

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 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	)	GN Docket No. 15-178
Transition From TTY To Real-Time Text	)	
Technology, And Petition For Waiver Of Rules	)	
Requiring Support Of TTY Technology	)	
	)	
	)	

**Comments of the**

**National Association of State 911 Administrators**

The National Association of State 911 Administrators (NASNA) represents state 911 programs in the field of emergency communications. Established in 1994 as a 501(c)(3) non-profit organization, NASNA is the voice of the states on public policy issues impacting 911. NASNA members believe that state 911 leaders' expertise can assist industry associations, public policymakers, the private sector, and emergency communications professionals at all levels of government as they address complex issues surrounding the evolution of emergency communications.

The comments submitted below are based upon a consensus of our membership and their collective experience with the provisioning of 911 services.<sup>1</sup>

**Support for the Rulemaking**

NASNA generally supports the Commission's intent to modify its rules to facilitate the transition from TTY to Real-Time Text (RTT) and offers specific comments in response to certain questions posed in the Notice of Proposed Rulemaking relating to access to 911.

**Assumptions Regarding the PSTN to IP Transition and the TTY to RTT Transition**

The record as presented in the Notice of Proposed Rulemaking (NPRM) supports the conclusion that the technical and functional limitations of TTYs make the technology unsuitable as a means to enable its users to have full and effective access to IP-based wireless [and wireline] telephone networks, and that RTT technology is exceptionally suitable. We agree that in an IP telecom environment, RTT appears to be the best approach to accessibility. But, the IP transition is likely to occur in patchwork fashion around the nation; copper networks are likely to be retired in more urban and populated areas before rural

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<sup>1</sup> Individual members may provide separate comments to the Commission that agree with, amplify, differ from, or are in addition to the comments offered by NASNA on this matter.

areas; it may be a very long time before the IP transition occurs in rural and economically disadvantaged parts of the country. This must be considered in any rules adopted as part of this proceeding.

### **Over-The-Top RTT Solutions and Timelines**

The Commission proposes that it would consider the availability of over-the-top (OTT) RTT applications as a suitable demonstration of interim wireless service provider compliance and asks several questions throughout the NPRM that follow from this proposal. Questions include whether OTT RTT solutions should be considered an acceptable interim solution prior to the availability of RTT as a native function of end user devices; whether and what issues might be associated with that; and whether such applications should be pre-installed on new devices prior to the availability of RTT as a native function. We speak to four principles that should guide the Commission's deliberations.

1. **Guaranteed access to 911.** Native RTT and OTT applications must guarantee direct access to 911 deliver location and call-back information; there should be no material cost to PSAPs, i.e., they should not require material equipment/software upgrades or extensive training.
2. **User equality.** Interim compliance for providers based on the availability of OTT RTT applications would not benefit all users equally. It would benefit people who have smart phones and the technical savvy to download and install OTT application on their devices. It would not benefit the millions of relatively unsophisticated users who continue to use older mobile devices that do not have that capability, e.g. flip phones and the like.
3. **Equivalent deadlines for service providers and manufacturers.** If there is not a requirement on manufacturers to keep pace, a December 2017 benchmark for service providers' interim compliance could delay the market availability of devices with native RTT. There may be reasons from a manufacturer's point of view why a roughly equivalent timeframe wouldn't be reasonable, and we would expect to hear a cogent argument in favor of a longer timeframe.
4. **No user left behind.** Care must be taken not to leave TTY users without an effective means of reaching 911 just because their telecom environment has lagged behind the rest of the nation's transition to IP.

In NASNA's view, the Commission should put the greatest emphasis on the timely availability of devices where RTT functionality is integral to the machine. "Timely" means very soon, not years from now, and as we just noted, we don't see why the December 2017 timeframe shouldn't be imposed on manufacturers to begin offering RTT-capable devices.

### **RFC 4103 as a Safe Harbor RTT Standard**

The Commission's proposal to establish RFC 4103 as a middle ground "safe harbor" standard makes sense to us as it strikes a balance between competing interests. The Commission's analysis and conclusion regarding its statutory authority to promulgate technical standards for accessibility purposes seem correct, and NASNA would support adoption of RFC 4103 as a means to speed progress, assure interoperability and improve access to 911 for speech and hearing impaired people.

### **Backward Compatibility and Interoperability**

For all the reasons stated in this section of the NPRM, NASNA agrees with the Commission that interoperability must exist. If the Commission should decide to set a date to phase out the backward-compatibility requirement based on some national statistical threshold, we point out that there will still

be TTY users out there – real people that could be left without an alternative that meets their needs. Safeguards must be put in place to protect these individuals and assure their continued access to 911. As soon as a PSAP becomes RTT capable, then carriers should be prepared to deliver RTT messages in their native format and not convert them to TTY.

### **Other RTT Functionalities for Wireless Services**

The Commission asked if specific measures or rule amendments are necessary to ensure that RTT supports legacy 911, text-to-911, and NG911 services, and if there are additional ways to ensure continued emergency access commercial power outages. NASNA thinks that a simple statement in rule that RTT is required to support legacy 911, text-to-911 and NG911 should suffice. With regard to back-up power, would not the Commission’s existing rules regarding provider responsibilities extend to RTT-capable devices? If the record that results from this proceeding indicates otherwise, then a simple rule-amendment extending the requirement to RTT capable devices should accomplish that purpose.

### **Latency and Error Rate of Text Transmittal**

Since RTT is supposed to be instantaneous, and understanding that the IP network speeds and bandwidth provisioning will differ from place to place, we think it would be prudent for the Commission to require what it has proposed: RTT characters be transmitted within one second of when they are generated, with no more than 0.2 percent character error rate, and with a point-to-point transmission latency that is no greater than that provided for voice communication. Regarding the technical feasibility of providing users with the ability to edit individual characters or groups of words in real-time, e.g., by backspacing and retyping we cannot say. We can say that most people type and text by backspacing and retyping. It seems to us that this capability is a necessary aspect of effective communications, particularly in an emergency.

### **Multimedia and TRS**

The Commission proposes that users of RTT must be able to send and receive both text and voice simultaneously in both directions over IP on the same call and via a single device. NASNA agrees with this proposal. With regard to the question about VCO and HCO capabilities, we believe these need also to be required. Regarding simultaneous video transmission capability, we can see that this could greatly improve communication in an emergency when the RTT 911 “call” comes to a PSAP via TRS/VRS. Finally, if RTT users can access 911 via TRS/VRS, then TRS/VRS providers and their equipment platforms need to support RTT.

### **RTT Implementation in IP-Based Wireline Networks and Equipment**

Since TTY technology does not function well in an IP telecom environment, and since TTY will eventually be phased out, wireline providers need to prepare for this inevitability. The Commission states that RTT access to wireline VoIP services is at least as important as RTT access to wireless services, but we think it may be more important since businesses, government agencies and retail establishments rely on wireline communication services and will continue to do so during and after the IP transition. Most people have some level of daily communication with such entities. If TTY can’t enable disabled people to communicate with these entities in an IP environment, then RTT must be implemented to ensure speech and hearing impaired persons have the same access as anyone else. The principle of access does not change just because the PSTN has changed. Perhaps the Commission could consider tying a RTT requirement to the timing of the PSTN to IP transition in a particular area. Providers are already required

to notify the Commission of their copper retirement plans, so why not make RTT – accompanied by a robust public information/education campaign – a requirement that must be met to gain the Commission’s approval for the transition? This kind of approach might address AARP’s concern about establishing a firm TTY sunset date when many carriers will continue to deliver voice services over legacy facilities for years to come. The “no user left behind principle” set forth at the beginning of these comments also applies here.

NASNA thanks the Commission for the opportunity to offer comments in this proceeding. We are confident that the record established in this proceeding will result in rules that are balanced, fair, rational and, most importantly, ensure that the speech and hearing disabled have the same access to 911 as the general public.

July 11, 2016

Respectfully submitted,

A handwritten signature in cursive script that reads "Evelyn Bailey".

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