

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Amendments to Part 4 of the Commission's)	PS Docket No. 15-80
Rules Concerning Disruptions to)	
Communications)	
)	PS Docket No. 13-75
Improving 911 Reliability)	
)	ET Docket No. 04-35
New Part 4 of the Commission's Rules)	
Concerning Disruptions to Communications)	

**Comments of the
Alliance for Telecommunications Industry Solutions**

**Alliance for
Telecommunications Industry
Solutions**

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Summary

ATIS opposes the Commission's proposal to require originating service providers to notify potentially affected 911 special facilities of an outage no later than 30 minutes after discovering the outage. In this very short window of time, providers likely will not know the root cause, the outage's extent, or be able to estimate when service would be restored. Instead, ATIS NRSC believes that originating service providers should continue to be required to notify Public Safety Answering Points (PSAPs) of outages within their networks as soon as possible.

If the Commission nonetheless adopts this proposed rule, the deadline should be based on when a service provider confirms the outage. PSAP notifications should be sent via e-mail only and only after the originating service provider has: (1) determined that the relevant reporting thresholds have been met; and (2) identified the affected PSAPs, as currently required by the Commission's outage rules.

ATIS NRSC supports the Commission's proposal not to mandate a specific notification format but encourages all stakeholders to consider use of the *ATIS PSAP Notification Template*.

ATIS NRSC supports adoption of a low or no-cost nationwide 911 PSAP outage notification registry with required input from PSAPs and that allows the use of automated messages (e.g., emails, automated calls). ATIS urges the Commission to adopt a safe harbor for service providers utilizing information in the database and recommends that the industry not be responsible for maintaining such a database. Instead, the Commission could consider enhancing its existing PSAP registry with outage contact information, or outsourcing database development to a third-party.

ATIS NRSC is concerned with the Commission's proposal that providers develop procedures to: (1) maintain current contact information for officials designated to receive outage notifications at each PSAP in areas that they serve; and (2) on a routine basis, review and update their PSAP contact information to ensure it remains current. ATIS NRSC notes that, while providers can and should take reasonable steps to review PSAP information, the providers cannot know for certain if the information they have is current. Moreover, ATIS NRSC believes that service providers should not be held accountable for a PSAP's delay or failure in providing this information.

ATIS NRSC opposes the Commission's proposal that providers notify their customers when there is an outage that affects the availability of 911 voice or text-to-911 services within 60 minutes discovery. ATIS NRSC believes that this proposal could result in consumer confusion and raise potential security concerns. In addition, the proposed mandate would inappropriately require providers to report on any 911 unavailability, not just those on their own networks.

Instead of the proposed mandate on providers, ATIS NRSC believes that it is more appropriate for PSAPs or local Emergency Authorities to notify the public of outages, as they will be better able to contact customers in their service area while minimizing over-notification and confusion. If the Commission nonetheless seeks to impose an obligation on providers to notify the public of such outages, ATIS NRSC believes that such public notifications should be on a "best effort" basis, with a goal of notifications within 60 minutes of discovery.

The Commission proposes to require that service providers create public notifications that include information such as the geographic area where 911 callers may face 911

unavailability, an estimated time that 911 service became unavailable and an estimate of when 911 services will be restored. ATIS NRSC notes that much of this information may not be available within 60 minutes.

ATIS NRSC raises concerns that the Commission's proposal to make publicly available a subset of the outage report information could reveal sensitive information about an outage. ATIS NRSC also notes that there are dangers to both PSAPs and consumers associated with false positives or over-notifications. These over-notifications can erode consumer trust in 911 and confuse some consumers into believing that 911 service is unavailable when in fact it is available.

NRSC believes that service providers should not be required to treat lines as 911 administrative lines unless so designated by the PSAP. Further, ATIS NRSC recommends that administrative lines should be included in the proposed national PSAP contact database.

Finally, to facilitate the transition from legacy to NG911 systems and to support continued, timely notification of outages to PSAPs by NG911 systems, ATIS NRSC requests that the Commission amend Section 4.7(e) to require all 911 system service providers operating on legacy systems and NG911 systems based on the NENA i3 standard to use census or similar data, rather than telephone number counts, to determine the number of user minutes potentially affected by an outage.

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**Comments of the
Alliance for Telecommunications Industry Solutions**

The Alliance for Telecommunications Industry Solutions (ATIS) hereby submits these comments in response to the *Third Notice of Proposed Rulemaking (NPRM)*, released April 23, 2021, in the above-referenced dockets. In the *Third NPRM*, the Federal Communications Commission (Commission) proposes to modify its rules regarding notifications of disruptions to 911 service. ATIS supports the Commission’s efforts to enhance notifications of disruptions to 911 service. In these comments, ATIS NRSC suggests ways that the Commission can reduce consumer confusion, promote effective 911 notifications, and recognize the important role that Public Safety Answering Points (PSAPs) have in the process.

I. Background

ATIS is a global standards development and technical planning organization that develops and promotes worldwide technical and operations standards for information, entertainment, and communications technologies. ATIS’ diverse membership includes key

stakeholders from the Information and Communications Technologies (ICT) industry – wireless, wireline, and VoIP service providers, equipment manufacturers, broadband providers, software developers, consumer electronics companies, public safety agencies, and internet service providers. ATIS is also a founding partner and the North American Organizational Partner of the Third Generation Partnership Project (3GPP), the global collaborative effort that has developed the 4G Long-Term Evolution (LTE) and 5G New Radio (NR) wireless specifications. Nearly 600 industry subject matter experts work collaboratively in ATIS’ open industry committees and incubator solutions programs.

ATIS’ Network Reliability Steering Committee (NRSC) was formed in 1993 at the recommendation of the Commission’s first Network Reliability and Interoperability Council. The NRSC strives to improve network reliability by providing timely consensus-based technical and operational expert guidance to all segments of the public communications industry. The NRSC 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 is comprised of industry experts with primary responsibility for examining, responding to, and mitigating service disruptions for communications companies. The NRSC also collaborates with public safety associations and works with the Commission to provide input on Network Outage Reporting System (NORS) and Disaster Information Reporting System (DIRS). NRSC participants are the industry subject matter experts on communications network reliability and outage reporting.

II. Comments

A. 30 Minute PSAP Notification

In the *Third NPRM*, the Commission proposes to require originating service providers to notify potentially affected 911 special facilities of an outage as soon as possible but no later than 30 minutes after discovering the outage.¹ ATIS NRSC opposes this requirement for several reasons.

First, there is limited information available within 30 minutes of discovery. In this very short window of time, providers likely will not know the root cause, the outage's extent, or be able to estimate when service would be restored. Moreover, some VoIP/VoLTE originating service providers, such as those using a VoIP Positioning Center (VPC) or Mobile Positioning Center (MPC), may not be aware of which PSAPs are affected at this early stage.

Second, this proposed requirement would impose yet another reporting obligation on the industry and would require providers to divert resources from addressing and mitigating the outage. More importantly, ATIS NRSC believes that, until more accurate information is known, any notifications likely would be confusing to PSAPs and consumers. Given the limited value of the information that may be available within 30 minutes, the additional burden to the industry and potential confusion would outweigh the benefits.

Third, ATIS NRSC believes that it would not be appropriate to apply the same deadline to both originating service providers and covered 911 service providers, which have vastly different roles. Unlike originating service providers, covered 911 service providers have direct relationships with PSAPs and can, in many instances, more quickly detect 911-impacting outages than originating service providers. Originating service providers typically have many network

¹ *Third NPRM* at ¶12.

nodes that are alarmed. Combined with a 30-minute notification deadline that could automatically trigger the transmission of notifications, this may result in duplicate notices being sent to a PSAP because the service provider may not have sufficient time to distinguish which alarms are from the same outage and which are from different incidents. Likewise, an originating service provider may have secondary service providers making notifications, thereby duplicating efforts. Additionally, covered 911 service providers may be able to identify which PSAPs to contact in an outage scenario more quickly than originating service providers. Given these issues, ATIS NRSC believes that originating service providers should continue to be required to notify PSAPs of outages within their networks that potentially affect a 911 special facility as soon as possible, as currently required by the Commission's outage rules.²

If the Commission nonetheless adopts this proposed rule, the FCC should continue to base this deadline on when a service provider confirms the outage. More specifically, PSAP notifications should be sent via e-mail only and only after the originating service provider has: (1) determined that the relevant reporting thresholds have been met; and (2) identified the affected PSAPs. If an originating service provider cannot determine these two factors, it would be prudent not to send notices to avoid the risk of over-notification, which can overwhelm PSAPs with false positive outage information stemming from non-emergency traffic. False alarms could cause PSAPs to discount future notifications. Further, because notifications are in many cases done serially and not concurrently, the greater the number of affected PSAPs, the longer it will take to complete these notifications. Therefore, any notification deadline should apply to when an originating service provider begins to notify PSAPs, not when it completes the process. ATIS NRSC believes that, should the Commission move forward with the proposed

² See e.g., 47 CFR 4.9 (a)(4), (c)(2)(iv), (e)(1)(iv).

rule, it should consider implementation of a PSAP contact information database that can be effectively maintained and updated, as well a safe harbor that would protect providers that rely on the information in this database. This database would be invaluable in facilitating timely notice to affected PSAPs.

B. Notification Content and Format

The Commission proposes to require originating service providers to transmit outage notifications by telephone and in writing via electronic means and that they communicate additional material information as that information becomes available, but no later than two hours after the initial notification.³ ATIS NRSC believes that an originating service provider should not be required to provide additional material unless the fault for the 911 event is in its own network. In cases where the fault is in another provider's network, originating service providers are unlikely to have any useful or actionable information to provide PSAPs. Originating service providers should not be mandated to provide information not directly available to them (i.e., the fault is in another provider's network). ATIS NRSC also believes that the provision of additional material could be confusing and lead PSAPs to believe that multiple events are occurring. This confusion could arise because service providers will not likely have the same information, resulting in PSAPs receiving different information and perspectives from multiple providers.

The Commission proposes to require originating service providers and covered 911 service providers to include "all available material information" in their PSAP outage notifications, including the information elements required for covered 911 service providers under the Commission's existing rules as well as other information such as the geographic area

³ *Third NPRM* at ¶12.

of the outage.⁴ ATIS NRSC notes that originating service providers may not immediately know the precise geographical area or list of impacted PSAPs. Traditionally, telephone systems and deployments have not aligned with PSAP service areas, or with municipal boundaries and postal boundaries. The centralized PSAP contact database could contain more information (e.g., information outlining PSAP service boundaries) which would allow originating service providers to better identify outage impacts to PSAPs.

While the Commission acknowledges the work of ATIS NRSC in developing a PSAP reporting template, it does not propose to require information to be provided in a particular format.⁵ ATIS NRSC supports the Commission's proposal not to mandate a specific notification format. However, ATIS NRSC believes that there is value to PSAPs and providers in standardizing the format of notifications and encourages all stakeholders to consider use of the *ATIS PSAP Notification Template*. This template is available at no charge from ATIS' website at <https://www.atis.org/committees-forums/nrsc/>.

The Commission also seeks comment on the cost and benefits of originating service providers and covered 911 service providers to report the same specific, actionable content in their PSAP outage notifications.⁶ ATIS NRSC notes that there are costs associated with the creation of customized tools that would be needed to provide the information required under the proposed rules.⁷ To reduce these costs, ATIS NRSC supports adoption of a nationwide 911 PSAP outage notification registry with required input from PSAPs and that allows the use of automated messages (e.g., emails, automated calls).

⁴ *Third NPRM* at ¶19.

⁵ *Third NPRM* at ¶23.

⁶ *Third NPRM* at ¶25.

⁷ According to the *National 911 Annual Report: 2019 Data* from the National 911 Program, there were 4,658 primary PSAPs and 957 secondary PSAPs (based on 2018 data).

C. Maintaining and Updating Contact Information

The Commission proposes in the *Third NPRM* to require that originating and covered 911 service providers develop and implement standard procedures to: (1) maintain current contact information for officials designated to receive outage notifications at each PSAP in areas that they serve; and (2) on a routine basis, at least annually, review and update their PSAP contact information to ensure it remains current.⁸ While providers can and should take reasonable steps to review PSAP information, it should be noted that providers cannot know for certain if the information they have is current. Service providers also should not be held accountable for a PSAP's delay or failure in providing this information. It is not uncommon for providers to have to engage PSAPs several times before receiving contact information, and in some cases the information is not received at all. ATIS NRSC believes that it must be the responsibility of the PSAPs to ensure that providers have accurate, up-to-date contact information because service providers cannot automatically know when PSAPs make changes to their contact information. This is one of the reasons that ATIS NRSC supports the development of a PSAP notification database that appropriately requires PSAP to be responsible for providing, reviewing, and updating their contact information. ATIS NRSC believes that, while PSAPs should be encouraged to update their information periodically, they should minimally do so if there has been a change in contact information. ATIS NRSC believes that the industry should not be responsible for maintaining such a database. Instead, for example, the Commission could consider enhancing its existing PSAP registry⁹ with outage contact information, or outsourcing database development to a third-party.

⁸ *Third NPRM* at ¶27.

⁹ 911 Master PSAP Registry (<https://www.fcc.gov/general/9-1-1-master-psap-registry>).

The Commission seeks comment on the potential establishment of a PSAP contact information database accessible to originating and covered 911 service providers, as well as PSAPs.¹⁰ ATIS NRSC supports the establishment of such a database as well as a safe harbor for service providers utilizing information in the database. ATIS NRSC believes that the Commission has the authority under Title I of the Communications Act to establish such a database and associated safe harbor. ATIS NRSC encourages the Commission to incentivize PSAPs to provide and maintain updated contact information. For instance, the Commission should clarify that service providers who choose to use the database are only responsible for contacting PSAPs via the information in the database. If a PSAP fails to provide or update its information, a provider should not be found in violation of the Commission's rules for failure to notify the PSAP.

The Commission seeks comment on how such a database would be funded and how such a funding mechanism would impact smaller service providers.¹¹ As ATIS NRSC has said previously, the database must be "low or no cost" to providers and PSAPs¹² and cannot cost more to service providers than current costs of maintaining separate databases. ATIS NRSC also believes that it is essential that a safe harbor be established to clearly protect providers from liability for using incorrect contact information if they appropriately rely on the information provided in this database and it is found to be missing or inaccurate.

The Commission seeks input on how a PSAP contact information database would best be kept current and accurate, as well as where the responsibility for updating and maintaining the

¹⁰ *Third NPRM* at ¶31.

¹¹ *Third NPRM* at ¶33.

¹² See Letter from ATIS to James Wiley, Public Safety and Homeland Security Bureau, submitted in PS Docket Nos. 11-60 and 13-75 on December 7, 2020.

database would lie.¹³ ATIS NRSC believes it is essential that PSAPs have the responsibility for maintaining their contact information. As noted above, ATIS NRSC believes that the Commission should encourage PSAPs to update their information, at minimum, when any changes are made.

D. Customer Notifications

The Commission proposes to require that cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers notify their customers when there is an outage that affects the availability of 911 voice or text-to-911 services for their customers within 60 minutes of the service provider discovering the outage.¹⁴ ATIS NRSC does not support the proposed mandate for many reasons:

- ATIS NRSC believes that consumer confusion may result from over-notifications, particularly if unimpacted consumers are notified. ATIS agrees with the Commission that public confidence in 911 is critical.¹⁵ ATIS NRSC strongly believes that such confidence will be eroded if there are too many alerts regarding 911 outages. It should be noted that providers err on the side of overreporting outages out of an abundance of caution and to ensure that PSAPs are provided timely notice. Public confusion may also result if multiple providers notify the public of the same outage but with differing information. Public confusion could also prompt customers to “test dial” 911 to see if it is working, thereby increasing the strain on PSAPs.
- The proposed mandate would require providers to report on any 911 unavailability, not just those on their own networks. As explained above, originating service providers should not be required to provide information not directly available to them (i.e., outages stemming from another provider’s network).
- There are also significant security concerns to consider. The public notification of 911 outages could also serve to inform bad actors of areas that are vulnerable due to the lack of 911. ATIS NRSC believes the Commission should consider how to address these security concerns before it adopts any new requirements.
- ATIS NRSC believes that the Commission should not establish additional rules that draw providers’ attention away from critical repairs. Service providers should be encouraged to

¹³ *Third NPRM* at ¶34.

¹⁴ *Third NPRM* at ¶39.

¹⁵ *Third NPRM* at ¶44.

focus their attention on mitigating and resolving outages. Creating new notification requirements could have the opposite effect.

Instead of the proposed mandate on providers, ATIS NRSC recommends that the Commission clarify that PSAPs should be responsible for notifying the public of outages. ATIS NRSC believes that it is more appropriate for PSAPs or local Emergency Authorities to notify the public of outages, as they will be better able to contact customers in their service area while minimizing over-notification and confusion. PSAPs are best positioned to determine how and when those communications with their customers should occur. If the Commission nonetheless seeks to impose an obligation on providers to notify the public of such outages, ATIS NRSC believes that such public notifications should be on a “best effort” basis, with a goal of notifications within 60 minutes of discovery.

The Commission proposes to require that service providers create public notifications that include the following: (1) a statement that there is an outage affecting 911 availability, (2) a description of the geographic area where 911 callers may face 911 unavailability, (3) an estimated time that 911 service became unavailable, and (4) an estimate of when 911 services will be restored.¹⁶ ATIS NRSC notes that much of this information may not be available within 60 minutes. Originating service providers may not have access to pertinent information at all if the outage is not within their network. For instance, the description of the geographic area of the 911 outage and the estimates of the outage start time and duration will likely not be available in most situations. In addition, providers may not be able to know if an outage is actually affecting 911, particularly given the contingency plans that PSAPs may have in place to reroute affected traffic to unaffected PSAPs. NG 911 (i3) solutions, for example, are designed to allow PSAPs to

¹⁶ *Third NPRM* at ¶40.

handle routing of wide-area emergencies. In cases where the outage does not truly impact 911 service, PSAPs may not want notifications that discourage use of 911 by consumers.

The Commission proposes that a subset of outage report information, previously presumed confidential due to its sensitive nature, should be made publicly available at a less granular level than what is provided to the Commission on a confidential basis.¹⁷ ATIS NRSC believes that there may be unintended negative consequences in revealing too much information about an outage. In addition to the security issues associated with informing bad actors where 911 may not be available, it is also important to note that it will be nearly impossible to provide the appropriate notification to the population affected by the outage without notifying additional unaffected subscribers.

The Commission seeks comment on how PSAPs and service providers collectively can best develop public notification information in advance of 911 unavailability, noting that, in an outage affecting multiple PSAPs, any public notification will also need to include a geographic description of where callers may not be able to reach emergency services by dialing 911 to prevent possible caller confusion and misdirected emergency calls.¹⁸ If notified by a service provider about an outage in the service provider's network, ATIS NRSC believes that PSAPs will have the primary responsibility to determine what information is made available to the public. Most PSAPs have contingency plans in place in the event of outages and these plans will determine whether and to what extent an outage impacts consumers. Some PSAPs, for example, may release 10-digit calling information, while others may have contingency plans that would allow consumers to continue to dial 911. Service providers, and especially originating service

¹⁷ *Third NPRM* at ¶41.

¹⁸ *Third NPRM* at ¶42.

providers, will not know the PSAPs' contingency plans or necessarily whether the impact of a particular outage would affect the implementation of these plans.

In the *Third NPRM*, the Commission expresses concern that requiring the broadcasting of 911 unavailability broadly may engender a lack of confidence in the ability to reach emergency services by dialing 911.¹⁹ ATIS NRSC shares the Commission's concerns regarding this matter. As noted above, ATIS NRSC believes that there are dangers to both PSAPs and consumers associated with false positives or over-notifications. These over-notifications will erode consumer trust in 911 and confuse some consumers into believing that 911 service is unavailable when in fact it is available.

The Commission seeks comment on the extent to which service providers have already implemented a notification framework for other alerts and important announcements that would reduce any website development costs associated with its proposal.²⁰ ATIS NRSC notes that some providers have customer care interfaces that provide automated messaging about outages to customers.

E. Administrative Lines

The Commission proposes to define "administrative line" for the purpose of its 911 reliability framework as a business line or line group that connects to a PSAP but is not used as the default or primary route over which 911 calls are transmitted to the PSAP.²¹ ATIS NRSC believes that, for reliability purposes only, lines to which 911 calls are rerouted (backup lines to standard 911 service) should be considered communications center PSAP administrative lines and that providers offering service to those lines should be treated as covered 911 service

¹⁹ *Third NPRM* at ¶44.

²⁰ *Third NPRM* at ¶46.

²¹ *Third NPRM* at ¶50.

providers. Service providers should not be required to treat lines as 911 administrative lines, however, unless so designated by the PSAP. Further, ATIS NRSC recommends that administrative lines should be included in the proposed national PSAP contact database. Additional input from the public safety industry to help clarify this definition would be useful.

F. Cost to Update Contact Information

Finally, ATIS NRSC notes that the Commission’s estimated costs include \$50,000 to create an e-mail survey to biannually solicit PSAP contact information.²² As noted above, ATIS NRSC believes that the primary responsibility for updating PSAP contact information should lie with the PSAPs. In its *Standard Operating Procedures (SOP) for Updating Public Safety Answering Point (PSAP) Outage Contact Information*, ATIS recommended that this information be reviewed and updated twice a year in the months of May and November.²³ ATIS believes that this biannual update by PSAPs is appropriate, but notes that the biannual update would not be necessary if the Commission establishes a mandatory PSAP contact information database and if PSAPs commit to updating their outage notification contact information if it changes.

III. ATIS REQUESTS THAT THE COMMISSION AMEND SECTION 4.7(E) TO ACCOMMODATE THE TRANSITION FROM LEGACY TO NG911 SYSTEMS

The *Third NPRM* seeks comment on proposals to update the agency’s outage reporting rules to “enhance public safety while reducing burdens on regulated entities” and to “ensur[e] that [the Commission’s] rules, including those governing covered 911 service providers, are sufficient, necessary, and technologically appropriate.”²⁴ Among other things, the Commission

²² *Third NPRM* at ¶56.

²³ *Standard Operating Procedures (SOP) for Updating Public Safety Answering Point (PSAP) Outage Contact Information* at p.3

²⁴ *Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, Third Notice of Proposed Rulemaking, PS Docket Nos. 15-80 and 13-75 and ET Docket No. 04-35, ¶ 1 (rel. Apr. 23, 2021) (“*Third NPRM*”).

seeks comment on any alternative requirements the Commission should consider to minimize potential burdens on PSAPs and service providers.²⁵

To facilitate the transition from legacy to NG911 systems and to support continued, timely notification of outages to PSAPs by NG911 systems, ATIS NRSC requests that the Commission amend Section 4.7(e) to require all 911 system service providers operating on legacy systems and NG911 systems based on the NENA i3 standard to use census or similar data,²⁶ rather than telephone number counts, to determine the number of user minutes potentially affected by an outage.²⁷ Originating service providers can continue to use their subscriber counts to determine counts for reporting. Covered 911 service providers must notify a PSAP's designated official of any outage "that potentially affects a 911 special facility."²⁸ Under Section 4.5(e)(1) and 4.5(e)(4), an outage potentially affects a 911 special facility when:

- 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
- 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)).²⁹

Section 4.7(e) defines "user minutes," with separate definitions depending on the form of communication. For telephony, including non-mobile interconnected VoIP, Section 4.7(e)(1)

²⁵ See *id.*, ¶ 14.

²⁶ In the limited number of cases where census data is not applicable to a PSAP service area, the service provider may use other approximate population data.

²⁷ For more information on this matter, please see ATIS' Request for Commission Action, submitted on April 27, 2021 (available here: <https://www.atis.org/wp-content/uploads/2021/04/NRSC-2021-00039R001Request-for-Streamlined-Waiver-Clean.pdf>). As noted in the waiver, census data offers an objective representation of the population, can be used to sensibly estimate the number of users located within an outage area, is easily obtained from the U.S. Census Bureau and accommodates NG911 systems.

²⁸ 47 C.F.R. § 4.9(h). See generally 47 C.F.R. § 9.19(a)(4) (defining "Covered 911 service provider").

²⁹ 47 C.F.R. § 4.5(e)(1) and (e)4.

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.”³⁰ For all other forms of communications, “user minutes” are calculated 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).³¹

ATIS requests that the Commission amend Section 4.7(e) to require 911 system service providers operating on legacy systems and 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. While legacy systems would have the capability to use telephone numbers, ATIS believes that both legacy and NG911 systems must use the same threshold to ensure consistency on outage reporting and to offset threshold measuring difference from telephone number to census or population data.³² ATIS recommends the Commission amend Section 4.7(e) by adding a new subsection 4.7(e)(3) requiring 911 system service providers to determine the number of “user minutes” potentially affected by an outage by multiplying the duration of an outage, expressed in minutes, by the number of end users potentially affected by the outage.³³

³⁰ 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).

³¹ 47 C.F.R. § 4.7(e)(2).

³² ATIS NRSC acknowledges that use of census data is likely to increase the number of reportable outages. If Legacy 911 and Transitional 911 do not adopt the same criteria as i3 NG 911, their outage reporting data will not be comparable.

³³ See *infra*, Annex (setting forth ATIS’ proposed amendment to Section 4.7(e)).

Amending Section 4.7(e) 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 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).

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.³⁴ The adoption rate is growing, with approximately 85% of the U.S. population expected to be covered by the end of 2025.³⁵ California, for example, has already begun deploying NG911 and is poised to have NG911 deployed statewide by early 2022.³⁶ Its NG911 network is being built on the NENA i3 standard. Other states are similarly working to deploy an i3 standard based NG911 system.³⁷ As deployment continues, it becomes increasingly necessary to update various regulatory requirements to accommodate these next generation networks.

³⁴ 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. 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>.

³⁵ *Id.*

³⁶ 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-nena-i3-compliant-ng911-call-to-be-delivered-today-in-california-officials-say/>.

³⁷ 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/>

Amendment of Section 4.7(e) to require 911 system service providers to use census or population data instead of telephone number counts would allow these providers to comply with their outage reporting obligations. Census or population 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. This data is easily obtained and is updated 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.”³⁸ ATIS NRSC believes this amendment should be uniformly applied to NG911 and legacy 911 service providers to avoid distorting the results and to continue to allow an apples-to-apples comparison between NG911 and legacy system performance.

[Attachment.aspx?id=125344](#) (recommending the State of Alaska develop an NG911 implementation plan based on the NENA i3 standard).

³⁸ *Improving 911 Reliability*, Report and Order, 28 FCC Rcd 61785, ¶ 6 (2013) (internal quotations and citations omitted).

IV. CONCLUSION

ATIS appreciates the opportunity to provide its input to the *Third NPRM* and urges the Commission to consider the input above.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Thomas Goode". The signature is fluid and cursive, with the first name being more prominent.

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ANNEX

Proposed Amendment to Section 4.7(e):

(e) User minutes are defined as:

(1) Assigned telephone number minutes (as defined in paragraph (c) of this section), for telephony, including non-mobile interconnected VoIP telephony, and for those paging networks in which each individual user is assigned a telephone number;

(2) The mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of end users potentially affected by the outage, for all other forms of communications. For interconnected VoIP service providers to mobile users, the number of potentially affected users should be determined by multiplying the simultaneous call capacity of the affected equipment by a concentration ratio of 8.

(3) 911 system service providers must use the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of end users potentially affected by the outage.