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Public Safety Community Bemoans CTIA Vertical Location Recon Request

CTIA’s petition citing the COVID-19 pandemic and the inability of technologies to be ready to meet the FCC-mandated location-accuracy metric as the basis for reconsidering its z-axis, or vertical, rules and deployment timelines has drawn highly critical objections from the public safety community and NextNav LLC.

CTIA filed a petition for reconsideration in PS docket 07-114 (TR Daily, Sept. 29) of a sixth report and order and order on reconsideration adopted in July (TR Daily, July 16).

The FCC item required 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, 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 it postponed the next stage of 911 location-accuracy testing due to the pandemic (TR Daily, Aug. 25). Carriers had said even before that filing it is unlikely they would be able to comply with the 2021 milestone.

In its comments, NextNav, a location-accuracy technology provider, argued that the CTIA petition should be rejected for a number of reasons, including that the time for seeking reconsideration of the deadlines has “long since” passed.

Among other things, the company rejected CTIA’s contention that the alternative timeline should be accepted because it was responsive to requests for comment in the fifth further notice regarding CMRS providers to deploy z-axis capable handsets nationwide.

“As the Sixth Report and Order explains, however, the carriers’ Alternative Proposal was not responsive to the above quoted language because the Commission clearly indicated in the italicized portion that any such alternative proposal would still need to comply with the Commission’s z-axis rules, which require 3-meter accuracy for 80% of calls,” NextNav said.

NextNav also objected to CTIA’s argument the timeline changes are warranted because of the cancellation of the so-called Stage Zb test bed.
The FCC already considered there could be delays because of the pandemic, NextNav said, adding that CTIA was also incorrect to argue that NextNav has not demonstrated that its vertical location technology meets the FCC’s requirements.

NextNav said it is “already fully engaged” in making its technology available in the top 25 cellular market areas and 50 CMAs ahead of the April 2021 deadline. Overall, the company said it “rapidly building out” its network in 105 CMAs.

The company contended that “a path forward still exists” for wireless carriers to address any pandemic-related compliance delays in the form of brief extensions of the April 2021 deadline, if they can show that have made “strong commercial efforts” to deploy proven vertical location technology by the deadline.

“NextNav stands ready to support carriers in this effort,” the company said. “NextNav is constructing its vertical location network in 105 major cities in the United States, which will be ready to serve carriers and public safety well in advance of the April 2021 deadline.”

Google LLC said its participation in testing has been “hindered” during the pandemic because of an inability to access buildings in which it can “safely and effectively test” its technologies. In addition, Google argued that fewer people working outside their homes means that results from testing “may be less representative over the long term” than they would be under normal conditions.

“Google has long advocated for providing the best location information to PSAPs and first responders as quickly as possible,” the company said. “Nevertheless, in light of the present circumstances and CTIA’s reasonable decision to postpone Stage Zb testing, Google urges the Commission once again to consider whether gradual implementation of vertical location benchmarks would ‘supply first responders with usable vertical location data sooner, and with more useful location information in the long run.’”

Apple, Inc., said that while it has continued “its work to improve” its hybridized emergency location (HELO) vertical location technology throughout the pandemic, the pandemic “negates” its ability to test the technology and means the evaluation might not be done in time to meet the April 2021 deadline.

“Apple’s work in developing, testing, and tuning HELO towards a suite of performant solutions in real-world circumstances requires that any initial evaluation of its solutions be representative of pandemic conditions and non-pandemic conditions,” Apple said.

In joint comments, the International Association of Fire Chiefs, the International Association of Fire Fighters, and the Metropolitan Fire Chiefs Association said, “The CTIA petition cites both ‘government restrictions and property owner responses’ as reasons to delay the April 2021 deadline. While the SARS-CoV-2 coronavirus and its resulting illness, COVID-19, has had dramatic effects upon the nation, we think that the CTIA overstates its case. In the spring, many buildings were shut due to the pandemic. However, states have been opening public buildings and even schools across the nation since May. Private buildings have likewise been opening for use. It would seem that handsets could be tested in buildings in a socially distanced manner. It is most disappointing that the CTIA did not ask major public safety organizations, such as the IAFC, IAFF or Metro Chiefs, to help them with local fire, EMS, and law enforcement agencies to gain access to buildings to test these devices.”
In separate comments, IAFF said it “strongly opposes” the CTIA reconsideration request, pointing out it has been testing z-axis location technology since 2014 with two vendors.

“The IAFF therefore finds it inconceivable that still another round of testing is needed just six months before the first compliance deadline,” the group said, adding that “further testing this year on alternative approaches is unlikely to identify a third option for the carriers to use to meet the April 2021 deadline regardless of whether the Stage Zb testing had to be cancelled. Given this, the Commission was correct in recently observing that the Stage Zb testbed was ‘irrelevant’ to the compliance deadline.”

IAFF also disputed CTIA’s contention that existing vertical location-technology vendors have not already proven they can meet the FCC requirements.

“What frustrates the IAFF most about CTIA’s petition is its apparent 'business as usual' approach to seek further delay in the implementation of new regulatory requirements,” IAFF said. “The Commission’s rules for vertical location accuracy were adopted to reduce the number of needless deaths that result from wireless calls to 911 that lack accurate location information. As the major proponent of the wireless industry, CTIA should embrace the Commission’s rules for wireless location accuracy in order to reinforce public confidence in its [members’] products. CTIA should not seek further delay in the implementation of these life-saving capabilities for reasons that appear motivated solely to save money.”


“Our organizations are strongly opposed to any delay to the location accuracy benchmarks,” they said. “Achieving three-meter accuracy for 80% of calls has been shown to be technically feasible. Carriers cannot be permitted to alter the timeline based on a desire for additional, late-stage testing, regardless of the reason that this testing has not been possible.”

In addition, carriers have the ability to negotiate that vertical location capabilities be built into their handsets, APCO and the others said.

“If the carriers were acting in good faith to achieve the benchmark but encountering difficulty in their negotiations with handset and OS providers, perhaps they’d be seeking assistance from the Commission to resolve the impasse,” they said. “Instead, the carriers ask the Commission to move the goalposts on public safety.”

APCO and the other groups also pushed for the FCC to grant APCO’s petition for reconsideration to revise the dispatchable location benchmark portion of the rules to “take into account the carriers’ abandonment of the National Emergency Address Database (NEAD)” (TR Daily, Sept. 24).

The FCC should establish a minimum percentage of 911 calls that must be delivered with “dispatchable location information rather than basing compliance on the number of reference points in a database,” they said.
The Boulder (Colo.) Emergency Telephone Service Authority (BRETSA) also counted itself among those public safety entities objecting to the CTIA reconsideration petition.

Wireless service providers are improperly trying to delay the provision of z-axis data to PSAs, the it said.

It argued that NextNav has “repeatedly demonstrated” its ability to provide a z-axis accuracy metric of +/- 3 meters, and has deployed or will deploy its technology in 25 CMAs and a total of 105 CMAs by the April 2021 deadline. In addition, BRETSA said, Polaris Wireless, Inc., another location-accuracy technology provider, has shown it would have vertical location technology available nationwide when it launches.

“How long will the Commission tolerate the Service [Providers’] delay in deployment of accurate and workable solutions while the Service Providers search for one ‘any-technology-but-NextNav’s/Polaris’ after another?” BRETSA asked.

It argued that CTIA’s arguments in favor of a delay “do not hold water,” and said, among other things, that testing could and should continue during the coronavirus pandemic.

“During the Covid 19 pandemic, when many employees are teleworking, would seem an ideal time for field-testing z-axis solutions,” BRETSA said. “Testing z-axis solutions would also seem an essential activity.” —Jeff Williams

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