CTIA Asks FCC to Adopt New 911 Location-Accuracy Milestones

Citing testing delays caused by the COVID-19 pandemic and the inability of technologies to be ready to meet the FCC-mandated location-accuracy metric, CTIA has asked the Commission to reconsider its z-axis, or vertical, rules and deployment timelines. The request drew criticism today from the public safety community.

CTIA filed a petition for reconsideration yesterday in PS docket 07-114 of a sixth report and order and order on reconsideration adopted in July ([TR Daily](https://www.trdaily.com), July 16).

The item requires nationwide wireless carriers to deploy z-axis location-accuracy technology nationwide by April 2025, giving non-nationwide carriers an additional year to meet the mandate. It also affirmed a fifth report and order adopted last year that set a z-axis metric of plus or minus three meters relative to the handset for 80% of indoor calls ([TR Daily](https://www.trdaily.com), Nov. 22, 2019). The item required nationwide carriers to meet April 3, 2021, and April 3, 2023, milestones for complying with the metric in the top 25 and top 50 markets, respectively.

CTIA told the FCC last month that the next stage of 911 location-accuracy testing has been postponed due to the pandemic ([TR Daily](https://www.trdaily.com), Aug. 25). Carriers had said even before this that they wouldn’t likely be able to comply with the 2021 milestone. Several public safety groups have expressed concern since last month’s filing that the industry would seek an extension of that deadline. They argue that the wireless industry has had ample time to meet the FCC’s requirements.

“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,” CTIA said in its petition for reconsideration.

“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,” CTIA added.

“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,” CTIA added. “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 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,” the petition argued.

“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,” CTIA said. “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.”

The filing added that “[c]ontrary 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. 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.’ 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.”

The petition also said that “[t]he 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. 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. 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.”

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“First the industry abandoned the National Emergency Address Database along with the promise of delivering dispatchable locations within a reasonable timeframe. Now they’re looking to delay the z-axis deadline. APCO has been sounding the alarms all along,” said Derek Poarch, chief executive officer and executive director of the Association of Public-Safety Communications Officials-International. “The FCC needs to heed APCO’s repeated calls to adopt stricter requirements that ensure carriers provide the kind of actionable location information needed by 9-1-1 professionals to carry out their life-saving missions.”- Paul Kirby, paul.kirby@wolterskluwer.com

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