

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

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

**COMMENTS OF THE ALLIANCE FOR
TELECOMMUNICATIONS INDUSTRY SOLUTIONS**

The Alliance for Telecommunications Industry Solutions (ATIS) hereby submits these comments in response to the *Fourth Further Notice of Proposed Rulemaking (Fourth FNPRM)* released March 18, 2019, in the above-referenced docket. ATIS supports efforts to provide information that can help first responders and others locate 9-1-1 callers and encourages the Commission to consider the input below related to technical and operational issues associated with the provision of z-axis location information.

I. BACKGROUND

ATIS is a global standards development and technical planning organization that develops and promotes worldwide technical and operations standards for information, entertainment, and communications technologies. ATIS' diverse membership includes key stakeholders from the Information and Communications Technologies (ICT) industry – wireless and wireline service providers, equipment manufacturers, broadband providers, software developers, consumer electronics companies, public safety agencies, and internet service providers. ATIS is also a founding partner and the North American Organizational Partner of the

Third Generation Partnership Project (3GPP), the global collaborative effort that has developed the Long Term Evolution (LTE) and LTE-Advanced wireless specifications. Nearly 600 industry subject matter experts work collaboratively in ATIS' open industry committees and incubator solutions programs.

ATIS Emergency Services Interconnection Forum (ESIF) develops Next Generation 9-1-1 (NG9-1-1) and location accuracy requirements and solutions, and identifies and resolves technical and operational issues to facilitate interconnection of emergency services networks with other networks (e.g., wireline, cable, satellite, Internet, etc.) and issues related to the delivery of E9-1-1 and NG9-1-1 services. ESIF liaises with standards and government organizations to apprise them of its deliberations and decisions. ESIF also works closely with the Association of Public-Safety Communications Officials (APCO) International, which educates public safety communications professionals, and National Emergency Number Association (NENA), which currently manages the technical evolution of the 9-1-1 system and emergency communications process.

ATIS serves as project manager for the 9-1-1 Location Technologies Test Bed, LLC and National Emergency Address Database (NEAD) LLC -- independent entities established by CTIA - The Wireless Association®. The NEAD serves as a resource of registered wireless access points that help locate someone calling 9-1-1 from a mobile device. The CTIA Test Bed independently and transparently evaluates the performance of new and existing wireless 9-1-1 location information technologies. In its role as project manager for these initiatives, ATIS oversees test plan implementation to facilitate the collection of unbiased data related to location accuracy testing in a timely manner in accordance with the Commission's rules, and provides programmatic, database, and technical support for the implementation of the NEAD.

II. COMMENTS

In the *Fourth FNPRM*, the Commission proposes a vertical/z-axis location accuracy metric of plus or minus three meters relative to the handset for each of the Commission's previously adopted benchmarks and geographic requirements.¹ The Commission seeks comment on whether commercial mobile radio service (CMRS) providers should be required to identify the floor level when reporting z-axis information.² ATIS ESIF notes that floor level information is not derived directly from location determination processes. Rather floor level may be derived via: (1) manual processes in which data is associated with end devices via proximity techniques; or (2) software processes, such as reverse geocoding using geographic information system -based map data, using the z-axis component as input. However, there currently exists no data source that correlates any form of z-axis data to a floor index or floor label. Because this floor level data is more challenging to obtain and potentially limited by current practical manual or software processes, it should not be required. Instead, ATIS ESIF recommends that, when available, floor level information should be provided in addition to z-axis information.

ATIS ESIF notes that, in providing altitude data, the responsibility of service providers should generally be limited to ensuring that the relevant location data gets to where it needs to go. How public safety answering points (PSAPs) use/convert this data is outside the jurisdiction and control of service providers. That being said, ATIS ESIF cautions against requiring conversion of location data into multiple formats, noting that this could introduce additional

¹ *Fourth FNPRM*, ¶11. Under the proposed rules: (1) by April 3, 2021, nationwide CMRS providers shall deploy in each of the top 25 CMAs either dispatchable location, or z-axis technology in compliance with the following z-axis accuracy metric: within 3 meters above or below (plus or minus 3 meters) the handset for 80% of wireless E911 calls; and (2) by April 3, 2023: nationwide CMRS providers shall deploy in each of the top 50 CMAs either dispatchable location, or z-axis technology in compliance with the following z-axis accuracy metric: within 3 meters above or below (plus or minus 3 meters) the handset for 80% of wireless E911 calls. *Fourth FNPRM*, Appendix A.

² *Fourth FNPRM*, ¶14.

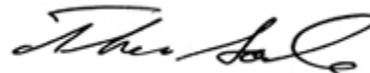
errors. All conversion processes necessarily introduce uncertainty/ambiguity issues that make location estimates less dependable. Moreover, it is not always known what methods are being used by PSAPs as z-axis information may be expressed in more than one way, such as: height above ground level; floor index; and/or labeled floor identifier (often different from floor index).

ATIS ESIF recommends that, to ensure that PSAPs can convert location information to the format that best suits their needs, a baseline requirement would be to deliver this information as height above ellipsoid per World Geodetic System 1984 (WGS-84) datum.

III. CONCLUSION

ATIS appreciates the opportunity to provide its input to the *Fourth FNPRM* and urges the Commission to consider the recommendations above.

Respectfully submitted,



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