



# PUBLIC NOTICE

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## PUBLIC SAFETY AND HOMELAND SECURITY BUREAU PROVIDES GUIDANCE TO CMRS PROVIDERS REGARDING UPCOMING CERTIFICATION OF COMPLIANCE WITH THREE-YEAR E911 LOCATION ACCURACY BENCHMARK AND REMINDS CMRS PROVIDERS OF ADDITIONAL LOCATION ACCURACY DEADLINES IN 2018

*Certifications Must Be Filed by June 4, 2018*

**PS Docket No. 07-114**  
**PS Docket No. 17-78<sup>1</sup>**

By this *Public Notice*, the Public Safety and Homeland Security Bureau (Bureau) provides guidance to Commercial Mobile Radio Service (CMRS) providers on filing their certifications of compliance with the three-year E911 location accuracy benchmark as required by Section 20.18(i)(2)(iii) of the Commission's rules.<sup>2</sup> The three-year benchmark requires CMRS providers to provide, as of April 3, 2018, dispatchable location or x/y location (latitude and longitude) within 50 meters for 50 percent of all wireless 911 calls. CMRS providers must certify compliance with this benchmark no later than **June 4, 2018**.<sup>3</sup> We also remind CMRS providers of additional E911 location accuracy deadlines in 2018.

### Indoor Location Benchmarks

On February 3, 2015, the Commission released the *Indoor Location Fourth Report and Order* adopting rules to improve indoor location accuracy by requiring CMRS providers to meet wireless 911 location accuracy metrics at periodic benchmarks.<sup>4</sup> The rules provide that nationwide CMRS providers

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<sup>1</sup> For administrative convenience, we have opened a separate docket for the filing of E911 location accuracy certifications. This docket is only for location accuracy certifications. CMRS providers should continue to file location accuracy live call data reports in the [live911callreports@fcc.gov](mailto:live911callreports@fcc.gov) mailbox provided for such filings. See *Public Safety and Homeland Security Bureau Provides Guidance to CMRS Providers Regarding Certification of Compliance with E911 Location Accuracy Requirements*, Public Notice, 33 FCC Rcd 2127, 2127 n.1 (2017). The original rulemaking docket, PS Docket No. 07-114, remains open for other rulemaking-related matters.

<sup>2</sup> 47 CFR § 20.18(i)(2)(iii).

<sup>3</sup> CMRS providers must file their certifications within 60 days after each benchmark date specified in Sections 20.18(i)(2)(i) and (ii) of the rules. See 47 CFR § 20.18(i)(2)(iii). Sections 20.18(i)(2)(i) and (ii), in turn, provide that the benchmarks are measured from the effective date of adoption of the relevant rule, which was April 3, 2015. See *id.* § 20.18(i)(2)(i) and (ii); *Wireless E911 Location Accuracy Requirements*, 80 Fed. Reg. 11806 (March 4, 2015).

<sup>4</sup> See *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, 30 FCC Rcd 1259 (2015) (*Indoor Location Fourth Report and Order*) and rules 47 CFR § 20.18(i) *et seq.*

must demonstrate location accuracy by providing (1) dispatchable location,<sup>5</sup> or (2) x/y location within 50 meters, for the following percentages of wireless 911 calls within the following timeframes, measured from the effective date of the adoption of the rule (the Effective Date):<sup>6</sup>

- Within 2 years: 40 percent of all wireless 911 calls.
- Within 3 years: 50 percent of all wireless 911 calls.
- Within 5 years: 70 percent of all wireless 911 calls.
- Within 6 years: 80 percent of all wireless 911 calls.<sup>7</sup>

Non-nationwide CMRS providers (e.g., regional, small, and rural carriers) are subject to the same two- and three-year benchmarks as nationwide CMRS providers (i.e., 40 percent at 2 years, and 50 percent at 3 years). At years 5 and 6, non-nationwide CMRS providers are subject to the following horizontal accuracy requirements:

- Within the later of 5 years from the Effective Date or 6 months of having an operational Voice over Long Term Evolution (VoLTE) platform in their network, 70 percent of all wireless 911 calls (including VoLTE calls); and
- Within the later of 6 years from the Effective Date or one year of having an operational VoLTE platform in their network, 80 percent of all wireless 911 calls (including VoLTE calls).<sup>8</sup>

The *Indoor Location Fourth Report and Order* requires CMRS providers to establish an indoor location accuracy test bed and to validate indoor location technologies through the test bed process.<sup>9</sup> The Commission also requires CMRS providers to periodically collect and report aggregate data on the location technologies used for live 911 calls in their networks.<sup>10</sup> Nationwide CMRS providers must file quarterly reports aggregating live 911 call data from six representative cities (Test Cities).<sup>11</sup> Non-nationwide CMRS providers must report live 911 call data in one or more of the Test Cities or the largest county in their footprint, depending on the area served by the provider, but are only required to file their

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<sup>5</sup> “Dispatchable location” is “a location delivered to the PSAP by the CMRS provider with a 911 call that consists of the street address of the calling party, plus additional information such as suite, apartment or similar information necessary to adequately identify the location of the calling party. The street address of the calling party must be validated and, to the extent possible, corroborated against other location information prior to delivery of dispatchable location information by the CMRS provider to the PSAP.” 47 CFR § 20.18(i)(1)(i); *see also Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1273-74, paras. 43-44.

<sup>6</sup> The Effective Date was April 3, 2015. *See* Wireless E911 Location Accuracy Requirements, 80 Fed. Reg. 11806 (March 4, 2015).

<sup>7</sup> 47 CFR § 20.18(i)(2)(i)(A); *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1287, para. 74.

<sup>8</sup> 47 CFR § 20.18(i)(2)(i)(B); *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1287, para. 74.

<sup>9</sup> 47 CFR § 20.18(i)(3)(i); *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1307-08, paras. 127-29.

<sup>10</sup> 47 CFR § 20.18(i)(3)(ii); *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1310, paras. 135-36.

<sup>11</sup> 47 CFR § 20.18(i)(3)(ii)(A)-(C); *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1310, para. 135. The Test Cities are Atlanta, Chicago, Denver/Front Range, Manhattan Borough, Philadelphia, and San Francisco and their surrounding geographic areas. These areas correspond to the six geographic regions specified by the February 7, 2014 Alliance for Telecommunications Industry Solutions (ATIS) Document, “Considerations in Selecting Indoor Test Regions,” for testing of indoor location technologies, and further described in the June 2016 ATIS Standard 0500031 on Test Bed and Monitoring Regions Definition and Methodology. *See* ATIS, Letter to David De Lorenzo, CSRIC IV, Working Group 1, Task Group 3 Chair (Feb. 7, 2014), at <https://ecfsapi.fcc.gov/file/60001025418.pdf>; ATIS, ATIS Standard on Test Bed and Monitoring Regions Definition and Methodology, ATIS-0500031, June 16, 2016, available at ATIS, Document Center, at <https://www.atis.org/docstore/default.aspx>.

reports every six months.<sup>12</sup> The Bureau has previously released guidance on submission of these live 911 call data reports.<sup>13</sup>

### **Certification Requirements**

This year CMRS providers must meet the three-year benchmark, which requires them to provide, by April 3, 2018, dispatchable location or x/y location (latitude and longitude) within 50 meters for 50 percent of all wireless 911 calls. Within 60 days after the April 3 benchmark date, CMRS providers must certify “that they are in compliance with the location accuracy requirements applicable to them as of that date.”<sup>14</sup> The 60-day deadline for filing certifications falls on June 2, 2018, which is a Saturday, so certifications are due on the next business day, June 4, 2018.

The rules state that CMRS providers shall be presumed to be in compliance “by certifying that they have complied with the test bed and live call data provisions” in the rules.<sup>15</sup> All CMRS providers “must 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 bed.”<sup>16</sup> In addition, CMRS providers that file quarterly reports of live call data in one or more of the six Test Cities “must certify that their deployment of location technologies throughout their coverage area is consistent with their deployment of the same technologies in the areas that are used for live call data reporting.”<sup>17</sup> Non-nationwide CMRS providers that do not provide service or report quarterly live call data in any of the six Test Cities must also certify that they have verified based on their own live 911 call data that they are in compliance with the applicable accuracy requirements.<sup>18</sup>

Accordingly, although the rules do not require that the certification take any particular form or use any particular language, a CMRS provider will be presumed to have met the three-year benchmark set forth at 47 CFR § 20.18(i)(2)(i) if it certifies either of the following by June 4, 2018:

- As of April 3, 2018, (1) it provides service and reports live call data from one or more of the six Test Cities; (2) it is providing dispatchable location or x/y location information within 50 meters for 50 percent of all wireless 911 calls, (3) it has deployed the indoor location technology or technologies used in its networks consistently with the manner in which such technologies have been tested in the test bed, and (4) its deployment of location technologies throughout its coverage area is consistent with its deployment of the same technologies in the areas that are used for live call data reporting.
- As of April 3, 2018, (1) it does not provide service or report live call data in one or more of the Test Cities, (2) it is providing dispatchable location or x/y location information within 50 meters for 50 percent of all wireless 911 calls, (3) it has deployed the indoor location technology or technologies used in its networks consistently with the manner in which such technologies have been tested in the test bed, and (4) it has verified based on its own live call data that it is in compliance with the three-year benchmark set forth at 47 CFR § 20.18(i)(2)(i)(B)(2).

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<sup>12</sup> 47 CFR § 20.18(i)(3)(ii)(D), (E); *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1310, para. 136.

<sup>13</sup> *See Public Safety and Homeland Security Bureau Provides Guidance to CMRS Providers Regarding Upcoming E911 Indoor Location Accuracy Reporting Requirements*, Public Notice, 32 FCC Rcd 5584 (2017); *Public Safety and Homeland Security Bureau Provides Guidance to CMRS Providers Regarding Submission of Periodic E911 Location Accuracy Live Call Data Reports*, Public Notice, 32 FCC Rcd 745 (2017).

<sup>14</sup> *See* 47 CFR § 20.18(i)(2)(iii).

<sup>15</sup> *Id.*

<sup>16</sup> *See id.* § 20.18(i)(2)(iii)(A).

<sup>17</sup> *See id.* § 20.18(i)(2)(iii)(B).

<sup>18</sup> *See id.* § 20.18(i)(2)(iii)(C).

The certification must be signed by an officer or director of the CMRS provider who is familiar with and has responsibility for the provider's indoor location accuracy compliance. Any CMRS provider that is unable to meet the three-year benchmark should request a waiver of the relevant rule on or before the June 4, 2018 certification deadline.<sup>19</sup>

*Confidentiality, Obligation to Update Certifications.* We do not anticipate that providers will need to request confidential treatment of their certifications.<sup>20</sup> CMRS providers must submit an updated certification whenever they introduce a new technology into their network or otherwise modify their network in such a manner that previous performance in the test bed would no longer be consistent with the technology's modified deployment.<sup>21</sup> In addition, any non-nationwide CMRS provider that begins coverage in a Test City it previously did not serve must update its certification to reflect this change (and begin reporting data from the appropriate area to the Commission and NENA, APCO, and NASNA).<sup>22</sup>

### **Additional E911 Location Accuracy Deadlines in 2018**

We remind CMRS providers of the following additional upcoming location accuracy deadlines in 2018:

- **Live 911 Call Data Reports.** CMRS providers must submit live call data reports to the designated FCC email box ([live911callreports@fcc.gov](mailto:live911callreports@fcc.gov)) by the first business day of the second month after each period for which data is reported.<sup>23</sup> Reporting deadlines for 2018 are:
  - **May 1, 2018** – Nationwide CMRS providers submit 2018 first quarter data.
  - **August 1, 2018** – Nationwide CMRS providers submit 2018 second quarter data; non-nationwide providers submit 2018 first and second quarter data.
  - **November 1, 2018** – Nationwide CMRS providers submit 2018 third quarter data.
- **Provision of Uncompensated Barometric Data to Public Safety Answering Points (PSAPs) (Deadline: August 3, 2018).** Starting on this date, all CMRS providers shall make

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<sup>19</sup> The *Indoor Location Fourth Report and Order* notes that any provider that is unable to comply with the rules or deadlines adopted in the order may seek waiver relief and that the Commission will evaluate such waiver requests pursuant to the standards set forth in Sections 1.3 and 1.925 of its rules. See *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1316, para. 157.

<sup>20</sup> See 47 CFR § 0.459. If a waiver request includes confidential information and is filed via ECFS, the CMRS provider must file a redacted version of the pleading via ECFS and must also file a paper copy of the non-redacted version for which confidentiality is requested, along with the request for confidentiality, with the Office of the Secretary, Federal Communications Commission, 445 12th Street SW, Washington, DC 20554. All requests for confidential treatment must be consistent with Section 0.459 of the Commission's rules. Providers should file the redacted and confidential versions of pleadings on the same day.

<sup>21</sup> *Id.* § 20.18(i)(2)(iii)(A).

<sup>22</sup> *Id.* § 20.18(i)(3)(ii)(D); *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1313 n.363. CMRS providers with devices on their network operating with foreign A-GNSS signals for 911 location accuracy must certify that they have proper authorizations in place to permit such use. Before incorporating foreign A-GNSS into E911, CMRS providers must coordinate plans for foreign A-GNSS signal integration with the Bureau to confirm that signals are interoperable with GPS and that measures to prevent interference are appropriate. CMRS providers also must certify that the devices have been tested to determine their ability to detect and mitigate the effects of harmful interference. See *id.* at 1273, para. 40.

<sup>23</sup> *Public Safety and Homeland Security Bureau Provides Guidance to CMRS Providers Regarding Submission of Periodic E911 Location Accuracy Live Call Data Reports*, Public Notice, 32 FCC Rcd 745 (2017). Providers must also submit live call data to NENA, APCO, and NASNA. *Id.*

uncompensated barometric sensor data available to PSAPs with respect to any 911 call placed from any handset that has the capability to deliver barometric sensor information.<sup>24</sup>

- **Proposed Z-axis Accuracy Metric (Deadline: August 3, 2018).** By this date, nationwide CMRS providers shall develop one or more z-axis accuracy metrics validated by an independently administered and transparent test bed process and shall submit the proposed metric(s), supported by a report of the results of such development and testing, to the Commission for approval.<sup>25</sup> The Commission will seek public comment on the proposed metric(s) and use the final metric(s) for subsequent vertical accuracy benchmarks set forth in the rules.<sup>26</sup>
- **CMRS Provider 36-Month Progress Reports (Deadline: August 3, 2018).** By this date, all CMRS providers shall provide progress reports indicating what progress each provider has made consistent with its indoor location accuracy implementation plan. Nationwide CMRS providers shall include an assessment of their deployment of dispatchable location solutions. For any CMRS provider participating in the development of the National Emergency Address Database (NEAD), this progress report shall include detail as to the implementation of the NEAD database.<sup>27</sup>

### Filing Instructions

Providers may file their certifications using the Commission's Electronic Comment Filing System (ECFS). All certifications must reference PS Docket No. 17-78. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998). Waiver requests and other rulemaking matters should reference PS Docket No. 07-114.

- **Electronic Filers:** Certifications may be filed electronically using the Internet by accessing the ECFS: <https://www.fcc.gov/ecfs/>.
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.
- **People with Disabilities:** To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

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<sup>24</sup> 47 CFR § 20.18(i)(2)(ii)(A); *see also Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1303-04, para. 115.

<sup>25</sup> 47 CFR § 20.18(i)(2)(ii)(B).

<sup>26</sup> *See Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1304, para. 116.

<sup>27</sup> 47 C.F.R. § 20.18(i)(4)(ii); *see also Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1271, para. 37.

**Further Information**

For further information regarding E911 indoor location accuracy requirements, contact Brenda Boykin, Policy and Licensing Division, Public Safety and Homeland Security Bureau, at 202-418-2062 or [brenda.boykin@fcc.gov](mailto:brenda.boykin@fcc.gov).

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