



PUBLIC NOTICE

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**PUBLIC SAFETY AND HOMELAND SECURITY BUREAU SEEKS COMMENT ON THE
EFFECTIVENESS OF THE WIRELESS NETWORK RESILIENCY COOPERATIVE
FRAMEWORK AND FOR THE STUDY ON PUBLIC ACCESS TO 911 SERVICES DURING
EMERGENCIES**

PS Docket No. 11-60

Comment Date: July 16, 2018
Reply Date: July 31, 2018

Introduction

The devastating 2017 hurricane season provided insight into how wireless providers react to varying levels of damage to their wireless networks and how they cooperate after disasters.¹ The Public Safety and Homeland Security Bureau (Bureau) is currently working with providers, public safety officials, and others to determine what lessons may be learned from the past season to better prepare for future emergencies. By this *Public Notice*, the Commission further complements its ongoing analysis of network resilience during and after the 2017 hurricanes and lays the groundwork for improved wireless network resiliency in the future.

We believe this is an opportune time to review the overall efficacy of the Wireless Network Resiliency Cooperative Framework (Framework).² Since its initiation in 2016, the Framework has provided a systematic approach to enhancing coordination during disasters to protect the reliability of wireless networks.³ Our goal is to ensure that this voluntary industry commitment to promote resilient wireless communications and situational awareness during disasters is robust and effective. Therefore, the Bureau seeks public comment on potential methods of measuring the effectiveness of the Framework, determining the extent of the Framework's use, and further promoting awareness of the Framework.⁴ We also seek comment on ways to further facilitate improvements to the Framework, including by soliciting voluntary commitments from backhaul providers to address processes and best practices for information sharing for network restoration and coordination during disasters.

¹ See *Public Safety and Homeland Security Bureau Seeks Comment on Response Efforts Undertaken During 2017 Hurricane Season*, PS Docket No. 17-344, Public Notice 32 FCC Rcd 10245 (2017) (Hurricane Public Notice); see, e.g., *T-Mobile USA, Inc. Comments*, PS Docket No. 17-344 (filed Jan. 22, 2018).

² See Federal Communications Commission, *Wireless Resiliency Cooperative Framework*, <https://www.fcc.gov/wireless-resiliency-cooperative-framework> (last visited Apr. 5, 2018).

³ *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 (2016).

⁴ See also U.S. Government Accountability Office, *FCC Should Improve Monitoring of Industry Efforts to Strengthen Wireless Network Resiliency*, GAO 18-198, pub. Dec. 12, 2017, available at <https://www.gao.gov/products/GAO-18-198>.

Relatedly, pursuant to Title III, Section 301 of RAY BAUM'S ACT,⁵ we seek comment on a future Commission study that will address the public safety benefits, technical feasibility, and cost of providing the public with access to 911 services during times of emergency via Wi-Fi access points and other technologies, when mobile service is unavailable.⁶

Measuring the Extent of the Framework's Use and its Effectiveness

We seek public comment, including from Framework signatories, wireless service providers, public safety entities, and other stakeholders, on how best to measure the extent of the Framework's use and its effectiveness. Should we seek input on a recurring or an ad hoc basis from signatories? How can we measure the extent and effectiveness of roaming under disaster arrangements? Should we evaluate the effectiveness of the Framework based on metrics such as the percentage of customers covered by roaming agreements on a per-wireless provider basis? Is there another useful metric, such as the percentage of calls completed during an emergency due to roaming agreements? How can we best measure the extent that carriers provided, sought, or received mutual aid during emergencies and the effectiveness of such mutual aid? Is measuring the efficacy of mutual aid during emergencies too context-specific to measure in a standardized way? Would a narrative form of reporting by signatories provide the Commission with sufficient information?

We also seek comment on measuring enhancements to municipal preparedness and restoration, including a PSAP database, once it has been established.⁷ How can we measure the extent to which industry best practices, including those recommended by CTIA as part of its commitment to the Framework, are followed?⁸ Is there evidence of how communities are leveraging these best practices, and can that evidence be used to measure enhancements to municipal preparedness and restoration? What metrics are available to measure the usefulness and effectiveness of the Consumer Readiness Checklist? Should the Bureau attempt to establish benchmarks for measuring awareness of the Checklist and if so, what should those benchmarks be? Would a narrative form of reporting by signatories provide the Bureau with sufficient information on the effectiveness of the Checklist? Are certain prongs of the Framework presenting challenges to signatories that are preventing their abilities to enhance wireless resiliency?

Promoting Awareness of the Framework

The Bureau seeks public comment on how it can most effectively promote awareness of the elements of and any outcomes from the Framework among federal, state, and local public safety partners and other industry stakeholders. What are the best methods for measuring the effectiveness of such promotion? What metrics are available to measure the extent to which posting aggregated data on cell site outages through DIRS reports has improved public awareness and stakeholder communications on service and restoration status?

Incorporating Backhaul Providers in the Framework

We understand that particular challenges during Hurricane Maria included the ability of wireless carriers to obtain real time information from backhaul providers about the status of network restoration efforts, as well as the relative lack of meaningful coordination on those efforts among backhaul providers, wireless providers, local government partners, and power companies. The Bureau thus seeks comment on

⁵ See Consolidated Appropriations Act, 2018, P.L. 115-141, Division P, the Repack Airwaves Yielding Better Access for Users of Modern Services (RAY BAUM'S) Act. Title III, Section 301 of RAY BAUM'S Act is titled: "Securing Access to Networks in Disasters, Study on network resiliency."

⁶ *Id.*

⁷ Signatories, along with other stakeholders, are working cooperatively towards establishing a PSAP database.

⁸ CTIA, Best Practices for Enhancing Emergency and Disaster Preparedness and Restoration, <https://api.ctia.org/docs/default-source/default-document-library/best-practices-for-enhancing-emergency-and-disaster-preparedness-and-restoration.pdf> (last visited Apr. 9, 2018) (CTIA Best Practices).

whether soliciting voluntary, tailored commitments from backhaul providers within the existing Framework would be an effective method for addressing these challenges. Specifically, should backhaul providers be encouraged to participate in the Framework and work cooperatively with wireless providers and other relevant stakeholders to develop a process for sharing restoration information during disasters, including a timeline of expected restoration efforts, based on either the prioritized list of circuits or those circuits designated for high traffic during emergencies? If so, what would that process be? Should participating backhaul providers work with wireless providers and other stakeholders to incorporate best practices for information sharing and network restoration prioritization efforts, including coordination with federal, state, and local emergency response agencies and power companies similar to the CTIA Best Practices?⁹

Do backhaul providers have access to contact information from emergency response agencies and power companies for emergency response, network restoration, and continuity of operations, and could they share such contact information with other Framework signatories, affected carriers, and the Commission? Are there other challenges that could be addressed by extending the Framework to include backhaul providers? Should any such extension be applicable to all providers of backhaul service, including cable providers? Would extending the voluntary Framework to include backhaul providers raise any significant challenges for participating providers that could hinder their own restoration efforts, including restoring service to corporate and/or residential end users? Are there particular incentives or disincentives for backhaul providers' voluntary participation in the Framework that we should consider? To what extent are existing federal and state restoration and resiliency frameworks, such as the Telecommunications Service Priority, sufficient in addressing the concerns expressed following last year's hurricane season, particularly after Hurricane Maria?

Securing Access to Networks in Disasters

Pursuant to Title III, Section 301 of RAY BAUM'S Act, the Commission is required, within 36 months of the statute's enactment, to provide to Congress and make publicly available on the Commission's website, a study on the public safety benefits, technical feasibility, and cost of public access to 911 services via various technologies. Specifically, the study must consider (1) making telecommunications service provider-owned WiFi access points, and other communications technologies operating on unlicensed spectrum, available to the general public for access to 911 services, without requiring any login credentials, during times of emergency when mobile service is unavailable; (2) the provision by non-telecommunications service provider-owned WiFi access points of public access to 911 services during times of emergency when mobile service is unavailable; and (3) other alternative means of providing the public with access to 911 services during times of emergency when mobile service is unavailable.¹⁰ We seek comment on several issues and assumptions arising out of these statutory provisions to aid in developing the required report.

What current or near-future capabilities would be required for WiFi hotspots to implement the contemplated emergency access? What technical or operating specifications would be necessary to restrict access and secure communications for the purpose of emergency services? Are there differences in the capabilities that would be required for voice versus text access to 911? What corresponding capabilities would be required for consumer handsets to support such access? Are there some types of consumer handsets for which this capability would be difficult or impractical to provide? Could over-the-top software applications play a role in facilitating emergency access to WiFi hotspots? Are there means to facilitate emergency access to hotspots in a transparent manner that would not require action on the part of the end user? What technical, operational, or administrative barriers might impede emergency

⁹ *See id.*

¹⁰ *See Consolidated Appropriations Act, 2018, P.L. 115-141, Division P, the Repack Airwaves Yielding Better Access for Users of Modern Services (RAY BAUM'S) Act. Title III, Section 301 of RAY BAUM'S Act is titled: "Securing Access to Networks in Disasters, Study on network resiliency."*

access to 911 over WiFi? What other avenues of inquiry should the Commission pursue to fully inform the contemplated report?

Procedural Matters

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 FCC's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 CFR 24121 (1998).

- Commenting parties may file comments in response to this Notice in PS Docket No. 11-60.
- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
- 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 FCC's Secretary, Office of the Secretary, Federal Communications Commission.
 - All hand-delivered or messenger-delivered paper filings for the FCC's Secretary must be delivered to FCC Headquarters at 445 12th Street, 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 before 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 12th 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 fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (tty).

Parties wishing to file materials with a claim of confidentiality should follow the procedures set forth in Section 0.459 of the Commission's rules. Casual claims of confidentiality are not accepted. Confidential submissions may not be filed via ECFS but rather should be filed with the Secretary's Office following the procedures set forth in 47 CFR § 0.459. Redacted versions of confidential submissions may be filed via ECFS. Parties are advised that the FCC looks with disfavor on claims of confidentiality for entire documents. When a claim of confidentiality is made, a public, redacted version of the document should also be filed.

The proceeding this Notice initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.¹¹ 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

¹¹ 47 CFR §§ 1.1200 *et seq.*

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 *ex parte* 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.

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