

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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

COMMENTS OF APCO INTERNATIONAL

The Association of Public-Safety Communications Officials-International, Inc. (APCO),¹ offers the following comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.² APCO welcomes the Commission’s inquiry into improving outage notifications. For 9-1-1 professionals working to save lives, timely and actionable outage notifications are critical to their missions. With effective situational awareness about outages, emergency communications centers (ECCs) can determine how the outage will impact their community and take steps to mitigate the impact of the outage.

As a general matter, APCO supports the Commission’s proposal to harmonize the reporting requirements for originating service providers and covered 9-1-1 service providers.³

¹ Founded in 1935, APCO is the nation’s oldest and largest organization of public safety communications professionals. APCO is a non-profit association with over 35,000 members, primarily consisting of state and local government employees who manage and operate public safety communications systems – including 9-1-1 Emergency Communications Centers (ECCs), emergency operations centers, radio networks, and information technology – for law enforcement, fire, emergency medical, and other public safety agencies.

² Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications, Improving 911 Reliability, New Part 4 of the Commission’s Rules Concerning Disruptions to Communications, PS Docket Nos. 15-80, 13-75, ET Docket No. 04-35, *Third Notice of Proposed Rulemaking*, FCC 21-45 (April 23, 2021) (“NPRM”).

³ *Id.* at para. 12 (proposing to require originating service providers and covered 9-1-1 service providers to notify ECCs about all outages within the same time frame, by the same means, and with the same frequency).

When an outage impacts 9-1-1, the value of the notification to an ECC does not differ based on the type of service provider. APCO agrees that “providing a uniform set of expectations” will enhance ECCs’ situational awareness and enable them to be more efficient when mitigating the impacts of outages.⁴ APCO’s comments are therefore directed at both originating service providers and covered 9-1-1 service providers. Here, we offer recommendations for amending the thresholds that trigger an outage report to an ECC, ensuring outage information is actionable, establishing and maintaining a secure, two-way contact database, and retaining the annual reliability certifications.

I. ECCs Need Timely Information About Outages Potentially Impacting 9-1-1 That Do Not Meet the Current Thresholds.

The Commission seeks comment on modifying the current thresholds for requiring service providers to provide outage notifications to ECCs.⁵ APCO agrees that for ECCs, in certain situations “there are benefits to learning of outages or network disruptions that potentially affect 911 but do not meet [the] current reporting thresholds.”⁶ From the perspective of an ECC, the most important question when determining whether an outage notification should be made is whether the ECC would take steps to mitigate the outage’s impact. Basing the thresholds on the potential user minutes impacted does not directly align with public safety considerations. Further, as APCO has suggested, user minutes may not adequately represent the number of people affected, particularly during special events and tourist seasons that attract large crowds to areas that are otherwise sparsely populated.⁷

⁴ *Id.* at para. 13.

⁵ *Id.* at para. 16.

⁶ *Id.*

⁷ Comments of APCO International, PS Docket No. 15-80, ET Docket No. 04-35 (filed July 16, 2015).

The Commission's new reporting thresholds should be based on factors that are relevant to ECCs. ECCs determining whether and how to take steps to mitigate an outage's impact likely take a combination of factors into account, such as the anticipated time to restore service, nature of the impact, and the number of people and size of the area affected. For example, an ECC might find that an outage impacting a small area such as a city block warrants notification, but only if the anticipated time to restore service is significant. In contrast, an ECC may find that even a very brief outage warrants notification if it impacts a large area.

A detailed analysis of outages from the service providers will help the Commission establish thresholds that better serve public safety. As the Commission notes, an estimated 37,000 outages are reported that potentially affect 9-1-1 each year.⁸ While staggering, this number likely does not reflect the total number of disruptions to 9-1-1 service because some disruptions fall below the notification thresholds. Understanding how many outages are going unreported, at what point in the course of an outage a service provider typically understands the scope and restoration time, and how accurately service providers estimate scope and restoration time is essential for establishing more effective reporting thresholds. The service providers should share this information so the 9-1-1 community can make a more informed recommendation to the Commission about how to revise the reporting thresholds. This information will also be helpful for evaluating the tradeoffs between the value of additional notifications to public safety and the potential burden on service providers of lowering the thresholds, to the extent that notifications are not automated. Fundamentally, the Commission should base the thresholds on the benefit to public safety, not service providers' preferences. The

⁸ NPRM at para. 16.

thresholds should err on the side of notification rather than silence because, among other reasons, the initial information about an outage may underestimate its severity.

Once a threshold is met, notifications should occur as quickly as possible. The Commission seeks comment on the acceptable time frame between outage discovery and ECC notification.⁹ Requiring notification as soon as possible, but no later than fifteen minutes from discovery (rather than the proposed 30 minutes), would provide a stronger incentive for service providers to automate their notifications. Notifications should be made by telephone and in writing via electronic means, even if (as discussed below) service providers make information available directly to ECCs' mapping systems. Outages impacting 9-1-1 may coincide with outages impacting phone and email communications with ECCs.

ECCs working to mitigate the impacts of an outage need timely updates with additional material information to inform their efforts. Material information should be provided as soon as it becomes available, taking into account that in some circumstances service providers should aggregate information to provide a more comprehensive notification rather than provide piecemeal updates. Rather than basing a backstop for providing additional material information on the time of the initial notification,¹⁰ service providers should be required to provide updates within fifteen minutes of discovering additional material information.

II. ECCs Need Actionable Information About Outages.

The Commission seeks comment on providing actionable information to ECCs and notes APCO's suggestion that outage information be offered in the form of a graphical interface.¹¹

⁹ *Id.* at para. 12.

¹⁰ *See id.* (proposing that originating service providers, as presently required for covered 9-1-1 service providers, communicate additional material information as that information becomes available, but no later than two hours after the initial notification).

¹¹ *Id.* at para. 21.

APCO welcomes the Commission’s inquiry into the use of graphical interface data as this format would be more actionable for ECCs than text alone. Outage information that offers a visual representation of the impacted areas and real time data from the service providers – similar to the maps provided for consumers to track some electric utility outages – would improve ECCs’ situational awareness and ability to respond to the outage.

There are likely several options for providing outage information to ECCs in a graphical interface. At least one service provider already makes a “Network Status Map” available to certain public safety customers that provides enhanced situational awareness with site-level outage information and maps of local coverage, among other things.¹² When an outage occurs, these users have the ability to monitor the progress of the outage, visualize the impact, and better adjust their operations to mitigate its impacts. This type of situational awareness tool is likely common for service providers’ internal purposes, and APCO looks forward to reviewing comments about the additional tools that could be used for providing actionable information to ECCs. Some options could be better suited for providing data to ECCs that can be integrated into their existing mapping systems.

The Commission seeks comment on how the use of graphical information would help reduce first responder response times.¹³ In some situations, actionable outage information could impact whether there is an emergency response at all. For example, when an ECC has actionable information about a disruption to 9-1-1 service, the ECC can alert the public to dial an alternative ten-digit number to contact 9-1-1. As the Commission observed, this type of mitigating action from an ECC can be “critical to maintaining the public’s continued access to emergency

¹² See FirstNet Central, FirstNet Built with AT&T (last visited July 19, 2021) *available at* <https://www.firstnet.com/power-of-firstnet/firstnet-advantages/firstnet-central.html>.

¹³ NPRM at para. 21.

services.”¹⁴ While not ideal, notifying the public of a necessary alternative for reaching 9-1-1 can make the difference between receiving emergency assistance and making a call that cannot be answered.

APCO supports the Commission’s proposed list of “material” outage information.¹⁵ The service providers’ interest in confidentiality should not supersede the value of this information to public safety.¹⁶ Further, ECC personnel responsibly handle sensitive information as a nature of their jobs.

The Commission notes that allowing flexibility in the format of the information may enable service providers to better meet ECCs’ needs.¹⁷ However, delivering the information in a uniform fashion would make it easier for ECCs to evaluate information from multiple service providers, and it would also facilitate comparison of information among ECCs. Service providers should therefore adopt a uniform approach, absent alternative agreements with individual ECCs.

III. Service Providers Should Establish and Maintain a Secure, Two-Way Contact Database.

The Commission seeks comment on several proposals to facilitate contact information sharing between service providers and ECCs.¹⁸ APCO has long advocated that service providers, in support of their responsibility for ensuring the public can reach 9-1-1, should create and maintain a secure,¹⁹ two-way contact information database for the benefit of public safety. The service providers should ensure that the database is made easily accessible to ECCs at no cost

¹⁴ See *id.* at para. 18 (describing mitigation efforts by Orange County ECCs during a nationwide AT&T Mobility outage that resulted in 172 calls to the alternative ten-digit number within an hour and a half).

¹⁵ *Id.* at para. 19.

¹⁶ See *id.* at para. 24 (suggesting that disclosing specific outage information to ECCs may make that information available to other parties and inquiring whether confidentiality safeguards should be established).

¹⁷ *Id.* at para. 23.

¹⁸ *Id.* at paras. 26-35.

¹⁹ Service providers must ensure that any contact database and the means for populating and retrieving information from the database meet sufficient cybersecurity protections reflective of the highly sensitive nature of the information involved. This may include measures such as use of VPNs, dual-factor authentication, etc.

and incorporates adequate cybersecurity protections. When an outage occurs, it is incumbent on service providers to contact the impacted ECCs. And because ECCs often detect outages before being notified by a service provider, they need to know how to contact the relevant service provider. A two-way database would support these fundamental and critical needs. Additionally, establishing a single database would likely reduce costs for service providers and spare ECCs the burden of responding to contact information requests from various service providers multiple times a year.²⁰ APCO rejects the notion that the public safety community should be responsible for funding or creating a contact database.

While service providers should bear responsibility for populating and updating ECC contact information, as proposed,²¹ there could be mutual benefit in developing a contact database with a secure, web-based portal that enables both service providers and ECCs to enter and update their own contact information. ECCs should have the discretion to specify how they wish to be contacted (for example, generic vs. personal email, administrative line vs. mobile number), and in what priority. Service providers should also periodically (perhaps twice a year) test the contact information for verification and remedy any deficiencies.

Given that service providers possess the necessary resources, are already required under Commission rules to notify ECCs of outages, and already maintain their own databases for contacting ECCs (in some cases pursuant to consent decrees with the Commission),²² they are well-suited to fund, establish, and maintain a contact database. As the Commission notes, in

²⁰ See Standard Operating Procedures (SOP) for Updating Public Safety Answering Point (PSAP) Outage Contact Information, Alliance for Telecommunications Industry Solutions, 1 (Nov. 21, 2019), *available at* [https://access.atis.org/apps/group_public/download.php/50322/ATIS-0100068\(2019-11\).pdf](https://access.atis.org/apps/group_public/download.php/50322/ATIS-0100068(2019-11).pdf) (“SOP”) (“Due to the continued lack of a common database containing contact information for both carriers and PSAPs, Service Providers that maintain PSAP databases may request information from PSAPs individually, multiple times a year by telephone and electronic means.”).

²¹ See NPRM at para. 27.

²² See SOP at 3 n.8.

2016, several wireless service providers committed to establishing a provider/ECC contact database to enhance coordination during an emergency.²³ The service providers should honor this commitment and, the Commission’s rules should hold them to it. Additionally, as the Commission notes, the National Emergency Address Database (NEAD) represents an example of service providers establishing a joint database for the benefit of public safety.²⁴ While the carriers eventually determined that the NEAD was not worth maintaining, its development provides precedent for service providers’ ability to address a common public safety need with economies of scale and appropriate attention to privacy and security concerns.²⁵

The Commission seeks comment on how to best ensure the reliability and integrity of the information contained in any database and “whether users and creators of a PSAP contact information database should be prohibited from using that information for any other purpose not related to public safety or maintenance of the database.”²⁶ APCO strongly supports this proposal and urges the Commission to prohibit service providers from monetizing such a database or using a database that is monetized by a third party. APCO also cautions the Commission against developing a safe harbor rule that might weaken incentives for service providers to keep the information up to date.²⁷ A policy that absolves the service providers of liability when relying on the information in the database could be overly-broad. As noted above, service providers and

²³ NPRM at para. 32. (citing Improving the Resiliency of Mobile Wireless Communications Networks; Reliability and Continuity of Communications Networks, Including Broadband Technologies, PS Docket Nos. 11-60, 13-239, Order, 31 FCC Rcd 13745, 13748, para. 5 (2016)).

²⁴ *Id.*

²⁵ *Id.* at para. 59 (noting the service providers participating in the NEAD set forth specific measures to address privacy and security concerns). In particular the NEAD participants committed to (1) “engage with various industry experts on privacy and security to ensure that best practices are followed in the development and operation of the database”; and (2) “require the vendor(s) selected for the NEAD administration to develop a Privacy and Security Plan in advance of going live and transmit it to the FCC.” Letter from Joan Marsh, AT&T Services, Ray Rothermel, Sprint, Kathleen O’Brien Ham, T-Mobile, and Kathleen Grillo, Verizon to Marlene Dortch, Secretary, FCC, PS Docket No. 07-114, 3 (filed Jan. 21, 2015).

²⁶ *Id.* at para. 34.

²⁷ *Id.* at para. 35.

ECCs should be empowered to update and maintain their own contact information, and service providers should develop mechanisms to identify inaccuracies in the database.²⁸ Service providers should remain liable for ensuring the reliability, availability, integrity, and security of the database. Liability concerns involving any third parties engaged by service providers would be better addressed through contractual arrangements and ensuring that measures for keeping the database accurate are at least as stringent as the measures the service providers have deemed necessary for their own databases.

IV. The Commission Should Maintain the Annual Reliability Certification Requirement.

The Commission asks whether it should retain the annual certification requirement to promote awareness of 9-1-1 reliability issues for covered 9-1-1 service providers' senior management and employees.²⁹ The Commission should. Any burden on submitting annual certifications (which appear minimal) is outweighed by the interest in continuing to promote the seriousness and significance of ensuring reliable and resilient 9-1-1 networks. The outages being reported based on the current high thresholds remain frequent and serious enough to warrant continued use of the current reliability certifications.

In sum, APCO appreciates the Commission's commitment to improving the reliability of communications with 9-1-1 and looks forward to working with the Commission on this important issue. APCO also supports the Commission's proposed April 1, 2022, compliance timeframe.³⁰

²⁸ For example, biannual test messages could be sent to database contacts, and if receipt is not confirmed, service providers would know to take additional steps to have the information updated and verified.

²⁹ NPRM at para. 48.

³⁰ *Id.* at paras. 52-53.

Respectfully submitted,
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