

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

In the Matter of)
)
Framework for Next Generation 9-1-1) PS Docket No. 10-255
Deployment)
)

**REPLY OF
TELECOMMUNICATION SYSTEMS, INC.**

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**REPLY
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TeleCommunication Systems, Inc. ("TCS") hereby submits its reply in response to various Comments filed under the Notice of Inquiry ("NOI") released by the Federal Communications Commission ("Commission" or "FCC") in the above-referenced proceeding.¹

SUMMARY

Although parties may differ as to the specific requirements, there is broad agreement that a single NG9-1-1 standard is necessary. TCS submits that the NENA i3 specification, developed with relevant and timely industry collaboration, provides the best and most appropriate guidance necessary to make Next Generation ("NG") 9-1-1 a success. Any debate regarding the necessity of Short Message Service ("SMS") to 9-1-1 as part of NG9-1-1 underestimates the ubiquity of text services in everyday communications and the overwhelming public expectation as well as desire for a text-based public safety service. While liability and funding issues must be addressed, the technical challenges noted by commenters are merely that – challenges that can be met using existing network infrastructure, systems, and technology. Lastly, TCS reiterates that no matter how well the Commission and industry plan for and execute NG9-1-1, failure to address intellectual property rights ("IPR") will diminish, if not negate, all of these efforts as carriers and vendors are plagued by avoidable infringement litigation. However, the Commission has the power, and arguably the duty, to prevent such a tragedy by defining IPR now and clarifying the application of 28 USC 1498 to NG9-1-1.

¹ Notice of Inquiry, *In the Matter of Framework for Next Generation 9-1-1 Deployment*, PS Docket No. 10-255 (December 21, 2010) ("NOI").

1) NENA's NG9-1-1 i3 Specification

TCS has been very involved with the NENA collaborative standards development effort from NENA i1, and NENA i2, to the Long-Term Definition (i3) standard for NG9-1-1. The objections raised by a small number of respondents to the NENA i3 specification center on the theme that i3 is not “fully developed” or is “incomplete.”² Such concerns are misdirected. All standards efforts are evolving efforts. For example, the initial standard published for Wireless E9-1-1 (J-STD-036)³ was adopted after initial deployments, and has gone through three iterations in order to address gaps or newly discovered issues. The NENA standard for Data Formats (02-010)⁴ – the definitive, unchallenged standard for 9-1-1 data exchange - is currently at Revision 8.2 and will continue to evolve.

The assertions regarding the incompleteness of the NENA i3 specification should not cause the Commission concern. The public safety and vendor communities are in constant dialog regarding standards and testing. As good example of this are the NENA ICE meetings⁵ referenced in TCS's comments and the work being done by the Alliance for Telecommunications Industry Solutions' WTSC-IMSESINET⁶ group to close the gap on defining how Originating IP Multimedia Subsystem networks connect to NENA i3 ESInets.

Intrado raised a concern that the “legitimacy” of the NENA i3 standard is somehow called into question because NENA is not recognized as an “official” standards development organization (“SDO”).⁷ This is incorrect. In the world of Internet Protocol (“IP”) related standards efforts, it is common for recognized bodies like the 3rd Generation Partnership Project

² *Comments of the 9-1-1 Industry Alliance* at P. 2.

³ 3GPP2 – J-STD-036 Rev B. - <http://www.atis.org/docstore/product.aspx?id=11445>

⁴ Standard Data Formats For ALI Related Data Exchange, MSAG & GIS; <http://www.nena.org/standards/technical/data-formats-ALI-MSAG-GIS>

⁵ <http://www.nena.org/ng9-1-1/ICE>

⁶ <http://www.atis.org/0160/Com/Docs/IssueStatements/P0030.doc>

⁷ *Comments of Intrado, Inc.* at P 5.

(“3GPP”)⁸ to build from work completed by the recognized standards body for Internet Protocols, the Internet Engineering Task Force (“IETF”)⁹. In the case of i3, NENA built a specification which draws from work also developed by the IETF. Therefore, NENA’s status as an American National Standards Institute SDO, or lack thereof, is not material.

2) Text Capabilities within NG9-1-1

While TCS appreciates the challenges described by commenters with regard to using SMS as an originating platform for 9-1-1 communications, these challenges are not insurmountable and should not stop the FCC from moving forward. Liability and funding questions must and can be addressed; so can PSAP training and management concerns. SMS to 9-1-1 is not perfect; however, complete perfection is not the standard for deployment. The true standard for the role of SMS to 9-1-1 in the emergency communications paradigm is: “should an emergency services dispatch be made?” When measured against this, no commenter has raised an issue that cannot be either eliminated or substantially reduced through the use of the existing wireless network infrastructure and current technology.

SMS to 911 is falsely labeled as “unreliable.” SMS is extremely reliable, so much so that an SMS system will attempt to deliver a message for days after it is sent. Text based messaging is so reliable that our future national alert system, CMAS, is based on it.¹⁰ Likewise, the claim that SMS cannot provide the sender’s location for 9-1-1 call routing is also false. The record is clear that location information adequate for call routing is available today, and that precise location can be provided without network upgrades. The standard is not “reliability”, but “controllability.” SMS to 9-1-1 communication can be controlled so that a Dispatcher receives

⁸ <http://www.3gpp.org/>

⁹ <http://www.ietf.org/>

¹⁰ Commercial Mobile Alert System (“CMAS”) <http://www.fcc.gov/pshs/services/cmas.html>

information that is timely, dependable, and adequate enough to make a professional dispatch decision. These characteristics are in addition to the potential for SMS and other texting methods to provide “substantially equivalent or greater” emergency access for the deaf and hearing impaired community, citizens with English language challenges, and many others who use text as their primary communication method.

3) Intellectual Property Rights

Companies involved with NG9-1-1 will own and seek to enforce their IPR. TCS reiterates its call for the Commission to address this concern before it is too late. Central to this discussion is the relationship of 28 USC 1498 ("Section 1498") to such a policy.¹¹ Any FCC mandatory requirements will permit, even encourage, "patent trolls"¹² to litigate. The direct effect of such litigation will be delayed or modified compliance with FCC directives, and a chilling effect on future compliance and/or technological advancement for the public's safety and homeland security. The Commission must issue a definitive statement that when a carrier or its vendor is in compliance with the Commission's mandates and regulations, such actions are "by or for" the benefit of the United States consistent with Section 1498.

11 [i] <http://www4.law.cornell.edu/uscode/28/1498.html> § 1498. Patent and copyright cases

(a) Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture. . . . For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States.

¹² http://en.wikipedia.org/wiki/Patent_troll

Conclusion

TCS offers this Reply regarding the issues raised in Comments filed in response to the Commission's questions in this NOI, and encourages the Commission to resolve the additional IPR issue that the NOI raises.

Respectfully submitted,



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