

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

In the Matter of)	
)	
Transition from TTY to Real-Time Text Technology)	CG Docket No. 16-145
)	
Petition For Rulemaking To Update The Commission's Rules For Access To Support The Transition From TTY To Real-Time Text Technology, And Petition For Waiver Of Rules Requiring Support Of TTY Technology)	GN Docket No. 15-178
)	

COMMENTS OF WEST SAFETY SERVICES, INC.

West Safety Services, Inc. (“West Safety”) (f/k/a Intrado Inc.) respectfully submits these comments in response to the Commission’s Notice of Proposed Rulemaking in the above-referenced proceeding.¹

West Safety enthusiastically endorses and commends the Commission’s proposal to replace the existing requirements of wireless providers and associated manufacturers to support outdated text telephone technology (TTY) with new rules defining the obligations of these entities to support the technologically superior real-time text (RTT) over Internet Protocol (IP)-based wireless voice services. As a provider of emergency services and infrastructure solutions and an industry leader of the transition from legacy systems to Next Generation 911 (NG911), West Safety firmly believes that the TTY to RTT transition is an important step down the NG911 migration path and one that will create significant operational efficiencies in 911 service that will save lives. To that end, West Safety focuses these comments on the emergency services aspects

¹ *Transition from TTY to Real-Time Text Technology*, Notice of Proposed Rulemaking, GC Docket No. 16-145 (rel. Apr. 29, 2016) (NPRM); *Petition for Rulemaking to Update The Commission's Rules For Access To Support The Transition From TTY To Real-Time Text Technology, And Petition For Waiver Of Rules Requiring Support Of TTY Technology*, GN Docket No. 15-178 (filed June 12, 2015) (AT&T Petition for Rulemaking).

of the *NPRM* and specifically (i) voices its support for end-to-end RTT deployment in emergency communications, (ii) recommends that the Commission encourage end-to-end RTT deployment by public safety answering points (PSAPs) in order to drive a sunset of the troubling residual obligation for wireless networks to be backward compatible with TTY technology and (iii) suggests that the Commission allow PSAPs to enable “block mode” on RTT systems.

I. Deploying End-to-End RTT Will More Effectively Meet the Emergency Communications Needs of Consumers With Disabilities and PSAPs While Advancing the NG911 Transition.

End-to-end RTT presents significant advantages to 911 callers with disabilities and PSAPs, the most apparent of which is the improvement in usability and response time noted in the *NPRM*.² Unlike TTY and SMS, end-to-end RTT will permit 911 callers to send text immediately as it is being composed rather than the caller having to first draft the message and then press “send” before transmission. This feature will enable PSAP recipients to engage in a conversation that more closely mirrors voice communication while being able to view what the sender is thinking and reply or interrupt immediately to speed up and enhance the conversation and response time. Because end-to-end RTT allows for immediate text delivery, it also avoids the crossed messaging, out-of-sequence and delay pitfalls of SMS in emergency communications and permits PSAPs to respond to incomplete messages. In addition, end-to-end RTT supports simultaneous voice and RTT exchanges unlike SMS and the full range of text characters unavailable on TTY, which enables more robust 911 conversations. Users of RTT applications will benefit further from being able to configure and control the platform and display on their text-capable devices like smartphones and tablets in a manner that is more aligned to TTY functionality but without having to pay for a third-party stand-alone device. This operational

² *NPRM* ¶¶ 39-42.

flexibility will expand 911 access while reducing the risk of user confusion from interface change.

PSAPs will also have a better experience with end-to-end RTT over IP networks. Because an end-to-end RTT call is immediately identifiable unlike a TTY call, PSAPs will be able to avoid spending the precious time required to ask a caller if he or she is using a TTY system. Moreover, the advanced functionality of end-to-end RTT over TTY and support for simultaneous interactions will lead to fewer errors and faster communications. RTT also does not suffer from any of the significant challenges that TTY presents on IP-based systems, including TTY susceptibility to packet loss, tone distortion or echo. Additionally, the cost and operational burden imposed on PSAPs who add RTT to their existing SMS text-to-911 systems is expected to be incremental because RTT uses the same infrastructure and dedicated connectivity of SMS text-to-911.

West Safety submits further that end-to-end RTT adoption will advance the migration to NG911. In fact, RTT has been a long-standing expectation of NG911 plans and documentation and the desire to deploy RTT could spur investment in the Emergency Services IP networks (ESInets) required for end-to-end RTT and NG911.³ Continued long-term support for TTY, in contrast, will discourage the transition to NG911 as carriers and PSAPs struggle with TTY shortcomings on IP-based systems and RTT-TTY interoperability challenges, including having to interpret and address incomplete and potentially inconsistent character conversions.⁴

Although SMS text-to-911 was a necessary development to ensure individuals would be able to

³ The National Emergency Number Association's (NENA) i3 Architectural Standard for emergency service support for RTT is described in the Internet Engineering Task Force (IETF) Request for Comments (RFC) 5194, Framework for Real-Time Text over IP Using the Session Initiation Protocol.

⁴ *NPRM* ¶ 63.

contact 911 by text through mass market devices, the industry, consumers and NG911 are now ready for widespread RTT deployment.⁵ West Safety therefore supports comprehensive regulations that outline and enable seamless cooperation between wireless carriers, Text Control Center (TCC) service providers, 911 text service providers, 911 authorities and regional, state and federal agencies so that every element and every entity will align to deliver RTT to the appropriate PSAP in a timely manner.

II. Encouraging PSAP Deployment of End-to-End RTT Would Drive a Sunset of the Troubling Residual Obligation for Wireless Networks to be Backward Compatible With TTY Technology.

The *NPRM* highlights the consensus among commenters on the *2015 TTY-RTT Transition Public Notice*⁶ of the need to transition TTY to end-to-end RTT for emergency communications in a timely and efficient manner.⁷ Although backward compatibility is necessary in the near term to ensure non-interrupted 911 access for TTY users and PSAP compatibility with RTT-based 911 calls, the Commission wisely seeks comment on a possible sunset period of the obligation for backward compatibility.⁸

West Safety believes that the Commission's goal should be to limit the period of backward compatibility as much as practicable in order to minimize the impact from TTY 911 failings on IP-based systems and RTT-TTY interoperability inefficiencies. The slow transmission speed and character conversion troubles associated with gateways between RTT systems and legacy TTYs will negatively impact PSAPs' ability to quickly and accurately

⁵ *NPRM* ¶ 41.

⁶ *Request for Comment on Petition for Rulemaking to Update the Commission's Rules for Access to Support the Transition from TTY to Real-Time Text Technology, and Petition for Waiver of Rules Requiring Support of TTY Technology*, Public Notice, 30 FCC Rcd 7438 (CGB PSHSB WTB WCB 2015) (*TTY-RTT Transition Public Notice*).

⁷ *NPRM* ¶¶ 39-42.

⁸ *NPRM* ¶¶ 65-66.

respond to 911 calls. Of particular concern is possible PSAP confusion from inconsistent gateway transliterations of RTT text into TTY characters due to the lack of standards and the manual labor required to reconcile character conversions. The magnitude of these interoperability inefficiencies could increase as more 911 callers begin using RTT while the PSAP backbone continues on TTY systems.

In order to minimize the need for backward compatibility in emergency services and facilitate an effective and swift PSAP transition to end-to-end RTT, West Safety recommends that the Commission secure commitment from wireless providers to transport RTT to PSAPs after receiving a valid “RTT-ready” PSAP request.⁹ Deploying end-to-end RTT will require PSAPs to either upgrade their existing SMS infrastructure or to invest in an ESInet and RTT-compatible equipment. Given the technological advantages of RTT over SMS and the migration to NG911, West Safety believes that the market is ripe for PSAP adoption of end-to-end RTT provided they receive notice and assurance that wireless providers will deliver RTT traffic upon receipt of a valid PSAP request. While the advantages of end-to-end RTT over TTY systems are easily enumerated and widely accepted, end-to-end RTT deployment will not keep pace with the emergency service needs of individuals with disabilities using IP-based wireless voice services and the goal to expeditiously phase-out TTY backward compatibility unless the Commission addresses and promotes RTT adoption by PSAPs.

⁹ See *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications; Framework for Next Generation 911 Deployment*, PS Docket Nos. 11-153 and 10-255, Second Report and Order and Third Further Notice of Proposed Rulemaking, 29 FCC Rcd 9846, 9862, para. 34 (2014) (*T911 Second Report and Order and Third Further Notice*) (directing “covered text providers” to be capable of supporting text-to-911 by December 31, 2014 (the “text-capable” deadline) and then to commence routing of texts to 911 by June 30, 2015 or within six months of receiving a valid “text-ready” notification from a PSAP, whichever is later); 47 CFR § 20.18(q)(10).

III. The Commission Should Allow PSAPs to Enable “Block Mode” on RTT Systems.

With respect to the question in paragraph 71 of the *NPRM* regarding use of the “block mode” feature of RTT service in 911 calls, West Safety recommends that the Commission allow “block mode” for PSAPs. Certain emergencies might require additional time for PSAPs to formulate their response, especially if there is a risk that 911 callers could be harmed by misinterpreting the incomplete instructions or advice of PSAP responders. PSAPs, as trained experts in emergency response, possess the skill and experience necessary to evaluate whether use of the “block mode” feature on RTT is appropriate. Thus, the Commission should provide PSAPs with the discretion to decide whether to enable the “block mode” feature on RTT 911 service.

CONCLUSION

West Safety appreciates the opportunity to provide these reply comments and respectfully requests that the Commission take action consistent with the matters raised herein.

Dated: July 11, 2016

Respectfully submitted,

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