

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

In the Matter of

Framework for Next Generation 911
Deployment

PS Docket No. 10-255

Facilitating The Deployment Of Text-To-
911 And Other NG911 Applications

PS Docket No. 11-153

Legal And Statutory Framework For Next
Generation 9-1-1 Services Pursuant To The
Next Generation 9-1-1 Advancement Act
Of 2012

PS Docket No. 12-333

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T-Mobile USA Inc. (“T-Mobile”) has long asserted that one of the most important calls a person can make is a call to 911 and therefore wholeheartedly supports the transition from the nation’s existing legacy, 1960s-era 911 network to a 21st century IP-based network for emergency services. T-Mobile also understands that to reach the full vision of Next Generation 911 (“NG911”) and all of the potential capabilities it promises to offer, e.g., incorporating multimedia into emergency communications, will require the dedication and focus of numerous stakeholders such as Public Safety, consumer groups, the FCC and carriers. As part of this effort and to demonstrate its commitment, T-Mobile recently announced its voluntary pledge to deploy text-to-911 on an interim basis nationwide by Spring 2014.¹

¹ Letter from APCO International, AT&T, NENA – The 9-1-1 Association, Sprint Nextel, T-Mobile USA, and Verizon, to FCC Chairman Julius Genachowski, Dec. 6, 2012, *available at*

NG911 is critical to ensuring that robust, flexible, and dynamic technologies are made available for that critical call, text or other future means of reaching public safety. In submitting its report to Congress regarding recommendations for the legal and statutory framework for NG911 deployment,² therefore, the Commission should support a forward looking, standards-based solution that allows for the implementation of IP-based Emergency Services Internet Protocol networks (“ESInet”) on a statewide or regional basis. The Commission should also press for a uniform approach to liability and funding, revision to outdated provisions related to 911 service, and a declaration that state or local regulations that impede ESInet and NG911 deployment are preempted.

INTRODUCTION AND SUMMARY

Just as with Hurricane Katrina in 2005, the last two years have seen emergencies and disasters that show once again how imperative it is that we migrate our existing legacy 911 system to IP-based NG911. Both the mid-2011 East Coast Earthquake and Hurricane Sandy in the fall of 2012 demonstrate the need for interconnected and interoperable regional, or even national, ESInets that will permit public safety officials to shift 911 call answering capabilities from one physical location to another when a PSAP is rendered unavailable or to spread the task of responding to a larger scale regional event over a broader array of PSAPs. Regional IP-based, integrated networks will also permit better coordination in dispatch of emergency responders as well as enable those first responders to have access to better information. And the applications running over these networks can potentially be configured to permit an increasing variety of

http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/GovAffairs/121206_-_Voluntary_Commitmen.pdf.

² Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96 (2012), Title VI, Subtitle E (Next Generation 9-1-1 Advancement Act) (“Act”).

information types to be transmitted to PSAPs, including images, video, vehicle telemetry information, and perhaps even medical information about a caller.

T-Mobile stands ready to do its part in improving public safety communications through migration to NG911. But neither T-Mobile nor any other wireless carrier can accomplish this migration on its own. NG911 is more than just a new 911 system—it is an entirely new architecture with new standards that are still undergoing development, and will require the cooperation and coordination of all 911 and E911 stakeholders, including states and PSAPs. It is also a migration that will take place in stages, rather than an all-at-once flash cut.³ Therefore, it is not sufficient for mandates to be applied only to last-mile service providers while hoping that all other implicated participants will do what they need to do to ensure that emergency information makes its way from a caller all the way to the appropriate PSAP. All stakeholders must participate, or NG911 will suffer from many of the same problems that E911 deployment did. PSAPs, in particular, must have the funding necessary to overhaul their call center technology and to build the necessary ESInets. Moreover, the transition to ESInets must occur on a regional or state basis—not PSAP by PSAP—or the full promise of NG911 may not be realized.

I. TRANSITION TO NG911 WILL REQUIRE STRONG FOCUS ON LONG-TERM OBJECTIVES

The quickest possible transition to NG911 will require a strong, long-term federal focus on NG911 standards and goals. Focus on standards is particularly important as NG911 will

³ See 4G Americas, Report, *Analysis of Transitioning to NG9-1-1 from a Wireless Service Provider Perspective*, at 4-5 (December 2012), available at http://www.4gamericas.org/documents/4G%20Americas%20Technical%20Report_Transitioning%20to%20NG911_December%202012.pdf.

require an entirely new network architecture and the incorporation of new functional elements.⁴ If that architecture is not well defined and bounded by standards, the long-term goals of NG911—including such critical features as interconnection of ESInets and the transmission of various forms of media—will be difficult to meet. In particular, regional and national interconnection will permit 911 traffic rerouting to different answering points when localized emergencies disrupt local PSAP operations; the inability to dynamically reroute 911 traffic and subsequent effects, e.g., 911 calls not completing, were seen during the 2011 East Coast Earthquake, the Mid-Atlantic derecho in summer of 2012, and Hurricane Sandy in late 2012. Taking the long view with respect to standards development will also help avoid some of the impediments and mistakes that plagued Phase I, Phase II, and VOIP E911 implementation, in which mandates frequently preceded standards.

Strong federal support for robust and extensible standards will also solve many of the problems of the existing, legacy 911 system. That system was never designed to accommodate many of the technologies that have been shoehorned into the legacy 1960's era 911 systems and the result is that 911 and E911 services are plagued by interoperability problems, a lack of uniformity, and no capacity to expand the type of communications methods consumers can use to report emergencies. Thus, it is critical that the key standard-setting bodies—including ATIS, NENA, and 3GPP—receive requisite support as they continue to develop the standards that will enable implementation of the core NG911 architecture. Those standards will ensure that the NG911 ecosystem is well designed, open, and uniform, with the ultimate goal that all

⁴ See NENA – The 911 Association, *Understanding NENA's i3 Architectural Standard for NG9-1-1*, available at http://c.ymcdn.com/sites/www.nena.org/resource/collection/2851C951-69FF-40F0-A6B8-36A714CB085D/NENA_08-003_Detailed_Functional_&_Interface_Specification_for_the_NENA_i3_Solution-Stage_3.pdf.

participants will have access eventually to the same set of tools, even if those tools are not implemented in all regions at the same time.

The Commission also must make clear that NG911 will not be a “flash cut”—this transition, to be done right, will take time. Attempts to short cut that process will only increase delay as well as consumer confusion and therefore strategic planning and coordination is a necessity from the outset. Implementing an entirely new architecture must be done in conjunction with the full cooperation of all stakeholders to avoid many of the problems that plagued Phase I and II and VoIP deployment. For instance, in rolling out Phase II Wireless E911, the Commission imposed mandates on wireless carriers without any corresponding requirements by LECs, such as with respect to delivery of necessary trunks.⁵ As another example, PSAPs were requesting location confidence and uncertainty information from wireless carriers, but the PSAPs’ network providers were unable to transmit that information—and had no obligation to establish a timeframe for doing so.⁶ The result was delayed deployment or deployment without critical information reaching PSAPs, to the detriment of consumers.

The transition to NG911 must be a cooperative effort among all stakeholders. It will not become operational just because a single ESInet is in place, nor will every potential feature of NG911 be available from the start. It will be a progressive transition, in which newer services and applications will be added as time goes on. By requiring coordination among all participants—wireless carriers, LECs, PSAPs and states—the Commission and Congress can

⁵ See Comments of T-Mobile USA, Inc., CC Docket No. 02-46, at 3, 7 (filed Nov. 15, 2002); *see also* Comments Of T-Mobile USA, Inc. In Support Of Petitions For Reconsideration By Cingular Wireless LLC And Nextel Communications, Inc., CC Docket No. 94-102, at 16, 20 (filed Mar. 24, 2003),

⁶ See Comments of T-Mobile USA, Inc., PS Docket No. 10-255, at 5 (filed Feb. 28, 2011).

ensure that everyone works together toward a flexible and progressive transition and that the core features of NG911 will be available and operational when they are expected to be.

II. LEGAL AND REGULATORY FRAMEWORK FOR THE DEPLOYMENT OF NG911 SERVICES AND THE TRANSITION FROM LEGACY 911 NETWORKS TO NG911 (Section I of the PN)

A. A Strong State or Regional Approach to ESInet Deployment and Cutover Is Necessary to Maximize the Public Safety Benefits

The Commission should recommend to Congress that the cutover from legacy 911 interconnection regimes to ones involving ESInets be implemented on a state or regional basis. This approach will yield substantial benefits, including cost savings, economies of scale, and logistical efficiencies in PSAP call overflow and transfer. ESInet deployment on a state basis—or on a regional basis where communities of interest cross state lines, as in the New York City Metro Area, or the Washington D.C. Metro Area, or where large states contain multiple regional communities, such as in California, Texas and Florida—will avoid the problems experienced with PSAP-by-PSAP deployment in the E911 rollout. In contrast, piecemeal implementation risks customer confusion and creates duplicative network costs for PSAPs and providers that will introduce delay and additional points of failure to the entire system. Piecemeal implementation also undercuts one of the key benefits of NG911—interconnection and portability of PSAPs.

Accordingly, T-Mobile believes that carriers should not be under a mandate to interconnect through an ESInet until all PSAPs in a state or region are ready to migrate to an ESInet architecture. The NENA i3 standard provides for Legacy Network Gateways within the design framework of ESInets. This will allow PSAPs that have not yet upgraded to an IP network to migrate over to an ESInet while still running their call taking operations over legacy

equipment and facilities.⁷ Therefore, wireless carriers will be able to decommission their interconnection trunks to the selective routers and the ILECs will be able to decommission their selective routers because those facilities will no longer be necessary for a 911 call to travel from the wireless carrier to the PSAP. Instead, an emergency call will be handed off by the wireless carrier to the ESInet at a point of interconnection, and the ESInet will deliver the call to a subtending PSAP either directly, if the PSAP is capable, or through the Legacy Network Gateway. The backwards compatibility of the standards-compliant ESInet through the Legacy Network Gateways allows for all PSAPs in a region or state to migrate to the ESInet simultaneously, even if some are not ready to receive emergency calls or messages in IP.⁸ This will reduce the system's complexity, remove opportunities for network failure, and lower costs.

In contrast, PSAP-by-PSAP cutover to ESInets would likely mean that carriers will be required to simultaneously support ESInet connections and legacy connections. Maintaining tandem connections for straggler PSAPs that do not connect into ESInets means that LECs will have to support legacy 911 systems with interconnections to selective routers via ILEC tandems while also moving forward with implementing IP-based systems for those PSAPs that are ready. If carriers are forced to “split the baby” in this way, resources that could be dedicated to NG911 rollout will instead be diverted to workarounds for supporting legacy PSAPs. This is the wrong way to go when the standard provides for Legacy Network Gateways to bridge PSAPs with legacy equipment until they can upgrade.

Numerous commenters in the NG911 proceedings have pointed out the shortcomings of PSAP-by-PSAP deployment, and commenters largely agree that deployment should occur on a

⁷ See NENA – The 9-1-1 Association, *Understanding NENA's i3 Architectural Standard for NG9-1-1*, at 194 (section titled “Legacy Network Gateway”).

⁸ See *id.*

state or regional basis.⁹ For instance, APCO noted that “the readiness of a single PSAP to implement an NG9-1-1 system should not trigger a carrier mandate absent some degree of regional or state readiness.”¹⁰ NENA, moreover, acknowledged the larger role that state governments will play in NG9-1-1 by noting that “each state will need to coordinate the deployment of ESInets state- wide”¹¹ and describing the critical role of the Legacy Network Gateway in permitting “an unmodified legacy wireline, wireless or VoIP network to interconnect with an ESInet with only minor network changes and modest database and process changes.”¹²

PSAP-by-PSAP deployment did not work well—from either the carrier or the consumer perspective—for legacy E911. Rather than repeat the mistake of leaving implementation up to individual PSAP decision making, Congress should create requirements or incentives for states to establish regional or statewide oversight and coordination of NG911 deployment, with a first step being the establishment of ESInets at the earliest opportunity. As part of that coordination, PSAPs that are asking for NG911 services should be required to demonstrate the technical and operational readiness of their NG911 Customer Premise Equipment (“CPE”) as a part of this regional coordination. Finally, the Commission should make clear that carriers are not required to migrate to connectivity to an ESInet or to support a one-by-one PSAP deployment of NG911 CPE until all the PSAPs in a state or region demonstrate they are ready, such that a carrier need only connect to the ESInet to deliver any call to 911 in that region.

⁹ See, e.g., Reply Comments of CTIA, PS Docket Nos. 11-153 & 10-255, at 25-27 (citing *inter alia* comments by Sprint Nextel, USCC, Blooston Rural Carriers, Verizon Wireless, King County E911 Program, and AT&T).

¹⁰ Reply Comments of APCO, PS Docket Nos. 11-153 & 10-255, at 2 (filed Feb. 9, 2012).

¹¹ Comments of NENA, PS Docket No. 10-255, at 24, 25-26 (filed Feb. 28, 2011).

¹² Comments of NENA, PS Docket Nos. 11-153 & 10-255, at 19 (filed December 13, 2011).

B. Liability Provisions Should Be Uniform Nationwide

The Act provides for liability protection equivalent to that available to an incumbent LEC under state law.¹³ That liability protection, however, can vary from state to state depending on the various provisions of the ILEC tariffs and how state courts have interpreted them. Further, wireless services are nationwide and need to be interoperable in all regions. Thus, they need a common framework for operations—including liability—as customers move from state to state. The Commission should recommend to Congress that it adopt a nationwide uniform liability standard for NG911 and that such a standard should provide immunity unless a party can show gross negligence on the carrier's part.

C. Funding Mechanisms Must Be Adequate and Ensure that 911 Fees Are Used Only to Support NG911 Deployment

NG911 funding must be consistent in order to ensure that funding is adequate and that funds are properly used for NG911 deployment. Funding inconsistency from state to state played a large role in the irregular deployment of Phase II E911, notwithstanding the best efforts of many PSAPs. Those states with statewide coordination and funding were able to complete Phase II deployment several years ago.¹⁴ But other states fell far behind because of a lack of oversight and funding, and some are still struggling.¹⁵ In addition, some states used 911 funds for non-911 projects, such as the purchase of radios.¹⁶ This has also affected the progress of E911 deployment. Finally, there is no uniform definition among states of what is included under

¹³ 47 U.S.C. § 615a.

¹⁴ See, e.g., Jennifer Herz, *The Status of Connecticut's Compliance with Enhanced 9-1-1* at 3-4, 5 (2005), available at http://www.ct.gov/csc/lib/csc/e-911_report.pdf.

¹⁵ For instance, there are still 19 Oklahoma counties that have not implemented either Phase I or II E911.

¹⁶ Cf. State Enhanced 9-1-1 Advisory Committee Meeting Minutes, Camp Murray, WA, July 19, 2012, at 5 (expressing concern over missing state 911 funds).

911, with some states making 911 surcharges technology specific and some with varying rates for wireline, wireless, and VoIP.

These funding problems must be corrected for NG911 deployment. Statewide funding and coordination will ensure that no PSAPs are left behind because of inadequate funding. And clarifying the definition of valid uses of 911 surcharges will ensure that funds are not improperly diverted away from NG911 deployment. Finally, funding mechanisms will need modification and definition, as NG911 will bridge current and future technologies. The current funding mechanisms will simply not work for NG911 and may lead to a greater divide among those that “have” and those that “have not.”

D. NG911 Requirements Should Be Limited to Transmitting Data from the Mobile Wireless Device to Public Safety

Congress should not implement any specific data transmission requirements, and should instead limit the obligations on wireless carriers to connecting data from the device to public safety. Other than providing A-GPS capable handsets, carriers should not be burdened by any specific obligations, other than to connect to the regional or state ESInet once that network—and its PSAPs -- are ready for cutover. Finally, consistent with the standards being developed by APCO, NENA, and 3GPP, PSAPs—not carriers—should be responsible for arranging compatible interconnection with the ESInet.

III. RECOMMENDATIONS FOR REMOVING JURISDICTIONAL BARRIERS AND INCONSISTENT REGULATIONS (Section III of the PN)

A. Outdated Federal 911 Regulations Should Be Eliminated

NG911 networks will operate on an entirely new architecture, one that does not include selective routers. However, many of the existing 911 regulations are pegged to the selective router—for instance, the selective router is the demarcation point allocating financial responsibility between wireless carriers and PSAPs. The Commission should therefore either

remove requirements that reference the selective router or, at the very least, make clear that those requirements no longer apply in the NG911 context. Calls should not be required to be delivered through a (non-existent) selective router, and the demarcation point identifying carrier responsibility should be identified as the carrier facing headend of the ESI-net.

The Commission will need to declare a new demarcation point to delineate the responsibilities of carriers from the responsibility of PSAPs. Wireless carriers should be responsible for interconnecting with the regional or state ESI-net at one or more points of interconnection, and should bear the costs of and the responsibility for reaching that interconnection point. PSAPs, on the other hand, should bear the costs from the carrier interconnection point with the ESI-net to the PSAP itself, including the PSAP's customer premises equipment.

B. Inconsistent State Regulations Are Preempted

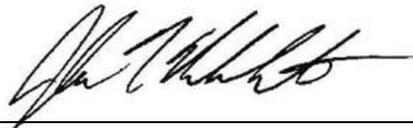
Congress should grant the Commission authority to declare that inconsistent state regulations are preempted. Alternatively, Congress should enact a statute expressly preempting any state or local statute or regulation that might impede NG911 deployment. Of particular concern are any state or local laws or regulations regarding provision of rights of way agreements that might inhibit NG911 deployment or operations. Consistency will be key to a successful nationwide deployment of NG911, and a clear statement that state and local laws and regulations are preempted will ensure that consistency by relieving carriers of the burden of navigating a myriad of local laws and regulations that could slow down efforts to put next-generation systems into operation.

CONCLUSION

NG911 holds a great deal of promise for the future of public safety communications. The Commission is in a unique position as it prepares to report to Congress on the legal and

regulatory framework for NG911—it can look to the successes and failures of E911 implementation for both wireless and VoIP, and apply the lessons learned there. In particular, the Commission must make sure that the NG911 transition is standards-based, with a federal focus on long-term objectives; that statewide or regional deployment of and cutover to the underlying ESInet is favored over the unsuccessful PSAP-by-PSAP approach used in legacy E911; that liability and funding standards are uniform nationwide; and that inconsistent and outdated laws and regulations are eliminated or preempted.

Respectfully submitted,



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