

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

In the Matter of)	
)	
Inquiry Concerning 911 Access, Routing,)	PS Docket No. 17-239
and Location in Enterprise Communications)	
Systems)	

COMMENTS OF CTIA

I. INTRODUCTION.

CTIA¹ submits these comments to the Notice of Inquiry (NOI) examining the provision of 9-1-1 by Enterprise Communications Systems (ECS) and, in particular, responds to the questions regarding the National Emergency Address Database (NEAD)² – the database of fixed indoor wireless access points that CTIA and the national wireless providers are developing in partnership with representatives of the 9-1-1 community to enhance location accuracy for indoor 9-1-1 wireless calls.³

As the *NOI* notes, “consumers expect that a 911 call made from anywhere in the country will be routed to the appropriate 911 call center or Public Safety Answering Point (PSAP), that location and callback information will be transmitted to the PSAP, and that the location information provided will be accurate and precise enough to ensure prompt dispatch of emergency personnel to the caller’s location.”⁴

In the wireless context, CTIA and its member companies have worked with the FCC and the public safety community for over two decades to develop and enhance the location accuracy

¹ CTIA® (www.ctia.org) represents the U.S. wireless communications industry and the companies throughout the mobile ecosystem that enable Americans to lead a 21st-century connected life. The association’s members include wireless carriers, device manufacturers, suppliers as well as apps and content companies. CTIA vigorously advocates at all levels of government for policies that foster continued wireless innovation and investment. The association also coordinates the industry’s voluntary best practices, hosts educational events that promote the wireless industry, and co-produces the industry’s leading wireless tradeshow. CTIA was founded in 1984 and is based in Washington, DC.

² The NEAD is administered and operated by the NEAD LLC (<http://www.911nead.org>) which is a wholly owned subsidiary of CTIA.

³ *Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems*, Notice of Inquiry, PS Docket No. 17-239, FCC 17-125 (2017) (“*ECS 9-1-1 NOI*” or “*NOI*”).

⁴ *ECS 9-1-1 NOI* ¶ 1.

associated with wireless 9-1-1 calls. Most recently, as part of the *E911 Location Accuracy Fourth Report and Order* adopted in 2015, the FCC updated its wireless 9-1-1 location accuracy rules with an eye toward improving indoor location and providing vertical location, following the Roadmap proposal submitted by APCO, NENA, and the four national wireless carriers.⁵ The NEAD is a direct outgrowth of the Roadmap and the *Fourth Report and Order*.

In the *NOI*, the Commission seeks comment on the relevance of the NEAD to ECS 9-1-1 capabilities.⁶ CTIA submits these comments to encourage ECS stakeholders in this proceeding to explore whether their enterprise wireless access points can be used to support the NEAD to assist both 9-1-1 wireless call location accuracy and ECS call information.⁷ CTIA believes the NEAD can be enhanced and may be utilized by ECS indoor wireless products. CTIA and the NEAD LLC are ready to be a resource for ECS stakeholders to utilize in support of 9-1-1 capabilities.

II. ECS PARTICIPATION IN THE NEAD CAN ENHANCE WIRELESS 9-1-1 INDOOR ACCURACY AND ECS CALL INFORMATION.

An outgrowth of the FCC's *E911 Location Accuracy Fourth Report and Order*, the NEAD will serve as a national database of media access control (MAC) address information of fixed indoor wireless access points (i.e., Wi-Fi and Bluetooth Low Energy Beacons) and

⁵ *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, 30 FCC Rcd 1259 (2015); see Letter from APCO International, Sprint Corporation, AT&T Services, Inc., T-Mobile USA, Inc., National Emergency Number Association, and Verizon Wireless to Federal Communications Commission, PS Docket No. 07-114 (filed Nov. 18, 2014), Attachment A, *Roadmap for Improving E911 Location Accuracy* ("Roadmap") (submitted by CTIA).

⁶ *ECS 9-1-1 NOI* ¶ 26 (asking whether ECS could leverage in-building location information from existing or future databases such as the NEAD); *id.* ¶ 31 (seeking comment on whether MAC addresses associated with ECS could be entered in the NEAD and used to help improve indoor 911 location accuracy for ECS).

⁷ CTIA does not take a view on the question of whether the Commission has the requisite authority to or should regulate ECS 9-1-1 services.

associated street address and additional information (e.g., floor, suite, room). Wireless providers will utilize the NEAD to identify the dispatchable location of wireless 9-1-1 callers (i.e., street address, plus additional information such as suite, apartment or similar information necessary to adequately locate the caller).

CTIA and our member companies, in partnership with representatives of the 9-1-1 community, have made significant progress on the development and implementation of the NEAD platform since the FCC's 2015 order. In 2016, ATIS adopted initial standards that define the operations of the NEAD,⁸ and West Safety Services was selected as the vendor to develop and operate the NEAD.⁹ Just this week, the Commission approved the NEAD Privacy & Security Plan as directed by the 2015 order.¹⁰ Throughout the next year, wireless providers and representatives of the 9-1-1 community will evaluate the NEAD's ability to deliver information that providers can utilize to provide PSAPs with a dispatchable location for indoor wireless 9-1-1 calls. We expect the NEAD will be available for providers to utilize for live wireless 9-1-1 calls soon thereafter.

⁸ Alliance for Telecommunications Industry Solutions ("ATIS"), *Standard for Location Accuracy Improvements for Emergency Calls*, ATIS-0700028 (Oct. 2016).

⁹ CTIA, *Wireless Industry Announces Latest Step Toward Enhancing Mobile 911 Location Services: Selected West as 911 National Emergency Address Database Operator* (Oct. 4, 2016), <https://www.ctia.org/industry-data/press-releases-details/press-releases/wireless-industry-announces-latest-step-toward-enhancing-mobile-911-location-services>.

¹⁰ *Wireless E911 Location Accuracy Requirements*, Memorandum, Opinion and Order, FCC 17-150 (rel. Nov. 14, 2017); *see also*, Letter from NEAD LLC, AT&T, Sprint, T-Mobile, and Verizon to Federal Communications Commission, PS Docket No. 07-114 (filed Feb. 3, 2017) (attaching the NEAD Privacy & Security Plan).

In the *NOI*, the Commission seeks comment on the relevance of the NEAD to ECS 9-1-1 capabilities.¹¹ The *NOI* asks whether MAC addresses associated with ECS wireless access points could be entered into the NEAD and used to help improve indoor 9-1-1 location accuracy for ECS.¹² As a threshold matter, CTIA does not take a view on the question of whether the Commission has the requisite authority to or should regulate ECS 9-1-1 services. CTIA submits these comments to provide context for the Commission’s inquiry about the NEAD and inform ECS stakeholders about the opportunities to support and utilize the NEAD to enhance wireless and ECS indoor 9-1-1 location information.

Ultimately, the success of the NEAD and its ability to support providers’ dispatchable location solutions for wireless 9-1-1 calls or any other 9-1-1 calls depends on having a robust database with as many wireless access points as possible. To that end, the NEAD is actively seeking to engage reference point owners— internet service providers, enterprises, public institutions, and any entity that owns or manages significant numbers of wireless access points—to contribute such data to the NEAD for the exclusive purpose of enhancing 9-1-1 indoor location information. In anticipation of a role for enterprise wireless access points, but separate and apart from this *NOI*, ATIS has been developing a standard to enable enterprise systems and providers to interface with the NEAD to support wireless 9-1-1 calls from indoor enterprise

¹¹ *ECS 9-1-1 NOI* ¶ 26 (asking whether ECS could leverage in-building location information from existing or future databases such as the NEAD); *id.* ¶ 31 (seeking comment on whether MAC addresses associated with ECS could be entered in the NEAD and used to help improve indoor 911 location accuracy for ECS).

¹² *ECS 9-1-1 NOI* ¶¶ 26, 31.

environments.¹³ CTIA encourages ECS stakeholders to engage the NEAD and submit MAC addresses with associated address information from fixed indoor wireless ECS products to enhance wireless 9-1-1 location accuracy capabilities indoors.

CTIA also believes that ECS stakeholders should explore whether the NEAD could be used to support ECS 9-1-1 information. The national wireless carriers have expended significant resources in the launch and development of the NEAD to improve wireless 9-1-1 call location accuracy. While CTIA does not take a view on whether the FCC should adopt rules regulating ECS 9-1-1 services, we are ready to be a resource to ECS providers and manufacturers and all stakeholders to explore how the NEAD can advance all 9-1-1 stakeholder interests.

III. CONCLUSION.

CTIA looks forward to reviewing the record and engaging in a collaborative dialogue with interested ECS stakeholders on how ECS products could support the NEAD to enhance location accuracy of indoor 9-1-1 wireless calls and how the NEAD could be used to support ECS 9-1-1 location information.

Respectfully submitted,

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¹³ The development of the NEAD architectural extensions to accommodate the enterprise systems has been completed within ATIS and the updated standard is expected to be completed and published in 2018. In addition, ATIS members are coordinating with 3GPP to consider corresponding specification modifications to support this capability.

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