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> DA 18-612 Released: June 13, 2018

### PUBLIC SAFETY AND HOMELAND SECURITY BUREAU SEEKS COMMENT ON 911 NETWORK RELIABILITY RULES PS Docket No. 13-75

#### Comments Due: July 16, 2018 Reply Comments Due: August 13, 2018

#### **Introduction**

The Public Safety and Homeland Security Bureau (Bureau) of the Federal Communications Commission (FCC or Commission) seeks comment on the Commission's rules regarding the reliability of the nation's 911 networks, including notification to Public Safety Answering Points (PSAPs) of network outages affecting 911 service. Under current Commission rules, "covered 911 service providers" are required to: 1) take "reasonable measures" to ensure 911 circuit diversity, availability of central office backup power, and diverse network monitoring;<sup>1</sup> 2) certify annually to their performance of these measures, or to alternative measures demonstrated to be reasonably sufficient to mitigate the risk of failure;<sup>2</sup> and 3) notify PSAPs of outages that potentially affect them.<sup>3</sup> When the Commission adopted these rules, it committed to review them in five years to determine whether they remain technologically appropriate, and both adequate and necessary to ensure the reliability and resiliency of 911 networks.<sup>4</sup> The Bureau invites interested parties to provide comments and other information regarding how effective these provisions have been in practice, and whether these provisions should be modified to adapt to advancements in technology or other changes.<sup>5</sup> The Bureau will use the record from this Public Notice to recommend next steps, if any, for the Commission's consideration.

<sup>4</sup> See 911 Reliability Order, 28 FCC Rcd at 17533, para. 159.

<sup>&</sup>lt;sup>1</sup> 47 CFR § 12.4(a)(4) (defining a "covered 911 service provider" as an entity that provides 911, E911, or [Next Generation 911] NG911 capabilities such as call routing, automatic location information (ALI), automatic number identification (ANI), or the functional equivalent of those capabilities, directly to a PSAP, statewide default answering point, or appropriate local emergency authority, or an entity that operates one or more central offices that directly serve a PSAP); 47 CFR § 12.4(b) (requiring covered 911 service providers to take specified reasonable measures to provide reliable 911 service).

<sup>&</sup>lt;sup>2</sup> See 47 CFR § 12.4(c).

<sup>&</sup>lt;sup>3</sup> See 47 CFR § 4.9(h); see also Improving 911 Reliability; Reliability and Continuity of Communications Networks, Including Broadband Technologies, Report and Order, 28 FCC Rcd 17476 (2013) (911 Reliability Order).

<sup>&</sup>lt;sup>5</sup> This Public Notice builds upon the Commission's previous record of experience with 911 network reliability. *See*, *e.g., FCC's Public Safety and Homeland Security Bureau Reminds Communications Service Providers of Importance of Implementing Network Reliability Best Practices*, PS Docket 17-68, Public Notice, DA 17-672 (PSHSB Jul. 12, 2017) (highlighting best practices to prevent "sunny day" outages); *Public Safety and Homeland Security Bureau Shares Recommended Practices from September 11, 2017 911 Workshop*, PS Docket No. 17-68, Public Notice, DA 18-6 (PSHSB Jan. 2, 2018) (highlighting PSAP notification practices recommended by workshop participants).

#### **Request for Comment**

#### A. Current 911 Reliability Rules

*Effectiveness of Current 911 Reliability Rules.* As a threshold matter, the Bureau seeks comment on the effectiveness of the existing 911 reliability rules. Have the Commission's 911 reliability requirements for covered 911 service providers been effective in safeguarding the nation's legacy, transitional, and Next Generation 911 (NG911) networks from preventable outages? Are there examples of specific circuit diversity, central office backup power, and network monitoring measures that have been taken because of the Commission's 911 reliability rules? Do the Commission's current 911 reliability requirements adequately encompass transitional and NG911 networks?<sup>6</sup> What are the most effective measures that covered 911 service providers have implemented to prevent and mitigate outages in networks that include transitional or NG911 elements? Commenters are also invited to submit any information or materials that demonstrate improvements in 911 network reliability since the 911 reliability rules' effective date, including any contribution by the rules to those improvements.<sup>7</sup> If the rules have not resulted in measurable improvements to 911 reliability, how should the Commission change these requirements?

*Alternatives to Current 911 Reliability Rules.* The Bureau seeks comment on whether the Commission should replace the existing 911 reliability rules with an alternative framework. For example, would it serve the public interest to require covered 911 service providers to take reasonable measures to ensure the reliability of their 911 networks, but without mandating specific measures to achieve that outcome (*i.e.*, eliminate specific requirements with respect to 911 circuit diversity, availability of central office backup power, and diverse network monitoring)? How would such a general reasonableness requirement be measured and implemented? Should such a general reasonableness requirement apply only to transitional or NG911 networks, with the existing 911 reliability rules continuing to apply to legacy 911 networks? Would such a general reasonableness requirement provide covered 911 service providers with greater flexibility in network administration, while also ensuring sufficient care in 911 networks operation? As another alternative, should the Commission require covered 911 service providers to certify to implementation of certain best practices? If so, what best practices would be appropriate for this purpose, and are they specific enough to ensure a reasonable degree of reliability?

Utility of the Certification Process. Finally, in the event the Commission continues to require covered 911 service providers to take reasonable measures to ensure 911 circuit diversity, availability of central office backup power, and diverse network monitoring, should the Commission continue to require annual certification to the satisfaction of these measures? If so, should the Commission revise the frequency of certification filings? What frequency of filings (*e.g.*, biannual or triannual filing rather than annual filing) would be sufficient to ensure that networks remain reliable through the course of reconfigurations and other network changes, based on relevant data and experience? If certifications have not provided significant additional value, should the Commission eliminate the certification requirement from the 911 reliability rules?

<sup>&</sup>lt;sup>6</sup> An example of a provision specific to NG911 is defining "critical 911 circuits" in a manner that includes NG911 facilities that are functionally equivalent to legacy facilities. *See* 47 CFR § 12.4(a)(5) (defining "critical 911 circuits" as "911 facilities that originate at a selective router or its functional equivalent and terminate in the central office that serves the PSAP(s) to which the selective router or its functional equivalent delivers 911 calls, including all equipment in the serving central office necessary for the delivery of 911 calls to the PSAP(s).").

<sup>&</sup>lt;sup>7</sup> See Improving 9-1-1 Reliability; Reliability and Continuity of Communications Networks, Including Broadband *Technologies*, 79 Fed. Reg. 3123 (Jan. 17, 2014) (announcing the 911 reliability rules' effective date 30 days from the date of this document's publication, *i.e.*, on February 18, 2014).

*Costs of 911 Reliability Rules.* In 2013, the Commission assessed the annual cost of reasonable reliability measures to be \$9 million.<sup>8</sup> This figure included \$6.4 million for maintaining circuit diversity, \$1.9 million for providing backup power to central offices that serve PSAPs, and \$732,000 for corrective measures to provide diverse network monitoring in each 911 service area.<sup>9</sup> The Commission assessed the annual cost of certifying performance of these measures to be \$13.5 million.<sup>10</sup> We seek comment to refresh the record on these costs. We also seek comment on the potential costs of any alternate approaches, including the ones described above.

## B. Scope of Covered Entities Subject to 911 Reliability Rules

*Definition of a Covered 911 Service Provider*. In the 2013 911 Reliability Order, the Commission limited the scope of its 911 reliability requirements to covered 911 service providers' 911 networks.<sup>11</sup> Does the growing diversity of industry participants in the transitional and NG911 environment continue to be adequately encompassed by the term "covered 911 service provider"? Are there instances where it may be unclear whether a service provider fits within this category, as it is currently defined? Should the Commission revise its definition of a "covered 911 service provider," and if so, how? Are there other examples of service providers that are not considered "covered 911 service providers," but that may nevertheless be integral to supporting 911 reliability?

# C. PSAP Notification Requirements

*Effectiveness of the Current PSAP Notification Requirements.* In the *911 Reliability Order*, the Commission required covered 911 service providers to: 1) notify affected PSAPs within 30 minutes of discovering a 911 outage by telephone and in writing, including contact information for the affected service provider; and 2) update PSAPs within two hours of their initial contact, to disclose the nature of the outage, its best-known cause, geographic scope, and the estimated time for repairs, if available. Are the current PSAP notification rules for covered 911 service providers effective in helping PSAPs gain timely information about outages that affect 911 services and take any appropriate or available measures to help maintain continuity of access to emergency services?

*Standardization.* Last year, the Bureau convened consumer groups, public safety entities and service providers in the 911 ecosystem to participate in a workshop to discuss best practices and develop recommendations for improving situational awareness during 911 outages.<sup>12</sup> Among other recommendations, workshop participants generally agreed that service providers should offer PSAPs

<sup>&</sup>lt;sup>8</sup> See 911 Reliability Order, 28 FCC Rcd at 17502, para. 48.

<sup>&</sup>lt;sup>9</sup> See id.

<sup>&</sup>lt;sup>10</sup> See Notice of Office of Management and Budget Action, Improving 911 Reliability; Reliability and Continuity of Communications Including Networks, Broadband Technologies, OMB Control No. 3060-1202 (2017); Supporting Statement, Improving 911 Reliability; Reliability and Continuity of Communications Including Networks, Broadband Technologies, OMB Control No.3060-1202 (2017),

<sup>&</sup>lt;u>https://www.reginfo.gov/public/do/DownloadDocument?objectID=77407301</u>. This figure included \$12.9 million for circuit auditing, \$252,000 for certifying to the existence of backup power for each PSAP served by a central office, \$192,000 for certifying to diverse network monitoring in each 911 service area, and \$160,000 for a certifying official employed by each covered 911 service provider to review and file the certification.

<sup>&</sup>lt;sup>11</sup> 911 Reliability Order, 28 FCC Rcd at 17488, para. 36.

<sup>&</sup>lt;sup>12</sup> See Public Safety and Homeland Security Bureau Announces Agenda for Workshop on Improving Situational Awareness During 911 Outages, DA 17-798, Public Notice, PS Docket No. 17-68 (PSHSB Aug. 2017); Public Safety and Homeland Security Bureau Shares Recommended Practices from September 11, 2017 911 Workshop, DA 18-6, Public Notice, PS Docket No. 17-68 (PSHSB Jan. 2018).

outage notifications in a consistent format to facilitate comprehension of outage information.<sup>13</sup> The Alliance for Telecommunications Industry Solutions' (ATIS) Network Reliability Steering Committee subsequently reconvened workshop attendees to develop a model PSAP notification template, which we understand is forthcoming. Should the Commission standardize the way covered 911 service providers notify PSAPs of outages that potentially affect them? If so, does the ATIS template provide a reasonable model on which to base a PSAP notification template?

*Streamlining.* Finally, public safety representatives participating in the Bureau's 911 workshop stated that they can receive multiple notifications regarding a single outage, which can give the mistaken impression that separate 911 outages are occurring simultaneously in multiple provider networks.<sup>14</sup> This may result in inaccurate public messaging about the outage, the misallocation of resources, and inappropriate remedial steps. At the same time, in the increasingly complex transitional NG911 environment, covered 911 service providers experiencing a 911 outage sometimes cannot determine in which network the outage originates within the timeframe allowed by the Commission's rules. Is it feasible to reduce the number of notifications that PSAPs receive for the same outage event, while still ensuring PSAPs have adequate situational awareness of 911 outages? If so, what measures could the Commission take to streamline the number of PSAPs receive?

#### **Procedural Matters**

**Comment Filing Procedures.** Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS).<sup>15</sup>

- □ Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <u>http://apps.fcc.gov/ecfs/</u>.
- □ Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of <u>before</u> entering the building.
- □ Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington, DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to <u>fcc504@fcc.gov</u> or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

<sup>&</sup>lt;sup>13</sup> See Public Safety and Homeland Security Bureau Shares Recommended Practices from September 11, 2017 911 Workshop, Public Notice, 33 FCC Rcd 11, 12 (PSHSB Jan. 2018).

<sup>&</sup>lt;sup>14</sup> See FCC, Improving Situational Awareness During 911 Outages, at 109:00, <u>https://www.fcc.gov/news-events/2017/09/improving-situational-awareness-during-911-outages</u> (last visited May 29, 2018).

<sup>&</sup>lt;sup>15</sup> See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

"Permit-but-disclose" proceeding. This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.<sup>16</sup> Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex *parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral exparte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex *parte* rules.

For further information regarding this proceeding, contact James Wiley, Public Safety and Homeland Security Bureau, Cybersecurity and Communications Reliability Division, at (202) 418-1678, or James.Wiley@fcc.gov.

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<sup>&</sup>lt;sup>16</sup> 47 CFR §§ 1.1200 *et seq*.