



# PUBLIC NOTICE

Federal Communications Commission  
445 12<sup>th</sup> St., S.W.  
Washington, D.C. 20554

News Media Information 202 / 418-0500  
Internet: <https://www.fcc.gov>  
TTY: 1-888-835-5322

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## PUBLIC SAFETY AND HOMELAND SECURITY BUREAU PROVIDES GUIDANCE TO CMRS PROVIDERS REGARDING SUBMISSION OF PERIODIC E911 LOCATION ACCURACY LIVE CALL DATA REPORTS

*Initial Reports Must be Filed by February 3, 2017*

**PS Docket No. 07-114**

By this *Public Notice*, the Public Safety and Homeland Security Bureau (Bureau) provides guidance for Commercial Mobile Radio Service (CMRS) providers to file periodic E911 location accuracy live call data reports as required by Section 20.18(i)(3)(ii) of the Commission's rules.<sup>1</sup> This guidance includes instructions and a standard form for CMRS providers to use in filing such reports. CMRS providers must file their initial live 911 call data reports by February 3, 2017.<sup>2</sup>

On February 3, 2015, the Commission released a *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>3</sup> Specifically, the rules require nationwide CMRS providers to file quarterly reports of their aggregate live 911 call location data for each location technology used within four geographic morphologies within six representative cities (Test Cities). Non-nationwide CMRS providers must file reports every 6 months for specific areas they serve as described below. 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.<sup>4</sup> CMRS providers must file their live 911 call data reports with the Commission, the

<sup>1</sup> 47 C.F.R. § 20.18(i)(3)(ii).

<sup>2</sup> The information collection requirements addressed by this *Public Notice* were approved by the Office of Management and Budget under OMB Control No. 3060-1210 on August 3, 2015. See *Public Safety and Homeland Security Bureau Announces OMB Approval and Effective Date of Wireless E911 Location Accuracy Information Collection Requirements*, Public Notice, 30 FCC Rcd 8221 (Aug. 3, 2015), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DA-15-878A1\\_Rcd.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DA-15-878A1_Rcd.pdf) (August 3, 2015 Public Notice). CMRS providers are required to file their initial report 18 months from the effective date of the information collection requirement. See 47 U.S.C. § 20.18(i)(3)(ii)(B)

<sup>3</sup> *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, PS Docket No. 07-114, 30 FCC Rcd 1259 (2015) (*Indoor Location Fourth Report and Order*) and rules 47 C.F.R. § 20.18(i) et seq.

<sup>4</sup> 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 Feb. 7, 2014 Letter); 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> (ATIS Standard 0500031).

National Emergency Number Association (NENA), the Association of Public Safety Communications Officials (APCO), and the National Association of State 911 Administrators (NASNA).<sup>5</sup>

In order to ensure consistency and maximize the utility of the live 911 call data reports, we provide the following guidance to CMRS providers on the specific information they must provide in their reports pursuant to the Commission's rules.

### **Nationwide CMRS Providers**

Beginning on February 3, 2017, nationwide providers must report aggregate live call data collected in each of the Test Cities, and must continue to provide reports on a quarterly basis.<sup>6</sup> Each of those Test Cities and their surrounding areas have been determined to be representative of dense urban, urban, suburban, and rural morphology areas (or morphologies) nationally.<sup>7</sup> In addition, as the Commission noted in the *Indoor Location Fourth Report and Order*, in order for submitted data to serve as a reasonable measure of the performance of indoor location solutions, it will be necessary for the nationwide CMRS providers to make information available on the system deployment and the live 911 call data such that smaller CMRS providers who do not cover territory in one of the six Test Cities can subsequently certify whether their deployments are consistent with one of the four nationwide providers in the six Test Cities.<sup>8</sup>

### **Non-Nationwide CMRS Providers**

Beginning on February 3, 2017, non-nationwide providers must report the aggregate live 911 call data collected in one or more of the Test Cities or the largest county in their footprint, depending on the area served by the provider, and as set forth more specifically below.<sup>9</sup> Following their initial filing of aggregate live 911 call data on February 3, 2017, non-nationwide CMRS providers must provide the aggregate reports every 6 months.<sup>10</sup> The specific aggregation areas for live call data reporting by non-nationwide carriers are as follows:

- Non-nationwide CMRS providers that operate in only one of the six Test Cities must report live 911 call data from that city or portion thereof that they cover.<sup>11</sup>
- Non-nationwide CMRS providers that operate in more than one of the six Test Cities must report live 911 call data from half of the Test City regions they cover, as selected by the provider.<sup>12</sup>

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<sup>5</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(B).

<sup>6</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(B)).

<sup>7</sup> See *supra* note 4, citing ATIS Feb. 7, 2014 Letter and ATIS Standard 0500031.

<sup>8</sup> *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1310, n.340. Non-nationwide CMRS providers can access the indoor 911 location accuracy technology test results at 911 Location Technologies Test Bed, LLC, Non-Nationwide Commercial Mobile Radio Services Provider Access to Indoor 9-1-1 Location Accuracy Technology Test Results, at <http://www.911locationtestbed.org/nnpdata.html>.

<sup>9</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(D)-(E).

<sup>10</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(D). We clarify that beginning with the August 3, 2017 filing date, non-nationwide carriers will provide data for the two preceding full quarters. Thus on August 3, 2017, non-nationwide carrier reports should include data for the first quarter and second quarter of 2017, and the February 3, 2018 filing should include reports for the third and fourth quarters of 2017.

<sup>11</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(D).

<sup>12</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(D). In the event a non-nationwide CMRS provider begins coverage in a Test City it previously did not serve, it must update its certification pursuant to paragraph (i)(2)(iii)(C) of this section to reflect this change in its network and begin reporting data from the appropriate areas.

- Non-nationwide CMRS providers that do not provide coverage in any of the six Test Cities can satisfy the requirement of reporting aggregate live 911 call location data by collecting and reporting data based on the largest county within their footprints.<sup>13</sup>
- In addition, where a non-nationwide CMRS provider serves more than one of the ATIS ESIF morphologies (dense urban, urban, suburban, rural), it must include a sufficient number of representative counties to cover each morphology.<sup>14</sup>

### Required Information and Data

Each CMRS provider’s initial live 911 call data report, due February 3, 2017, must include 911 call data for the prior calendar quarter, *i.e.*, October-December 2016. After the initial report is filed, nationwide CMRS providers must file quarterly reports for each subsequent calendar year quarter, with each report due on the first business day of the second month after the quarter for which data is reported. After the initial report is filed, non-nationwide CMRS providers must file reports every six months for the prior two calendar-year quarters, with each report due on the first business day of the second month after the six-month period for which data is reported. CMRS providers must keep the aggregate live call data for two years.<sup>15</sup>

CMRS providers must break out live call data for each Test City or relevant service area in each of the four representative morphologies – dense urban, urban, suburban and rural – depending on the footprint of their service areas.<sup>16</sup> As recognized by the Commission, the morphologies are sufficiently representative and inclusive of the variety of indoor environments in which wireless 911 calls are made.

- Dense Urban areas are defined as “typically downtown environments in larger urbanized cities where high rises and skyscrapers on sides of 1 to 3 lane streets are observed. Urban canyons are commonly encountered. Very high cell site concentration is also observed. Cell site radii are generally under half a mile.”<sup>17</sup>
- Urban areas are defined as those with “[h]igh population density where multi-story apartment and office buildings are observed. Some buildings as high as 10 – 15 stories situated on 2 to 4 lane roads outline the environment. High site concentration due to capacity requirements and higher signal penetration margins are encountered. Cell radii are typically in the 0.5 – 1 mile range.”<sup>18</sup>
- Suburban areas are those with “[m]edium] population density with 1-2 story residential homes, occasional 2-3 story buildings and multi-level shopping centers. Area is typically covered by a few cell sites. Cell site radii are typically in the 1-2 mile range.”<sup>19</sup>
- Rural areas are “[g]eographical area[s] with low population density and much open or forested space. Majority of area is covered by one cell site. Cell radii are generally more than 2 miles. Cell deployments along sparsely populated highways which have sites 4 or more miles apart

<sup>13</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(E).

<sup>14</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(E).

<sup>15</sup> 47 C.F.R § 20.18(i)(3)(iii).

<sup>16</sup> *E911 Location Accuracy Fourth Report and Order*, 30 FCC Rcd at 269, para. 27. ATIS Standard ATIS-0500011 defines the four morphologies. See ATIS, ATIS-0500011, Define Topologies & Data Collection Methodology, Technical Report (2007), available at ATIS, Document Center, at <https://www.atis.org/docstore/default.aspx> (ATIS-0500011). See also *Indoor Location Fourth Report and Order*, 30 FCC Rcd at 1307, para. 128, citing *CSRIC LBS Report* at 57; *CSRIC III, Working Group 3, Indoor Location Test Bed Report* at 12.

<sup>17</sup> ATIS-0500011 at 1.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.* at 1-2.

belong in this category.”<sup>20</sup>

For each reported Test City/service area and morphology, all CMRS providers must include the following data in their reports:<sup>21</sup>

- The positioning source method or methods used for each live 911 call. The positioning source method may be based on either geodetic coordinate information or dispatchable location.<sup>22</sup> The performance of positioning source methods is first determined based on performance of the technology in the test bed.<sup>23</sup> The test bed performance of each positioning source method will determine the degree to which that method can be counted towards the required location accuracy thresholds each time that positioning source method is used.<sup>24</sup>
- Live call data for all providers shall provide granular data on a per-technology basis accumulated and so identified for: (1) each of the four ATIS ESIF morphologies (dense urban, urban, suburban, and rural); (2) on a reasonable community level basis; or (3) by census block.<sup>25</sup> Pursuant to Section 20.18(i)(3)(ii)(C) of the Commission’s rules, this data will be used for “evaluation and not for compliance purposes.”<sup>26</sup>
- Nationwide CMRS providers using positioning source methods based on dispatchable location should also identify that method as one of the technologies used.
- If a CMRS provider excludes any category of 911 calls from its compilation of live 911 call data, it must identify the excluded category and the number of calls excluded under that category. Exclusion information should be reported in the “Exclusions” block in the Live Call Data Reporting Template described below.<sup>27</sup>

### **Reporting Template for Submitting the Aggregate Live 911 Call Data Reports**

The Bureau has developed the Live Call Data Reporting Template (Reporting Template), attached as an Appendix to this *Public Notice*, to provide a consistent and uniform method for submission of live 911 call data by CMRS providers and assist in stakeholders’ analysis and comparison of the information. All CMRS providers, both nationwide and non-nationwide carriers, should use the Reporting Template for the submission of live call data.

The Reporting Template may be filed with the Commission electronically by following the procedures set forth below:

- Visit the FCC web site at <https://www.fcc.gov/public-safety-and-homeland-security/policy-and-licensing-division/911-services/general/location-accuracy-indoor-benchmarks> to obtain the

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<sup>20</sup> *Id.* at 2.

<sup>21</sup> *E911 Location Accuracy Fourth Report and Order*, 30 FCC Rcd at 1311, para. 138-141.

<sup>22</sup> *Id.* at 1311, para. 139.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

<sup>25</sup> *Id.* at para. 140.

<sup>26</sup> See 47 C.F.R. § 20.18(i)(3)(ii)(C).

<sup>27</sup> See Letter from Matthew Gerst, Director, CTIA, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (Jan. 9, 2017); see also Letter from Matthew Gerst, Director, CTIA, to Marlene Dortch, Secretary, FCC, PS Docket No. 07-114 (Dec. 15, 2016); Letter from Jeffrey Cohen, Chief Counsel, APCO, Telford Forgety, Director of Government Affairs, NENA, and Evelyn Bailey, Executive Director, NASNA, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114 (filed Dec. 20, 2016).

Reporting Template in Excel format.

- Fill out the Reporting Template. The Reporting Template requests the following information per Test City or County:
  - Section A - Date of submission; name of service provider; name and contact information of person submitting the form
  - Section B - Total Live 911 Calls and Total 911 Calls Excluded from Total Live 911 Calls
  - Section C - Reporting by Positioning Method
  - Section D - Reporting by Morphology
  - Section E - Total Live 911 Calls Excluded from Data, by Type and Total by Type
- Submit the completed reports with cover letter identifying the CMRS provider to the FCC at:

**live911callreports@fcc.gov**
- Send copies of the completed reports to the following public safety organizations:
  - National Emergency Number Association (NENA): **location-reports@nena.org**
  - Association of Public-Safety Communications Officials (APCO):  
**911location@apcointl.org**
  - National Association of State 911 Administrators (NASNA): **director@nasna911.org**

*Request for Confidential Treatment.* CMRS providers may request confidential treatment of their live 911 call data reports pursuant to Section 0.459 of the Commission's rules by submitting a request with the first report filed.<sup>28</sup> Unless otherwise specified by the filing party, the Commission will presume that a CMRS provider's initial request for confidential treatment is intended to request the same confidential treatment for all subsequent reports filed by that provider. Despite any grant of confidentiality pursuant to Section 0.459, the Commission reserves the right to release aggregate or anonymized data in order to measure compliance with its rules.<sup>29</sup> For instance, the Commission may publish on its website aggregate information on CMRS providers' performance in a given geographic area, a comparison of positioning technologies across the six Test Cities, or the percentage of calls using a particular positioning source method across all CMRS providers.<sup>30</sup>

*Paperwork Reduction Act of 1995.* The information collection requirements addressed by this *Public Notice* were approved by the Office of Management and Budget under OMB Control No. 3060-1210 on July 20, 2015 and became effective on August 3, 2015.<sup>31</sup> This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. Therefore it does not contain any new or modified "information burden for small business concerns with fewer than 25 employees" pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107- 198.

For further information regarding this proceeding, contact Timothy May, Policy and Licensing Division, Public Safety and Homeland Security Bureau, at (202) 418-1463 or [timothy.may@fcc.gov](mailto:timothy.may@fcc.gov).

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<sup>28</sup> See 47 C.F.R. § 0.459.

<sup>29</sup> *E911 Location Accuracy Fourth Report and Order*, 30 FCC Rcd at 1310, n.340. See 47 C.F.R. §§ 0.457-0.458.

<sup>30</sup> *E911 Location Accuracy Fourth Report and Order*, 30 FCC Rcd at 1310, para. 135, n.341.

<sup>31</sup> *August 3, 2015 Public Notice*, 30 FCC Rcd at 8221; Announcement of Effective Date for Wireless E911 Location Accuracy Rules, 80 Fed. Reg. 45,897 (Aug. 3, 2015).