Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
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
	)	
Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications	)	PS Docket No. 11-153
	)	
Framework for Next Generation 911 Deployment	)	PS Docket No. 10-255
	)	
IP-Enabled Services	)	WC Docket No. 04-36
	)	
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities	)	CG Docket No. 03-123
	)	
Implementation of Sections 716 and 717 of the Communications Act of 1934, et al.	)	CG Docket No. 10-213
	)	

REPLY COMMENTS OF CONSUMER GROUPS ON PETITIONS OF AT&T REGARDING THE SUBSTITUTION OF REAL-TIME TEXT FOR TEXT TELEPHONE TECHNOLOGY

Telecommunications for the Deaf and Hard of Hearing, Inc., through counsel, American Association of the Deaf-Blind, Association of Late Deafened Adults, California Coalition of Agencies Serving the Deaf and Hard of Hearing, Inc., Cerebral Palsy and Deaf Organization, Deaf and Hard of Hearing Consumer Advocacy Network, Deaf Seniors of America, Hearing Loss Association of America, National Association of the Deaf, and the Rehabilitation

Engineering Research Center on Telecommunications Access (collectively, the "Consumer Groups") respectfully submit these Reply Comments regarding the Petition for Rulemaking[1] and Petition for Waiver[2] (collectively, the "Petitions") filed by AT&T Services, Inc. (AT&T) in the above-captioned dockets pertaining to the substitution of real-time text (RTT) for text telephone (TTY) technology on IP-based voice networks. In its Petition for Rulemaking, AT&T requests that the Commission initiate a rulemaking proceeding to "recognize RTT as a regulatory equivalent to and replacement for TTY for newly-deployed IP-based voice services."[3] In its concurrently filed Petition for Waiver, AT&T seeks a temporary waiver of Section 20.18(c), Section 64.603, and any other rules requiring the support of TTY technology as an accessibility solution "for AT&T's new IP-based voice services" until "the later of the date that AT&T deploys RTT (expected 2017) and the date that the new RTT rules become effective."[4]

The Consumer Groups reiterate their support for AT&T's efforts to expand access to RTT technology,[5] and agree with other commenters that the Commission should initiate a rulemaking proceeding regarding the substitution of RTT for TTY for IP-based voice services.[6]

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[1] *See* 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 (filed June 12, 2015) (Petition for Rulemaking).

[2] *See* 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] Petition for Rulemaking at 5.

[4] Petition for Waiver at 4, 5, 9.

[5] *See* Comments of Consumer Groups, GN Docket No. 15-178 *et al.* (Aug. 24, 2015) (Consumer Groups' Comments).

[6] *See* Comments of the American Association of People with Disabilities, PS Docket No. 11-153, at 1 (Aug. 24, 2015) (AAPD Comments) (AAPD "request[s] that the Commission open a rule-making to amend [its] rules to allow real time text (RTT) as an alternative for TTY going forward."); Comments of Verizon, GN Docket No. 15-178, at 1-2 (Aug. 24, 2015) (Verizon Comments) (Advocating that the FCC "clarify its rules to affirm that IP-enabled real-time text (RTT) or other successor technologies can serve as an alternative to, and eventually replace,

Real-time text generally offers a superior accessibility solution to TTY. Real-time text is available on devices that consumers already own – like smartphones and tablets – and does not require users to buy and connect a separate TTY device.[7] Moreover, RTT maintains the functionalities of TTY on IP platforms, in that it is transmitted character-by-character, allowing for conversational, real-time communication, but RTT does not experience the reliability and transmission issues that impact TTY when operating on an IP network.[8] The limitations of TTY on IP networks may degrade the user experience but, importantly, also present a real danger in an emergency, particularly if the person using TTY is unable to communicate effectively. As IP networks have proliferated, the limitations of TTY have become clear to users on IP networks and they have come to appreciate the advantages of native IP accessibility solutions like RTT.

For these reasons, the Consumer Groups and other commenters support AT&T's request that the Commission conduct a rulemaking to establish RTT as an alternative to TTY under its rules, which will accelerate the deployment of RTT on IP networks and thereby expand the availability of RTT to consumers.[9]

In doing so, however, it is important that the FCC require that RTT be implemented on the phone in a manner parallel to the way TTY was implemented – on the primary voice calling

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dated text telephony (TTY) technology, consistent with Commission requirements."); Comments of IDT Telecom, Inc., PS Docket No. 11-153, at 2 (Aug. 24, 2015) ("IDT believes a rulemaking is the appropriate vehicle for considering how the issues raised and questions presented by AT&T should be resolved.").

[7] *See* Consumer Groups' Comments at 5 (Noting that RTT is a "highly mobile" accessibility solution that is "already-available" to users with an RTT-capable smartphone, tablet, or other Internet-connected device, which offers convenience benefits over TTY because "TTY devices are not readily obtainable everywhere, and purchasing one is an extra cost to the user that they would not incur buying a smartphone or other RTT-capable device.").

[8] For example, as noted by AT&T, TTY tones may be degraded by echo cancellation techniques used to improve the quality of IP-based voice communications, and TTY is subject to packet loss that reduces the quality of the communication. Petition for Rulemaking at 7.

[9] *See* AAPD Comments, Verizon Comments at 2-4.

function of the phone, so that the call can begin with either RTT or voice, and that either RTT or voice can subsequently be introduced later in the call and used at any time in the call. Finally, for terminal equipment, any terminal equipment with a multiline display and text generation capability must be able to support sending and receiving RTT on the call.

Should the Commission decide to issue a declaratory ruling that RTT is an acceptable alternative to TTY rather than conduct a rulemaking, as advocated by Omnitor AB,[10] or if the Commission decides to issue that clarification now and then conduct a rulemaking, the Consumer Groups would support those approaches as well.

The Consumer Groups would also support a rulemaking to explore technologies that are provided in addition to RTT for IP-based environments other than SIP or IMS. CTIA – The Wireless Association and the Telecommunications Industry Association (TIA) have proposed that the Commission conduct a rulemaking to allow for the substitution of RTT for TTY, but that such a proceeding be aimed at providing flexible, technologically neutral rules to replace the rules requiring support for only TTY.[11] Regardless of the approach taken by the FCC, it is critical that users have access to a single, fully interoperable communications medium. Interoperability is key. TTY was universally usable only because one standard was supported by

[10] Comments of Omnitor AB, GN Docket No. 15-178, at 3 (Aug. 24, 2015) (Omnitor AB states that the "petition for rulemaking is a good initiative and we suggest that it shall be supported" but asks that the Commission make a "rapid determination without rule change" that RTT functionality is allowable under the rules.).

[11] *See* Comments of CTIA – The Wireless Association, GN Docket No. 15-178, at 1, 10 (Aug. 24, 2015) (Advocating that the Commission should "affirm RTT as one alternative to TTY, while also affirming CMRS provider and equipment manufacturer flexibility to consider any solution that can meet the needs of deaf, hard of hearing, and speech-impaired consumers who may have previously used wireless TTY."); Comments of the Telecommunications Industry Association, GN Docket No. 15-178, at 2-3, 6-7 (Aug. 24, 2015) (Stating that TIA "agrees with the sentiment that discussion in the form of a rulemaking proceeding is needed about solutions to replace TTY and that AT&T's RTT approach may be one possible alternative" but that TIA "encourage[s] the Commission to ensure any rulemaking effort has as its foundation the key principles of flexibility, technological neutrality, and feasibility . . ..").

all networks and all terminal devices. The Consumer Groups do not have any objection to additional means to communicate through RTT if those methods could provide advantages to users (as was the case for TTYs with Turbo Code and other methods). But, as with TTY, those methods should be in addition to, not instead of, the one common RTT method that is supported by all networks and terminal devices. This rulemaking could also support the process for the eventual replacement of RFC 4103 RTT in the future using the same approach used by industry for retiring older voice codecs. The Consumer Groups advocate that whatever approach the Commission opts for, it should establish RTT as a regulatory alternative to TTY as quickly as possible, in addition to or while exploring other alternatives.

Regardless of the Commission's approach in establishing RTT as a regulatory alternative for TTY, it is critical that the Commission adopt certain standards and conditions to ensure that RTT services are interoperable and to maximize the functionalities of RTT for consumers. Specifically, the Consumer Groups support the conditions proposed by AT&T that, to be considered a regulatory alternative to TTY, 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."[12] In order to ensure the interoperability of RTT services, it is critical that the Commission specify a common standard – the Consumer Groups propose RFC 4103 – for all networks that can support it and for all network and terminal devices connected to these networks. Networks that cannot support RFC 4103 can adopt another RTT 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.

[12] Petition for Rulemaking at 5-6.

Note that establishing RFC 4103 as the required common interoperability standard for RTT on any network that can support it does not limit the ability of any company to introduce another RTT standard as well. And, if the additional standard proves superior and is eventually adopted on all other networks and terminal equipment, the FCC could at a later date establish that standard as the new common interoperability standard. The establishment of RFC 4103 as the interoperability standard now, however, is critical to ensure interoperability of RTT services, and 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. The only other way to ensure interoperability would be to require that every terminal support all of the formats used by other terminals, which may not be practical or even possible, particularly as new formats are introduced.

And, as stated above, the Consumer Groups reiterate that to be equivalent to TTY, RTT on any IP voice network must be implemented as a parallel means of communication on all voice calls, and not as a separate means of text only communication. To maximize the user functionalities of RTT services, RTT must be available such that the user can use RTT-only, RTT simultaneous with Voice, or Voice-only, and that these different options can be initiated at any time during a call. It is also important that any of these three options can be invoked within a single call such that once the person has called using one of these methods, the other methods can be initiated during the same call. The user should not have to make one call in voice and another in RTT to achieve a call using voice and RTT.

Finally, the Consumer Groups recognize that the limitations of TTY on IP networks present an obstacle and potential source of liability for carriers deploying IP networks, and

therefore generally support AT&T's request for waiver of the TTY obligations "for AT&T's new IP-based voice services."[13] However, because consumers could be left without access to either TTY or RTT during the waiver period, the waiver should be limited in duration to what is absolutely necessary for carriers to implement RTT on IP-based networks. The Consumer Groups therefore advocate that the Commission should consider establishing a date-certain by when RTT is anticipated to be widely available on IP networks, and the waiver would terminate on the later of that date or the date when the proposed RTT rules become effective. Furthermore, any penalties for lack of support for TTY or RTT should escalate over time.

The Consumer Groups anticipate that the Commission – in consultation with carriers, the deaf and hard of hearing community, manufacturers, and other interested stakeholders – should be able to establish a date-certain for RTT implementation as RTT technologies are already widely available and AT&T has predicted that it will have RTT deployed by 2017.[14] This deadline is important to minimize the impact of the waiver on deaf, deaf-blind, and hard of hearing consumers and so should carry an enforcement mechanism to discourage noncompliance. The Consumer Groups also ask that the Commission only grant a waiver of the TTY rules if it also conducts and completes the rulemaking requested by AT&T in order to facilitate the timely deployment of important RTT services for consumers.

In sum, the Consumer Groups support AT&T's request that the Commission initiate a rulemaking to facilitate the development and deployment of RTT services on IP networks. The Consumer Groups would also support a declaratory ruling that RTT is a regulatory alternative to TTY issued either pending a rulemaking or in lieu of a rulemaking. Notwithstanding the

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[13] *See* Petition for Waiver at 4, 5, 9.

[14] *See* RERC Notice of Ex Parte, GN Docket No. 13-5, 26-30 (Dec. 5, 2013) (RERC-TA R1 proposal on a common real-time text proposal), *available* here; Petition for Waiver at 9.

approach used, the Commission should adopt the conditions laid out above to ensure that RTT services are backwards-compatible with TTY and interoperable with RTT services on other networks. Finally, the Consumer Groups generally support the waiver requested by AT&T, but ask that the Commission consider establishing a date-certain by which the waiver will expire unless the RTT rules have not yet taken effect, in which case the waiver would expire on that date.

Respectfully submitted,

Monica S. Desai
Benjamin D. Tarbell
Squire Patton Boggs (US), LLP
2550 M Street, NW
Washington, DC 20037
202-457-7535
Counsel to Telecommunications for the Deaf & Hard of Hearing, Inc.

Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI)
Claude Stout, Executive Director | cstout@TDIforAccess.org
8630 Fenton Street, Suite 121, Silver Spring, MD 20910
www.TDIforAccess.org

American Association of the Deaf-Blind (AADB)
Mark Gasaway, President | mark.gasaway@comcast.net
PO Box 24493, Federal Way, WA 98083
www.aadb.org

Association of Late-Deafened Adults (ALDA)
Steve Larew, President | president@alda.org
8038 Macintosh Lane, Suite 2, Rockford, IL 61107
www.alda.org

California Coalition of Agencies Serving the Deaf and Hard of Hearing, Inc. (CCASDHH)
Sheri A. Farinha, Vice Chair | sfarinha@norcalcenter.org
4708 Roseville Road, Suite 111, North Highlands, CA 95660
www.norcalcenter.org

Cerebral Palsy and Deaf Organization (CPADO)
Mark Hill, President | president@cpado.org
12025 SE Pine Street #302, Portland, OR 97216
www.cpado.org

Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN)
Cheryl Heppner, Vice Chair | Cheppner@nvrc.org
3951 Pender Drive, Suite 130, Fairfax VA 22030

Deaf Seniors of America (DSA)
Nancy B. Rarus, President | dsaprez@verizon.net
403 Greear Place, Herndon VA 20170
www.deafseniorsofamerica.org

Hearing Loss Association of America (HLAA)
Anna Gilmore Hall, Executive Director | AGilmoreHall@Hearingloss.org
7910 Woodmont Avenue, Suite 1200, Bethesda, MD 20814
www.hearingloss.org

National Association of the Deaf (NAD)
Howard Rosenblum, Chief Executive Officer | howard.rosenblum@nad.org
8630 Fenton Street, Suite 820, Silver Spring, MD 20910
www.nad.org

Rehabilitation Engineering Research Center on Telecommunications Access (RERC-TA)
Gregg Vanderheiden, Ph.D, Co-Director | gv@trace.wisc.edu
Trace R&D Center, University of Wisconsin-Madison, 1550 Engineering Drive, 2107 ECB, Madison, WI 53706-1609

Christian Vogler, Ph.D., Co-Director | christian.vogler@gallaudet.edu
Technology Access Program, Gallaudet University, SLCC 1116, 800 Florida Ave NE, Washington DC 20002
trace.wisc.edu & tap.gallaudet.edu

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