

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

In the Matter of)
)
Framework for Next Generation 911 Deployment) PS Docket No. 10-255

COMMENTS OF THE VOICE ON THE NET COALITION

The Voice on the Net Coalition (VON)¹ hereby submits these brief comments in response to the Notice of Inquiry issued in the above-referenced proceeding.² The VON Coalition welcomes the Commission's inquiry into how Next Generation 911 (NG911) can enable the public to access emergency assistance by means of advanced communications technologies, including Internet Protocol (IP) devices and applications. This proceeding, along with the Commission's inquiry concerning 911 obligations for IP-based technologies,³ provide important initial steps to understanding the technical and financial requirements for a transition to a fully IP-enabled emergency communications infrastructure.

VON Coalition members are developing the IP-based products, services, applications and devices that will one day allow emergency responders to use text, video and voice to communicate with those in need. The VON Coalition and its members have worked, and will

¹ The VON Coalition works to advance regulatory policies that enable Americans to take advantage of the promise and potential of IP-enabled communications. VON Coalition members are developing and delivering voice and other communications applications that may be used over the Internet. VON Coalition members include AT&T, Broadvox, BT, Google, iBasis, Microsoft, Skype, T-Mobile, Vonage and Yahoo.

² *Framework for Next Generation 911 Deployment, Notice of Inquiry (NextGen 911 NOI)*, PS Docket No. 10-255. (rel. Sept. 23, 2010). See also, Federal Register, Jan. 13, 2011, Vol. 76, No. 9 at page 2297 (establishing comment and reply comment dates in this proceeding).

³ *Wireless E911 Location Accuracy Requirements; E911 Requirements for IP-Enabled Service Providers, Further Notice of Proposed Rulemaking and Notice of Inquiry (IP-Enabled 911 NOI)*, WC Docket No. 05-196, FCC 10-177. (rel. Sept. 23, 2010).

continue to work, with the National Emergency Numbering Association (NENA) and other public safety and standards development organizations to ensure an orderly transition from an otherwise complex 911 system that implicates federal and state regulators, 911 call takers, telecommunications carriers, broadband providers, device manufacturers, IP application developers and service providers. Working together will ensure that all affected stakeholders -- including most importantly, the public -- can take advantage of the benefits that a NG911 system can provide

DISCUSSION

The state of Public Safety Answering Point (PSAP) technology, specifically moving PSAPs from 20th century circuit-switched technologies to the 21st century's IP landscape, is the cornerstone of the future of 911. Until all public safety agencies are able to upgrade their systems and train call takers on proper use of the new technology and applications, new products, services, applications and devices cannot fully enable public safety capabilities for consumers. The local nature of PSAPs and the fact that the states have primary responsibility for funding PSAPs, has led to a geographic disparity in technology and capability at both the state and county level. Funding challenges to maintain current levels of service have increased as state and local governments battle large deficits and sluggish economic growth.⁴

However, upgrading PSAPs' systems will not resolve all of our nation's E911 challenges. For example, the fact that a PSAP has available and is operating IP-based technologies does not resolve the technological challenges inherent in locating callers using wireless devices.

⁴ See *FCC Preparing Next-Generation 911 Notice*, Urgent Communications (Nov. 30, 2010) at http://urgentcomm.com/policy_and_law/news/fcc-prepares-ng911-notice-20101130/ (wherein Jamie Barnett, chief of the FCC's Public Safety and Homeland Security Bureau, is quoted as saying one of the major challenges associated with NG 911 is funding the purchase of new equipment and systems to make NG911 a reality. "It's a major concern to me and to the FCC how the next generation of 911 gets funded," he said.).

Accurately locating devices connected wirelessly will continue to present challenges due to the nature of wireless networks and the topographies (in indoor and outdoor settings) within which they operate.⁵

Most of the issues facing PSAPs' and their ability to move to 21st century technology require steps that are outside of the Commission's control and jurisdiction. As noted above, substantial funding will be required from local, state or federal government. Funding is critical to NG911 for numerous purposes, including research and development of IP-based PSAP operations, as well as testing/pilot programs to determine what works, what does not work, and what will be needed for PSAPs to accurately craft requests for proposals to build their NG911 systems.

In addition, significant technical and operational work by industry experts is needed to resolve complex information technology issues. Analyzing increased security risks that may result from placing public safety networks on the Internet will be essential. Industry will also have to develop interoperability standards. To deliver the highest level of interoperability, requirements for emergency communications over IP should be kept as simple as possible. For example, for voice over IP, only the most basic functionality should be assumed (*e.g.* INVITE/re-INVITE, G.711), and for IM, only modest functionality (*e.g.* MESSAGE plus TCP transport) should be expected. By keeping the required functionality at minimal levels, it is likely that the private sector can develop and deliver the requisite level of interoperability. Moreover, a minimal functionality requirement could also result in lower financial burdens on state and local governments and enable the most rapid and uniform rollout of NG911.

⁵ See Comments of the Voice on the Net Coalition, WC Docket No. 05-196 (filed Jan. 19, 2011.)

The complexities and cost of interoperability (and need for) more than 6,000 PSAPs in the United States will have to be addressed. In an all-IP world, localization is not necessarily critical to an efficient and effective emergency services response system, and PSAP consolidation may be required in order to enable coordination between agencies, as well as the construction and operation of secure emergency services networks at the regional, state and multi-state levels.

Throughout this process, the Commission should ensure that consumers' expectations are not misaligned with the public safety capabilities available in their local area. While NG911 offers many potential capabilities, there are interoperability and operational challenges associated with each supported mode of communications. In general, it is preferable to deploy a well tested core set of capabilities (*e.g.*, voice and text) in a uniform way across all PSAPs rather than allow a wide set of potentially unproven technologies to be deployed in an uneven way. In particular, the Commission's desire to connect "social media" to PSAPs operating 20th century technologies could lead to significant privacy and security problems, as well as potentially confuse consumers who might not understand that certain PSAPs are not technically capable of handling the data streams that IP enabled products transmit. As stated in the VON Coalition's comments on the *IP-Enabled 911 NOI*, public resources would be better used for educating consumers and setting appropriate expectations, *e.g.*, limits of nomadic VoIP's location capabilities, and the appropriate services and devices from which consumers can expect to make E911 calls. VON members and the VoIP industry can facilitate a Commission-led public awareness campaign about these limitations.

In addition to enhanced public education efforts, the Commission should approach NG911 in a deliberate fashion by first addressing the implementation of primary

communications (voice telecommunications and interconnected VoIP services) and, only once these issues are resolved, addressing the delivery of emergency services by secondary communications sources (text). “Social media” should not be among the core set of primary or secondary modes of communications between consumers and PSAPs. By limiting its review of NG911 to these core communications services, voice telecommunications and interconnected VoIP, the Commission can both manage consumers’ expectations and create a more reasonable environment within which the public safety community and industry participants can address the immediate technological and operational hurdles preventing a move to NG911.

It is premature for the Commission to consider expanding obligations to IP market segments, including non-interconnected VoIP, text, and SMS, that fall outside the interconnected VoIP definition, prior to the transition to a NG911 network. Such a regulatory outcome would be a costly endeavor and in some instances, as with text and SMS services, an impossibility, requiring retrofitting of technology to become backward compatible to the legacy 911 system, yielding no real benefits to consumers or public safety. Moreover, by limiting the scope of and managing the transition to NG911, the Commission can more successfully encourage the establishment of industry standards that then can be subjected to industry testing and certification.

Finally, the Commission asks whether existing laws adequately provide liability protections in an NG911 environment. As the Commission states in the NOI, NG911 promotes a more complex delivery system, with multiple types of services able to connect, and multiple data sources available to PSAPs.⁶ The VON Coalition submits that Section 201 of the New and Emerging Technologies 911 Improvement Act of 2008, includes language that broadly defines

⁶ *NG911 NOI* at ¶ 71.

the entities covered by the liability limitations, and would include existing and future providers of 911 services, regardless of the format of communication.⁷ In particular, parity of protection now includes wireless carrier, IP-enabled voice service providers, or **other emergency communications providers** (any other entity required by the Commission to provide emergency communications).

CONCLUSION

The VON Coalition looks forward to working with the Commission, NENA, and standard setting organizations on the development of policies that will facilitate the transition to a Next Generation 911 system. Working together, interested stakeholders can drive the solutions that will address the ability of the 911 network to be interoperable with IP-enabled products, services, applications, and devices. This will allow for a future where first responders will have immediate access to voice, video and text, improving the delivery of emergency services to all Americans.

Respectfully submitted,

VOICE ON THE NET COALITION

/s/

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⁷ See Pub. L. No. 110-283, 122 Stat. 2620 (2008).