Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Facilitating Implementation of Next Generation 911 Services (NG911)	)	PS Docket No. 21-479
	)	

REPLY COMMENTS OF THE INDUSTRY COUNCIL FOR EMERGENCY RESPONSE TECHNOLOGIES

The Industry Council for Emergency Response Technologies ("iCERT") supports the efforts of the Federal Communications Commission ("FCC" or "Commission") to promote a regulatory framework that encourages the rapid transition to Next Generation 911 ("NG911").[1] The replacement of outdated 911 systems with IP-based NG911 systems will vastly improve emergency response efforts and save lives. For these reasons, iCERT has been a strong advocate for a full, nationwide deployment of NG911 as soon as possible. We appreciate the FCC's efforts to amend its rules in a way that best achieves this goal, and we respectfully submit the following Reply Comments in response to the NPRM.[2]

I. INTRODUCTION

As the only trade association in the United States focused exclusively on the emergency response sector, iCERT has a strong interest in the rapid deployment of NG911 across the

[1] *Facilitating Implementation of Next Generation 911 Services (NG911)*, Notice of Proposed Rulemaking, PS Docket No. 21-479, FCC 23-47 (rel. Jun. 9, 2023) ("*NPRM*"). The NPRM is in response to a Petition for Rulemaking filed by the National Association of State 911 Administrators ("NASNA"). *See Petition for Rulemaking; Alternatively, Petition for Notice of Inquiry*, CC Docket No. 94-102, PS Docket Nos. 18- 64, 18-261, 11-153, and 10-255 (filed Oct. 19, 2021) ("NASNA Petition").

[2] These Reply Comments supplement Comments previously filed by iCERT in response to the NPRM. *See Comments of the Industry Council for Emergency Response Technologies* ("iCERT Comments"), PS Docket No. 21-479, filed Aug. 9, 2023.

country.[3] iCERT uniquely represents a broad cross section of companies, including Originating Service Providers ("OSPs"), Next Generation Core Service ("NGCS") providers, 911 aggregators, and other companies that serve various roles within the NG911 ecosystem; all with a collective interest in promoting the implementation of innovative solutions that will improve public safety communications and help protect first responders and the public. iCERT supports the Commission's efforts to establish a regulatory framework that will accelerate the deployment of NG911 systems and services, while doing so in a way that promotes competition, innovation, and collaboration among all parts of the NG911 ecosystem.

II. Discussion

A. The Long-Term Goal is Full Deployment of End State NG911

The NPRM makes clear that the Commission's goal in this proceeding is to expedite the nationwide transition to NG911.[4] iCERT strongly supports that goal. More specifically, we support an accelerated transition to standards-based end state NG911 by all state and local 911 authorities across the country. Of course, there is considerable work to do before this goal is achieved. As NASNA notes in its Comments, states are at various stages of transitioning to NG911.[5] In fact, as APCO notes, no state has fully implemented end state NG911.[6] Notwithstanding the significant efforts that remain to fully implement standards-based NG911 systems, we join the majority of commenters in supporting the NPRM's proposals to require delivery of 911 calls in IP format without regard to a particular state's stage of NG911 implementation (discussed further infra).

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[3] See www.theindustrycouncil.org.

[4] *NPRM* at ¶1.

[5] *NASNA Comments to Commission's Notice of Proposed Rulemaking, Facilitating Implementation of Next Generation 911 Services ("NASNA Comments")*, PS Docket No. 21-479, filed Aug. 8, 2023, at 3.

[6] *Comments of APCO International* ("APCO Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 1.

However, it is important the Commission continue its focus on achieving the ultimate goal of full nationwide deployment of standards-based end state NG911. This is a goal that state and local 911 authorities, NGCS providers, OSPs, and other industry players should (and we believe do) universally share. Each of these entities has a role in the process, and the proposals made by the FCC in the instant proceeding are an integral part of achieving the Commission's goal. Other commenters agree. The Colorado Public Utilities Commission, for example, states that "the long-term goal of phased NG911 deployments is a 911 call delivery network and system that is fully NENA i3 compliant," and that an end-to-end solution "requires compliance and cooperation not just from 9-1-1 system service providers and PSAPs, but from OSPs, as well."[7]

B. There is Broad Support for IP-Delivery of 911 Calls

The NPRM correctly notes that the transition to NG911 has been largely spearheaded by the more general evolution of communications networks from Time Division Multiplexing (TDM)-based architectures to Internet Protocol (IP)-based architectures.[8] This transition to new, more advanced IP-based technologies helps to facilitate enhanced communications capabilities, improved interoperability, and greater system resilience. Most wireless networks have already implemented IP-based networks, but the transition to IP on wireline networks has been slow. While the pace of technological change on wireline networks is not the focus of this proceeding, the need to accommodate TDM-based 911 calls creates added costs for State and local 911 authorities and impedes a more rapid implementation of end-state NG911 across the country. There is broad support for this conclusion.

[7] *Colorado Public Utilities Commission Comments* ("Colorado PUC Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 2.

[8] NPRM at ¶1.

The Maine Public Utilities Commission, for example, states that in order for it to complete its transition to end state NG911, all OSPs "will need to configure 911 calls in IP format that is compatible with NG911 call processing specifications and deliver the calls to new destination points."[9] The Nebraska Public Service Commission agrees that full participation of OSPs is needed, adding "until the transition from the legacy E911 system to NG911 is fully complete, states and local jurisdictions will continue to incur increased costs from continuing the operation of both systems, via a patchwork of legacy gateways, copper wire and obsolete selective routers."[10] The Colorado Public Utility Commission adds that obtaining cooperation and compliance from OSPs is a "common hurdle that all states must face."[11]

The Commission's proposal to require all OSPs to deliver 911 calls in IP-based format will address this serious problem by ensuring that NG911-capable PSAPs receive 911 calls in the IP format they need. As noted by numerous commenters, adoption of the proposed rule would reduce the cost burdens of maintaining and operating legacy 911 infrastructure, accelerate the deployment of NG911, and promote regulatory parity.[12]

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[9] *Maine Public Utilities Commission Comments to Federal Communications Commission Notice of Proposed Rulemaking Facilitating Implementation of Next Generation 911 Services* ("Maine PUC Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 1.

[10] *Comments of the Nebraska Public Service Commission* ("Nebraska PSC Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 2.

[11] *Colorado PUC Comments* at 2.

[12] Mission Critical Partners urges adoption of the FCC's proposed rules, noting that the lack of motivation to retire outdated network has resulted in 911 authorities "having to pay for both legacy E911 and NG911 components, which creates an undue cost burden causing delays in migration." *Comments of Mission Critical Partners, LLC* ("MCP Comments"), PS Docket No. 21-479, filed Aug, 9, 2023, at 2. Ad Hoc NG911 Providers Coalition notes that the absence of clear requirements on OSPs to deliver IP-based 911 results in higher costs to 911 authorities. *Comments of the Ad Hoc NG911 Service Providers Coalition* ("Ad Hoc Coalition Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 9. Motorola Services Connectivity Inc. notes that "continued delays in transitioning to NG911 result in prolonged cost and increased vulnerability of and risk of 911 outages." *Comments of Motorola Solutions Connectivity Inc*. ("Motorola Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 2.

In its Comments, iCERT noted that the Commission had previously proposed a similar requirement for commercial mobile radio service ("CMRS") providers and covered text providers in the context of its Location Based Routing ("LBR") proceeding.[13] We urged the Commission to apply its rules in a technologically neutral manner by addressing all OSPs in the instant proceeding. There is broad support for our request.

NENA, for example, indicates its support for "regulatory parity among originating service providers for the delivery of 9-1-1 calls."[14] Wireless carriers and their advocates also urge the Commission to treat OSPs uniformly by addressing wireless OSP requirements here rather than in the LBR proceeding. In bolstering its support for a national, uniform framework for the NG911 transition and "to avoid conflict or confusion among service providers, public safety entities, and 911 callers," CTIA urges the Commission to "use this proceeding to address issues related to wireless providers' delivery of 911 traffic in IP-based format."[15] Competitive Carriers Association ("CCA") notes that the FCC's treatment of IP-based call delivery in two separate proceedings does, indeed, "cause confusion and the potential for harmful or inadvertent inconsistencies."[16] CCA urges the FCC "to address the nationwide transition to NG911 broadly and in a coordinated manner across the various industry segments," as "doing so may result in increasing the efficiencies and benefits of NG911 and advancing the IP transition more broadly."[17]

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[8] *iCERT Comments* at 3-4. *See In the Matter of Location-Based Routing for Wireless 911 Calls*, Notice of Proposed Rulemaking, PS Docket No. 18-64, FCC 22-96 (rel. Dec. 22, 2022). ("LBR NPRM").

[14] *Comments by NENA: The 911 Association* ("NENA Comments"), PS Docket No. 21-479, filed Aug. 7, 2023, at 1.

[15] *Comments of CTIA* ("CTIA Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 2-3.

[16] *Comments of Competitive Carriers Association* ("CCA Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 2.

[17] *Ibid*.

iCERT agrees with these commenters, and others, regarding the necessity of regulatory parity and the benefits of establishing a uniform regulatory framework that applies to all OSPs. We reiterate our earlier request for the Commission to address requirements applicable to all OSPs in the instant proceeding.

C. A Valid Request Must Clearly Indicate PSAP Readiness

The NPRM proposes to require OSPs to deliver 911 calls in IP-based format within six months of a valid request by a 911 authority capable of accepting NG911-compatible, IP-based communications.[18] The NPRM defines a valid request as "one made by a local or state entity that certifies that it (1) is technically ready to receive 911 calls in the IP-based format requested, (2) is specifically authorized to accept calls in the IP-based format requested, and (3) has provided notification to the provider via either a registry made available by the Commission or by written notification reasonably acceptable to the provider."[19]

iCERT agrees that a state or local entity must be "technically ready" to receive 911 calls in IP format but, as noted in our Comments, we believe the Commission's rules should be more detailed on what readiness means.[20] Commenters agree with this conclusion. T-Mobile, for example, states that more detailed information is required and, like iCERT, encourages the Commission to model any NG911 rules on the FCC's previous E911 Phase II proceeding.[21] Similarly, Verizon states that readiness requires "reasonable but substantial investment by the PSAP and its NG911 vendor," and it lists various criteria that it believes should be part of a readiness standard.[22] Noting that past statements of readiness have been premature, CCA urges

[18] *NPRM* at ¶28.

[19] *NPRM* at ¶40.

[20] *iCERT Comments* at 5-6.

[21] *Comments of T-Mobile USA, Inc.* ("T-Mobile Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 4-5.

[22] *Verizon Comments*, PS Docket No. 21-479, filed Aug. 9, 2023, at 5-6.

the Commission to establish "clear, specific, and measurable definitions of readiness to ensure that carriers are not forced to prioritize and utilize their extremely scarce resources prematurely."[23]

iCERT agrees that the Commission must establish clear criteria for what PSAP readiness means in the context of NG911. We continue to believe that the FCC's experience in implementing Phase II E911 is instructive here. Criteria similar to that outlined by the FCC in its E911 rules should be used by 911 authorities when attesting to whether or not PSAPs under their authority are "technically ready," and the same criteria should be used in evaluating any OSP challenges to such an attestation. As iCERT outlined in its Comments, such criteria should include details about any arrangements that have been entered into with NG911 service providers to secure equipment, interconnection agreements, and other service arrangements that will ensure PSAPs are ready to accept IP-based 911 calls.[24] iCERT stresses, however, that any FCC rules related to readiness should not place overly complicated or onerous conditions on 911 authorities, especially if such rules result in excessive delays.

D. A Registry Should Not Be Used To Demonstrate Readiness

The NPRM proposes that 911 authorities notify service providers of their readiness to receive IP-based 911 calls "via either a registry made available by the Commission or by written notification reasonably acceptable to the provider."[25] It notes that use of a registry would be consistent with the FCC's existing rules for text-to-911.

For various reasons, iCERT does not believe that any registry should be used to trigger a request for IP-based service or to provide information to OSPs about a PSAP's state of readiness.

[23] *CCA Comments* at 7.

[24] *iCERT Comments* at 6.

[25] *NPRM* at ¶40.

First, there is no existing registry available to accomplish those tasks, and the FCC should not delay implementation of its proposed rule until such a registry is developed. State and local 911 authorities require an effective regulatory framework for OSP interconnection today. The importance of timely and effective NG911 implementation requires prompt action by the Commission and cannot withstand further delays.

Even if such a registry were available today, iCERT has serious doubts as to whether it would be an effective tool to facilitate timely and effective communications between 911 authorities and OSPs. As has already been noted in the LBR proceeding, it is important for state and local authorities to engage directly with individual OSPs in order to become technically ready and capable of receiving 911 calls in IP format.[26] iCERT believes that reliance on a registry would not satisfy this requirement.

The need for close communications and collaboration with OSPs is underscored by the fact that PSAPs are at various stages in transitioning to NG911 and are likely to have different requirements relative to OSP interconnection. NASNA's Comments make that fact clear, noting that some ESInets are ready to receive 911 calls via a legacy network gateway, others are ready to receive 911 calls in Basic SIP format, and still others are ready to receive 911 calls in NENA i3 SIP format.[27] While NASNA generally supports the FCC's proposals, it "does not agree with the approach of a single level of readiness to trigger obligation," noting that each stage of NG911 implementation "may invoke separate levels of notice and responsibilities from both the 911

[26] *Comments of the Alliance for Telecommunications Industry Solutions* ("ATIS LBR Comments"), In the Matter of Location-Based Routing for Wireless 911 Calls, PS Docket No. 18-64, filed Feb. 16, 2023, at 5.

[27] *NASNA Comments* at 6-7.

authority and the OSP."[28] We agree with NASNA and urge the FCC to establish a more effective, and timely, method for 911 authorities to notify OSPs and demonstrate readiness.

iCERT does not support the use of a Forest Guide for the proposed registry.[29] A Forest Guide serves as a core functional element in NG911 standards to allow for transfer of calls between disparate ESInets. It is not intended to serve as a registry for notification of OSPs regarding the delivery of IP-based 911 calls, and such a functionality should not be incorporated into it. Perhaps most importantly, a Forest Guide is not currently implemented and faces its own challenges with regard to timely implementation.

E. Determination of Points of Interconnection Should Be Based on Collaboration with OSPs and NG911 Service Providers

The NPRM proposes to require OSPs "to transmit all 911 calls to the point(s) designated by the 911 authority that allow emergency calls to be answered."[30] While iCERT acknowledges the important responsibility that 911 authorities have in establishing points of interconnection (POIs) that promote efficient and effective transfers of 911 calls, we noted in our Comments that, without further guidance, the proposed rule could undermine achievement of that goal by requiring an unnecessarily excessive number of POIs.[31] As a result, iCERT urged the Commission "to support a framework in which 911 authorities, in collaboration with their selected NGCS providers, OSPs, and other NG911 and service providers designate OSP points

[28] *NASNA Comments* at 8.

[29] NENA proposes that use of Forest Guide(s) is the most practical means of maintaining an "NG9-1-1 readiness" registry. *NENA Comments* at 2.

[30] *NPRM* at ¶28.

[31] *iCERT Comments* at 8.

of interconnection and 911 call delivery demarcation points, and work to develop best practices that meet the goal of efficient and cost-effective NG911 service."[32]

There is wide support for a regulatory framework that promotes collaboration.[33] The Ad Hoc Coalition, for example, notes that current interconnection arrangements based on such collaboration have resulted in "flexibility and more cost-effective solutions."[34] They stress that a framework based on collaboration should result in a reasonable number of POIs, while "establishing hundreds of POIs will not be cost effective."[35]

Citing the effective collaboration between 911 authorities and wireless service providers and its impact on the Commission's successful implementation of E911 rules, CTIA notes that "a national, uniform regulatory framework can facilitate the continued transition to NG911 by ensuring that any obligations on OSPs are designed to further these collaborative efforts."[36] CCA agrees with CTIA but goes further to note that "the current proposal provides perhaps too much flexibility to 911 authorities, potentially removing the incentives for 911 authorities to collaborate with service providers."[37] "Such flexibility," it notes, "raises the potential for the establishment of unreasonable demarcation points by state and/or local 911 authorities and might create unintended incentives for state or local authorities to not reach mutual agreements with OSPs or otherwise shift additional costs to OSPs."[38]

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[32] *Ibid*.

[33] Motorola, T-Mobile, Verizon, and ATIS each urge the Commission to support a framework based on collaboration. *Comments of the Alliance for Telecommunications Industry Solutions* ("ATIS Comments"), PS Docket No. 21-479, filed Aug. 9, 2023, at 3; *Motorola Comments* at 6; *T-Mobile Comments* at 2-3; *Verizon Comments* at 2-3.

[34] *Ad Hoc Coalition Comments* at 12-13.

[35] *Ibid*.

[36] *CTIA Comments* at x.

[37] *CCA Comments* at 5.

[38] *CCA Comments* at 5-6.

iCERT agrees with these commenters. While not all OSPs have worked collaboratively with 911 authorities to establish effective interconnection arrangements, we believe that best practices implemented by many wireless providers have demonstrated that collaboration can achieve greater efficiency and lower cost, benefiting state and local 911 authorities. Consequently, we reiterate our request for the FCC to support a regulatory framework that encourages collaboration between 911 authorities and service providers.

iCERT notes there is precedent for establishing such a framework. In establishing rules for E911, the Commission included rules designed to promote collaboration between PSAPs and wireless OSPs. In doing so, the Commission stated "we continue to believe that these rules establish appropriate procedures to facilitate implementation of E911 services by encouraging PSAPs and wireless carriers to communicate at the beginning of the implementation period. Further, they aim to maintain a constructive dialog throughout the process among parties to resolve practical implementation issues, including compatibility of the network configuration and the location technology to be used."[39] iCERT believes that establishment of a similar framework would be appropriate for NG911.

[39] *In the Matter of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, FCC Order, CC Docket No, 94-102, FCC 01-293 (rel. Oct. 17, 2021) ("Richardson Decision").

I. SUMMARY

iCERT strongly supports the rapid transition of our nation's 911 systems to NG911. We believe that a regulatory framework based on clarity, technology neutrality, and collaboration among 911 authorities and service providers is the best way to achieve that goal.

Respectfully,

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