PS Docket № 08-51

Before the Federal Communications Commission

In re

9-1-1 Call-Forwarding Requirements
for
Non-Service-Initialized Phones

on notice of proposed rulemaking

COMMENTS OF THE NATIONAL EMERGENCY NUMBER ASSOCIATION

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NENA: The 9-1-1 Association respectfully submits the following comments in response to the *Notice of Proposed Rulemaking* adopted by the Commission on April 1st, 2015, in the above-captioned proceeding.

COMMENTS

Non-Service-Initialized (NSI) devices – cellular telephones which are not subscribed to a mobile network, but for which all compatible mobile networks are required by the Commission's rules to accept and forward 9-1-1 calls – present the Commission with a difficult trilemma: Fraudulent, abusive, or unintended calls from NSI devices represent a significant, and, in some cases, overwhelming bulk of the 9-1-1 calls received by many Public Safety Answering Points (PSAPs), and the vast, vast majority of all 9-1-1 calls originated from NSI devices. Yet a minute but persistent fraction of NSI calls *are* legitimate, originating from consumers who may have no other means of accessing 9-1-1. Finally, the ex-

isting NSI rules do play some role in ensuring 9-1-1 access for *initialized* devices that may temporarily appear to be NSI during handovers from home to roaming networks and vice-versa. This is a quality-of-service issue for carriers who wish to ensure seamless 9-1-1 service for their customers, even when they are serviced by a roaming partner. Too, however, it is a public safety issue for 9-1-1 systems since consumers rightly and reasonably expect that they will be able to reach 9-1-1 when they have subscribed to mobile service and, in almost every state, paid a 9-1-1 fee as part of that service's cost. Resolving this trilemma will require careful balancing by the Commission of the interests of the public safety community, consumers, and carriers.

I. The NSI rules must be phased out.

The volume of data indicating that NSI calling is detrimental to public safety is overwhelming. As the Commission recognized in its *Notice*, myriad states and localities have filed detailed analyses of 9-1-1 call traffic originated from these devices. While a few filings indicate that a tiny fraction of calls from NSI devices have been indicative of actual emergencies, the record clearly demonstrates that, on balance, NSI calling does more harm than good. NENA therefore strongly reiterates our contention, expressed repeatedly in this docket, that the NSI rules *must* be phased out.

A. Increasing smartphone adoption raises the risk of a denial-of-service attacks against 9-1-1 from NSI devices.

The proliferation of smartphones since 2007 has tremendously broadened the availability of advanced technologies for consumers. In one sense, this trend may have improved the quality of service that consumers receive when using NSI devices: Disused smartphones making a 9-1-1 call may provide better location data than older devices which were more likely to depend on subscription-based network services for accurate loca-

tion determination. This could account for some of the data filed in this docket which suggests that a significant fraction of 9-1-1 calls from NSI devices now include Phase II location information. At the same time, however, the growing availability of older smartphones poses a grave risk: With advanced capabilities and open application programming interfaces for many device functions, the availability of disused smartphones dramatically lowers the cost and other barriers to the implementation of Denial-of-Service attacks against PSAPs.

For example, in one attack scenario, a malicious actor could gather a bundle of, say, 10 devices and program each of them to make repeated 9-1-1 calls at some specified time or place. For all but the largest PSAPs, this call volume would immediately exceed the capacity of trunk groups and Customer Premise Equipment (CPE) available to handle 9-1-1 calls, thus preventing legitimate calls from reaching the PSAP. Such a scenario could prove devastating during a large emergency or terror attack. Consequently, NENA believes that the NSI rules must ultimately give way, in order to eliminate this serious vulnerability.

B. The NSI rules create a perverse incentive for the proliferation of unsafe and unfair devices.

For some time, NENA has been aware of companies that market ultra-low-cost devices that rely on the NSI requirement to enable their basic operations. Pendants, for example, have been offered with the capability to make 9-1-1 calls with no expectation – or even possibility – of being service-initialized. Because these devices are not offered by carriers, they are not necessarily required to incorporate modern location determination capabilities, and many do not. This renders these devices inherently unsafe, in NENA's view, and the Commission should act to discontinue their existence.

Similarly, NENA is aware of some mobile voice services that rely on WiFi or other short-range data services for most calling, but that revert to an NSI cellular

call when a user attempts to call 9-1-1. This approach can seriously endanger a caller's safety due to the limitations on location and call-back capabilities inherent in NSI 9-1-1 calls. As such unintended uses of NSI devices proliferate, NENA is concerned that the volume of NSI calls to 9-1-1 centers will increase, thereby disappointing consumer expectations of quality 9-1-1 service when more of them cannot be found or cannot be called back.

For 9-1-1 authorities, both of these NSI uses create a significant "free-riding" problem, where an enterprise monetizes the availability of a local 9-1-1 system, while contributing nothing to the locality's 9-1-1 fee revenue. Eliminating this perverse incentive, reducing the detriment to well-meaning consumers who buy such inherently-unsafe products, and reducing their consequent impact on PSAPs are all benefits that should be realized with phase-out of the NSI rules.

II. Any greater delay in the phase-out of NSI rules must be premised on the immediate availability of effective technical solutions to reduce NSI call volume.

NENA has previously urged the Commission to require affirmative action on the part of carriers to reduce the number of repeated accidental, fraudulent, or malicious 9-1-1 calls from NSI devices. NENA continues to believe that such an approach could prove effective in maintaining 9-1-1 services for populations legitimately served by NSI devices, while providing a sufficient time for community service organizations and carriers to plan and prepare for the ultimate phase-out of the NSI rules.

One solution that has been proposed within the 9-1-1 community is to require that carriers monitor the IMEI/IMSI of NSI devices making calls via their networks, and to identify devices which appear to be making suspiciously-large numbers of 9-1-1 calls. Carriers could then reduce the transmission of accidental 9-1-1 calls from NSI devices by requiring some affirmative user action, such as pressing a particular numeric key,

before a 9-1-1 call would be completed. This approach would also allow for the blocking of *all* 9-1-1 calls from a particular device, if it were to be determined by the carrier or a PSAP that the device is being used to originate fraudulent or malicious 9-1-1 calls. A similar approach has been authorized[1] and deployed in the State of Tennessee to some success.

NENA notes that, in the past, carriers have been reluctant to implement possible technical approaches to reducing the number of 9-1-1 calls from NSI devices, fearing the potential for liability, should a blocked NSI call result in a consumer injury or death. NENA believes that the overwhelming fraction of calls from NSI devices that are made by repeat abusers of the 9-1-1 system should somewhat attenuate this fear. We are not insensitive to such fears, however, and encourage the Commission and other stakeholders to explore the available statutory and regulatory tools for addressing such concerns, should the need arise.

CONCLUSION

The Commission should sunset the NSI rules in six months, or require carriers to implement targeted blocking solutions for devices used to make repeated accidental, fraudulent, or malicious 9-1-1 calls.

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[1] TENN. CODE ANN. § 7-86-316(c)(2) (Supp. 2013).