

October 19, 2015

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Notice of Ex Parte – 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

Dear Ms. Dortch:

On October 15, 2015, Claude Stout (Executive Director, Telecommunications for the Deaf and Hard of Hearing, Inc.), Christian Vogler (Director, Technology Access Program, Gallaudet University), Zainab Alkebsi (Policy Counsel, National Association of the Deaf), who collectively represent the “Consumer Groups” filing in this docket, together with Monica Desai (Partner, Squire Patton Boggs (US) LLP) and Ben Tarbell (Attorney, Squire Patton Boggs (US) LLP), counsel to TDI, met with the following staff of the Federal Communications Commission (FCC or Commission): Maria Kirby (Legal Advisor, Office of Chairman Wheeler) and Edward Smith (Legal Advisor, Office of Chairman Wheeler), Travis Litman (Legal Advisor, Office of Commissioner Rosenworcel) and Jennifer Thompson (Special Advisor, Office of Commissioner Rosenworcel), Nick Degani (Legal Advisor, Office of Commissioner Pai), Amy Bender (Legal Advisor, Office of Commissioner O’Rielly), and, from the Consumer and Governmental Affairs Bureau (CGB): Karen Peltz Strauss (Deputy Bureau Chief), Gregory Hlibok (Chief, Disability Rights Division), Robert Aldrich (Legal Advisor), and Suzy Singleton (Attorney-Advisor).

The meetings were in regard to the Petition for Rulemaking and Petition for Waiver filed by AT&T Services, Inc. (AT&T) regarding the substitution of real-time text (RTT) for text telephone (TTY) technology. AT&T’s Petition for Rulemaking asks that the Commission open a proceeding to “recognize RTT as a regulatory equivalent to and

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replacement for TTY for newly-deployed IP-based voice services.”¹ AT&T’s concurrently filed Petition for Waiver requested that the FCC waive various rules requiring support for TTY on IP-based wireless voice networks.² The FCC issued an Order granting that waiver, subject to certain conditions, on October 6.³

In the meetings, the Consumer Groups expressed support for AT&T’s request that the FCC open a rulemaking to establish RTT as a regulatory alternative to TTY technology.⁴ Particularly in light of the FCC’s grant of a waiver to AT&T, the Consumer Groups advocate that the Commission must now open and conclude the requested rulemaking expeditiously, and establish conditions to ensure backward compatibility and interoperability of RTT deployments.⁵ One such condition critical to ensuring effective interoperability is the establishment of a common standard for RTT. AT&T suggested the Internet Engineering Task Force (IETF) RFC 4103 standard, and the Consumer Groups support the adoption of the RFC 4103 standard – which is a non-proprietary, open standard – to ensure that RTT services are compatible regardless of the network on which the service is operating.⁶

A. The Consumer Groups Commend the FCC’s Decision to Timely Advance This Proceeding, and Encourage the Commission to Open the Requested Rulemaking as Soon as is Feasible

The Consumer Groups commend the FCC’s decision to move forward in this proceeding expeditiously, as well as the FCC’s decision to establish a date-certain by which the waiver would terminate. Specifically, the FCC stated that the waiver would expire at the earlier of December 31, 2017 or “the effective date of rules providing for alternative IP-based accessibility solutions[.]”⁷ The Consumer Groups believe that the FCC’s commitment

¹ Petition of AT&T Services, Inc. for Rulemaking, PS Docket Nos. 11-153, 10-255, WC Docket No. 04-36, CG Docket Nos. 03-123, 10-213, at 5 (filed June 12, 2015) (Petition for Rulemaking).

² Petition of AT&T Services, Inc. for Waiver, PS Docket Nos. 11-153, 10-255, WC Docket No. 04-36, CG Docket Nos. 03-123, 10-213 (filed June 12, 2015) (Petition for Waiver).

³ See *Petition for Waiver of Rules Requiring Support of TTY Technology*, GN Docket No. 15-178, Order, DA 15-1141 (Oct. 6, 2015) (“*AT&T TTY Waiver Order*”).

⁴ See Comments of Consumer Groups, GN Docket No. 15-178 *et al.* (Aug. 24, 2015) (Consumer Groups’ Comments); Reply Comments of Consumer Groups, GN Docket No. 15-178 *et al.* (Sep. 9, 2015) (Consumer Groups’ Reply Comments).

⁵ See *AT&T TTY Waiver Order*.

⁶ AT&T states that for purposes of its Petition, “AT&T’s reference to RTT means the standard Internet Engineering Task Force (IETF) Request for Comments (RFC) 4103[.]” Petition for Rulemaking at 1.

⁷ *AT&T TTY Waiver Order* ¶ 21.

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to this proceeding and its establishing a date-certain will encourage the rapid deployment of RTT to the benefit of consumers, and agree that setting a benchmark date of December 31, 2017— which AT&T agreed was a “reasonable” deadline – ensures that consumer access to accessibility solutions will not be limited by the waiver beyond what is necessary for AT&T to deploy RTT.⁸

The Consumer Groups emphasized in the meetings that the waiver grant necessitates that the FCC now conduct a corresponding rulemaking. As the FCC noted in granting the waiver, should rules providing for alternative solutions to TTY not be in place by December 31, 2017, the waiver might have to be extended.⁹ Because consumers could be left without access to either TTY or RTT during the waiver period, the rulemaking process should be opened and concluded as soon as is feasible to limit this transitional period. Additionally, this rulemaking implicates complex issues such as consumer access to 911, and may involve exploring alternative accessibility solutions in addition to RTT – these considerations will take time to fully address. The Consumer Groups therefore advocate that the Commission act expeditiously to commence a rulemaking to establish RTT as a regulatory alternative to TTY.

B. Conditions and Standards to Ensure Interoperability of RTT Services are Must-Haves in this Proceeding

- i. The Commission recognized in the waiver grant the need for backward compatibility and interoperability of RTT services.

Critically, the Commission must establish certain conditions and standards to ensure that RTT delivers a viable, universally accessible communications medium for all consumers. Specifically, the Consumer Groups ask that the Commission adopt the conditions proposed by AT&T that, to be considered a substitute for TTY under the FCC’s rules, RTT must be “interoperable with (1) TTY (TIA-825A/ITU v.18 standard) until TTY is sunset, and (2) RTT with other [Voice over Internet Protocol] networks.”¹⁰ In other words, AT&T and the Consumer Groups request that the Commission require that RTT services be backward compatible with TTY until TTY is no longer in use, and that those services be fully interoperable across all networks.

The Consumer Groups are pleased that the waiver grant to AT&T makes clear that the FCC views interoperability and backward compatibility as priorities in the deployment of RTT services. Notably, the FCC required that AT&T – and any other entities that might be granted a waiver – file biannual progress reports during the waiver period detailing the status of its implementation of IP-based accessibility solutions including RTT.¹¹ The report must include “information on the interoperability of AT&T’s selected accessibility solution with

⁸ Reply Comments of AT&T Services, Inc., GN Docket No. 15-178, at 3 (Sep. 9, 2015).

⁹ *AT&T TTY Waiver Order* ¶ 21 n. 84.

¹⁰ Petition for Rulemaking at 5-6.

¹¹ *AT&T TTY Waiver Order* ¶ 19.

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the technologies deployed or to be deployed by other carriers and service providers, as well as backward compatibility of such solution with TTYs.”¹² The report must also include detailed descriptions of any “obstacles” to interoperability and backward compatibility and the “steps . . . being taken to overcome them.”¹³ Additionally, the FCC stated that it would look “favorably” on follow-on waiver petitions that “specify with sufficient particularity” the steps the petitioning carrier or service provider is taking to ensure interoperability and backward compatibility of IP-based accessibility solutions.¹⁴

These early efforts recognize the critical need for a backward compatibility- and interoperability-by-design approach to the deployment of RTT. With regard to interoperability, establishing a common standard now for all carriers and service providers to build from will ensure that, from day one, RTT is a valuable and universally usable communications medium. Consumers are far better served if RTT services – and any other IP-based accessibility solutions – are developed to be interoperable rather than patched together later. And developing a single, interoperable RTT service will be less expensive to carriers and service providers than a two-phase process of developing a service and then reconfiguring it to be interoperable with other carriers’ services later, if even possible at that point.¹⁵

- ii. The Consumer Groups advocate the use of the RFC 4103 standard as the common standard for RTT services, which will ensure interoperability and align new RTT deployments with the recommendations of international bodies and with deployments in other countries without stifling innovation.

To ensure interoperability of RTT services, the Consumer Groups propose that the Commission adopt the IETF RFC 4103 standard as the common standard for RTT deployments. This standard would apply to all networks and network and terminal devices that can support it. Networks that cannot support RFC 4103 can adopt another standard as long as it is reliable, is supported by all network and terminal equipment on that network, and converts to RFC 4103 when connecting to networks that support RFC 4103.¹⁶

Critically, the Consumer Groups’ proposal does not mandate the use of RFC 4103. It only specifies that RFC 4103 must be deployed on all networks that can support it, and that services on networks that cannot support it must be interoperable with RFC 4103.

¹² *AT&T TTY Waiver Order* ¶ 19.

¹³ *Id.*

¹⁴ *Id.* ¶ 22.

¹⁵ See Consumer Groups’ Reply Comments at 5-6 (Noting that establishing a common standard now will “avoid the situation that occurred in IP based IM where users could not contact one another unless they each knew which variant of IM the other person used and had installed an application that was compatible with that particular variant of IM.”).

¹⁶ See Consumer Groups’ Reply Comments at 5-6.

RFC 4103 is the clear choice for an interoperability standard. RFC 4103 is not proprietary – it is an open standard for encoding text in RTT. Moreover, as AT&T and the Rehabilitation Engineering Research Center on Telecommunications Access (RERC-TA) have pointed out, the RFC 4103 standard is recommended by a number of communications organizations and standards-setting bodies worldwide.¹⁷ Importantly, RFC 4103 is specified in the NENA i3 Solution for use in next generation emergency service developments.¹⁸ The 3rd Generation Partnership Project (3GPP) – a combination of seven telecommunications standards organizations – also endorses the use of RFC 4103.¹⁹ The Access Board’s proposed update of its accessibility requirements under Section 508 of the Rehabilitation Act also references the RFC 4103 standard for RTT.²⁰ Even the Commission has proposed to use the RFC 4103 standard in the Accessible Communications for Everyone software program. And SIP Forum’s profile for Video Relay Service providers specifies the use of RFC 4103 for real-time text.²¹ Establishing RFC 4103 as the standard now will align RTT deployments with the recommendations of these bodies.

The RFC 4103 standard has also been implemented internationally. As the RERC-TA has stated, relay services in the Netherlands, Sweden, France, and Norway utilize RFC 4103.²² Interestingly, when Sweden first adopted RTT in 2003, it did not adopt a corresponding standard for RTT deployments. This led to there being two competing RTT methods in Sweden, which in turn led to interoperability issues and more work for the service providers and manufacturers who then had to cobble those competing methods together into an interoperable RTT service. Ultimately, RFC 4103 was specified as the standard for relay services in Sweden.²³

Additionally, a performance testing study commissioned in Sweden to evaluate implementations of RFC 4103 and another RTT protocol – “Safe text” – found that RFC

¹⁷ See Petition for Rulemaking at 11 n. 19; Reply Comments of the Rehabilitation Engineering Research Center on Telecommunications Access, GN Docket No. 15-178 *et al.*, at 4-7 (Sep. 9, 2015) (RERC-TA Reply Comments) (RERC-TA states that “RFC 4103 has been implemented in services and products in the US and abroad.”).

¹⁸ RERC-TA Reply Comments at 6.

¹⁹ Petition for Rulemaking at 11 n. 19.

²⁰ See Architectural and Transportation Barriers Compliance Board, *Information and Communication Technology (ICT) Standards and Guidelines*, Notice of Proposed Rulemaking, 508 Chapter 1 (Feb. 27, 2015) (“The proposed 508 Standards would incorporate by reference the following standards: . . . RFC 4103, . . . [which] describes how to carry real-time text conversation session contents in RTP packets.”).

²¹ RERC-TA Reply Comments at 6.

²² *Id.* at 7.

²³ *Id.*

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4103 performed substantially better in poor network conditions than Safe text.²⁴ For example, the Safe text implementation experienced 42% text loss at a reduced network bandwidth of 256kbps, while the RFC 4103 implementation only experienced a 0.3% text loss at the same bandwidth.²⁵ Even at a severely reduced bandwidth of 64kbps, the RFC 4103 implementation only experienced 4% text loss.²⁶

The Consumer Groups also emphasized in the meetings that the RFC 4103 standard would be setting a floor, not a ceiling. That is, establishing RFC 4103 as the standard now does not prevent carriers, service providers or manufacturers from innovating and providing greater functionalities than are specified by RFC 4103. Critically, it only sets the baseline from which entities can build from. Nor does establishing RFC 4103 as the standard now preclude the adoption of a different or potentially superior standard in the future, and so adopting a standard will not inhibit innovation in RTT development.²⁷

Indeed, the Obama Administration emphasized in a 2011 Report how “interoperability standards – standards that ensure ‘equipment or software from different vendors [can] work together or communicate’ and allow ‘new, innovative creations to work with older, established services’ . . . – *serve to support the development and deployment of emerging technologies[.]*”²⁸ The Report discusses how standards help to support consumer choice in that without standards, companies may attempt to “lock-in” consumers by using proprietary technologies that make their products incompatible with competitors’ products.²⁹ Interoperability standards also ensure that “today’s investments . . . will be compatible with advancing technology” and, in turn, standards “catalyze innovation” by giving “entrepreneurs a degree of certainty that a market will exist for their work.”³⁰

The considerations identified by the Administration have important implications for RTT. If service providers were to adopt proprietary standards such that RTT services are not interoperable, RTT users might not be able to communicate with other users or with 911 services. It is also critical that innovation and advancement of RTT technologies match the rapid pace of innovation in telecommunications technologies generally. Establishing a standard for RTT services will ensure interoperability and drive innovation.

²⁴ See Orebro County Council, Swedish Video Relay Service Bildtelefoni.net, *Protocol verification and capacity tests for text transport over the internet* (Oct. 7, 2011), available [here](#).

²⁵ *Id.* at 2.

²⁶ *Id.*

²⁷ Consumer Groups’ Reply Comments at 6.

²⁸ Exec. Office of the President, Nat’l Sci. & Tech. Council, *A Policy Framework for the 21st Century Grid: Enabling Our Secure Energy Future*, at 26 (2011) (emphasis added), available [here](#).

²⁹ *Id.* at 27.

³⁰ *Id.* at 26-27.

The Commission explicitly recognized the benefit of interoperability standards in expanding consumer choice and driving innovation when it adopted measures to ensure interoperability in the 700 MHz band.³¹ In that proceeding, the Commission stated that the creation of “non-interoperable band classes” in the 700 MHz band had had numerous negative effects, including that “customers are unable to switch between [providers] . . . without purchasing a new device.”³² The Commission stated that the interoperability measures it adopted, which required compatibility with a standard band class, would “serve the public interest by enabling consumers . . . to enjoy the benefits of greater competition and choices, and by encouraging . . . investment, [and] job creation” as well as the development of “innovative” services and equipment.³³

The Commission’s reasoning in that proceeding is equally applicable here. Proprietary RTT technologies might require users to purchase a new device should they decide to transfer service providers, which is a barrier to competition and consumer choice. An interoperability standard would facilitate consumers transferring between providers as they see fit.

Finally, the Consumer Groups recommend that for RTT to be considered an alternative under the rules, the Commission should require that RTT services be available such that the user can use RTT-only, RTT simultaneous with voice, or voice-only, thus providing the user with a complete range of calling functions when using RTT.

* * * * *

The FCC’s and AT&T’s efforts to expand access to RTT technology are commendable, and the Consumer Groups support AT&T’s requested rulemaking and appreciate the FCC’s timely efforts in advancing this proceeding. As the FCC understands, the waiver grant to AT&T now necessitates that the Commission expeditiously open and conclude a corresponding rulemaking. A critical component of that rulemaking – as the FCC has already recognized in the waiver grant – is ensuring that IP-based accessibility solutions are backward compatible and interoperable, and the Consumer Groups believe that establishing the RFC 4103 standard as the common standard for RTT services will effectuate the goal of interoperability. Continuation of the FCC’s early commitments to this proceeding and to ensuring interoperability and backward compatibility of IP-based accessibility solutions including RTT will result in the rapid deployment of what will ultimately be a hugely beneficial communications service for all consumers.

³¹ See *Promoting Interoperability in the 700 MHz Commercial Spectrum* et al., WT Docket No. 12-69 et al., Report and Order and Order of Proposed Modification, FCC 13-136 (Oct. 29, 2013).

³² *Id.* ¶ 10.

³³ *Id.* ¶ 1.

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Respectfully submitted,



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