

**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

To: The Commission

**COMMENTS OF CTIA**

CTIA<sup>1</sup> respectfully submits these comments on the above-captioned Further Notice of Proposed Rulemaking (*FNPRM*) to request that the Commission provide certainty and flexibility to mobile service providers and manufacturers as they implement Real-Time Text (RTT) to replace text telephone technology (TTY) consistent with the terms of the recent *TTY-RTT Order*.<sup>2</sup>

---

<sup>1</sup> CTIA® ([www.ctia.org](http://www.ctia.org)) represents the U.S. wireless communications industry and the companies throughout the mobile ecosystem that enable America to lead a 21st century connected life. The association's members include wireless carriers, device manufacturers, suppliers as well as apps and content companies. CTIA vigorously advocates at all levels of government for policies that foster continued wireless innovation and investment. The association also coordinates the industry's voluntary best practices, hosts educational events that promote the wireless industry and co-produces the industry's largest tradeshow. CTIA was founded in 1984 and is based in Washington, D.C.

<sup>2</sup> *Transition from TTY to Real-Time Text Technology; 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*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 13568 (Dec. 16, 2016). CTIA refers to paragraphs 6 through 74 of this item as the *TTY-RTT Order* and paragraphs 75 through 89 as the *FNPRM*.

All references to "Comments" herein are to comments filed in the above-captioned dockets on or about July 11, 2016; references to "Reply Comments" are to reply comments filed in the above-captioned dockets on or about July 25, 2016.

## I. INTRODUCTION.

CTIA and its member companies appreciate the Commission's prompt adoption of the *TTY-RTT Order*, which recognizes new RTT services as an alternative to TTY. Specifically, the *TTY-RTT Order* provides wireless carriers and equipment manufacturers, if they choose to support RTT, with regulatory relief from outdated, under-utilized wireless TTY technologies in new and legacy wireless services and equipment.<sup>3</sup>

Deployment of RTT on wireless IP networks pursuant to the *TTY-RTT Order* will promote functionality that is greatly superior to wireless TTY technology, to the benefit of consumers with disabilities who rely on text communications. The *TTY-RTT Order* strikes a careful balance by providing mobile service providers and manufacturers with certainty and substantial flexibility to develop RTT in a technology-neutral way that recognizes the needs of consumers with disabilities. For example, the minimum required functionalities of RTT are reasonably limited to interoperability, backward compatibility with TTY technology for a time period to be determined based on the *FNPRM*, and support for 9-1-1 emergency communications.<sup>4</sup> Moreover, the *TTY-RTT Order* limits the set of required "core features" of RTT to three: initiating and receiving calls via the same ten-digit telephone numbers used for voice calls; transmitting and receiving RTT communications to and from any 9-1-1 Public Safety Answering Point ("PSAP") in the United States; and sending and receiving simultaneous voice and text in the same call session and via a single device.<sup>5</sup> Service providers and manufacturers

---

<sup>3</sup> See *TTY-RTT Order*, ¶¶ 6, 22, 71 (clarifying that "that a wireless service provider or manufacturer in compliance with the RTT obligations adopted in this Report and Order will be relieved of its TTY support obligations on all wireless networks and equipment, including services and devices used for legacy (non-IP) facilities").

<sup>4</sup> See *id.* ¶¶ 27-51.

<sup>5</sup> See *id.* ¶¶ 53, 55.

have flexibility to develop other features of RTT in addition to these requirements in order to meet consumer and market demands.<sup>6</sup>

Consistent with its comments in the underlying proceeding, CTIA encourages the Commission to resolve the remaining issues in the *FNPRM* so that wireless providers and equipment manufacturers retain the regulatory certainty and flexibility to implement RTT successfully for consumers who are deaf, hard of hearing, or have speech impairments.

## **II. THE COMMISSION SHOULD ESTABLISH A SUNSET DEADLINE FOR RTT BACKWARD COMPATIBILITY WITH TTY.**

CTIA supports the Commission's proposal to set a sunset date of 2021 for the requirement that RTT be backward compatible with TTY.<sup>7</sup> Further, to avoid consumer, industry, and public safety confusion and technical challenges, the final rules should establish clear parameters regarding whether and how the Commission can extend the sunset of RTT-TTY backward compatibility for good cause.

The Commission's primary reason for proposing the 2021 sunset date is that, under the transition schedule adopted in the *TTY-RTT Order*, "Tier I wireless service providers will have had the opportunity to support RTT on their IP-based networks for three years, manufacturers will have been producing RTT compliant equipment for two years, and smaller wireless service providers will have supported RTT on their network for at least 18 months."<sup>8</sup> This is a reasonable basis for selecting the deadline.

A date certain to sunset the backward compatibility requirement between RTT and TTY will help smooth and encourage the transition from TTY to RTT for consumers, industry, and

---

<sup>6</sup> See *id.* ¶ 29.

<sup>7</sup> See *FNPRM* ¶ 77.

<sup>8</sup> *Id.*

public safety. Backward compatibility between RTT and TTY for a limited period of time should be sufficient to ensure that any existing wireless TTY user can reach 9-1-1 emergency services and 7-1-1 relay services until RTT is fully introduced in U.S. networks.<sup>9</sup> Limiting the time for backward compatibility will also incent the public safety community to move to modern technologies and minimize the burdens of supporting both TTY and RTT.<sup>10</sup>

Regardless of backward compatibility between RTT and TTY, the Commission’s rules already require a text-based service that enables direct 9-1-1 emergency communications with PSAPs for TTY and potential RTT users. As described in CTIA’s initial comments,<sup>11</sup> the Commission’s text-to-911 rules were adopted on the premise that wireless TTY was not sufficient to meet wireless consumers’ expectations for 9-1-1 emergency communications, especially for people with disabilities. Given the evolving deployment of RTT, in cases where compliance with the Commission’s 9-1-1 rules is not achievable for a particular RTT implementation, wireless providers and manufacturers should be permitted to rely on compliance with the text-to-911 rules, for example, through SMS-to-911, to meet their TTY 9-1-1

---

<sup>9</sup> See Comments of Texas 9-1-1 Alliance, Texas Commission on State Emergency Communications, and Municipal Emergency Communication Districts Association at 4 (“[B]ackward compatibility is necessary in the near term to ensure non-interrupted 911 access for TTY users and PSAP compatibility with RTT-based 911 calls.”); Comments of Association of Public-Safety Communications Officials-International, Inc. at 2 (conditioning support for implementation of RTT “upon compatibility with TTY and existing IP-based solutions, to the extent PSAPs have adopted them”).

<sup>10</sup> See Comments of West Safety Services, Inc. at 3 (“Continued long-term support for TTY ... 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.”); Comments of National Emergency Number Association at 8 (supporting a “short phase-out period starting soon”); Reply Comments of National Emergency Number Association at 3 (advocating a swift transition to RTT to allow “the overall ability of 9-1-1 to fully leverage this new technology”).

<sup>11</sup> See Comments of CTIA at 4, 6, 19.

obligations.<sup>12</sup> Conversely, as RTT develops, SMS-to-911 may no longer be necessary to meet 9-1-1 obligations, and RTT and other network and service innovations should be permitted to satisfy Commission requirements for text-to-9-1-1.<sup>13</sup>

CTIA strongly supports the adoption and implementation of a fixed sunset deadline of 2021; however, if the Commission determines that an extension is warranted, it should provide sufficient notice to wireless service providers and manufacturers. Specifically, if the Commission determines that there is good cause to extend the deadline, it should make any such determination no later than 24 months prior to the sunset date. Thus, for example, if a sunset date of July 15, 2021 is selected, the Commission should announce any determination to extend it by July 15, 2019. A 24-month requirement is necessary to provide sufficient notice to wireless manufacturers and service providers that otherwise would be phasing out of building or providing RTT equipment and services that are backward compatible with TTY. In any case, the Commission should not extend the RTT-TTY backward compatibility requirement beyond 2025, consistent with the sunset date for certain other device compatibility requirements on the public switched telephone network.<sup>14</sup>

---

<sup>12</sup> As observed by the *TTY-RTT Order*, the Commission's text-to-911 rules are technology neutral. *See TTY-RTT Order.*, n.181. Further, the rules were adopted based on current SMS technologies. *See id.* at Statement of Commissioner Michael O'Rielly.

<sup>13</sup> *See Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications; Framework for Next Generation 911 Deployment*, Second Report and Order and Third Notice of Proposed Rulemaking, 29 FCC Rcd 9846 (2014).

<sup>14</sup> *See Technology Transitions; USTelecom Petition for Declaratory Ruling That Incumbent Local Exchange Carriers Are Non-Dominant in the Provision of Switched Access Services; Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers*, Declaratory Ruling, Second Report and Order, and Order on Reconsideration, 31 FCC Rcd 8283, 8341 ¶ 158 (2016).

**III. ALTHOUGH CTIA SUPPORTS THE INTEGRATION OF RTT INTO TELECOMMUNICATIONS RELAY SERVICES, THE COMMISSION SHOULD BE MINDFUL OF THE IMPACT ON THE TRS FUND.**

The Commission properly seeks comment on the costs, benefits, and technical feasibility of enabling RTT for various forms of telecommunications relay services (TRS).<sup>15</sup> CTIA agrees that integrating RTT into TRS operations will likely benefit TRS users.<sup>16</sup> Such integration, especially if implemented in a flexible, market-driven way, will further the goals of the Communications Act, as it will “encourage . . . the use of existing technology and [] not discourage or impair the development of improved technology.”<sup>17</sup>

For purposes of analyzing the relationship between RTT and TRS, it is reasonable at this time to consider RTT as a service that can augment and complement TRS, rather than as a near-term substitute for TRS.<sup>18</sup> TRS is a well-established service for deaf, hard of hearing, and speech-impaired consumers, while RTT is a nascent and developing service.<sup>19</sup>

However, any rules that the Commission adopts regarding RTT’s relationship with TRS should not impose additional functional or feature obligations on wireless providers and equipment manufacturers’ RTT implementations beyond those already required under the *TTY-RTT Order*. The RTT requirements for minimal functionality and core features provide an adequate foundation for RTT to develop and operate successfully with TRS.

Moreover, the Commission should carefully analyze the costs and benefits of any RTT-related TRS requirements in order to minimize demand increases on the federal TRS Fund.

---

<sup>15</sup> See *FNPRM* ¶¶ 78-87.

<sup>16</sup> See *id.* ¶ 81.

<sup>17</sup> See 47 U.S.C. § 225(d)(2).

<sup>18</sup> See *FNPRM* ¶ 85.

<sup>19</sup> See, e.g., Comments of Hamilton Relay, Inc. at 13-14 (noting differences between text-based RTT and other forms of TRS, such as IP CTS where “the user may elect to speak . . . words instead”).

Commenters have pointed out the importance of reviewing the potential impacts of RTT on TRS, specifically to assess the need to adjust the TRS Fund supporting these services as those impacts become clear.<sup>20</sup>

#### **IV. THE COMMISSION SHOULD NOT SPECIFY ADDITIONAL MANDATORY RTT FEATURES BECAUSE THE COMMISSION’S EXISTING ACCESSIBILITY RULES ESTABLISH SUFFICIENT PERFORMANCE OBJECTIVES.**

The Commission should not mandate RTT features such as “compatibility with refreshable Braille displays” and “block mode” operation.<sup>21</sup> Instead, the Commission should rely on its existing framework for accessibility in the Part 14 rules for advanced communications services (ACS) and equipment, which is based on multiple performance objectives that service providers and manufacturers must satisfy if achievable.<sup>22</sup> In the *TTY-RTT Order*, the Commission determined that RTT is subject to Part 14 and its performance objectives.<sup>23</sup> In addition, rules defining RTT were adopted in the new Part 67.

The Commission should act within its existing accessibility rules and its longstanding policy of providing flexibility for compliance with accessibility requirements and permit RTT features to develop consistent with the existing accessibility performance objectives. User needs and achievability, not regulatory prescriptions, should drive how covered entities satisfy the accessibility rules.<sup>24</sup> Mandating specific features would subvert the Commission’s flexible

---

<sup>20</sup> See *Ex Parte* Letter from Linda Vandeloop, Ass’t Vice President Regulatory Affairs, AT&T, to Marlene H. Dortch, Secretary, Federal Communications Commission, CG Docket No. 16-145, GN Docket No. 15-178, at 1 (filed Dec. 1, 2016).

<sup>21</sup> See *FNPRM* ¶¶ 88-89.

<sup>22</sup> See, e.g., 47 C.F.R. §14.21(b).

<sup>23</sup> See *TTY-RTT Order* ¶ 25 (“[B]ecause of its status as an electronic messaging service, services and equipment used for RTT must comply more generally with the performance objectives contained in Part 14 of our rules unless these are not achievable.”).

<sup>24</sup> Such an approach would be consistent with the FCC’s implementation of the accessibility rules for Section 255 of the Communications Act (applicable, among other things, to telecommunications

approach to accessibility regulation that has enabled significant wireless service and product innovations to meet the needs of people of all different abilities.<sup>25</sup>

Specifically, Part 14 of the Commission’s rules sets forth nineteen performance objectives—ten that relate to input, control, and mechanical functions and nine that relate to access to information necessary to use a product—that together will address access to RTT for all individuals, including individuals who are deaf-blind or have cognitive disabilities (subject to achievability).<sup>26</sup> With respect to particular needs of individuals, manufacturers and service providers are further required to “identify barriers to accessibility and usability” as part of their product evaluation process.<sup>27</sup>

New Part 67 also imposes specific interoperability requirements and features on RTT in addition to the Part 14 requirements for the technology. Among those required features are the ability to (i) “initiate and receive RTT calls to and from the same telephone numbers for which voice calls can be initiated and received;” (ii) “transmit and receive RTT communications to and from any 911 [PSAP] in the United States;” and (iii) “send and receive text and voice

---

service), which rely on performance objectives similar to the ACS rules. *See* 47 C.F.R. Parts 6 and 7. This approach also is consistent with the prohibition on prescriptive regulations mandating particular technical standards in Congress’s most recent accessibility directive to the FCC, the Twenty-First Century Communications and Video Accessibility Act of 2010 (“CVAA”). *See* CVAA, Pub. L. No. 111-260, 124 Stat. 2751 at 2756-57 (2010) (“[T]he Commission shall . . . not mandate technical standards, except that the Commission may adopt technical standards as a safe harbor for such compliance if necessary . . .”), codified at 47 U.S.C. § 617(e)(1)(d).

<sup>25</sup> *See generally Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, Biennial Report to Congress as Required by the Twenty-First Century Communications and Video Accessibility Act of 2010, 31 FCC Rcd 11065 (CGB 2016).

<sup>26</sup> 47 C.F.R. § 14.21(b); *see also FNPRM ¶¶* 85-86 (seeking comment on whether requiring RTT features such as compatibility with refreshable Braille displays or “block mode” operation would help meet “the communications needs of individuals who are deaf-blind, people with cognitive disabilities, or other specific segments of the disability community”).

<sup>27</sup> 47 C.F.R. § 14.20(b).



simultaneously in both directions on the same call using a single device.”<sup>28</sup> Service providers and manufacturers determine how to make these required features accessible pursuant to Part 14, and they should be permitted to continue to do so.

Thus, there is no need to impose more requirements, such as compatibility with refreshable Braille displays and optional block mode, on nascent RTT services. Instead, barriers to RTT accessibility should be identified and addressed in the ordinary course of complying with the existing Parts 14 and 67 of the Commission’s accessibility rules.

#### **V. THE COMMISSION SHOULD NOT ADOPT ADDITIONAL DATA COLLECTION REQUIREMENTS ASSOCIATED WITH RTT DEPLOYMENT.**

The Commission should also not impose reporting requirements on wireless providers or equipment manufacturers in order to track RTT deployment.<sup>29</sup> Although the *FNPRM* discusses a variety of metrics, ongoing reporting obligations are unnecessary to monitor wireless provider and equipment manufacturer RTT offerings. Given the significant under-utilization and ongoing costs to support wireless TTY technologies, wireless providers and equipment manufacturers already have sufficient market-based incentives to implement, offer, and promote the availability of RTT services to meet the Commission’s existing TTY obligations. Wireless providers may also choose to operate their IP networks in ways that support voice and RTT in the same manner,<sup>30</sup> which may make providers’ ability to report RTT usage by distinguishing RTT traffic from IP-based voice traffic technically infeasible. Further, any obligation to report RTT usage traffic may require covered entities to report proprietary data without particular benefits for

---

<sup>28</sup> *Id.* § 67.2(c).

<sup>29</sup> *See FNPRM* ¶ 76.

<sup>30</sup> One of RTT’s defining features is that it operates like other information transmitted on IP-based networks. *See generally TTY-RTT Order* ¶ 9 (noting that “RTT is an effective alternative to TTY technology for the IP-environment. RTT is a native IP technology”).

monitoring or evaluating RTT deployment. Rather than imposing an unnecessary or technically infeasible data collection obligation, the Commission should encourage interested entities to provide sufficient data to justify an extension of the sunset date for backward compatibility. The Commission should therefore decline to require data collections associated with RTT deployment.

**VI. CONCLUSION.**

For the reasons discussed above, the Commission should address the issues posed in the *FNPRM* by providing certainty and flexibility for industry as it implements RTT.

Respectfully submitted,

By: /s/ Matthew B. Gerst

Matthew B. Gerst  
Assistant Vice President, Regulatory Affairs

Thomas C. Power  
Senior Vice President and General Counsel

Scott K. Bergmann  
Vice President, Regulatory Affairs

Kara D. Romagnino  
Director, Regulatory Affairs

**CTIA**  
1400 Sixteenth Street, NW  
Suite 600  
Washington, DC 20036  
(202) 785-0081  
[www.ctia.org](http://www.ctia.org)

February 22, 2017