March 5, 2017

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Docket No RM-11780
Public Notice on Issues Related to 911 Applications for Smartphones

The National Association of State 911 Administrators (NASNA or the Association) has submitted a letter to the Federal Communications Commission (FCC) indicating that NASNA is concerned about the proliferation of smartphone 911 applications (apps) – which their letter indicates claim to "improve" access to emergency services, claims which NASNA appears to dispute. NASNA requests that the Commission convene a hearing to consider a list of issues that related to smartphone 911 applications and requests that a list of proposed restrictions be imposed upon app developers.

SirenGPS is a private company founded to develop emergency communication and emergency management software with the goal of improving resilience in communities in emergencies. Among our offerings we provide an app based tool for calling 911, SirenGPS Mobile. This app is designed to allow citizens to call 911 and simultaneously share a personal profile with enhanced location information with appropriate first responders. SirenGPS mobile is currently in use by first responders in the United States and in several foreign jurisdictions.

As a preliminary point, we submit that everyone in the emergency communications space should support responsible innovation. Better, less expensive solutions to problems are most likely to emerge where innovation is supported and fostered. Regulatory oversight of a technology space like 911 should make supporting responsible development of solutions a highest priority. Innovation should be evaluated based on testing in real-life environments without significant impairment from regulation that limits the opportunity for new solutions that do not disrupt current operations. While we do not believe that the FCC has the requisite authority under its current mandate to meet NASNA's requests for regulation of the 911 app market, SirenGPS would welcome a hearing on the issues raised in NASNA's letter as we believe that this would provide a meaningful opportunity to respond in a public forum to these concerns.

NASNA's letter appears to position smartphone app solutions and the app development community as a threat to 911. We also find that NASNA makes specific reference to functionality and features that SirenGPS currently provides. NASNA appears to suggests that this functionality is either not possible, or represents a hazard. NASNA has not tested any SirenGPS application and its claims are without basis in regard SirenGPS in any event. Under the circumstances, we believe it is appropriate to enter a rebuttal to these comments into the record. The following numbered paragraphs set forth statements from NASNA's

letter and our response to them. This shall not represent an exhaustive response. We reserve the right to address any issue raised in more detail in an appropriate forum. NASNA's claims are italicized for make them easier to identify:

Item One: NASNA claims that "during testing in one member state, it was learned that one of these products enables the end-user to over-ride location information generated by the device and send a different location to 911. This capability increases the likelihood that criminals will abuse the 911 system and that lives may be endangered and resources will be wasted responding to fraudulent calls."

SirenGPS Response to Item One:

- SirenGPS has no information regarding the susceptibility of any NASNA tested service to sending a different location to 911 than the correct location, a practice known as location spoofing.
- SirenGPS employs encryption and cypher key protocols that make location spoofing attempts exceedingly unlikely. These protocols allow SirenGPS to detect and divert a denial of service attack.
- In the unlikely event that someone attempts to deliver a false location, the SirenGPS platform is capable of detecting this activity.
- We are aware of no incident, and Ms. Bailey offers no evidence of any criminal activity based in location spoofing.
- It appears that NASNA's claim that "lives may be endangered and resources wasted" is speculative and lacks support.

Item Two: NASNA claims that "one app vendor was given an opportunity to brief NASNA's board and staff. Subsequently, it published NASNA's logo on its Website and promotional materials without permission, claiming NASNA had endorsed its product. Another app vendor, which had briefed FCC and Department of Homeland Security staff, placed these agencies' logos on their promotional material, making it seem as though they had endorsed the product."

SirenGPS Response to Item Two:

- SirenGPS provided NASNA with a briefing, but has not presented to NASNA's board or staff.
- SirenGPS has never published NASNA's logo on its website nor has SirenGPS made any claims related to a NASNA endorsement in any promotional material.
- SirenGPS has briefed the FCC Public Safety and Homeland Security Bureau (PSHSB) on several occasions and has had some opportunity to present at the Department of Homeland Security.
- SirenGPS has never misappropriated agency logos to make it seem as though these agencies had endorsed SirenGPS.

Item Three: NASNA expresses concern about alleged "misleading claims made by some [smartphone application] companies. For example, some make claims such as '911 location does not work from mobile phones,' 'cellular technology is unreliable,' and that their app will get help to them faster and more reliably than simply calling 911. One claims to send the location information directly to 'the closest' first responders, which could cause a huge problem when what the app thinks is 'the closest' agency is not the one that is responsible for responding to that location."

SirenGPS Response to Item Three:

- Upon information and belief, it is SirenGPS's position that 911 location in fact does not work well form mobile phones in most jurisdictions. This belief is based in part on published comments from former FCC Chairman Wheeler, testimony from numerous public safety officials who operate 911 call operations, from our first hand observation of 911 calls in PSAP operations, and from published FCC location standards that do not currently require that the majority of 911 calls from cellular phones be delivered to the 911 operator with a dispatchable location.

- It is not SirenGPS's position that cellular technology is unreliable. We make calls on our cell phones all the time and they almost always work.

- The SirenGPS app, when deployed with first responders, can get help faster and more reliable than simply calling 911. The SirenGPS mobile app originates an emergency call and simultaneously delivers an emergency call event with better location accuracy than legacy 911 tools, and without impacting existing 911 service. In PSAP operations where SirenGPS software is currently in use, our emergency call event typically arrives before the 911 operator's phone rings for the corresponding emergency call.

- SirenGPS can deliver an emergency call event direct to first responders in the field, in the office and in their vehicles at the same time that the emergency call event is delivered to the 911 operator. We do not recommend that first responders change their dispatch protocols and practice, nor do we recommend that first responders use this information to automate dispatch.

- We disagree that distribution of emergency call events to first responder agencies is likely to "cause a huge problem", or any problem at all. 911 calls being delivered to the wrong 911 call center is, unfortunately, a common occurrence. 911 calls can be delivered to the wrong 911 call center on the border between two call centers where the call is transmitted over a cell tower linked to one call center, but the caller is located in an area served by a different call center. SirenGPS location technology is significantly more accurate than existing 911 location services and is more likely to identify the correct agency than existing 911.

Item Four: NASNA expresses concern "about the potential risk to end users. For example, one app vendor's solution delivers 911 calls as VoIP calls, and the normal wireless re-bid function cannot be performed when there is a need for a more precise location."

SirenGPS Response to Item Four:

- SirenGPS does not deliver 911 calls as VoIP calls.

Item Five: NASNA claims that "operational and interoperability issues and questions remain unanswered because the regulatory system has not yet taken action to address the impact that 911 apps have on people's access to 911 and on the 911 system itself."

SirenGPS Response to Item Five:

SirenGPS respectfully submits that the assertion that operational and interoperability issues remain unanswered because the regulatory system has not taken action is not accurate and is based in a false premise. Regulatory action is not a prerequisite to the development and testing of operational and interoperability protocols and outcomes. We submit that testing solutions in real, working emergency calling environments is the preferred method for developing operational expertise with new 911 systems

and technology. Questions about operational functionality and interoperability are resolved through testing, not through rule-making.

In fact, significant testing and operational experience with smartphone application technology has already been accomplished. However, it is not surprising that NASNA may not be aware of these efforts. We offered to test SirenGPS with several NASNA members including NASNA's chairperson, Ms. Bailey, and were refused. In one instance we were told that "NASNA would oppose any testing of smartphone application based technology even if this testing was done at no cost, even if NASNA could dictate the testing protocols and standards."

Item Six: NASNA submits a laundry list of requests that restrictions and standards be applied specifically to the market for the development of smartphone solutions for emergency calling.

SirenGPS Response to Item Six:

NASNA has proposed a list of restrictions and standards would significantly impede innovation that has the potential to improve 911 service. Many of NASNA's requests might make sense if applied broadly as market guidance, but would represent an unreasonable preference against smartphone application technology were these applied as restrictions on a single technology space as Ms. Bailey suggests. SirenGPS supports even handed examination and development of standardization and best practices that will foster an innovative market for the proliferation and advancement of 911 technology.

Conclusion

Thank you for your attention to thinking critically about issues which have the potential for a profound positive impact on public safety. While we believe that NASNA's letter is submitted with the best of intentions, in providing its letter NASNA's expression of its concerns and its proposed solutions demonstrate the potential for good intentions to impede the development of smartphone technology and applications that can benefit 911. SirenGPS agrees with NASNA that new 911 technology must be developed in a manner that safeguards accurate and timely responses to requests for emergency assistance. We disagree with NASNA's recommendations for achieving that shared goal.

We ask the Commission to favorably consider a proceeding to address these concerns so that they might be discussed in a public forum. SirenGPS stands ready to work with NASNA, NENA, APCO, their member agencies and the Commission to help agencies deliver emergency services by continuing to work to develop responsible solutions that will strengthen people's confidence that their call to 911 will bring timely help to their location.

Kind regards,

Paul Rauner
SirenGPS, Inc.