accuracy information that will be delivered to compatible PSAPs.

The general framework set forth in the Roadmap, with some modifications, could provide a viable alternative to the proposals put forth by the Commission in the *Third FNPRM*. To that end, CCA is actively exploring with its members and with representatives of the public safety community endorsing a framework similar in structure to the Roadmap, but which takes into account the unique needs of and challenges faced by competitive carriers, especially in rural America. Since smaller carriers were not a part of the discussions that led to the present Roadmap, these carriers did not have the opportunity to address how certain aspects of the Roadmap will disproportionately affect them. The Commission must ensure that any improved location accuracy requirements are readily achievable for all industry stakeholders, not merely the largest.

II. SEVERAL ASPECTS OF THE ROADMAP MUST BE REFINED TO REFLECT COMPETITIVE REALITIES OF SMALLER CARRIERS, SHOULD THE COMMISSION APPLY THE FRAMEWORK TO ALL CARRIERS

While CCA agrees with the general approach of the Roadmap, there are several areas where it should be refined for the benefit of small carriers, consumers and the industry as a whole. The two most important issues for smaller carriers are having the resources to deploy voice-over-LTE (“VoLTE”) as rapidly as their larger counterparts and handset availability, both of which remain significant and continuing problems for competitive carriers. At the very least, these issues alone weigh heavily in favor of allowing smaller carriers additional time to meet any milestones. Second, CCA believes that the test bed and live call data regimes detailed in the Roadmap can be improved to allow for more meaningful participation by smaller carriers, which

likely do not hold spectrum licenses in the limited live call data markets, much less the single test bed market. Finally, requiring small carriers to sponsor 3GPP standards work on WiFi and Bluetooth location accuracy solutions would place a significant financial and administrative burden on them.

A. The Proposed VoLTE Network and Handset Milestones May Be Difficult or Impossible for Smaller Carriers to Meet

In the Roadmap, the nationwide carriers agree to deployment deadlines for VoLTE handset models that are capable of supporting delivery of beacon information (as part of the dispatchable location proposal) and A-GNSS (for enhanced latitude and longitude location information). While this is an admirable goal, the milestones do not address the fact that smaller carriers are at a significant disadvantage to the nationwide carriers with respect to the deployment and acquisition of VoLTE equipment. These milestones must reflect and incorporate the realities facing competitive carriers.

The Roadmap states that the “milestones initially apply across all existing handset and network technologies and in later years would apply to VoLTE calls when dispatchable location and VoLTE technologies will be more widely deployed”⁷ but also acknowledges that actual “VoLTE implementation . . . will vary by carrier and market.”⁸ The simple truth is that, for many reasons, such as resource constraints, spectrum constraints, and lack of equipment availability, smaller and competitive carriers are often not able to deploy LTE (much less VoLTE) on the same or even similar timeline as the nationwide carriers. In fact, the timing of VoLTE deployments is often due to circumstances outside a competitive carrier’s control. Further, additional issues such as VoLTE interoperability could also prolong the time needed for

⁷ Roadmap Cover Letter at 3.

⁸ Roadmap at 7, Section 3(a).

competitive carriers to provide enhanced location information utilizing VoLTE-based technologies. While the largest carriers do not face these same challenges, they are very real for the nation's competitive carriers and must be taken into account by the Commission.

Even setting aside the significant issues with respect to LTE and VoLTE deployment from the network perspective, competitive carriers must still grapple with the fundamental issue of limited handset availability. As CCA has repeatedly noted,⁹ competitive carriers are often unable to attract the attention of large original equipment manufacturers, and are blocked out of access to devices due to the limited scope and scale of their networks. Additionally, to the extent legacy GSM devices are designed originally for international use, those devices may not support technologies such as A-GNSS or Observed Time Difference of Arrival. Thus, even if competitive carriers had networks available to provide enhanced location information over VoLTE, their ability to do so may be severely constrained by an inability to obtain the most advanced consumer devices that can support these capabilities. Indeed, the Commission has previously acknowledged that competitive carriers are sometimes foreclosed from obtaining the latest devices and technology.¹⁰ As the Commission is well aware, access to cutting-edge equipment is a consistent problem for smaller carriers.

In light of the challenges faced by competitive carriers with respect to implementing LTE and VoLTE across the networks, and the significant difficulties faced in terms of obtaining the latest wireless devices, competitive carriers either must have additional time beyond that provided to the nationwide carriers in their Roadmap to achieve similar deployment milestones,

⁹ *CCA Reply Comments* at 8-9.

¹⁰ See e.g., *In the Matter of Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets et al.*, WT Docket No. 07-250, First Report and Order, 23 FCC Rcd 3406 ¶ 27 ("extend[ing] the compliance deadlines for service providers other than Tier I carriers in recognition of their more limited handset options and their difficulty obtaining the newest offerings.").

or be required to introduce reduced percentages of VoLTE handsets capable of supporting A-GNSS, or both.

B. Competitive Carriers Will Face Significant Challenges to Testing and Reporting Performance of Location Methods as Proposed in the Roadmap

The Roadmap proposes the formation of a single, open test bed for initial testing of technologies, and to report live call data from the six regions that correspond to the test regions recommended by ATIS ESIF for showing compliance with the Roadmap.¹¹ The majority of CCA's members, however, serve small slices of the country (in many cases in rural areas) over extremely limited spectrum resources as compared to their national counterparts. This means that these competitive carriers may not hold licenses for spectrum or otherwise operate in any of the six ATIS ESIF regions, much less the single location ultimately selected for the test bed. This unfortunate circumstance could significantly disadvantage smaller carriers with respect to being able to meaningfully participate in both the testing and assessment of location technology methods.

Competitive carriers who do not hold spectrum in the market where the test bed is located will be forced to commit to individualized testing of a particular heightened location accuracy technology should it utilize any component of their network (such as an RF-based technology). This has the potential to place a substantial burden on these smaller carriers. First, these carriers will need to garner the attention of the technology vendor. Because vendors will first focus their resources on the test bed and the largest carriers participating, competitive carriers will be pushed to the back of the line, which would likely result in the need for additional time to

¹¹ To the extent that the Commission adopts any safe harbors for location accuracy technologies that are vetted in the test bed, competitive carriers must also be allowed to avail themselves of these same safe harbors for functionally equivalent solutions, even if they are unable to participate in the test bed due to limited network coverage.

demonstrate compliance in their licensed areas. Moreover, while the Roadmap appears to allow for drive testing¹² to show compliance outside of the test bed, such an approach fails to consider the significant costs associated with drive testing, both in terms of time and resources. As CCA and others have demonstrated in other proceedings,¹³ drive testing may be challenging in areas where there are private roads, logging routes or protected parklands – a particular issue for many of CCA’s rural provider members.

Meanwhile, the largest carriers will all be working collaboratively—and benefiting from the cost synergies that will result—to establish testing standards for existing and forthcoming location accuracy technologies through the test bed. Competitive carriers who are unable to participate in the test bed will likewise miss out on the testing standardization that will take place during this process. This could result in differentiation between data derived from the Roadmap test bed and a particular carrier’s testing regime, and could also further extend the amount of time necessary for smaller carriers to demonstrate compliance—should a carrier by carrier demonstration be necessary. This has the perverse result of allowing the most resource-rich carriers to obtain economies of scale from the test bed, while foisting higher testing costs onto resource-constrained competitive carriers.

Additionally, while the nationwide carriers presumably operate networks in all six of the ATIS ESIF regions and where all four morphologies identified by the Roadmap are present,¹⁴ the Commission must take into account circumstances when a carrier operates in an area where all

¹² Roadmap at 8, Section 4(c).

¹³ See Comments of Competitive Carriers Association, WC Docket No. 10-90 *et al.* at 9 (filed Dec. 21, 2012); see also Comments of Atlantic Tele-Network, Inc., WC Docket No. 10-90 *et al.* at 16-17 (filed Dec. 21, 2012).

¹⁴ Roadmap at 8, Section 4(a)(ii). The four morphologies are dense urban, urban, suburban and rural. *Id.*

four morphologies are not present. This is a particular concern for CCA’s members, many of which are small competitive carriers that serve exclusively rural areas and do not have multi-story buildings in their service territories. The Commission will need to ensure that testing data is not skewed to the detriment of those carriers that operate only in certain geographies.

Addressing these issues will allow smaller carriers to meaningfully participate in the improvement of E911 location accuracy standards. Failure to address these issues will only serve to harm the consumers that this proceeding is intended to protect.

C. Smaller Carriers Lack the Resources to Participate in Standards-Setting Process

In the Roadmap, the Parties “agree to formally sponsor 3GPP Study Item RP-141003 as the standards vehicle that will allow handsets to deliver Bluetooth LE and WiFi information to the network, and to work through the standards process to incorporate the Bluetooth LE and WiFi dispatchable location concept into the 3GPP technical report within 12 months of the Agreement.”¹⁵ While this may make sense for resource-rich nationwide carriers, such a commitment is almost certainly beyond the means of smaller competitive carriers. While the nationwide carriers have entire teams of employees dedicated to engaging with standards-setting bodies such as 3GPP, their smaller counterparts lack the resources – both in terms of manpower and finances – to take such an active role. While some of CCA’s members are active to the extent possible in 3GPP and other forums, this “big carrier” commitment should not be pressed onto smaller carriers who can ill afford it.

¹⁵ Roadmap at 4-5, Section 2(d)(i).

III. THE COMMISSION MUST CONSIDER THE CONCERNS OF COMPETITIVE CARRIERS WHEN DECIDING WHETHER TO APPLY THE VOLUNTARY ROADMAP TO NON-REPRESENTED PARTIES

While CCA is generally supportive of the principles of the Roadmap, as noted above, the vast majority of its members did not participate in discussions leading to its adoption – and thus did not have an opportunity to express concerns relating to it. Accordingly, the Commission must take into account competitive carriers’ absence from the negotiating table when deciding whether to apply any agreements reached by the largest nationwide carriers to smaller carriers. The Commission should therefore be careful to ensure that it is not regulating through voluntary agreements negotiated by a select few, without regard for the rest of the industry.

As reflected above, while supportive, competitive carriers have a number of concerns with the Roadmap that need to be addressed prior to application of its principles and timelines to smaller carriers. Accordingly, the Commission should not push full speed ahead on applying rules based on a “voluntary” agreement to carriers not participating in such agreements. As CCA noted under similar circumstances, there is a serious concern that “voluntary efforts will be stifled if the Commission codifies these agreements or imposes onerous requirements that may not be able to be met.”¹⁶ CCA there urged the Commission “to be mindful of including smaller carrier voices in any such industry discussions,” and explained that, “[w]hile voluntary agreements are preferable to regulation, they must work for the entire industry, not just those with the largest chair at the table. Any voluntary agreement must take into account the impact such an agreement may have on small carriers.”¹⁷ The same reasoning applies to this

¹⁶ Reply Comments of Competitive Carriers Association, PS Docket Nos. 11-153, 10-255 at 16 (filed Nov. 17, 2014).

¹⁷ *Id.*

proceeding. Rather, a voluntary agreement applicable to non-nationwide carriers may be a better way for APCO, NENA, CCA's members and the Commission to proceed.

IV. CONCLUSION

CCA is fully supportive of the Commission's efforts to provide consumers improved location accuracy and enhanced location information to PSAPs and first responders in emergency situations. The Roadmap provides a commendable starting point. However, in considering its recommendations, the Commission must be mindful of the issues that small carriers face with respect to network deployment and compliant device availability, testing and assessment of solutions and the lack of clout within standards-setting groups. CCA urges the Commission to consider the recommendations above before implementing new location accuracy requirements that would apply to smaller carriers.

Respectfully submitted,

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