



March 7, 2019

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: Ex Parte Presentation, Wireless 9-1-1 Location Accuracy, PS Docket No.
07-114

Dear Ms. Dortch,

From March 5 - 7, 2019, CTIA representatives Scott Bergmann and Matthew Gerst met separately with Zenji Nakazawa of Chairman Ajit Pai's office, Travis Litman of Commissioner Jessica Rosenworcel's office, Will Adams of Commissioner Brendan Carr's Office, Erin McGrath of Commissioner Michael O'Rielly's office, and via conference bridge with Randy Clarke of Commissioner Geoffery Starks' office to discuss the draft *Fourth Further Notice of Proposed Rulemaking* (FNPRM).¹ CTIA reiterated that its member companies are committed to enhancing wireless 9-1-1 location accuracy, particularly indoors, and expressed support for the goals of the draft *Fourth Further Notice of Proposed Rulemaking* (FNPRM) to give certainty to all stakeholders by proposing a z-axis metric. This commitment to wireless 9-1-1 location accuracy extends to ongoing work to achieve a dispatchable location solution through the National Emergency Address Database (NEAD), as well as the alternative path set forth in the *Fourth Report and Order* for the provision of vertical location, or z-axis, together with a more targeted horizontal location requirement.

¹ See *Draft Wireless E911 Location Accuracy Requirements*, Fourth Further Notice of Proposed Rulemaking, PS Docket No. 07-114 (circulated Feb. 22, 2019).



During the meetings, we discussed the reasons why further technology development and testing remains necessary to validate the accuracy of vertical location technology solutions to meet the FCC’s proposed metric of ± 3 meters across regions, weather conditions and devices.² To examine innovative z-axis technologies including compensated barometric pressure sensor and 3D Wi-Fi solutions, the 9-1-1 Location Accuracy Technologies Test Bed, LLC (test bed) has announced the launch of the next round of z-axis testing, Stage Za, and has invited vendors to participate.³ To date, the independent test bed mandated by Section 20.18(i)(3)(i) of the Commission’s rules has evaluated two barometric pressure-based z-axis solutions applied to more recent handset models, and those results serve as the primary basis for the FNPRM.⁴ CTIA and its nationwide wireless provider member companies have previously observed that those results were unable to validate the proposed metric, and so z-axis solutions must be further evaluated to determine whether, as the proposed rule requires, the solution can deliver ± 3 meter vertical location accuracy for 80% of wireless calls in the test bed. Specifically, CTIA understands that the proposed metric of ± 3 meters is accuracy in the test bed, relative to a reference plane, at the 80th percentile. Given the ongoing evolution of vertical location solutions, CTIA urged the Commission to encourage all z-axis technology solutions vendors to participate in Stage Za.

In support of the FNPRM’s goal of certainty for all stakeholders, we discussed how the FNPRM could further emphasize the application of the proposed rule as set forth in Appendix A of the FNPRM. Namely, the second sentence of paragraph 11 should include the following underlined language: “To comply with this proposed requirement, the caller’s handset should be located within 3 meters above or below the vertical location provided by the phone for 80% of indoor wireless calls to 911, as demonstrated in the test bed.” This modification underscores how the proposed z-axis metric would fit into the E911 location accuracy compliance scheme in Section 20.18(i)(2)(iii)(A), as the FNPRM envisions: nationwide CMRS

² See Letter from Matthew Gerst, Assistant Vice President, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (Dec. 19, 2018).

³ See Press Release, CTIA’s 9-1-1 Location Accuracy Technologies Test Bed Opens for Additional Testing (Feb. 26, 2019), <https://www.ctia.org/news/ctias-9-1-1-location-accuracy-technologies-test-bed-opens-for-additional-testing>.

⁴ 47 C.F.R. § 20.18(i)(3)(i); Letter from Scott K. Bergmann, Senior Vice President, Regulatory Affairs, CTIA *et al.*, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (filed Aug. 3, 2018) (CTIA Z-Axis Letter) and Attachment, 911 Location Test Bed, LLC, Report on Stage Z (Test Bed Report).



providers are to certify that the indoor location technologies used in their networks are deployed consistently with how they were tested in the test bed (in compliance with the metric), for 80% of the population of the top 25 CMAs by April 3, 2021 and the top 50 CMAs by April 3, 2023.⁵

CTIA further urged the Commission to seek comment on ways to ensure that the rules maintain flexibility and technological neutrality so that CMRS providers can adopt any solutions that meet the proposed metric and corresponding Commission rules.

Pursuant to Section 1.1206 of the Commission's rules, a copy of this letter is being filed in ECFS and provided to the Commission meeting attendees. Please do not hesitate to contact the undersigned with any questions.

Sincerely,

/s/ Matthew Gerst

Matthew Gerst
Vice President, Regulatory Affairs

cc: Zenji Nakazawa
Travis Litman
Will Adams
Erin McGrath
Randy Clarke

⁵ 47 C.F.R. § 20.18(i)(2)(iii)(A), (i)(2)(ii)(C)(2) & (i)(2)(ii)(D)(2).