

**Before The
Federal Communications Commission
Washington, DC 20554**

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Petition for a Notice of Inquiry Regarding 911)	
Call-Forwarding Requirements and Carriers')	PS Docket No. 08-51
Blocking Options for Non-Initialized Phones)	
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)	

**COMMENTS OF
TELECOMMUNICATION SYSTEMS, INC.**

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COMMENTS
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TELECOMMUNICATION SYSTEMS, INC.

TeleCommunication Systems, Inc. (“TCS”) hereby submits these comments in response to the Notice of Inquiry (“Notice” or “NOI”) released by the Federal Communications Commission (“Commission” or “FCC”) in the above-referenced proceeding.¹ In the Notice the Commission asked, *inter alia*, for “. . . comment, analysis, and information on . . . (2) concerns with blocking NSI phones used to make fraudulent 911 calls, and suggestions for making this a more viable option for carriers . . .”² TCS provides location information and other services for E911 calls for over 100 million subscribers of wireless and VoIP services. In so doing, TCS handles over 110,000 E911 call per day. This experience provides TCS with the requisite technical and operational expertise to comment on the Petition and respond to the NOI.

Introduction and Summary

In these comments TCS addresses the question of blocking inappropriate E911 calls with a proposed solution that permits blocking of fraudulent E911 calls at a PSAP’s request after an initial harassing call. While TCS has not deployed this system to date, and both cost feasibility and customer demand would precede deployment, it believes the technology exists to offer this tool. The solution is carrier-specific and should work with

¹ *Petition for a Notice of Inquiry Regarding 911 Call-Forwarding Requirements and Carriers’ Blocking Options for Non-Initialized Phones*, PS Docket No. 08-51, released April 11, 2008 (“Notice” or “NOI”). The filing requesting this NOI (“Petition”) was authored by a consortium of public service agencies and trade groups (“Petitioners”) and docketed on February 14, 2008 under a difference case, *In the Matter of Revision of the Commission’s Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems Non-Initialized Phones*, CC Docket No. 94-102.

² *Id.* at ¶10.

all carrier technologies. Carriers should not be required to implement this solution without compensation.

While this proposal will not in and of itself solve every possible fraudulent E911 call problem, it would serve as a useful component in a broader solution, even as new Wi-Fi and WiMAX technologies enter the market, and provides public service agencies with an option they do not have today. Lastly, TCS joins in the original Petitioners' request that the Commission clarify and/or resolve liability issues so that proposed solutions could be implemented, even if only on a trial basis, as promptly as possible to allow assessment of their efficacy without unnecessary consequences for vendors, Public Service Answering Points ("PSAP"), emergency service providers, and E911 users.³

I. Description of TCS's Fraudulent E911 Call Blocking Proposal

Specifically to the inquiry regarding blocking of fraudulent E911 calls, TCS is capable of developing a call blocking solution with the following operational criteria:

- 1) Upon request by an E911 authority (e.g., a PSAP designated as servicing the location from which the harassing call originates or is registered in), a call record detail is obtained from the Mobile Positioning Center (MPC) revealing a unique identifier of the phone which is then kept in the Harasser Number Database for the mobile phone identified to have made a harassing call.
- 2) Calls to 911 are held at the Mobile Switching Center (MSC) while the MPC determines appropriate routing information. As opposed to using just cell site and sector gross location information as in conventional systems, the MPC is also used to determine if the call is from a phone identified as being a source of harassing or other undesirable phone calls. The appropriate routing information is then provided to the MSC to route the call.
- 3) The MPC then intercepts all future incoming calls from that phone corresponding to the unique identifier, and routes this and any future calls

³ Petition at 12.

from this phone to a recording or to an operator trained to handle harassing calls that advises the harasser that the phone has been identified as a source of harassing phone calls and is now blocked. The recording or operator can also advise the caller how to restore service.

4) One additional potential feature is setting a timer in the MPC to automatically restore service after a designated length of time. Personnel at the MPC could assign the "timeout" period after which the unique identifier number that was listed in the harassing database is purged from the harassing database. At this point, the NSI phone would be free to call again, even as a harasser. The timeout period may alternatively be automatically set without the need for operator intervention. Secure IP interfaces may be made available to PSAP personnel who invoke the timeout period directly.

5) As an alternative, rather than being purged, the unique identifier may be maintained in the blocked number database but de-activated or enabled in some way that maintains a record of the previous harassing 911 phone call made using that unique identifier. This allows normal operation of the wireless phone, but also a record of the undesirable harassing call made from that phone.

6) In a potential future variation of the proposal, specific legitimate E911 callers could be routed to specific 911 resources. For example, a person with a heart condition may purchase a special wireless phone solely for the purpose of dialing 911 in the event of a heart attack. At the prior request of the caller, the phone number may be maintained in a special database similar to the Harasser Number Database. Then any/all 911 calls made from that particular phone with a phone number previously entered into the special database can be routed directly to a medical responder or other designated phone (e.g., a specific physician, etc.).

TCS's proposal has potential for alleviating some of the significant issues faced by public service agencies and the public due to fraudulent E911 calls. As such, this suggestion has commercial value for both its affirmative and cost saving attributes. The Commission should permit the widest possible discretion for vendors and carriers regarding cost recovery so that vigorous solutions are made available to the public service community. It would be unfair to burden carriers with additional responsibilities without cost recovery. It should be noted

that the cost to develop this solution and any ongoing business case have not yet been determined, and such a solution would be available only if the profitability and demand warranted it.

II. Advantages of TCS's Fraudulent E911 Call Blocking Proposal

As noted in the description of TCS's blocking proposal, the ability to block on a per phone per call basis fraudulent E911 phone calls is a capability not generally available to public service agencies today. The service could be configured for prompt activation by authorized PSAP personnel, and harassing callers could be routed to an automated announcement or to live agents specially trained to deal with such calls. In order to minimize the impact on legitimate emergency calls, an automated or user initiated timing mechanism for the call routing would be available on a per phone basis at the option of the appropriate PSAP, and detailed records of harassing calls, per phone, would be kept for later use in public safety administration, policy development regarding harassing calls, etc. Lastly, there is the potential for a positive application of the Harasser Number Database as applied to specific "special purpose" phones that would be routed in accordance with predetermined instructions when a 911 call was made.

III. Advantages of an Industry Advisory Committee

The Commission seeks comments on the value of an industry advisory committee to review and make recommendations in this docket.⁴ The convergence of different points of view and vetting of potential solutions available through advisory committees in TCS's view has generally been positive for the industry. A "WARN-like" model might

⁴ NOI. at ¶22.

be equally as beneficial in the matter. However, important components of the WARN process were; specific guidelines to reach stated objectives, a rich diversity of participants, and rigid time constraints. If those were all in place and administered, significant results are much more likely.

IV. Liability Issues Should Be Address as Part of the NOI

Uncertainty regarding both FCC and civil liability, whether real or theoretical, has a significant “chilling” effect on all parties in the public services response paradigm. The Petitioners have adequately identified this in the record and TCS agrees.⁵ However, the Commission noted some uncertainty as to the application of the Petitioners’ comments; do they apply to liability for breach of FCC rules or also civil liability?⁶ It would be an unfortunate situation if industry participants were forced to violate the former to avoid the latter.

No doubt the Commission intends to deal with the FCC rule-related issues as detailed in the NOI. As to civil liability, even with a blocking solution such as TCS proposes, there may be legitimate calls inadvertently, but purposefully, blocked through its application. Just the specter of civil liability in such situations would prevent adoption of this proposal or anything akin to it.

On June 16, 2008, the Senate passed a compromise version of *The NET 911 Improvement Act* (“911 Act”) and the House passed the same legislation on June 23, 2008.⁷ The 911 Act contains significant new liability protection; however, this

⁵ Petition at 12-13.

⁶ NOI. at ¶15.

⁷ Press Release, June 16, 2008, *Measure Providing 911 for VoIP Customers Passes by Unanimous Consent* (“911 Act”)

legislation was not designed with the liability potential from fraudulent NSI E911 calls in mind. It is important for the Commission, commenters, and/or an industry advisory committee (as discussed above) to review this legislation to see if it adequately address civil liability concerns for all parties in the public service equation. If not, specific action should be taken to resolve the civil liability question or it will be very difficult to achieve a solution acceptable to all parties.

V. The Petition Should Be Acted Upon Promptly.

The Petition contains adequate evidentiary material to justify the Petitioners' claims that fraudulent and/or harassing NSI phone calls are a significant problem for the public service community, and that identifiable problems stand in the way of acceptable solutions. Given the impact on life and property encompassed by this issue, the Commission should act promptly to resolve this matter as recommended herein.

Conclusion

In summary, the FCC should adopt, as part of a comprehensive response to the issues presented in the NOI, TCS's blocking proposal for fraudulent NSI initiated calls. TCS's solution offers capabilities previously unavailable to public service agencies and would greatly assist them in dealing with this issue. The Commission should permit

http://commerce.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease_id=e6c2d893-3487-4cd9-89ad-5263444119e0&Month=6&Year=2008

Press Release, June 23, 2008 House Approves the "The New and Emerging Technologies 911 Improvement Act of 2008"

http://energycommerce.house.gov/Press_110/110nr297.shtml

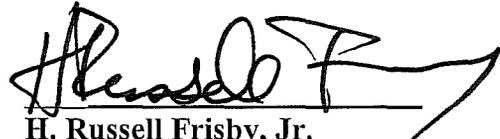
As of the date these Comments were prepared, signature by the President was expected very soon.

TCS, other vendor, and wireless carriers the widest possible latitude regarding cost recovery in this arena, and indentified questions regarding civil or administrative liability should be resolved in favor of protecting the public service community and its vendors.



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