

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

In the Matter of:

Petition for a Notice of Inquiry)	PS Docket No. 08-51
Regarding 9-1-1 Call-Forwarding)	
Requirements and Carriers' Blocking)	
Options for Non-Initialized Phones)	

COMMENTS OF AMERICAN ROAMING NETWORK

American Roaming Network (ARN) herewith submits its comments in the captioned *Notice of Inquiry (NOI)*.

OVERVIEW

As detailed herein, ARN proposes a superior solution to the pressing problem posed by the epidemic of fraudulent calls to Public Safety Answering Points (PSAPs) from non-service initialized (NSI) phones. Specifically, ARN is prepared to serve as a clearing-house and filter for all such incoming calls and to route true emergencies expeditiously to the appropriate PSAP. ARN can implement its program as soon as any applicable regulatory requirements have been cleared. Its solution will avoid the problems inherent in the other approaches the Commission has circulated for consideration. As will be shown below, ARN believes itself to be uniquely qualified to offer observations and solutions to the vexing problem presented in this docket, having become the nation's largest organization devoted to servicing calls placed from unrecognized mobile devices and serving the manual roaming needs of mobile service providers.

The magnitude of this problem is clearly evident from the petition and the Commission's quick reaction in issuing its *NOI*. Other approaches may offer possible long-term resolution, but they do not promise the same immediate fix as ARN. According to the evidence submitted in the petition and numerous comments already filed by concerned public safety professionals, relief is desperately needed without further delay. As the Commission noted in the *NOI*, the vast majority of calls from NSI phones to PSAPs are fraudulent and inundate PSAPs, impairing and occasionally destroying the ability of their personnel to respond to genuine emergencies. While such ultimate solutions as changing equipment functionality or tracking down abusers may ultimately discourage and reduce such misuse, they also are too costly, time-consuming and broad, and will actually impair PSAPs' ability to perform their vital functions.

THE ARN PROPOSAL

The *NOI* suggests that rather than be connected directly to a PSAP, a caller might first be connected to an answering center. *NOI* at ¶14. ARN asserts that this indeed is the best solution – it can be immediately available, as it requires only identification of the NPA/NXX of the

forwarding carrier switch, entails no modification of existing phones, enables all phones in circulation to continue to be used for emergency calls, frees PSAP personnel from the burden of screening calls and the psychological impact of harassment, contributes only insignificant delay to the response process, and will effectively eliminate the vast majority of troublesome prank calls.

Specifically, ARN proposes to serve as a national clearinghouse for all NSI 911 calls. ARN could structure its solution in either of two primary ways, using either an automated menu or live operators. The major difference in the two proposals would be operational cost, the funding of which is discussed in the next section.

The IVR Solution – The first call flow scenario is depicted in Figure 1, below. Interactive Voice Response (IVR)-based 911 filtering would use an end-to-end IVR system, requesting the caller to verify the emergency. Upon verification, it would automatically direct the call to the appropriate destination, based on a user’s response. This system would be enhanced with voice recognition to handle those calls where a caller could speak but was unable to use the phone dial pad for responses. It would also be programmed to recognize a variety of languages other than English and Spanish, dependent on prevalence of various languages at given locations, as well as numerous dialect variants, thereby increasing its efficiency.

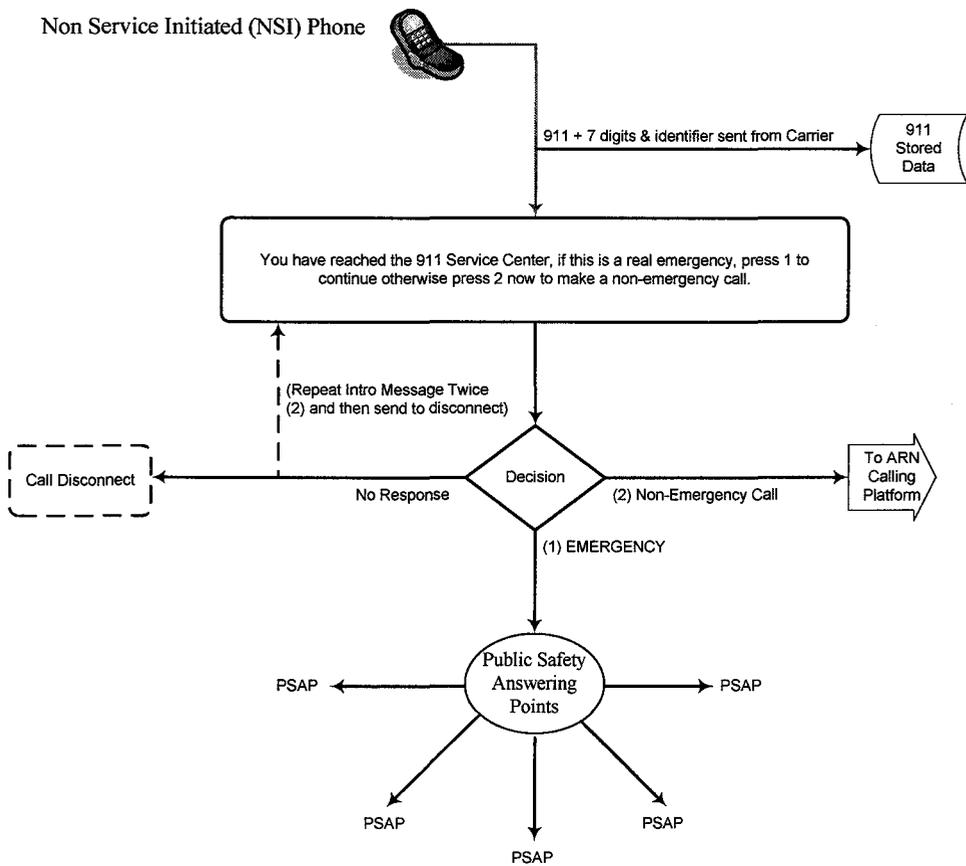


Figure 1: IVR Based 911 “Filtering

The Operator-Based Solution – The second call flow scenario is depicted in Figure 2. This would process in the same sequence as the first, but would have a live operator intercept to make the determination of where the call should be directed, based on a brief conversation with the NSI caller. The cost of having a live operator and the system to then process the call after the operator’s determination is higher than the straight IVR-only system.

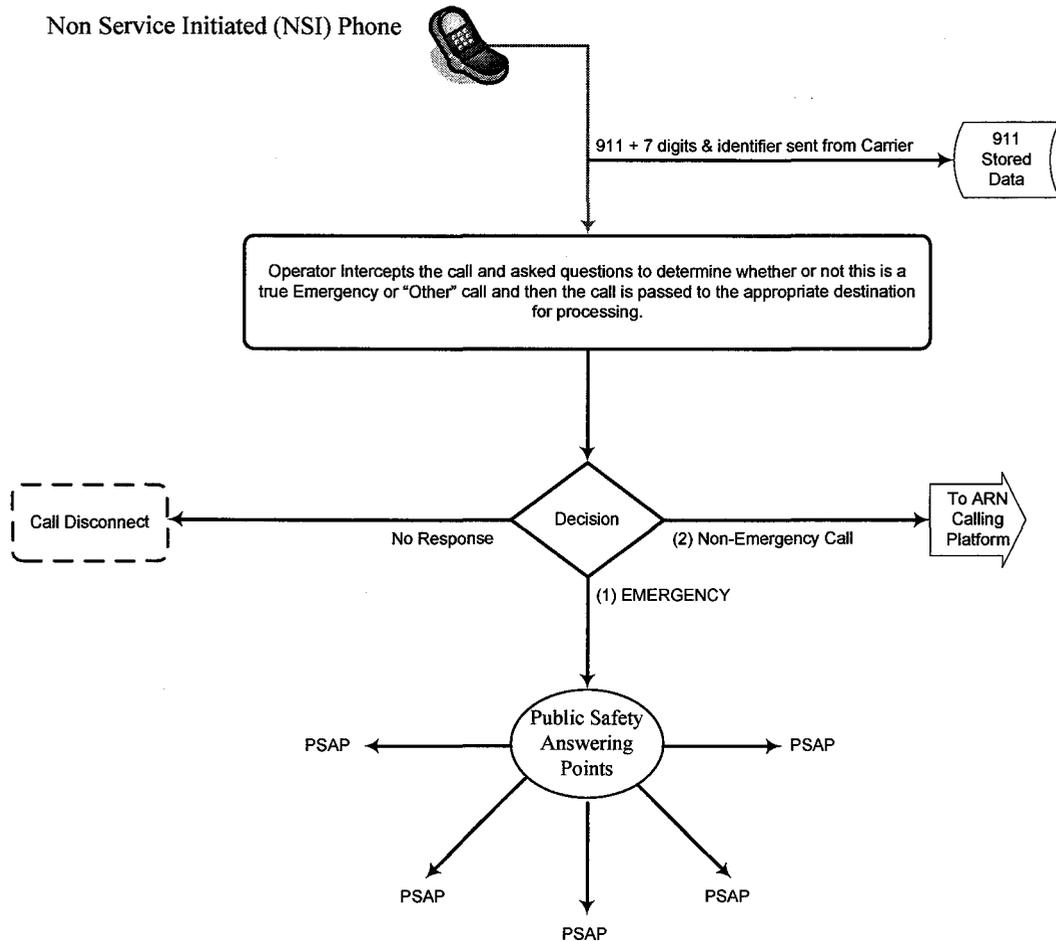


Figure 2; 3.2. Operator Based 911 “Filtering”

Not pictured here, but a possible alternative solution, would be to use a combination of the two systems by which IVR would be used initially, and then an operator would stand ready to intervene if certain indications of communication problems were to arise. Should it be determined that this is a viable solution for the filtering of 911 calls, we can explore this combination further.

COST SUPPORT

Any solution to the NSI 911 problem is going to require funding. It is self-evident that an operator-based solution will be more expensive and logistically more complicated than an IVR solution. ARN believes that the need for NSI filtering can be met with IVR and still meet the need to route legitimate emergency calls to the correct PSAP in a timely manner of ten seconds

or less. Indeed, an IVR solution can offer more language options to more people, locally and nationwide, than all but the most expensive operator-based solutions. Accordingly, ARN proposes the IVR solution, but submits the operator-based model for comment and comparison in the hope that other commenters will add their views and knowledge to the discussion.

Nevertheless, even a less costly solution requires consideration of the financial support mechanism that will sustain it and enable it to work. ARN believes that call transport charge for emergencies forwarded to a PSAP can be in the range of a few pennies per call. The same would be true for calls delivered via VoIP. There may also be some set-up charges to be absorbed. ARN plans to submit precise proposals along these lines in this docket at an appropriate time.

These charges are slight compared to the disruption cost currently being endured by PSAPs and the manpower needs required to cope with and attempt to overcome that disruption without a constructive solution. To recover the costs required to implement either of its proposals, ARN offers two suggestions. Both are justified as a matter of policy, since the cost base to fund the service will reflect the broad public benefits to be derived from NSI call screening.

First, the Universal Service Fund could add to its supported services the cost of providing the NSI screening service suggested here by ARN. If the cost is added to the Universal Service Fund, then it would be borne by all voice service subscribers, both landline and mobile. By spreading the cost out to so many users, it should be a very small additional burden.

Second, the cost could be allocated among the carriers contributing NSI 911 calls to the service, so that the cost will be borne by each carrier, and through the carriers, to their subscribers. The mobile service providers should be enabled by FCC rule to pass along this cost as a billing line item on their mobile services bill to each subscriber. In this way, the ratepayers, and not the taxpayers or the 911 users, will pay for the service.

LIABILITY

The *NOI* notes that up to this point concern over liability has discouraged both PSAPs and carriers from developing technological innovations to address the problem of 911 nuisance calls from NSI devices. *NOI* at ¶ 15. The major concern is over civil liability to a frustrated legitimate emergency caller unable to reach help. It is essential that this problem be addressed in the context of this Inquiry, lest those who implement whatever proposals are adopted come to face the same hesitancy. The solution is simple – PSAPs, carriers and the clearinghouse must have immunity from third-party liability.

Rather than provide blanket immunity, which might give an impression of ceding plenary control over 911 calls to self-interested private parties, it would be appropriate to adopt reasonable service standards which would have to be met in order to warrant protection. Such standards could either be prescribed by the FCC through general rules or, better, proposed by each call center and approved expeditiously by the FCC or an industry/citizen committee, using an established template that would give service providers the necessary guidance in formulating their individual methods. ARN suggests looking to the Good Samaritan laws as a model. These

laws have been passed by many state legislatures as a solution to help medical responders to emergency situations. While details of Good Samaritan laws vary somewhat, typically they protect trained or approved personnel from liability for the death, injury, disfigurement or disability of the victim as long as the responder acted rationally, in good faith, and in accordance with his or her level of training. These standards could be developed by the process described in this paragraph.

ARN believes that the industry/citizen committee approach would permit greater flexibility and more rapid evolution of applicable standards. In either event, the standards would have to be specific enough to ensure prompt evaluation of an incoming call and forwarding to the appropriate PSAP, yet broad enough so as not to violate any proprietary aspects of regulatees' business models.

Should the Commission conclude that provision of such liability protection may not lie within its mandate under the Communications Act, then a request for action from Congress might be required.

**AMERICAN ROAMING NETWORK IS UNIQUELY QUALIFIED
TO BEGIN THIS SERVICE**

ARN was established in 1992 to facilitate the FCC mandate for unregistered roaming. ARN did not hesitate to commit the necessary resources to this venture. By the end of 1996 ARN had 175 wireless carrier sites. As of 2007 ARN kept up the pace of expansion with a total of over 1,000 carrier switch sites across the U.S., Caribbean and international locations. Today, ARN is the largest provider of unregistered roaming services to a majority of the carriers in the U.S. Each month ARN processes over 23 million calls that originate from unregistered or deactivated mobile phones, servicing all of the top seven US wireless carriers, as well as other national, regional and international wireless carriers.

ARN uses a software application designed to provide billing services and call completion to serve cellular direct-dialed calls within the US as well as North America and rest of the world. ARN uses a proprietary Integrated Voice Response (IVR) system to process each call without live operator assistance. Helpful voice prompts guide callers through each step of the process. If a caller enters erroneous information, the systems provide the caller with an opportunity to re-enter the missed digits. Once the information is validated, the system allows the switch to complete the call. Otherwise, the system offers the user an alternative method or, if that fails, disconnects.

ARN's proprietary system is technology-agnostic and is operating with GSM, TDMA and CDMA networks. It readily can be adapted to the similar issues presented by NSI devices attempting to reach PSAPs. ARN's experience and success provides the requisite assurance that its proposal is not merely an abstract hope but a tangible reality that can be put into place without the time that a wholly new system would require for development, experimentation and refinement. ARN is committed to be ready for testing and implementation in a matter of weeks,

thus providing PSAP personnel and those in need with nearly immediate relief from the crushing issues they now face.

ARN is sensitive to the FCC's general preference for a competitive solution to any telecommunications problem or initiative and suggests that this service be open to competitive providers. ARN is confident that it can provide the most responsive, productive and cost-efficient service and looks forward to the opportunity to demonstrate its abilities.

OTHER PROPOSED SOLUTIONS

The *NOI* suggested several alternatives to solve the problem of fraudulent 911 NSI calls. However, none is without fundamental flaws.

The Commission has proposed call-blocking as a fundamental approach. *NOI* at ¶13. That is, once a phone could be identified as the source of fraudulent calls, all further attempts to reach a PSAP from that phone would be blocked. However, blocking runs afoul of a simple principle – an instrument may be used by disparate people for both good and evil purposes. In this case, the very phone used by an errant child for prank calls one afternoon may be the lifeline needed by her parents to summon help that same evening. Under all known blocking technology, which identifies only the phone rather than its users, specific callers cannot be isolated and restricted from further service, thus depriving other users of a blocked phone from access to needed emergency help. That, in turn, will defeat the very purpose of PSAP programs.

The Commission has also raised the possibility of call-back capabilities for NSI devices, as proposed in a technical information document issued by the National Emergency Number Association (NENA). *NOI* at ¶18. While the NENA document is a thorough exploration of possible approaches and may hold the key to comprehensive future technological solutions, the fact remains that it was issued 32 months ago and still holds no promise of imminent implementation. Indeed, realization of its goals will likely require a significant overhaul of network technology, as nearly all of the NSI phones have no 10 digit dialing number associated with them and cannot be addressed simply by the use of the code required by the FCC.¹ Thus, call-back approaches cannot be considered a feasible means of combating the urgent issues presented in the *NOI*, for which immediate remedial action is needed.²

A final approach suggested by the *NOI* is to eliminate the 911 call-forwarding requirements for NSI devices. *NOI* at ¶ 19. The *NOI* correctly recognizes that the vast majority of NSI 911 calls are fraudulent. Yet, even if only a relative handful of NSI 911 calls are genuine, the fact remains

¹ The FCC requires that NSI handsets donated through carrier-sponsored programs and newly manufactured "911-only" phones be programmed with a sequential number beginning with "911," plus the decimal representation of the seven least significant digits of a unique identifier, such as the ESN or IMEI of the handset. *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems Non-Initialized Phones*, 18 FCC Rcd 23383 (November 03, 2003)

² For similar reasons of timing, the potential solution advanced by the Rural Cellular Association – to form an advisory committee to study the problem further (*NOI* at ¶ 22) – only promises to defer alleviation of the current problem, which demands prompt action on the basis of all that is already known.

that those callers are entitled to help in life-threatening situations. Eliminating the requirement that 911 calls placed through NSI phones be forwarded to those in a position to send help would essentially render NSI phones far worse than useless – not only would they fail their intended purpose, but persons who have been educated to rely on them as a last resort, or those who by happenstance or fate are faced with no other choice in a life-threatening situation, will continue to do so, but with potentially fatal consequences.

CONCLUSION

It is clear from the *NOI* that the Commission recognizes the need for prompt and decisive action to stem the severe threat posed by fraudulent NSI 911 calls. The only viable approach to solving this problem quickly and reliably, without impairing legitimate emergency calls, is for effective call screening, and the most efficient way to implement that is through use of national or large regional call centers of the type proposed herein by ARN. Due to the exigency of this matter, ARN urges the Commission to undertake without delay any further proceedings as may be appropriate to implement ARN's proposal.

Respectfully Submitted,



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