

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

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

CTIA PETITION FOR RECONSIDERATION

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Pursuant to Section 1.429 of the Commission’s rules,¹ CTIA respectfully submits this Petition for Reconsideration of the *Sixth Report and Order and Order on Reconsideration* (Sixth R&O) adopted by the Federal Communications Commission (Commission or FCC) in the above-captioned proceeding on July 16, 2020.²

I. INTRODUCTION AND SUMMARY.

Under the Commission’s leadership, wireless providers are delivering increasingly accurate location information with wireless 9-1-1 calls. Vertical location (Z-axis) is the next phase of mobile wireless 9-1-1 location accuracy, and the Sixth R&O affirmed the Commission’s framework for delivering Z-axis information with mobile wireless 9-1-1 calls. While CTIA and the nationwide wireless providers remain optimistic about technologies and solutions that can achieve the Commission’s Z-axis accuracy metric of ± 3 meters, the Commission should reconsider the Sixth R&O’s rules and timelines implementing that metric. The Sixth R&O’s rules and timelines simply cannot hold under the current conditions.³

¹ 47 C.F.R. § 1.429.

² *Wireless E911 Location Accuracy Requirements*, Sixth Report and Order and Order on Reconsideration, PS Docket No. 07-114, FCC 20-98 (rel. July 17, 2020) (Sixth R&O).

³ In light of the changed circumstances discussed herein, reconsideration of the Sixth R&O is warranted under Section 1.429(b) of the Commission’s rules. 47 C.F.R. § 1.429(b).

The Sixth R&O acknowledged that the COVID-19 pandemic could impact the testing and deployment of 9-1-1 location accuracy solutions, but no one anticipated today's challenges. These changed circumstances have derailed the prospects for achieving the Sixth R&O's timelines. Recently adopted and evolving government restrictions and building access limitations have delayed testing necessary to determine whether any technology can be validated for compliance with the Sixth R&O's requirements. Thus, reconsideration of the decision is warranted because of the changed circumstances related to COVID-19 that have prevented wireless providers from validating whether any technology will meet the vertical location accuracy requirements before April 2021, as required by the Commission's rules.⁴

Further, the Sixth R&O's Z-axis benchmarks are in effect a technology mandate for network-dependent, barometric-sensor based solutions premised on claims made by two vendors. With only seven months to go, these vendors have not integrated their solutions directly into the handsets used by most wireless 9-1-1 callers, as the Commission encouraged.⁵ In the absence of integration with a handset, the Sixth R&O shifted responsibility onto consumers to opt-in to 9-1-1 vertical location solutions through over the top (OTT) applications, an unprecedented change of 9-1-1 policy that forces consumers to take action to receive the benefits of 9-1-1. To date, there is no evidence the two vendors have successfully launched Z-axis solutions as OTT applications that can be integrated with a 9-1-1 call. Moreover, the record shows that nearly half of all wireless handsets do not have the barometric pressure sensors that are necessary to use the

⁴ Notably, neither of the vendor solutions on which the Commission has based the Z-axis rules and timelines have been tested in a production-ready configuration or validated as meeting the Commission's metric in the 9-1-1 Location Accuracy Technologies Test Bed (Test Bed).

⁵ Handset integration is necessary for any handset to automatically detect a 9-1-1 call, launch the requisite location information (horizontal or vertical) determination process, and report the resulting location information to a wireless provider so that it can be transferred to a public safety answering point (PSAP).

network-dependent, barometric-sensor based solutions. As such, reconsideration of the FCC's Z-axis benchmarks in the Sixth R&O is warranted because the vendors' claims have not panned out, and time is running out.

Reconsideration would provide the Commission with an opportunity to recognize a viable path forward that will deliver on public safety's objectives for accurate vertical location information of wireless 9-1-1 calls. Mobile operating system (OS)-based 9-1-1 vertical location solutions can deliver ± 3 meter vertical location information nationwide years earlier than the Sixth R&O's framework and to tens of millions of more 9-1-1 calls than any other technology solution. Moreover, the Sixth R&O's rejection of a mobile OS-based framework is not consistent with Commission precedent to phase-in new location accuracy solutions over time and ignores how public safety professionals routinely use uncertainty information to gauge the accuracy of location information.

The current environment requires Commission action to right the Z-axis benchmarks in order for wireless providers to deliver on the promise of vertical location information with ± 3 meters accuracy.

II. THE COVID-19 PANDEMIC HAS STALLED ANY ABILITY TO VALIDATE WHETHER Z-AXIS LOCATION SOLUTIONS CAN MEET THE FCC'S BENCHMARKS.

In the Sixth R&O, the FCC recognized that the COVID-19 pandemic could have a "potential impact" on upcoming testing,⁶ but the gravity of Z-axis testing challenges has only become known since the Sixth R&O was adopted. New evidence in the record explains that both government restrictions and property owner responses to the pandemic have shut down building

⁶ Sixth R&O at n.35.

access and negated the ability to safely and effectively test Z-axis technologies indoors before April 2021.⁷ That testing is necessary to validate any technology that could be used to comply with the Commission's 9-1-1 Z-axis location requirements, as noted below. Reconsideration is thus warranted under Section 1.429(b) of the Commission's rules.⁸

The 9-1-1 Location Technologies Test Bed, LLC (Test Bed), through CTIA, informed the Commission in late August that the next round of testing of Z-axis location technologies, Stage Zb, would be delayed due to the impact of COVID-19.⁹ As CTIA explained, in accordance with ANSI-accredited ATIS Standards, the Test Bed conducts wireless 9-1-1 indoor location accuracy testing in buildings that represent a broad diversity of indoor environments, including office buildings, residential buildings (both apartment buildings and condominiums), hotels, and event venues, in a cross-section of morphologies.¹⁰ The testing process itself involves 9-1-1 test calls placed from different operational environments within each building by field collection teams consisting of engineers, project managers, and subject matter experts over extended periods of time. These testing locations represent different areas within buildings from which a 9-1-1 call might be initiated, such as tenant spaces in residential buildings and office spaces. The Test Bed's vendor selects and surveys candidate buildings and is then responsible for procuring access rights from property managers.

⁷ See Letter from Scott K. Bergmann, Senior Vice President, Regulatory Affairs, CTIA et al., to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114, 2 n.3 (filed Aug. 21, 2020) (Zb Test Bed Letter) (citing the varied COVID-19 orders with differing protocols among potential Test Bed regions).

⁸ 47 C.F.R. § 1.429(b).

⁹ See Zb Test Bed Letter.

¹⁰ *Id.* at 1.

The response to the COVID-19 pandemic has created significant challenges to safely gaining access to test buildings for field collection teams across multiple test cities, including Atlanta, Houston, Philadelphia, Chicago, Minneapolis, New York, San Francisco, and Seattle.¹¹ Each stage of testing has typically involved access to roughly 50 buildings across multiple regions and morphologies. After several months of effort with outreach to over 450 building managers, only three buildings provided positive feedback.¹² In residential buildings, most building owners are not willing to consider testing at this time, and access to individual tenant units poses a further challenge. In commercial buildings, property managers have been largely unresponsive or expressed similar reservations about testing at this time. The COVID-19 pandemic has literally stalled access to building interiors that are essential to the testing process. As a result, the Test Bed delayed Stage Zb testing and committed to resume Stage Zb when testing can be safely accomplished and property managers agree to provide access to buildings in the test cities.

Section 9.10(i)(3)(i) of the Commission’s rules requires providers to “validate technologies intended for indoor location, including ... technologies that deliver horizontal and/or vertical coordinates, through [the] test bed process, in order for such technologies to be presumed to comply with the location accuracy requirements....”¹³ The FCC’s rules also require wireless providers to certify “that the indoor location technology (or technologies) used in their networks are deployed consistently with the manner in which they have been tested in the test

¹¹ *Id.* at 1-2.

¹² *Id.* at 2.

¹³ 47 C.F.R. § 9.10(i)(3)(i).

bed.”¹⁴ Further, the Sixth R&O made clear that if wireless providers “intend to use a 911 location technology that is still under development,” then that technology “needs to be improved within the timetable adopted.”¹⁵ Without the ability to operate Stage Zb, wireless providers cannot validate whether any solutions can meet the Commission’s Z-axis benchmarks with any location technology identified in the Sixth R&O.¹⁶

Contrary to vendor claims, the Test Bed’s Stage Z Report did not validate either NextNav or Polaris Wireless as meeting the Commission’s ± 3 meters for 80 percent Z-axis performance metric in all regions and morphologies in any production-ready configuration.¹⁷ The Stage Z Report concluded that the results “demonstrate that it is challenging to identify a Z-axis metric that can be consistently replicated in a live 9-1-1 calling environment with only two technology vendors participating in this round of Z-axis testing, *under somewhat artificial conditions*.”¹⁸ And further, the Commission’s Fifth R&O concluded that Stage Z testing formed the foundation for adopting the Z-axis metric of ± 3 meters for 80 percent of calls in the Test Bed, but the Commission acknowledged that the Fifth R&O did not serve to validate that either NextNav or Polaris Wireless complies with the metric.¹⁹

¹⁴ *Id.* § 9.10(c)(2)(iii).

¹⁵ Sixth R&O at ¶ 30.

¹⁶ Stage Zb was preparing to test both network-based and mobile OS-based Z-axis solutions, but now these Z-axis solutions will not be tested in time to meet the April 2021 benchmark.

¹⁷ A solution should be considered “production ready” when it can be tested in a manner consistent with how a wireless provider could deploy the technology for actual 9-1-1 calls (*e.g.*, integrated with mobile handsets or OS that are commonly used for wireless 9-1-1 calls).

¹⁸ Letter from Scott K. Bergmann, Senior Vice President, Regulatory Affairs, CTIA et al., to Marlene H. Dortch, 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, at 5 (Z-Axis Report) (emphasis added).

¹⁹ *Wireless E911 Location Accuracy Requirements*, Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, PS Docket No. 07-114, 34 FCC Rcd 11592, 11601 ¶ 16 n.64 (2019) (Fifth R&O and Fifth FNPRM, respectively) (“We agree that once the metric is established, z-axis solutions that

For Z-axis location solutions to be validated in the Test Bed, and certified by a wireless provider as compliant with the Commission's rules, the solution must be: 1) tested in a production-ready configuration; 2) evaluated in all required test regions and morphologies; 3) shown to meet the minimum performance standards established by the Commission's rules (*i.e.*, ± 3 meters for 80 percent of calls); and 4) deployed and available for 9-1-1 calls within the geographic areas required by the Sixth R&O consistent with the deployment evaluated in the Test Bed. As no Z-axis solutions have been validated to achieve the Commission's performance standards and, now because of the COVID-19 pandemic challenges, there will be no new opportunities for validation before the April 2021 deadline, the Commission should reconsider the timelines affirmed in the Sixth R&O.

III. THE Z-AXIS BENCHMARKS WERE PREMISED ON VENDOR PROMISES THAT HAVE NOT PANNED OUT AND TIME IS RUNNING OUT.

The Sixth R&O effectively creates a technology mandate with rules tailored for a network-dependent, barometric-pressure sensor-based technology that only two vendors have asserted they can deploy by the current April 2021 benchmark. The Commission repeatedly relied on the claims of these vendors in setting the benchmarks, but those vendor solutions have not delivered. This too is cause for reconsideration.

First, the Commission adopted the benchmarks relying on the various statements of only two vendors that their network-based technologies tested in Stage Z would develop into commercially ready solutions in advance of the April 2021 deadline.²⁰ However, these network-

carriers intended to use for compliance purposes must be tested and validated against the metric. However, we disagree with CTIA insofar as we find, for reasons discussed elsewhere in this *Fifth Report and Order*, that further testing is not required to support our establishment of the metric nor our expectation that carriers can meet the deployment benchmarks in a timely manner.”)

²⁰ See *id.* at 11597-98 ¶¶ 11-12, 11617 ¶ 54 (stating that implementing the “3-meter metric on schedule is technically feasible” because “[t]wo vendors have consistently shown in testing that they can meet or

based technologies are still not available to most wireless 9-1-1 callers. Despite vendors' repeated claims that their network-based solutions will be available to CMRS providers "well in advance" of the April 2021 deadline,²¹ NextNav and Polaris Wireless have not successfully integrated their solutions in the devices used by most wireless 9-1-1 callers in the Top 25 CMAs.²² Without such integration, the vertical location information provided by network-dependent solutions cannot be made available to public safety as part of a wireless 9-1-1 call. The record demonstrates that NextNav's solution is available on a single manufacturer's wireless handsets which are designed for "industrial enterprises and public sector agencies," not the typical wireless 9-1-1 caller.²³ With only seven months to go, NextNav and Polaris Wireless have provided no evidence that their solutions will be integrated into the handsets used by most wireless 9-1-1 callers by April 2021.²⁴

Second, in the absence of such integration, the Sixth R&O shifts responsibility onto consumers to opt-in to 9-1-1 vertical location on an individual device-basis, an unprecedented

surpass this standard"); Sixth R&O at ¶¶ 17, 28 n.84 (quoting NextNav as stating its solution would be ready for use well in advance of the Commission's April 2021 and 2023 compliance deadlines and Polaris Wireless as stating its solution can be ready for implementation on the current timeline).

²¹ See *supra* note 20 (citing to the Commission's reliance on statements by NextNav and Polaris in the Commission's record).

²² See Letter from CTIA to FCC, PS Docket No. 07-114, at 2 n.6 (filed July 9, 2020) (CTIA July 9, 2020 Ex Parte); see also Letter from CTIA to FCC, PS Docket No. 07-114, at 8 (filed Nov. 5, 2019); Letter from APCO International to FCC, PS Docket No. 07-114, at 3 (filed Oct. 25, 2019); Letter from Apple Inc. to FCC, PS Docket No. 07-114, at 3 (filed Oct. 29, 2019). NextNav has also acknowledged that some entities "have resisted incorporating new location technology approaches into their products." Comments of NextNav, PS Docket No. 07-114, at 7-8 (filed Feb. 21, 2020).

²³ Specifically, NextNav reached an agreement with Sonim Technologies to integrate its software. Sonim's 359,000 global handset sales in 2019 accounted for 0.02 percent of the 1.75 billion handsets shipped in 2019. CTIA July 9, 2020 Ex Parte at 2 n.6. See also Sonim Tech, *About Sonim Technologies*, <https://www.sonimtech.com/about/corporate/> (last visited Sept. 28, 2020).

²⁴ CTIA, the nationwide wireless providers, APCO, Apple and even NextNav all expressed concern regarding integration leading up to the Sixth R&O. See *supra* note 22.

change in 9-1-1 policy that creates further uncertainties as to the current approach.²⁵ The Sixth R&O envisions that wireless providers will “push” the vendor’s vertical location solution’s software to consumers’ handsets and that consumers will download or activate such applications and opt-in to the type of location tracking necessary to effectuate the vendors’ Z-axis solutions.²⁶ This contravenes the FCC’s long-held view that the 9-1-1 rules “do not envision location accuracy as being a product of customer choice”²⁷ and, more broadly, the societal importance of 9-1-1.²⁸ Moreover, there is no evidence that either vendor has successfully launched an over the top Z-axis application that is integrated with 9-1-1 calling and can either be “pushed” to consumers handsets’ or freely downloaded by consumers.

Third, the FCC relied on statements by NextNav to conclude that the barometric pressure sensors essential to their solution will be available in the majority of smartphones.²⁹ However, there is significant evidence in the record that barometric pressure sensors are *not* available in most smartphones in the U.S. Earlier this year, CTIA presented the FCC with evidence that from 2016 through 2018, only 51 percent of smartphones sold contained barometric pressure sensors.³⁰ T-Mobile explained that only half of certified devices on its network have such

²⁵ Sixth R&O at ¶ 39.

²⁶ *Id.*

²⁷ *Revision of the Commission’s Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Fourth Memorandum Opinion and Order, 15 FCC Rcd 17442, 17459 ¶ 49 (2000) (Fourth MO&O).

²⁸ See Sixth R&O, Statement of Commissioner Jessica Rosenworcel, Approving in Part, Dissenting in Part, at 2, available at <https://docs.fcc.gov/public/attachments/FCC-20-98A5.pdf> (“This is the way it should be. 911 is uniformly available for everyone. But with today’s decision we choose another course. That’s because we adopt an approach that requires 911 opt-in.”)

²⁹ Sixth R&O at ¶¶ 19, 41.

³⁰ See CTIA July 9, 2020 Ex Parte at 4 n.12; see also Letter from CTIA to FCC, PS Docket No. 07-114, at 6 (filed Nov. 5, 2019) (explaining that 51 percent of the more than 514 million smartphones sold in the

sensors.³¹ And AT&T stated that many devices on its network “do not have barometric pressure sensors, do not have barometric pressure sensors of sufficient quality, or can no longer be pushed software updates” and, as a result, only 26 percent of Android devices “could be considered Z-axis capable and have the capability to be upgraded to support vertical location.”³² While the Commission and other stakeholders have remained optimistic that the challenges of handset integration, application availability, and devices with barometric pressure sensors would be resolved in advance of the deadline, there is no evidence that these issues will be addressed before April 2021.

Several Commissioners expressed reservations that the Sixth R&O’s approach contained risks—risks that have become realities as developments have not advanced and the April 2021 benchmark approaches. As Commissioner Rosenworcel recognized in her separate statement:

“[W]ith today’s decision . . . we adopt an approach that requires 911 opt-in. Every wireless consumer will only get full location information sent with their emergency calls if they perform a specific software update on their device or respond to a notice from their carrier regarding an application that may be available. Let’s be honest, in the best case a whole lot of people are going to miss this one, never download it or respond to the fine print in a service notice. Plus, there are low-cost phones on the market that lack the sensor technology necessary to make this even work. As a result, the record suggests we might only get vertical location information with as few as two percent of calls to 911. That should set off alarm bells. Moreover, this is fundamentally at odds with how 911 has previously been provisioned in this country. Our tradition is to make it simple and democratic; possible for everyone to reach 911 everywhere. But now full location information only accompanies your call if you opt-in to this new system or have the right phone.”³³

U.S. from 2016 to 2018 contained a barometric pressure sensor; none of the more than 36 million feature phones sold during that period contained a barometric pressure sensor).

³¹ See CTIA July 9, 2020 Ex Parte at 4 n.13 (citing Letter from T-Mobile to FCC, PS Docket No. 07-114, at 3 (filed Apr. 23, 2020); Comments of T-Mobile, PS Docket No. 07-114, at 6 n.12 (filed May 20, 2019)).

³² See Letter from AT&T to FCC, PS Docket No. 07-114, at 1-2 (filed Apr. 22, 2020).

³³ Sixth R&O, Statement of Commissioner Jessica Rosenworcel, Approving in Part, Dissenting in Part, at 1-2, available at <https://docs.fcc.gov/public/attachments/FCC-20-98A5.pdf>.

And in his statement, Commissioner Starks raised concerns that many devices lack barometric sensors. He stated, “not all devices, particularly the less expensive devices often offered by Lifeline providers, contain barometric pressure sensors. ... [T]here are technologies on the horizon that can provide Z-axis information even for less expensive devices. The Commission should encourage the development of those solutions, because speedy response in an emergency should not be a luxury.”³⁴

Commissioner O’Rielly expressed concern as well, stating “I am afraid that the Phase II history is repeating itself, heading us to a deluge of waivers. Handset-based technology may not be ready before the earliest deadlines, forcing wireless providers to switch technologies mid-stream. That seems neither cost-effective nor efficient and Americans will ultimately pay. Our cost-benefit analysis did not consider the duplication of efforts.”³⁵

Earlier in this proceeding, in the notice of proposed rulemaking that initially recognized the possibility that vertical location information solutions could be developed for 9-1-1 calls, Chairman Pai expressed the importance of adopting 9-1-1 location accuracy rules that are both “aggressive and achievable.”³⁶ This remains true today. The rules the Commission adopts for 9-1-1 “should be more than aspirational” and should avoid saddling entities with “obligations that cannot be met.”³⁷

³⁴ Sixth R&O, Statement of Commissioner Geoffrey Starks, Approving, at 1, available at <https://docs.fcc.gov/public/attachments/FCC-20-98A6.pdf>.

³⁵ Sixth R&O, Statement of Commissioner Michael O’Rielly, Approving, at 1, available at <https://docs.fcc.gov/public/attachments/FCC-20-98A3.pdf>.

³⁶ *Wireless E911 Location Accuracy Requirements*, Third Further Notice of Proposed Rulemaking, 29 FCC Rcd 2374, 2565 (2014), Statement of Commissioner Ajit Pai, Approving in Part and Concurring in Part.

³⁷ *Id.*

CTIA and the nationwide providers seek a path forward now that avoids a repeat of the deluge of waivers the Commission faced in implementing its wireless 9-1-1 rules for horizontal location information (Phase II) almost 20 years ago. While available Z-axis solutions will not meet the rules adopted in the Sixth R&O, the Commission should reconsider its decision not to recognize a viable path that can achieve public safety's objectives of accurate vertical location information for the majority of wireless 9-1-1 calls.

IV. RECONSIDERATION PROVIDES AN OPPORTUNITY TO ADOPT A VIABLE PATH TO ACHIEVING ACCURATE 9-1-1 VERTICAL LOCATION INFORMATION NATIONWIDE.

The Commission's record contains a framework based on mobile OS-based solutions that can deliver ± 3 meters vertical location information for millions of wireless 9-1-1 callers, nationwide and earlier than the timelines adopted in the Sixth R&O.³⁸ CTIA agrees with the FCC that vertical location information in the largest markets is critical,³⁹ and mobile OS-based solutions would allow wireless 9-1-1 callers in smaller markets to also benefit from the same access to Z-axis information available at the same time as in larger markets.⁴⁰ In addition, mobile OS-based solutions would be deployed on the majority of current handsets and available to most wireless 9-1-1 callers, in contrast to the evidence above showing that barometric-sensor based Z-axis solutions can be incorporated in no more than 50 percent of current handsets at best.⁴¹ In reconsidering the Sixth R&O, the Commission should recognize the benefits of the

³⁸ See, e.g., Letter from CTIA to FCC, PS Docket No. 07-114, at 1 (filed June 15, 2020) (CTIA June 15, 2020 Ex Parte); see also CTIA July 9, 2020 Ex Parte at 2.

³⁹ Sixth R&O at ¶ 31.

⁴⁰ See CTIA June 15, 2020 Ex Parte at 2, Attach. B at 5; CTIA July 9, 2020 Ex Parte at 3-4; Letter from T-Mobile to FCC, PS Docket No. 07-114, at 7 (filed July 9, 2020) (T-Mobile July 9, 2020 Ex Parte).

⁴¹ See *supra* notes 30-32.

mobile OS-based framework and modify its rules to permit wireless providers to deliver accurate vertical location information for wireless 9-1-1 calls, nationwide.

The Sixth R&O warrants reconsideration because the Commission did not adequately consider the merits of alternative approaches. The Fifth FNPRM sought comment on “Alternative Options for Z-axis Deployment,” including modifying the geographic coverage requirements for nationwide coverage and seeking ways to improve Z-axis capability for a greater number of consumers and handsets.⁴² In response to the Fifth FNPRM, comments were submitted that proposed an alternative framework around mobile OS-based solutions.⁴³ These proposals clearly fell within the scope or were a logical outgrowth of the Fifth FNPRM. Thus, the Sixth R&O’s rejection of the mobile OS-based framework unnecessarily narrowed the scope of Fifth FNPRM, unreasonably excluded consideration of alternatives, and was arbitrary and capricious.

The Sixth R&O’s rejection of the mobile OS-based framework’s initial benchmark of ± 3 meters for 50 percent of calls in the Test Bed is inconsistent with Commission precedent of phasing-in new location accuracy solutions over time and ignored uncertainty information that public safety professionals routinely use to gauge the accuracy of location information.⁴⁴ Just a few years ago, the Commission adopted an initial enhanced 9-1-1 horizontal location accuracy benchmark of 40 percent of calls, as validated in the Test Bed, rising to 50 percent after three years.⁴⁵ The Commission adopted this rule in the Fourth R&O with no suggestion that a 40

⁴² Fifth FNPRM, 34 FCC Rcd at 11622-23 ¶¶ 71, 74-75.

⁴³ See T-Mobile July 9, 2020 Ex Parte at 3-5.

⁴⁴ Sixth R&O at ¶ 30.

⁴⁵ *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, 30 FCC Rcd 1259, 1261 ¶ 6 (2015) (adopting benchmark of 40 percent within 2 years and 50 percent within 3 years) (Fourth R&O).

percent “reliability” standard would be insufficient as an initial phase. However, the Sixth R&O inexplicably claims that a benchmark of 50 percent of calls for vertical location information would be inadequate and would “lead the public safety community to simply ignore z-axis information over the longer term.”⁴⁶ The Commission’s phased-in benchmark approach to horizontal location accuracy enabled wireless providers to deliver more accurate location information with wireless 9-1-1 calls than ever before.⁴⁷ Thus, the Sixth R&O’s rejection of the mobile OS-based framework on the basis of phased-in benchmarks is not consistent with the FCC’s successful precedent of phasing in new location accuracy solutions.

Moreover, the Commission has long recognized the importance of uncertainty information to enable public safety professionals to gauge the accuracy of location information.⁴⁸ The Sixth R&O does not sufficiently explain why public safety professionals cannot also rely on uncertainty information for vertical location information as benchmarks phase-in overtime under the mobile OS-based framework.

In reconsidering the Sixth R&O, the Commission has an opportunity to recognize the mobile OS-based framework to deliver tens of millions of more 9-1-1 calls, nationwide with ± 3

Today, more than five years after adoption, at least 70 percent of wireless 9-1-1 calls must provide horizontal location information within 50 meters under the Fourth R&O’s framework.

⁴⁶ Sixth R&O at ¶ 30.

⁴⁷ CTIA raised these points in an ex parte letter leading up to the adoption of the Sixth R&O, but the FCC failed to consider CTIA’s argument in the Sixth R&O in violation of Section 1.425 of the Commission’s rules, which requires the Commission to “consider all relevant comments and material of record before taking final action in a rulemaking proceeding” and to “issue a decision incorporating its finding and a brief statement of the reasons therefor.” See CTIA July 9, 2020 Ex Parte at 4 n.15; 47 C.F.R. § 1.425.

⁴⁸ See 47 C.F.R. § 9.10(j); Fifth R&O, 34 FCC Rcd at 11612 ¶ 41 (acknowledging the “public safety benefits” of confidence and uncertainty data); Fourth R&O, 30 FCC Rcd at 1326-30 ¶¶ 182-89; *Wireless E911 Location Accuracy Requirements*, Second Report and Order, 25 FCC Rcd 18909, 18928-30 (2010) (“the record supports a finding that confidence and uncertainty data is useful for PSAPs in all cases, and that it is both technologically feasible and in the public interest to require both handset-based and network-based carriers to provide confidence and uncertainty data”).

meters vertical location accuracy than any other technology solutions that the FCC considered in adopting the Sixth R&O benchmarks.⁴⁹ As noted above, these solutions would be available in markets across the nation—large and small—on the majority of current handsets making more accurate location information available for more wireless 9-1-1 callers, regardless of where they are located or the type of capable handset they may have.

V. CONCLUSION.

As accurate location information is critical for mobile wireless 9-1-1 calls, CTIA and the nationwide wireless providers remain optimistic about technologies and solutions that can achieve the accuracy metric of ± 3 meters for Z-axis information. Reconsideration of the Sixth R&O's rules and timelines implementing that metric is necessary in light of changed circumstances. By granting reconsideration, the FCC can ensure that its framework is adjusted to meet today's challenges and seize an opportunity to recognize a viable path to deliver on public safety's objectives for accurate vertical location information of wireless 9-1-1 calls.

⁴⁹ *See supra* note 38.

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