Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of	)	
	)	
911 Governance and Accountability	)	PS Docket No. 14-193
	)	
Improving 911 Reliability	)	PS Docket No. 13-75

COMMENTS OF MOTOROLA SOLUTIONS INC.

Chuck Powers
Director, Engineering and Technology Policy

Catherine Seidel
Chief – Global Spectrum and Regulatory Policy

Motorola Solutions, Inc.
1455 Pennsylvania Avenue, N.W.
Washington, DC 20004
(202) 371-6900

March 23, 2015

Table of Contents

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of	)	
	)	
911 Governance and Accountability	)	PS Docket No. 14-193
	)	
Improving 911 Reliability	)	PS Docket No. 13-75

COMMENTS OF MOTOROLA SOLUTIONS INC.

Motorola Solutions, Inc. ("Motorola Solutions") hereby submits these Comments in response to the Commission's Notice of Proposed Rulemaking that proposes new reliability, transparency, and cooperation obligations for networks and services involved in the delivery of 911, E911, and NG-911.[1]

I. INTRODUCTION AND SUMMARY

Motorola Solutions shares the Commission's commitment to nationwide deployment of robust, advanced emergency communications systems. A key component of this vision is a reliable infrastructure for 911, Enhanced 911 ("E911"), and Next Generation 911 ("NG911") services. The introduction of new Internet Protocol ("IP")-enabled services into the Public Safety Answering Point ("PSAP") brings significant benefits to first responders and the public at large, but also carries new complexities and challenges.

NG911utilizes IP-based technologies administered by new routing and database methodologies different from those utilized in legacy 911 systems. In exercising their oversight role over this complex transition, the Commission and other regulators should first consider promoting new best practices and methodologies tailored to these technologies instead of

[1] 911 Governance and Accountability; Improving 911 Reliability, PS Docket Nos. 14-193, 13-75, *Policy Statement and Notice of Proposed Rulemaking*, 29 FCC Rcd 14208 (2014) ("Notice").

adopting regulatory approaches based on legacy technologies and methodologies. To that end, the expansion of Commission regulatory oversight contemplated in the Notice raises important legal and policy questions that should be carefully considered and addressed before the Commission takes any action in this proceeding. Ultimately, any new measures adopted in this proceeding should promote reliability while ensuring ample flexibility for innovation and emphasizing non-regulatory and voluntary mechanisms.

II. ENSURING THE RELIABILITY AND AVAILABILITY OF ADVANCED 911 SERVICES IS ESSENTIAL.

Ensuring the availability, reliability, and resiliency of advanced public safety and emergency communications systems is rightfully a core mission of the Commission, and one to which Motorola Solutions has also been committed since the start. The United States is entering a new era of IP-enabled, NG911 services. The deployment of NG911 will be a paradigm shift in emergency communications. NG911 will bring emergency services into the information age by converting 911 to an IP-based, software and database driven, networked service connecting citizens, PSAPs, and supplemental information databases in a new way. As the Commission explains "NG911 has the potential to vastly improve 911 service by offering more flexible call routing and providing PSAPs with a greater range of information, including text, video, and other data from devices such as vehicle crash sensors."[2] These new capabilities will provide emergency responders with enhanced information, leading to improved efficiency, and, ultimately, saving lives.

Although 911 services historically have been provided to PSAPs primarily by local exchange carriers ("LECs"), innovations in emergency communications systems have brought a range of additional entities into the 911 service delivery chain, including database operators,

[2] *Id.* ¶ 10.

service providers, software developers, equipment manufacturers, and systems integrators. As new networks, services, and entities become integrated into the 911 system, new complexities will emerge. Nevertheless, if the benefits of NG911 are to be fully realized it is essential that the public safety community and the public itself retain confidence that critical emergency communications are delivered efficiently and reliably.

Standards work, technology development, and industry-led efforts are underway to enhance the performance of NG911 systems and processes, and to address emerging challenges. Groups like the National Emergency Number Association ("NENA"), the Internet Engineering Task Force ("IETF"), the Alliance for Telecommunications Industry Solutions ("ATIS"), the 3rd Generation Partnership Project ("3GPP"), the Telecommunications Industry Association ("TIA") and the Organization for the Advancement of Structured Information Standards ("OASIS"), among others, have spent countless hours developing technical and functional standards documents addressing all aspects of the NG911 system. The Commission also has long been a positive force in improving the effectiveness and reliability of 911 services through structures like the Communications Security, Reliability, and Interoperability Council ("CSRIC"), the Technical Advisory Council ("TAC"), and the newly-chartered Task Force on Optimal Public Safety Answering Point Architecture ("PSAP Architecture Task Force"),[3] which are able to study and analyze challenging technical and policy areas and develop sound recommendations and voluntary best practices. Equipment manufacturers, software developers, network operators and solutions integrators leverage this work in developing their own technologies and business

[3] *See* Federal Communications Commission, *Task Force on Optimal Public Safety Answer Point Architecture (TFOPA)*, http://www.fcc.gov/encyclopedia/task-force-optimal-public-safety-answering-point-architecture-tfopa (last visited March 4, 2015).

plans, recognizing that incorporating reliability and resiliency into their NG911 offerings is an essential commercial imperative.

Motorola Solutions supports these activities, which involve participants from both the public and private sector, and participates actively in both the Standards Development Organizations ("SDOs") and FCC groups mentioned. To best promote the development of reliable NG911 systems, these various efforts should be leveraged, and best practices and voluntary efforts should be explored, before any new regulations are considered. A heavy-handed regulatory approach risks stifling the work underway by the SDOs, along with innovation and the introduction of new life-saving technologies. In particular, onerous new regulatory obligations could discourage entities from experimenting with new business models or lines of service due to uncertainty about their regulatory status.

III. THE COMMISSION'S PROPOSAL RAISES COMPLEX LEGAL AND POLICY QUESTIONS THAT REQUIRE FURTHER STUDY.

The rules proposed in the Notice would significantly expand the scope of the Commission's oversight of 911 services, raising legal and policy questions that should be addressed by the Commission before taking action in this proceeding. More specifically, the Commission proposes new reliability, certification, transparency, and coordination obligations applicable to a wide range of entities and activities connected to the NG911 system, including many that have not previously been subject to Federal oversight. Before embarking on regulatory oversight of nascent 911 services, the Commission should determine whether the expansion of Federal intervention is necessary, or whether other mechanisms are available to achieve Federal goals. Further, while the Commission's authority to regulate interstate telecommunications services in connection with the provision of 911 service is clear, relying on

ancillary authority to regulate systems integrators and manufacturers of IP-based PSAP equipment that have no control over the interstate transmissions is questionable on its face.

The Notice also raises questions about the respective roles and responsibilities of Federal and state regulators vis-à-vis 911 service. As Motorola Solutions has explained previously, its position is that most design, implementation, operation, and regulation of the actual activities of 911 (especially those activities performed by the PSAPs) is best administered at the state or local level.[4] In many respects, this would extend to quality of service, reliability, and resiliency obligations on 911 service providers as well. Local control best ensures that new technologies and processes are deployed in a manner appropriate for local areas, as local agencies have the best understanding of local needs, abilities, and resources.[5]

The Commission endorsed this position in its 2013 report to Congress on the legal and regulatory framework for NG911, a major theme of which was that "Local and state public safety authorities should retain their primary responsibility for the deployment and configuration of 911 and NG911 services."[6] The report also said that Congress and Federal agencies should find ways to encourage states to implement NG911.[7] The Commission suggests in the Notice that this remains its goal—that the proposals in the Notice "are not intended to alter state jurisdiction over 911," but instead are intended to "encourage and support efforts by states."[8]

---

4 *See* Comments of Motorola Solutions, Inc. at 2-3, PS Docket Nos. 10-255, 11-153, 12-333 (filed Dec. 13, 2012) ("Motorola Solutions 2012 NG911 Comments").

5 *Id.*

6 Federal Communications Commission, *Legal and Regulatory Framework for Next Generation 911 Services, Report to Congress and Recommendations*, Section 4.1.1.2 (Feb. 22, 2013) *available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-319165A1.pdf ("Report to Congress").

7 *Id.*

8 Notice ¶¶ 28-30, 38.

However the proposed rules that burden states and providers with notification requirements and create new liabilities for service providers might be seen as superseding, and not encouraging state participation.

Although Motorola Solutions agrees with the Commission that all interested parties should strive to improve the reliability and resiliency of NG911 services, Federal regulatory mandates may not be the best method to drive that outcome. Rather, these challenges might be better addressed by the entities closest to the issues on a day-to-day operational level. If the Commission believes there are challenges that are beyond the authority or capacity of states, it should identify these problems clearly and first explore collaborative approaches, together with industry and state regulators, to solving them, before resorting to more regulation. And in any event, the Commission should be clear about the roles and interaction between Federal and state regulatory authorities in order to avoid ambiguity and potential redundancy in 911 governance. This approach would call for the sort of rigorous, multi-stakeholder inquiry that can effectively be conducted through existing mechanisms like the CSRIC and PSAP Architecture Task Force.

IV. ANY ACTION IN THIS PROCEEDING SHOULD PROMOTE RELIABILITY WHILE ALSO ALLOWING ROOM FOR INNOVATION.

Although the Commission's goals of increasing transparency and accountability in the NG911 ecosystem are important, an overly heavy regulatory approach could chill innovation. An appropriate regulatory framework should strike a balance between creating assurances and maintaining flexibility. Similar to the "new regulatory paradigm" called for by Chairman Wheeler in the context of cybersecurity risk management, the Commission should eschew "a prescriptive regulatory approach" here and instead rely first upon "private sector innovation, and

the alignment of private interests in profit and return on investment with public interests like public safety and national security."[9]

For example, requiring prior approval for commencement, changes, or termination of services could raise public safety concerns (if requested/needed service changes are delayed pending Commission notice and approval) as well as competitive issues (as product and service providers may be required to publicly reveal information about service offerings that might otherwise be held close). Ambiguity in the open-ended definition of "major changes" to 911 service also may present logistical challenges, both for commercial entities seeking to comply with the new rule and for the FCC in processing the volume of change requests. Similarly, the Commission's 911 Network Operations Center ("NOC") proposal could require service providers to share proprietary information about their internal operations with a LEC or other service provider with which they directly compete. The NOC proposal could also create a situation of regulatory responsibility without sufficient authority to comply, where NOC providers may not be able to carry out their responsibilities if the data required are not available or shared by other relevant parties. Intrusive and potentially ambiguous regulation of these sorts of business decisions could discourage investment in NG911 solutions by companies concerned about having insufficient commercial flexibility and regulatory certainty. The Commission should give further consideration to these factors and potential alternatives before adopting the proposed rules.

---

[9] Tom Wheeler, Chairman, Federal Communications Commission, *Remarks at the American Enterprise Institute*, Washington, DC, June 12, 2014 ("Chairman Wheeler New Paradigm Speech").

A. The Commission Should not Impose Reliability Regulation on Entities that do not Operate the Network Components Used to Provide 911 Services.

The Commission should be clear that its rules are only intended to address those service providers that operate the network components used to provide 911 service. Although the newly proposed rules refer to "Covered 911 Service Providers," some aspects of the Notice, such as the Commission's questions about the duties of agents and sub-contractors of service providers,[10] or its proposals related to PSAP customer premises equipment ("CPE"),[11] raise questions about the applicability of the proposed rules to entities without direct control over the delivery of 911 communications or services.

To address these concerns, the Commission should make clear that it will not impose regulatory requirements on equipment vendors that are not service providers. Similarly, data, content, and application service providers without a role in operating the 911 networks should be seen as outside the purview of these rules. Any issues that a PSAP encounters with its vendors are most appropriately addressed through other mechanisms. Similarly, and consistent with practices in the legacy 911 context, an entity acting as a solutions integrator that does not have access to the underlying network components required to deliver 911 services should not be subject to rules that require such access. Matters such as accountability, reliability, and quality of service often are dealt with contractually between a PSAP or other 911 authority and the solution provider or system integrator, backed up by contractual remedies and state/local regulation. For the Commission to adopt conflicting/inconsistent reliability mechanisms could frustrate these relationships and undermine local control.

---

10 Notice ¶ 42.

11 *See, e.g., id.*, App. A (proposed new rule Section 12.5(b)(1)(ii)).

B. Some Aspects of Ensuring Reliability and Accountability are Outside Commission Control, or not Addressed in the Notice.

Some of the most important steps that can be taken to ensure reliability and accountability in the provision of NG911 services remain outside the Commission's control or are not directly addressed by the proposals in the Notice. For example, as the Commission recognized in its 2013 report to Congress, "current 911 funding mechanisms 'may not adequately account for new services that offer emergency communications in a NG9-1-1 environment.'"[12] Funding challenges remain a major obstacle to the rapid deployment of NG911 infrastructure. The Commission should continue to take steps, consistent with the Recommendations in its report to Congress, to raise awareness about and encourage solutions to this problem. New Federal requirements related to reliability or other functional aspects of NG911 operations will be of little beneficial effect if PSAPs cannot afford to procure the requisite solutions or levels of service.

The inconsistent applicability of liability protection also remains an impediment to a full and effective NG911 transition as well, and should cause the Commission to refrain from imposing regulatory obligations that could expose new entities, particularly non-service providers, to liability. As Motorola Solutions has previously explained, in light of the host of new liability concerns raised by the variety of different technologies, media, and content that will interface with NG911 systems, state, local, and Federal liability protections need to be strengthened to ensure that uncertainty does not delay NG911 deployment.[13] Without adequate liability protection, public safety agencies and their commercial partners may be unwilling to engage in the experimentation and innovation contemplated in the NG911 paradigm, and this

---

12 Report to Congress, Section 4.1.4.1.

13 *See, e.g.,* Motorola Solutions 2012 NG911 Comments at 6-8.

consequence could be further aggravated should the Commission impose new reliability, certification, and transparency obligations on entities that lack clear liability protection. Therefore, it is more important than ever that the Commission work with Congress and its state partners to extend liability protection to the entire range of entities involved in the provision of NG911 services and technologies.

C. The Commission Should Explore and Encourage Non-Regulatory Alternatives.

While the challenges to reliability and resiliency in NG911 services are very real and potentially more complex than those faced in the legacy 911 context because of the greater diversity of entities and technologies at play, as explained above, prescriptive Commission regulation may not be the most helpful solution in the first instance. Many issues might be better left to the local or state 911 authority's expertise and jurisdiction. But where there are issues and challenges crossing state lines and calling for further Federal attention, the Commission should explore voluntary, industry-led mechanisms, consistent with the Chairman's "new paradigm" approach to regulation, which relies on industry-based solutions and the implementation of best practices, monitored and supported by government actors with appropriate legal authority.[14]

In the NG911 context, there is ample evidence that an industry-led, multi-stakeholder approach can be successful at improving reliability and resiliency while also safeguarding the flexibility necessary for innovation.

- As described above, NG911 and related technologies and systems already have been the subject of extensive standards and best practice development work through organizations like NENA, IETF, ATIS, 3GPP, TIA, and OASIS, among others.
- The work of the PSAP Architecture Task Force is just beginning. This is a body with diverse membership and expertise that has been designed specifically to

[14] *See* Chairman Wheeler New Paradigm Speech.

address issues closely related to those raised in the Notice, including PSAP system and network configuration, cybersecurity, cost/funding matters, and interactions between the FCC and states.[15]

- Some of the questions asked in the Notice might better be designated for further study by the CSRIC, which repeatedly has demonstrated competence at providing insight into complex questions of technology and policy. For example, recent CSRIC reports have examined the state of NG911 standards development and PSAP readiness to make the transition.[16] Also, the Notice touches on matters of cybersecurity risk management,[17] which was the subject of a major industry-led effort presented by the CSRIC IV Working Group 4 in March.[18]

Each of these industry-led, multi-stakeholder efforts are still underway and are poised to produce best practices or voluntary guidance directly relevant to the issues addressed in the Notice. Particularly in the case of the PSAP Architecture Task Force and the CSRIC, the Commission has already put into motion significant processes; rather than short-circuiting these important initiatives, the Commission should allow them fully to serve their purpose and analyze their results.

V. CONCLUSION

Motorola Solutions shares the Commission's commitment to facilitating the deployment of technologically advanced, next-generation emergency communications systems nationwide.

---

15 *See* Federal Communications Commission, *Charter of the Federal Communications Commission's Task Force on Optimal PSAP Architecture*, http://transition.fcc.gov/pshs/911/TFOPA/FAC_Optimal_PSAP_Architecture_Charter_101014.pdf (last visited March 4, 2015).

16 *See* Federal Communications Commission, CSRIC III, Working Group 1, Subgroup 1, *Report* (March 2012) *available at* http://transition.fcc.gov/bureaus/pshs/advisory/csric3/CSRICWG1SG1Report_031612.pdf; Federal Communications Commission, CSRIC III, Working Group 1, Subgroup 2, *Report* (June 2012) *available at* http://transition.fcc.gov/bureaus/pshs/advisory/csric3/CSRICWG1SG2Report_060112.pdf.

17 Notice at ¶ 45.

18 *See* FCC Announces Meeting of the Communications Security, Reliability, and Interoperability Council Scheduled for march 18, 2015 at FCC Headquarters, *Public Notice*, DA 15-275 (rel. March 2, 2015).

As PSAPs continue to adopt NG911 solutions, the 911 system will increase in complexity and the reliability challenges will evolve as a result. All parties agree on the importance of ensuring the reliability and resilience of these systems, and industry has a long history of working closely with Federal and state authorities to deploy 911 systems. The Commission is correct to inquire as to how it can most positively affect this situation, however some proposals in the Notice raise serious legal and policy questions. The Commission should work collaboratively with states and industry to explore opportunities for progress through non-regulatory and voluntary initiatives with industry and public safety.

Respectfully submitted,

/s/ Chuck Powers
Chuck Powers
Director, Engineering and Technology Policy

/s/ Catherine Seidel
Catherine Seidel
Chief – Global Spectrum and Regulatory Policy

Motorola Solutions, Inc.
1455 Pennsylvania Avenue, N.W.
Washington, DC 20004
(202) 371-6900

March 23, 2015