

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of

Alliance for Telecommunications Industry Solutions

Request for Commission Action to Establish  
Streamlined Process for Waiver of Sections 4.5(e)  
and 4.7(e) by Covered 911 Service Providers

PS Docket No. \_\_\_\_\_

**REQUEST FOR COMMISSION ACTION**

The Alliance for Telecommunications Industry Solutions (“ATIS”), on behalf of its Network Reliability Steering Committee (“NRSC”), respectfully submits this request for Commission action under Section 1.41 of the FCC’s rules<sup>1</sup> to establish a streamlined process for waiver of Sections 4.5(e) and 4.7(e) by covered 911 service providers operating on NG911 systems based on the National Emergency Number Association (“NENA”) i3 architecture standard.<sup>2</sup> Such a waiver is required because, with the implementation of NENA i3 systems, service providers are no longer able to determine assigned telephone number counts for potential outage reporting as specified in Part 4 of the Commission’s rules. Through evaluation and research, ATIS has determined that extrapolating the extent of an outage using census data would serve as a suitable alternative for these providers. Therefore, ATIS requests that the

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<sup>1</sup> 47 C.F.R. § 1.41. Unless noted otherwise, all code section references are to Title 47 of the U.S. Code of Regulations.

<sup>2</sup> 47 C.F.R. §§ 4.5(e), 4.7(e). Alongside this Request for Commission Action, ATIS plans to file comments in the pending Third Notice of Proposed Rulemaking, released April 23, 2021, recommending that the FCC update Section 4.7(e) to permit covered 911 service providers without access to the number of assigned telephone numbers to use census data to calculate the number of users potentially affected by an outage. *See Improving 911 Reliability*, Third Notice of Proposed Rulemaking, Docket Nos. 13-75, 15-80, and 04-35 (rel. Apr. 23, 2021) (“*Improving 911 Reliability Third NPRM*”).

Commission adopt a streamlined waiver process to allow providers using NENA i3 to utilize census data rather than the number of assigned telephone numbers to calculate the number of user minutes potentially affected by an outage, and thus whether outage notification to public safety answering points (“PSAPs”) is required under Section 4.9(h).<sup>3</sup> This waiver would allow covered 911 service providers to provide PSAPs timely and actionable notification of 911 outages, consistent with the purpose of the FCC’s outage reporting rules. This would also assist in the timely and useful submission of Network Outage Reporting System (“NORS”) reports. Establishing this streamlined waiver mechanism will serve the public interest and is aligned with agency precedent.<sup>4</sup>

## **I. NG911 DEPLOYMENT IS WELL UNDERWAY NATIONWIDE**

ATIS is a standards and technical planning organization that develops and promotes international technical and operating standards for information and communications technologies. ATIS membership is diverse and includes wireless, wireline, VoIP, and Internet service providers, 911 service providers, equipment manufacturers, software developers, consumer electronics companies, and public safety agencies. ATIS is the North American Organizational Partner of the Third Generation Partnership Project, the global collaborative effort that has developed the 4G Long-Term Evolution (“LTE”) and 5G New Radio (“NR”) wireless specifications.

Nearly 600 subject-matter experts across the industry work collaboratively in ATIS’ open industry committees, such as the NRSC. ATIS’ NRSC was formed in 1993 at the

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<sup>3</sup> 47 C.F.R. § 4.9(h).

<sup>4</sup> 47 C.F.R. § 1.3. *See In the Matter of Tandy Corporation, Walker Equipment Company, Ameriphone, Inc., and Ultratec, Inc.*, Memorandum Opinion and Order, 16 FCC Rcd 5253 (NSD 2001) (establishing a streamlined waiver process for future waivers of FCC Rule 68.317(f), the volume control reset requirement, so that providers may offer customers with hearing loss telephones in their homes that they do not have to reset before each use) (“*Tandy Corp. Order*”).

recommendation of the FCC's first Network Reliability and Interoperability Council, which has since been re-chartered as the Communications, Security, Reliability, and Interoperability Council. The NRSC is comprised of industry experts with primary responsibility for examining, responding to, and mitigating service disruptions for communications companies. The NRSC strives to improve network reliability by providing timely, consensus-based technical and operational guidance to all segments of the communications industry. It addresses network reliability improvement opportunities in an open environment and advises the communications industry through the development of standards, technical requirements, reports, bulletins, best practices, and annual reports. The NRSC also collaborates with public safety associations and works with the Commission to provide input on the Network Outage Reporting System and Disaster Information Reporting System. NRSC participants are the subject-matter experts within the industry on communications network reliability and outage reporting.

ATIS has facilitated the development of technical and operating standards and other guidance for network reliability, including guidance regarding the reporting of network outages affecting IP-based, NG911 systems. NG911 systems are developed most often on the NENA i3 architecture standard.<sup>5</sup> The NENA i3 architecture standardizes the structure and design of functional elements comprising the set of software services, network elements, and interfaces needed to process multi-media emergency calls and data for NG911. It describes the protocols, interfaces, and systems that identify and locate 911 callers, route calls to the appropriate PSAP, and enable communications by voice, text, video, and data.

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<sup>5</sup> NENA i3 Solution, NENA-STA-010: Detailed Functional and Interface Specification for the NENA i3 Solution, available at [https://www.nena.org/page/i3\\_Stage3](https://www.nena.org/page/i3_Stage3).

Jurisdictions nationwide are transitioning from legacy 911 systems to NG911 systems. At the end of 2019, NG911 was available to approximately 48% of the U.S. population.<sup>6</sup> The adoption rate is growing, with approximately 85% of the U.S. population expected to be covered by the end of 2025.<sup>7</sup> California, for example, has already begun deploying NG911 and is poised to have NG911 deployed statewide by early 2022.<sup>8</sup> Its NG911 network is being built on the NENA i3 standard. Other states are similarly working to deploy an i3 standard based NG911 system.<sup>9</sup> As deployment continues, it becomes increasingly necessary to update various regulatory requirements to accommodate these next generation networks.

## II. ATIS REQUESTS THAT THE COMMISSION ESTABLISH A STREAMLINED WAIVER PROCESS FOR COVERED 911 SERVICE PROVIDERS

**Background.** Part 4 of the FCC’s rules governs requirements for reporting disruptions to communications infrastructure.<sup>10</sup> Communications providers covered by Part 4 must notify the Commission and any affected PSAP if its facilities experience an outage; Section 4.9 defines threshold criteria for outages, which vary by provider type.<sup>11</sup> Additionally, covered 911 service

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<sup>6</sup> Frost & Sullivan, Next-Generation 911 – The Future of Public Safety, Forecast to 2025 (May 2020), [https://go.frost.com/LA\\_PR\\_ICT\\_FValente\\_K4D3\\_NextGen911\\_May20](https://go.frost.com/LA_PR_ICT_FValente_K4D3_NextGen911_May20). See PRNewswire Press Release, Next-Generation 911 to Cover Nearly 85% of the U.S. Population by 2025, Says Front & Sullivan (May 6, 2020), <https://www.prnewswire.com/in/news-releases/next-generation-911-to-cover-nearly-85-of-the-us-population-by-2025-says-frost-amp-sullivan-832890189.html>.

<sup>7</sup> *Id.*

<sup>8</sup> See Donny Jackson, *First NENA i3-Compliant NG911 Call to Be Delivered Today in California, Officials Say*, UrgentComm (Apr. 14, 2021), <https://urgentcomm.com/2021/04/14/first-ena-i3-compliant-ng911-call-to-be-delivered-today-in-california-officials-say/>.

<sup>9</sup> See, e.g., North Carolina Department of Information Technology, NC IT Roadmap: Next Generation 911, <https://it.nc.gov/resources/nc-it-roadmap/nc-it-roadmap-next-generation-911> (last visited Apr. 18, 2021) (targeting a complete migration by December 31, 2021, to “a fully functional NG911 eco-system compliant with the National Emergency Numbers Association (NENA) i3 Standards and Best Practices); State of Alaska NG9-1-1 Geographic Information System Draft Strategic Plan (Nov. 13, 2020), <https://aws.state.ak.us/OnlinePublicNotices/Notices/Attachment.aspx?id=125344> (recommending the State of Alaska develop an NG911 implementation plan based on the NENA i3 standard).

<sup>10</sup> See 47 C.F.R. § 4.1.

<sup>11</sup> See 47 C.F.R. § 4.9.

providers must notify a PSAP’s designated official of any outage “that potentially affects a 911 special facility.”<sup>12</sup> Under Section 4.5(e), an outage potentially affects a 911 special facility when:

- (1) There is a loss of communications to PSAP(s) potentially affecting at least 900,000 user-minutes and: The failure is neither at the PSAP(s) nor on the premises of the PSAP(s); no reroute for all end users was available; and the outage lasts 30 minutes or more; or
- (2) There is a loss of 911 call processing capabilities in one or more E-911 tandems/selective routers for at least 30 minutes duration; or
- (3) One or more end-office or MSC switches or host/remote clusters is isolated from 911 service for at least 30 minutes and potentially affects at least 900,000 user-minutes; or
- (4) There is a loss of ANI/ALI (associated name and location information) and/or a failure of location determination equipment, including Phase II equipment, for at least 30 minutes and potentially affecting at least 900,000 user-minutes (provided that the ANI/ALI or location determination equipment was then currently deployed and in use, and the failure is neither at the PSAP(s) or on the premises of the PSAP(s)).<sup>13</sup>

For telephony, including non-mobile interconnected VoIP, Section 4.7(e)(1) defines “user minutes” as “assigned telephone number minutes,” which are calculated by “multiplying the duration of an outage, expressed in minutes, by the sum of the number of assigned numbers . . . potentially affected by the outage and the number of administrative numbers . . . potentially affected by the outage.”<sup>14</sup> For all other forms of communications, “user minutes” are calculated

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<sup>12</sup> 47 C.F.R. § 4.9(h). *See generally* 47 C.F.R. § 9.19(a)(4) (defining “Covered 911 service provider”).

<sup>13</sup> 47 C.F.R. § 4.5(e).

<sup>14</sup> 47 C.F.R. § 4.7(e)(1), (c). “Assigned numbers” are defined as “the telephone numbers working in the Public Switched Telephone Network under an agreement such as a contract or tariff at the request of specific end users or customers for their use. This excludes numbers that are not yet working but have a service order pending.” *Id.* § 4.7(b). “Administrative numbers” are defined as “the telephone numbers used by communications providers to perform internal administrative or operational functions necessary to maintain reasonable quality of service standards.” *Id.* § 4.7(a).

by “multiplying the duration of an outage, expressed in minutes, by the number of end users potentially affected by the outage,” in accordance with Section 4.7(e)(2).<sup>15</sup>

**Part 4 Policy.** The Commission established its Part 4 rules “to allow the Commission to obtain the necessary information regarding services disruptions in an efficient and expeditious manner and achieve significant concomitant public interest benefits.”<sup>16</sup> Following the June 2012 “derecho” storm that affected 911 service availability for millions of Americans, it amended its rules to ensure that PSAPs receive timely and actionable notification of 911 outages.<sup>17</sup> Covered 911 service providers must now notify a PSAP’s designated contact person within 30 minutes of discovering an outage that potentially affects a 911 special facility and provide additional information, including the nature and geographic scope of the outage, the likely cause, and the estimated time for repairs.<sup>18</sup> Covered 911 service providers must communicate such information as it becomes available and within two hours of the initial contact.<sup>19</sup> The Commission intended for this amendment to “build[] on the Commission’s previous efforts to ensure that the public has access to a state-of-the art, reliable, and resilient 911 communications system.”<sup>20</sup>

**Waiver Standard.** The Commission may waive any of its rules if there is “good cause” to do so.<sup>21</sup> Waiver is appropriate where “special circumstances warrant a deviation from the general rule” and “such deviation will serve the public interest” better than strict adherence to the

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<sup>15</sup> 47 C.F.R. § 4.7(e)(2).

<sup>16</sup> *New Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 16830, ¶ 1 (2004).

<sup>17</sup> *See Improving 911 Reliability*, Report and Order, 28 FCC Rcd 61785, ¶ 139 (2013) (“*2013 911 Reliability Order*”).

<sup>18</sup> 47 C.F.R. § 4.9(h).

<sup>19</sup> *Id.*

<sup>20</sup> *2013 911 Reliability Order*, ¶ 6 (internal quotations and citations omitted).

<sup>21</sup> 47 C.F.R. § 1.3.

rule.<sup>22</sup> In addition, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.<sup>23</sup> Generally, the Commission will grant a waiver of its rules if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.<sup>24</sup>

***Request for Streamlined Waiver Process.*** ATIS requests that the FCC establish a streamlined process for waiver of Sections 4.5(e) and 4.7(e) to permit covered 911 service providers operating on NG911 systems based on the NENA i3 standard to use census data rather than telephone number counts to determine the number of user minutes potentially affected by an outage. Instead of the public notice and comment process for waiver petitions, the Commission could require covered 911 service providers to submit a letter to the Chief of the Public Safety and Homeland Security Bureau certifying that the provider: (1) operates on an NG911 system utilizing the NENA i3 standard and therefore cannot determine the number of assigned telephone numbers potentially affected by an outage; and (2) will use the most current data available by the U.S. Census Bureau to determine the number of users located in an outage area for purposes of determining whether an outage potentially affects a 911 special facility.

Establishing this streamlined waiver process would serve the public interest. Unlike legacy 911 systems, NG911 systems using the i3 architecture do not have access to telephone number counts. Legacy systems match a caller's phone number with information in the Master Street Address Guide ("MSAG") to determine a caller's location. With NG911 systems, calls are validated and routed using Geographic Information Systems ("GIS") data rather than the

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<sup>22</sup> *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (*Northeast Cellular*).

<sup>23</sup> *See WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969) (*WAIT Radio*); *Northeast Cellular*, 897 F.2d at 1166.

<sup>24</sup> *See id.*

MSAG. Without telephone number counts, covered 911 service providers cannot calculate the number of user minutes potentially affected by an outage under Section 4.7(e) and thus cannot determine whether an outage potentially affects a 911 special facility under Section 4.5(e).

Waiver of Sections 4.5(e) and 4.7(e) to allow covered 911 service providers to use census data instead of telephone number counts would allow these providers to comply with their outage reporting obligations. Further, streamlining the process for waiver will minimize burdens on covered 911 service providers.

Waiver also would be consistent with, and would not undermine, the rules' purpose. 911 special facilities potentially affected by an outage will continue to receive timely and actionable information from covered 911 service providers. The use of census data to calculate the number of potentially affected user minutes is a reasonable alternative for covered 911 service providers operating on NENA i3 standard-compliant NG911 systems, which lack access to telephone number counts. Census data offers an objective representation of the population, and it can be used to sensibly estimate the number of users located within an outage area. Census data is easily obtained from the U.S. Census Bureau, which updates its data annually. This solution accommodates NG911 systems—and thereby supports the Commission's broader goal "to ensure that the public has access to a state-of-the art, reliable, and resilient 911 communications system"<sup>25</sup>—without having to waive its outage reporting requirement altogether for such systems.

A decision to streamline future waiver petitions for covered 911 service providers operating on NG911 systems also aligns with Commission precedent. In *Tandy Corp.*, the Commission established a streamlined procedure for future volume control reset-related waiver

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<sup>25</sup> 2013 911 Reliability Order, ¶ 6 (internal quotations and citations omitted).



requests of Section 68.317(f) of the FCC's rules.<sup>26</sup> The Commission elected to forego the public notice and comment process for waiver petitions where the petitioners certified conformance with the conditions adopted in *Tandy Corp.*<sup>27</sup> It found that “the benefit of a waiver is clear and the conditions that we impose to safeguard the general public . . . are specific and clearly observable.”<sup>28</sup> Here too, the public will be served by streamlining the process for covered 911 service providers operating on NG911 systems to obtain the waiver necessary to provide PSAPs timely and actionable notification of 911 outages. The Commission can similarly impose conditions, such as a requirement to use the most current data available by the U.S. Census Bureau, that are “specific and clearly observable.”

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<sup>26</sup> See *Tandy Corp. Order* (citing *Alcatel USA, Inc., Petition for Waiver of the Signal Power Limitations Contained in Section 68.308(e)(1) of the Commission's Rules*, Memorandum Opinion and Order, 15 FCC Rcd 4388 (NSD 2000) and *Alameda Engineering, Inc., Part 68 Waiver Request*, Order, 10 FCC Rcd 12135 (NSD 1995)).

<sup>27</sup> See *id.*, ¶ 15 (“Specifically, in the future, parties seeking waiver of 68.317(f) may submit a letter to the Chief, Network Services Division, certifying that the equipment for which waiver is requested complies with the safety conditions listed in the Ordering Clauses of this Order. The waiver request must be signed by a company representative or officer responsible for its truthfulness. If the request is in order and if no other issues are present that preclude a grant, the Division will issue an order granting the waiver request. The party receiving such a waiver grant may then pursue equipment certification under the applicable Part 68 rules.”).

<sup>28</sup> *Id.*

### III. CONCLUSION

ATIS accordingly requests Commission action to establish a streamlined process for waiver of Sections 4.5(e) and 4.7(e) for covered 911 service providers to use census data rather than the number of assigned telephone numbers to calculate the number of user minutes potentially affected by an outage. Waiver would serve the public interest by enabling covered 911 service providers operating on NG911 systems based on the NENA i3 standard to timely notify PSAPs if they may be potentially affected by an outage and subsequently provide them with actionable information. A streamlined process would be an appropriate interim procedure, pending Commission action in a rulemaking proceeding, such as its *Third Notice of Proposed Rulemaking on Improving 911 Reliability*, to update its outage reporting rules to accommodate NG911 systems that provide the public with a more advanced, reliable, and resilient 911 communications system.

Respectfully submitted,



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