**Before the**

Federal Communications Commission

Washington, D.C. 20554

|  |  |  |
| --- | --- | --- |
| In the Matter ofImproving the Resiliency of Mobile Wireless Communications NetworksReliability and Continuity of Communications Networks, Including Broadband Technologies  | **)****)****)****)****)****)****)** | PS Docket No. 13-239[terminated]PS Docket No. 11-60 |

order

**Adopted: December 14, 2016 Released: December 20, 2016**

By the Commission:

Table of Contents

Heading Paragraph #

I. Introduction 1

II. Background and Procedural History 5

III. Discussion 16

A. Adopting a Voluntary Approach 17

B. Community Preparedness 22

1. Municipal Preparedness 22

2. Consumer Preparedness and Restoration Information 28

C. Roaming under Disasters and Mutual Aid Agreements 33

IV. Ordering Clauses 41

# Introduction AND BACKGROUND

1. In this *Order*, the Federal Communications Commission (Commission) addresses proposals raised in its earlier *Notice*, released in the wake of Superstorm Sandy, designed to address the resiliency of the mobile wireless industry’s communications infrastructure.[[1]](#footnote-2) In light of the substantial concerns identified in the record with respect to proposed metrics and possible consequences of the disclosure proposal initially advanced in our *Notice,* in this *Order* we find that the “Wireless Network Resiliency Cooperative Framework”[[2]](#footnote-3) (Framework) as submitted by AT&T, CTIA – The Wireless Association (CTIA), Sprint, T-Mobile, U.S. Cellular, and Verizon presents a more appropriate path forward to improving wireless resiliency and provider transparency, and we refrain from adopting further regulations at this time. We find the voluntary framework to be a reasonable approach to achieving the Commission’s stated goals in PS Docket No. 13-239, including promoting availability of wireless mobile services in the event of natural disasters and other emergencies and increasing provider transparency around wireless resiliency. We also believe it will bolster situational awareness for the Commission, consumers, and public officials, and provide a mechanism by which consumers will be able to hold providers accountable for service continuity during disaster-related events.
2. We commend the wireless industry for coming together on this issue and proposing a collective way to improve resiliency. We are particularly encouraged by the signatory parties’ cooperation and fulfillment of certain Framework commitments during the catastrophic flooding in Louisiana in August 2016, even though a triggering condition of the Framework was absent.[[3]](#footnote-4) We encourage providers to utilize the Framework where it applies. We believe that, at this time, the commitments made in the Framework for improving wireless resiliency sufficiently address the concerns raised in the *Notice* to warrant terminating PS Docket No. 13-239.
3. In the *Notice*, the Commission sought comment on whether to require wireless providers to disclose the percentages of cell sites kept in operation during major emergencies, as a metric for gauging the comparative reliability of mobile wireless networks and as a tool to create incentives to harden networks to better withstand disaster conditions.[[4]](#footnote-5) The Commission proposed that mobile wireless service providers file daily reports during major emergencies, which the Commission surmised could form the basis of comparisons among providers as to the resiliency of their networks, which consumers could then factor into their purchasing decisions.[[5]](#footnote-6) The Commission also posited that the disclosures would create incentives for providers to increase investment in hardening their networks to better survive disaster conditions.[[6]](#footnote-7)
4. The Commission’s *Notice* also solicited comment on alternative or complementary measures for improving wireless network reliability, and on their associated costs and benefits. Among these was “voluntary measures taken by industry.”[[7]](#footnote-8) The Commission specifically sought comment on “whether heightened transparency and resiliency of mobile wireless networks could be achieved adequately” through such measures.[[8]](#footnote-9) As an example, it cited a 2011 agreement among the Commission, Consumers Union, CTIA, and certain wireless carriers addressing “bill shock.”[[9]](#footnote-10)
5. *CTIA Proposed Framework*. On April 27, 2016, in advance of the 2016 hurricane season, CTIA, AT&T, Sprint, T-Mobile, U.S. Cellular, and Verizon filed an *ex parte* notifying the Commission of their adoption of a voluntary initiative designed to enhance coordination and communication to advance wireless service continuity and information sharing during and after emergencies and disasters.[[10]](#footnote-11) The filing sets out a five-pronged framework for enhancing coordination during an emergency: (1) providing for reasonable roaming under disaster arrangements (RuDs) when technically feasible; (2) fostering mutual aid among wireless carriers during emergencies; (3) enhancing municipal preparedness and restoration by convening with local government public safety representatives to develop best practices, and establishing a provider/PSAP contact database; (4) increasing consumer readiness and preparation through development and dissemination with consumer groups of a Consumer Readiness Checklist; and (5) improving public awareness and stakeholder communications on service and restoration status, through Commission posting of data on cell site outages on an aggregated, county-by-county basis in the relevant area through its Disaster Information Reporting System (DIRS).[[11]](#footnote-12) CTIA asserts that “[t]he Framework is consistent with – and builds upon – CSRIC recommendations.”[[12]](#footnote-13)
6. Applicability of the commitments contained in the Framework is limited to when the National Response Coordination Center (NRCC) or any entity authorized to declare Emergency Support Function 2 (ESF-2) [[13]](#footnote-14) activates ESF-2[[14]](#footnote-15) for a given emergency or disaster and the FCC activates DIRS.[[15]](#footnote-16) The Framework further limits applicability of its RuD proposal to “where: (i) a requesting carrier’s network has become inoperable and the requesting carrier has taken all appropriate steps to attempt to restore its own network, and (ii) the home carrier has determined that roaming is technically feasible and will not adversely affect service to the home carrier’s own subscribers,” adding that “[s]uch arrangements will be limited in duration and contingent on the requesting carrier taking all possible steps to restore service on its own network as quickly as possible.”[[16]](#footnote-17)
7. On April 28, 2016, the Bureau released a *Public Notice* seeking comment on the CTIA proposed framework.[[17]](#footnote-18) APCO, CCA, and Wireless Infrastructure Association support the CTIA voluntary framework,[[18]](#footnote-19) whereas the City of New York and New America generally oppose the framework as proposed.[[19]](#footnote-20) Rural Wireless Association (RWA) and NTCA support the idea of a voluntary approach to resolving concerns raised in the *Notice*, but disagree with the Framework’s position on RuD agreements.[[20]](#footnote-21) Although not a signatory member to the Framework, in its comments, CCA committed to many of the same principles.[[21]](#footnote-22)

# Discussion

## Adopting a Voluntary Approach

1. In response to the *Notice*, numerous commenters opposed the disclosure approach. Specifically, several commenters argued the metrics underlying the disclosures proposed in the *Notice* do not take into account the kinds of technology providers are deploying today, such as small cells, picocells, and femtocells, and therefore would produce misleading results.[[22]](#footnote-23) Some argued that the disclosure approach actually creates *dis*incentives for wireless providers to deploy small cell technology, or to cooperate with its competitors to restore service.[[23]](#footnote-24) Specifically, CTIA argues that the disclosures would require wireless providers to prioritize their reporting of cell sites that are out to the FCC over restoration of service,[[24]](#footnote-25) and that by incentivizing carriers to increase their operational metrics rather than restore service, the benefits proposed in the *Notice* will not be realized.[[25]](#footnote-26) Sprint also argued that the public nature of the proposed disclosures would undermine the long-standing presumption of confidentiality within DIRS.[[26]](#footnote-27) Others argued that the disclosures would be more valuable to public safety if they contained more information.[[27]](#footnote-28) The Vermont Public Service Board, however, submitted that the metric would nevertheless be “more valuable than having no information at all.”[[28]](#footnote-29)
2. APCO, CCA, Wireless Infrastructure Association, and RWA/NTCA support the idea of a voluntary approach to improving wireless resiliency.[[29]](#footnote-30) New York City and New America, however, express concern that a voluntary solution would fail to provide meaningful solutions for improving wireless resiliency.[[30]](#footnote-31) For example, New York City is highly skeptical of the wireless industry’s commitments, and “remains unconvinced of the existence of factors sufficient to motivate competitive wireless companies to comply with their own programs for self-regulation.”[[31]](#footnote-32) New America, on the other hand, contends that voluntary commitments made by the industry should not obviate the need for regulatory action, particularly with respect to data-sharing standards. New America also argues that “[a] cooperative agreement forged solely among industry representatives leaves out leadership by those most informed about local needs and experiences: local groups on the front lines in flood zones, as well as emergency response personnel and government officials.”[[32]](#footnote-33)
3. *Discussion.* In light of the concerns identified by commenters with the disclosure metrics identified in the *Notice,* the difficulties in otherwise readily and accurately depicting the ongoing status of a licensee’s mobile wireless service during such emergencies, and the benefits of mutual aid and sharing of facilities through the commitments now made in the Framework, we believe that a more cost effective way of promoting our goals is to rely on the voluntary framework as set forth by CTIA and the major wireless carriers. The Commission has long encouraged the incorporation of voluntary industry approaches in lieu of regulation, and we were encouraged by and commend the wireless industry’s submission of the Framework.
4. For the reasons set forth in the following sections, we find that the Framework presents a reasonable initial path forward to improving wireless resiliency. We find that the Framework provides a rational basis for promoting an alternative path toward improved wireless resiliency without the need for relying on regulatory approaches that have the foregoing limitations.

## Community Preparedness

### Municipal Preparedness

1. The Framework committed the signatory parties to convene with a select number of local government representatives’ public safety subject matter experts, by June 1, 2016 (the first day of hurricane season), to develop best practices to facilitate coordination before, during, and after emergencies and disasters in order to maintain and restore wireless service continuity.[[33]](#footnote-34) The Commission has met with wireless providers to ensure that such dialogues are indeed occurring between the wireless providers and state and local public safety.
2. *Comments.* Commenters addressing this issue agree that active engagement with local public safety entities is of paramount importance during a disaster.[[34]](#footnote-35) For example, APCO argues that providing PSAPs with timely information about service status enables them to more effectively deploy resources, and that “[w]ith up-to-date situational awareness, PSAPs would be able to stage law enforcement, fire/rescue and EMS resources, identify impacted areas in GIS-based CAD systems where available, and provide real time updates to mobile data systems used by responders.”[[35]](#footnote-36) New America advocates for a standard set forth by New York City in its comments earlier in this proceeding: “Give local authorities as near as possible to real-time access to specific wireless outages that have occurred in their areas during disasters and up to date status on their restoration efforts, to focus searches on areas where outages preclude residents and others from otherwise contacting first responders*.*”[[36]](#footnote-37) New York City stresses the importance of real-time or near real-time information sharing with local public safety officials.[[37]](#footnote-38)
3. *Discussion.* We commend the signatory parties’ commitment to meet with state and local officials in anticipation of hurricane season and note that state and local zoning, building codes, and tower policies can create hurdles to positive resiliency objectives. We believe that such meetings can be used to accomplish a great deal of advance preparedness work, and encourage public safety and the wireless industry to be open-minded in their consideration of how wireless resiliency can be improved. Such advance preparations can also be expected to promote quicker restoration of service during such disasters and other emergencies, saving time and money. Improved preparedness mechanisms should reduce the costs borne by both wireless providers and public safety entities in responding to and recovering from a disaster.[[38]](#footnote-39) Furthermore, we believe that such meetings should include all relevant local wireless providers as a way to foster cooperation among providers and better prepare all stakeholders for times of crisis.

### Consumer Preparedness and Restoration Information

1. The Framework states that the signatory parties will conduct consumer education efforts to ensure consumers are properly prepared for emergencies and disasters, and in particular, will develop a “Consumer Readiness Checklist.”[[39]](#footnote-40) The signatories also commit to community outreach in the form of “public service announcements, informational pamphlets, and social media ranging from YouTube videos to Tweets and other effective ways to improve consumer preparedness for disasters and other emergencies.”[[40]](#footnote-41) Moreover, the Framework agrees that, when both ESF-2 and DIRS are activated, the signatory parties will “support the FCC making DIRS data regarding the total number of cell sites out of service (calculated consistent with established DIRS practices) publicly available on its website on an industry-aggregated, county-by-county basis for any geographic area defined in a DIRS activation notice.”[[41]](#footnote-42) Finally, the Framework suggests that, in order to ensure that the public has the most up-to-date information and will enhance coordination between the wireless industry and relevant stakeholders,” for each county-level entry, the Commission should identify “the time the most recent data was submitted, and promptly revise the data it publishes whenever it receives updated information from a carrier.”[[42]](#footnote-43)
2. *Comments.* Commenters generally support the Framework’s commitment to improving consumer readiness.[[43]](#footnote-44) New America points out that a community outreach effort “creates an opportunity for mutual learning, as industry representatives may not be familiar with the grassroots and ‘whole community’ preparedness efforts already underway in many neighborhoods,” and encourages the signatory parties to “learn from local groups about effective ways to support community-led response, rather than replicating or creating redundancies with existing ‘preparedness checklists,’ etc.”[[44]](#footnote-45) New York City submits that it “would welcome the opportunity to provide emergency preparedness information to wireless customers as part of consumer bills, inserts in purchased products, and other collaborations.”[[45]](#footnote-46) Commenters also generally support the Framework’s proposed initiatives for informing the public about service status and restoration.[[46]](#footnote-47) New York City urges the Commission to require providers “to make outage-related information available to consumers at two points: during telecommunications disruptions due to disasters, and when consumers are selecting telecommunications services for purchase.”[[47]](#footnote-48)
3. *Discussion.* The commitments of the Framework present an actionable plan for consumer engagement and education, including efforts to increase awareness of factors that may affect service reliability, and to promote better consumer understanding of the implications of relying solely on wireless networks. We also believe that information regarding a provider’s disaster preparations and response can be used by public officials, including first responders, to enable more effective and efficient responses in an emergency. As such, we generally support the commitments set forth in the Framework with respect to improving consumer preparedness and awareness of service restoration efforts.
4. We invite the signatory parties of the Framework to submit to the Commission their intent to share information about the total number of cell sites out of service on an aggregated, county-by-county basis, as well as any other information that consumers might find helpful. We invite any other wireless providers interested in sharing in this commitment to ensuring wireless resiliency through cooperation and transparency to do the same, and file their intent in PS Docket No. 11-60. The Commission will publish the names of the wireless providers that have joined the commitments embodied in the Framework on its website each year, before hurricane season.

## Roaming under Disasters and Mutual Aid Agreements

1. The Framework commits the signatory parties to “[work] with other wireless carriers to implement reasonable roaming arrangements for the duration of an event if existing roaming arrangements and call processing methods do not already achieve it,”[[48]](#footnote-49) but it limits the applicability of this promise only to scenarios in which ESF-2 is declared for a given disaster and the FCC activates the DIRS, where: (i) a requesting carrier’s network has become inoperable and the requesting carrier has taken all appropriate steps to attempt to restore its own network, and (ii) the home carrier has determined that roaming is technically feasible and will not adversely affect service to the home carrier’s own subscribers.[[49]](#footnote-50) The Framework also states that “[s]uch arrangements will be limited in duration and contingent on the requesting carrier taking all possible steps to restore service on its own network as quickly as possible.”[[50]](#footnote-51) The Framework places similar conditions on its commitment to honor mutual aid agreements during disasters.[[51]](#footnote-52)
2. *Comments.* While most commenters generally support the roaming proposal, others express concern about whether this commitment embodies a meaningful solution to the problem. For example, New York City argues that the conditions under which an RuD would be triggered are too stringent, and states that “[t]he threshold should be lowered to reflect local and state emergency declarations or requests and should extend to state and local emergencies and disasters in situations where DIRS may or may not also be activated.”[[52]](#footnote-53) In addition, RWA and NTCA jointly filed comments expressing strong opposition to this aspect of the framework, asserting that it fails to recognize marketplace realities with respect to roaming agreements.[[53]](#footnote-54) RWA and NTCA contend that nationwide carriers often restrict customers from accessing rural carriers’ networks even in areas where the carrier provides no coverage, and that this scenario puts customers at risk of not having wireless service during a disaster.[[54]](#footnote-55) We encourage further efforts by rural and national providers to address these hurdles.
3. With respect to mutual aid agreements, New York City expresses concern that, generally speaking, the Framework’s commitment on mutual aid would not extend to state and local emergencies in light of the condition requiring both ESF-2 and DIRS to be activated.[[55]](#footnote-56) New York City also submits that “state or local governments must not be precluded from entering into local mutual aid agreements with wireless carriers or from requesting further resiliency requirements (e.g., carrier assistance to local communities in the pre-staging of telecommunications support assets) so as to meet essential preparedness and resiliency standards.”[[56]](#footnote-57) On the other hand, CCA agrees with the Framework condition that “mutual aid should be contingent upon a carrier managing its own network prior to extending aid where reasonably practicable.”[[57]](#footnote-58)
4. *Discussion.* We believe that the roaming under disasters commitments can promote our resiliency goals by enhancing the choices for maintaining coverage available to those wireless providers who may be experiencing cell site outages or other equipment difficulties during disasters or other emergencies. While we recognize the concerns of RWA and NTCA, the signatory parties to the Framework have committed to make reasonable efforts to work with all wireless carriers to implement reasonable roaming agreements consistent with their overarching commitment to improving wireless resiliency. We also recognize New York City’s concern regarding the threshold at which the Framework’s commitments are triggered, *i.e.,* only those situations in which both ESF-2 and DIRS are activated.[[58]](#footnote-59) However, we do not interpret these commitments to serve as a bar to good faith consideration of cooperative efforts with municipal governments or as a basis for interfering with any such already existing local, regional, or state agreements.

# Conclusion

1. Because the voluntary Framework submitted by the major wireless providers presents a more appropriate solution for improving wireless resiliency and enabling provider transparency, we decline to adopt the rules proposed in the *Notice*, and terminate PS Docket No. 13-239. The Commission, however, will continue to engage with wireless providers about the implementation of the voluntary framework and regarding wireless resiliency, if necessary.

# Ordering Clauses

1. Accordingly, IT IS ORDERED pursuant to sections 1, 4(i), 4(j), 4(o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(j), 303(r), 307, 309(a), 309(j), 316, 332, 403, 615a-1, and 615c of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i)-(j) & (o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(j), 303(r), 307, 309(a), 309(j), 316, 332, 403, 615a-1, and 615c, that this *Order* in PS Docket No. 13-239 and PS Docket No. 11-60 IS ADOPTED.
2. IT IS FURTHER ORDERED that pursuant to sections 4(i) and 4(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), that PS Docket No. 13-239 is HEREBY TERMINATED.

 FEDERAL COMMUNICATIONS COMMISSION

 Marlene H. Dortch

 Secretary

1. *Improving the Resiliency of Mobile Wireless Communications Networks; Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket Nos. 13-239 and 11-60, Notice of Proposed Rulemaking, 28 FCC Rcd 14373, 14374 ¶ 3 (2013) (*Notice*)*.* [↑](#footnote-ref-2)
2. Letter from Joan Marsh, AT&T; Charles McKee, Sprint; Grant Spellmeyer, U.S. Cellular; Scott Bergmann, CTIA; Steve Sharkey, T-Mobile; and William H. Johnson, Verizon, to Marlene Dortch, Secretary, Federal Communications Commission (dated Apr. 27, 2016), PS Docket Nos. 11-60 and 13-239, <http://www.ctia.org/docs/default-source/fcc-filings/160427-final-network-resiliency-commitment-letter.pdf> (Framework) (“[A] voluntary initiative that will enhance coordination and communication to advance wireless service continuity and information sharing during and after emergencies and disasters.”). [↑](#footnote-ref-3)
3. The Framework requires that Emergency Support Function 2 (ESF-2) be declared for the Framework’s commitments to be triggered. Although Federal Emergency Management Agency (FEMA) designated 20 Louisiana parishes as part of the federal disaster area, ESF-2 was not declared during the floods. Several signatory parties told Commission staff that mutual aid and roaming under disaster agreements were nevertheless honored in accordance with the Framework. [↑](#footnote-ref-4)
4. *Notice*,28 FCC Rcd at 14373, para. 1. [↑](#footnote-ref-5)
5. *Notice*, 28 FCC Rcd at 14384, para. 24, 26. Government and consumer-focused commenters generally favored the Commission’s proposal to require regular carrier disclosures. *See, e.g.*, Comments of Association of Public-Safety Communications Officials (APCO) at 6 (APCO Comments); Consumers Union and the Association of American Retired Persons (AARP) argued that disclosures about resiliency preparedness would be ineffective if unaccompanied by the adoption of mandatory performance standards. AARP Comments at 16-17, 23; Consumers Union Comments at 12. *See also* APCO Comments at 3. Government and consumer-focused commenters largely opposed the use of industry-led voluntary measures for improving resiliency. Consumers Union Comments throughout; California Public Utilities Commission Comments at 2, 7; New York City Comments at 3. [↑](#footnote-ref-6)
6. *Notice*, 28 FCC Rcd at 14381-82, para. 20. Industry commenters generally argued that the proposed disclosures would do more harm than good.  *See, e.g.*,Comments of CTIA at 1 (CTIA Comments); Comments of Wireless Infrastructure Association at 2 (PCIA Comments). *See also,* Blooston Rural Carriers Comments at 5; Joint Comments of the Competitive Carriers Association and NTCA - The Rural Broadband Association (CCA/NTCA Joint Comments) at 16-17. Commenters also argued that the disclosures would undermine the prevailing spirit of cooperation during disasters and thus impede service restoration and recovery. *See, e.g.*, Comments of the Alliance for Telecommunications Industry Solutions at 7 (ATIS Comments). These commenters argued that the proposed cell site outage metric offers a poor measure of network reliability and that the proposed alternative disclosures are similarly unnecessary because there is already plenty of data on network reliability available to inform consumer choice. *See, e.g.*, CTIA Comments at 3; Verizon Comments at 4. They further argued that competition creates incentives to make networks as resilient and reliable as possible. *See, e.g.,* PCIA Comments at 3. [↑](#footnote-ref-7)
7. *Notice,* 28 FCC Rcd at 14395, para. 63. [↑](#footnote-ref-8)
8. *Id.* [↑](#footnote-ref-9)
9. *Id.*  [↑](#footnote-ref-10)
10. Framework at 1 (“[A] voluntary initiative that will enhance coordination and communication to advance wireless service continuity and information sharing during and after emergencies and disasters.”). [↑](#footnote-ref-11)
11. Framework at 2-3. The Disaster Information Reporting System (DIRS) is a voluntary, web-based system that communications companies, including wireless, wireline, broadcast, and cable providers, can use to report communications infrastructure status and situational awareness information during times of crisis. The Commission activates DIRS at its discretion, although usually with consultation from FEMA, and it announces to participating providers via public notice or email the area that will be covered by the activation and specifics about requested DIRS submissions. *See* Federal Communications Commission, Disaster Information Reporting System, <https://www.fcc.gov/general/disaster-information-reporting-system-dirs-0> (last visited July 28, 2016). [↑](#footnote-ref-12)
12. Framework at 2. [↑](#footnote-ref-13)
13. The NRCC is a multiagency center that coordinates Federal support for major incidents and emergencies. In addition to the NRCC, ESF-2 may be declared at the regional FEMA offices level and the state level. *See* Federal Emergency Management Agency, Fact Sheet: National Response Coordination Center (July 2015), <http://www.fema.gov/media-library-data/1440617086835-f6489d2de59dddeba8bebc9b4d419009/NRCC_July_2015.pdf>. See also Letter from Brian M. Josef, Assistant Vice President – Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, PS Docket Nos. 11-60 and 13-239 (filed Dec. 13, 2016). [↑](#footnote-ref-14)
14. Emergency Support Function 2 (ESF-2) supports the restoration of communications infrastructure, coordinates communications support to response efforts, facilitates the delivery of information to emergency management decision makers, and assists in the stabilization and reestablishment of systems and applications from cyber attacks during incidents. *See* Federal Emergency Management Agency, Communications Annex: Emergency Support Function 2 (Jan. 2008), <http://www.fema.gov/pdf/emergency/nrf/nrf-esf-02.pdf> (ESF-2 Fact Sheet). [↑](#footnote-ref-15)
15. Framework at 2. [↑](#footnote-ref-16)
16. Framework at 2. [↑](#footnote-ref-17)
17. Public Safety and Homeland Security Bureau Seeks Comment on Wireless Carriers’ Proposal to Increase Resiliency and Enhance Information Sharing During Disasters, *Public Notice*, PS Docket Nos. 11-60 and 13-239, DA 16-463 (PSHSB Apr. 28, 2016), <https://apps.fcc.gov/edocs_public/attachmatch/DA-16-463A1.pdf>. [↑](#footnote-ref-18)
18. APCO Comments at 3; CCA Comments at 1; Wireless Infrastructure Association Comments at 1-2. *See also* Cohen, Dippell, and Everist, PC Comments at 1. [↑](#footnote-ref-19)
19. New York City Comments at 1-2, 5-6; New America Comments at 1-2. [↑](#footnote-ref-20)
20. RWA/NTCA Comments at 3. [↑](#footnote-ref-21)
21. CCA Comments at 1. CCA pledged its support for the Framework and promised to provide relevant contact information for appropriate carrier and Public Safety Answering Point (PSAP) databases only within a reasonable period of time when an emergency situation is announced, subject to promises of confidentiality. CCA Comments at 3. [↑](#footnote-ref-22)
22. *See*, *e.g*., Sprint Comments at 6-7 (describing shift *away* from homogeneous large macrocell architecture to provide network coverage, and that, even if a cell site is inoperable, consumers may still be able to make a call, and therefore, this approach mischaracterizes reliability). *See also* CTIA Comments at 9-11; AT&T Comments at 11; Sprint Comments at 2-3; ATIS Comments at 3. *See also* New York City Comments at 4-5 (suggesting that a county-level metric would be a particularly bad methodology for densely populated areas like New York City). [↑](#footnote-ref-23)
23. CTIA Comments at 14-15 (stating that it creates a perverse incentive for providers to refrain from deploying small cells, as a given situation may reflect poorly on a wireless provider even if customers could still make calls using small cells to connect to the network); ATIS Comments at 6 (arguing that wireless resiliency wireless providers may be disincentivized from deploying small cells because of overall costs of compliance with metric that focuses on macrocells); CCA/NTCA Comments at 12 (contending that the disclosures would prioritize reporting over restoration of service and thereby disincentivize carriers from cooperating to restore service during an emergency). [↑](#footnote-ref-24)
24. CTIA Comments at 13-14. [↑](#footnote-ref-25)
25. CTIA Comments at 16-17. [↑](#footnote-ref-26)
26. Sprint Comments at 9. [↑](#footnote-ref-27)
27. AARP Comments at 14-15; APCO Comments at 2. [↑](#footnote-ref-28)
28. Vermont Public Service Board Comments at 2. [↑](#footnote-ref-29)
29. APCO Comments at 3; CCA Comments at 1; Wireless Infrastructure Association Comments at 1-2; Cohen, Dippell, and Everist, P.C. Comments at 2; RWA/NTCA Comments at 8-9 (expressing support for voluntary approach, although objecting to the terms as written in the Framework with respect to roaming agreements). [↑](#footnote-ref-30)
30. *See, e.g.,* New America Comments at 1 (“We have passed the point where access to communications in a disaster situation is optional. “Safety of life and property" is now tantamount to ubiquitous communications, and those saving lives on the front lines must have access to vital information about network health to target aid and develop contingency plans.”). [↑](#footnote-ref-31)
31. New York City Comments at 5, 6. [↑](#footnote-ref-32)
32. New America Comments at 1. [↑](#footnote-ref-33)
33. Framework at 3. [↑](#footnote-ref-34)
34. *See, e.g.,* APCO Comments at 2-3; New York City Comments at 3, 4; New America Comments at 2. [↑](#footnote-ref-35)
35. APCO Comments at 5. [↑](#footnote-ref-36)
36. New America Comments at 2-3, *citing* New York City Comments (2014) (omitting emphasis in original). [↑](#footnote-ref-37)
37. New York City Comments at 5-6. [↑](#footnote-ref-38)
38. For example, if procedures are already in place to guide wireless carriers and a public safety entities during an emergency, then those entities can immediately execute those procedures to commence restoration efforts, saving time and money by being prepared and not having to devise those procedures in a moment of crisis. Without a plan in place, coordination between providers and public safety during an emergency would consume significantly more time and resources. [↑](#footnote-ref-39)
39. Framework at 3. [↑](#footnote-ref-40)
40. Framework at 3. [↑](#footnote-ref-41)
41. Framework at 3. [↑](#footnote-ref-42)
42. Framework at 3. [↑](#footnote-ref-43)
43. *See, e.g.,* APCO Comments at 3; New York City Comments at 3; New America Comments at 3; Wireless Infrastructure Association Comments at 2. [↑](#footnote-ref-44)
44. New America Comments at 3. [↑](#footnote-ref-45)
45. New York City Comments at 3. [↑](#footnote-ref-46)
46. *See, e.g*., Wireless Infrastructure Association Comments at 2; CCA Comments at 3; New York City Comments at 3; New America Comments at 3. [↑](#footnote-ref-47)
47. New York City Comments at 4. [↑](#footnote-ref-48)
48. Framework at 2. [↑](#footnote-ref-49)
49. Framework at 2. [↑](#footnote-ref-50)
50. Framework at 2. [↑](#footnote-ref-51)
51. Framework at 3 (“Wireless carriers commit to the sharing of physical assets and necessary consultation where feasible during and after disasters through establishing mutual aid arrangements with other wireless carriers. As noted above, carriers should first manage their own network needs during an emergency, and then provide aid to others, if requested. Mutual aid arrangements may be triggered when the NRCC (*sic*) activates ESF-2 for a given emergency or disaster and the FCC activates the electronic DIRS.”). Although not a signatory party, CCA in its comments also pledges to share physical assets, including network infrastructure, with other wireless carriers where necessary, reasonable, and available. CCA Comments at 3. [↑](#footnote-ref-52)
52. New York City Comments at 2. [↑](#footnote-ref-53)
53. RWA/NTCA Comments at 3-4 (“The spirit of the Framework is well-intended, but it makes significant assumptions that are simply not true in today’s wireless marketplace.”). [↑](#footnote-ref-54)
54. RWA/NTCA Comments at 3-4. (The “decision by a nationwide carrier not to conduct bilateral testing

renders it impossible for the nationwide carrier’s customers then to roam on the rural carrier’s

network in the event of an emergency or under any exigent circumstance, even if the rural carrier

is ready, willing, and able to provide such access.”). [↑](#footnote-ref-55)
55. New York City Comments at 2-3. [↑](#footnote-ref-56)
56. New York City Comments at 3. [↑](#footnote-ref-57)
57. CCA Comments at 3. [↑](#footnote-ref-58)
58. *See supra* para. 13, notes 41 and 43-44. [↑](#footnote-ref-59)