

**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 THE NATIONAL CABLE & TELECOMMUNICATIONS  
ASSOCIATION**

The National Cable & Telecommunications Association (NCTA) submits these comments in response to the Commission’s Notice of Proposed Rulemaking (*Notice*) in the above-referenced proceeding.<sup>1</sup> For the reasons explained below, the Commission should continue to focus on implementing Real Time Text (RTT) in wireless networks, but should defer consideration of any RTT mandate for wireline voice networks.

**INTRODUCTION AND SUMMARY**

As described in the *Notice*, RTT enables text-based messages to be sent on a real time, keystroke by keystroke basis.<sup>2</sup> For deaf and hard of hearing users, RTT could provide significantly improved performance and functionality compared to existing TTY services.<sup>3</sup> In addition, RTT offers benefits to deaf and hard of hearing users that are not available through the

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<sup>1</sup> *Transition from TTY to Real-Time Text Technology*, CG Docket No. 16-145, Notice of Proposed Rulemaking, FCC 16-53 (rel. Apr. 29, 2016) (*Notice*).

<sup>2</sup> *Id.* at ¶ 1.

<sup>3</sup> *Id.* at ¶ 14 (citing recommendations from the Disabilities Advisory Committee).

use of Telecommunications Relay Service (TRS) or other texting services such as SMS, particularly in emergency situations.<sup>4</sup>

The vast majority of the *Notice* is focused on issues related to the implementation of RTT on wireless networks and devices. That focus makes sense because consumers turn to those networks and devices for text-based communications and because wireless carriers have acknowledged difficulty complying with the Commission's rules requiring support for TTY services on their IP-based networks and devices.<sup>5</sup> The *Notice* also solicits comments on whether similar obligations should extend to wireline voice networks.<sup>6</sup> This portion of the *Notice* contains virtually no discussion of potential technical or practical concerns raised by such a mandate or dissimilarities between wireless and wireline networks that might justify a different approach.

As NCTA explains in these comments, while implementation of RTT on wireless networks and devices offers the potential to provide significant benefits to virtually all deaf and hard of hearing users, the relative benefits of RTT on wireline VoIP networks are questionable. Wireline voice networks and devices have a rapidly declining user base, they generally are not designed to support text-based communications and, except for TTY services, are not used to provide text-based communications. Moreover, the operational challenges of implementing RTT on VoIP systems are potentially significant. For these reasons, the Commission should defer consideration of any rules with respect to wireline voice networks and devices until it has more experience implementing RTT on wireless networks and devices. Such an approach will not jeopardize deaf and hard of hearing users because they will continue to be able to utilize TTY

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<sup>4</sup> *Id.* at ¶¶ 14 (citing EAAC report), 38 (“delivery of messages over SMS is not guaranteed”).

<sup>5</sup> *Id.* at ¶¶ 9-10 (discussing petitions of wireless carriers seeking relief from the requirement to support TTY).

<sup>6</sup> *Id.* at ¶¶ 95-99.

over wireline VoIP networks and RTT apps provided by third parties over wireline broadband networks.

**I. THE COMMISSION SHOULD FOCUS ON IMPLEMENTATION OF REAL TIME TEXT ON WIRELESS NETWORKS AND DEVICES**

When TTY was first developed over 50 years ago, it made sense to require that it be included as part of wireline voice service because the Public Switched Telephone Network (PSTN) was the only universally available communications service.<sup>7</sup> Today, however, the use of wireline voice service is declining rapidly, while wireless services, both voice and text, have become the primary means by which people communicate.<sup>8</sup> In particular, the volume of texting that takes place on wireless networks and devices makes clear that these networks and devices should be the focus with respect to implementing RTT.<sup>9</sup>

The *Notice* demonstrates that the trend away from use of wireline networks and devices and toward wireless networks and devices is being experienced in the deaf and hard of hearing community as well. In recent years TTY use has declined by as much as 80 percent, while consumers have “opted for innovative wireless services, including SMS, instant messaging, email, IP relay, and various social media applications.”<sup>10</sup> Given the near universal deployment and adoption of wireless services and devices, implementation of RTT on wireless networks and

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<sup>7</sup> *Id.* at ¶ 11.

<sup>8</sup> See, e.g., Blumberg SJ, Luke JV. *Wireless substitution: Early release of estimates from the National Health Interview Survey, July–December 2015*, National Center for Health Statistics (May 2016) (CDC Report) (approximately 48 percent of homes had only wireless phones and an additional 15 percent receive all or almost all calls on wireless phones).

<sup>9</sup> According to the Commission’s most recent wireless competition report, 89 percent of customers use their smartphone for texting and consumers sent over 169 billion text messages in 2014. See *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993: Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 15-125, Eighteenth Report, FCC 15-1487 (rel. Dec. 23, 2015) at ¶¶ 147, 149.

<sup>10</sup> *Notice* at ¶ 12 (quoting CTIA comments).

devices as suggested in the *Notice* has the potential to address the needs of virtually all deaf and hard of hearing consumers.

## **II. A MANDATE TO SUPPORT REAL TIME TEXT ON WIRELINE VOICE NETWORKS WOULD BE OF QUESTIONABLE VALUE**

NCTA respectfully disagrees with the statement in the *Notice* that “the ability to access our nation’s wireline VoIP services using RTT will be just as important as the ability to access wireless services.”<sup>11</sup> This statement seems to misunderstand the limited role that wireline VoIP service plays in today’s communications marketplace, particularly with respect to text communication. While the potential benefits of implementing RTT on wireless networks and devices are well-established, the benefits of implementing RTT on wireline VoIP networks are questionable and the costs and challenges could be significant.

As a threshold matter, as noted above, roughly half of all Americans have “cut the cord” and no longer have wireline voice services of any kind. Moreover, the overwhelming majority of homes that still have wireline voice service also subscribe to wireless service.<sup>12</sup> Only 7 percent of homes are wireline only and that number is steadily shrinking over time.<sup>13</sup> Consequently, the universe of customers that could potentially benefit from adding RTT capability to wireline VoIP networks is extremely small. Furthermore, it appears that TTY use is declining at even faster rates than overall wireline voice service usage.<sup>14</sup> This strongly suggests that communicating by text over wireless networks and devices *already* has become the standard method of communication for a significant portion of the deaf and hard of hearing community, a trend that likely will only accelerate with the implementation of RTT on wireless networks.

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<sup>11</sup> *Id.* at ¶ 96.

<sup>12</sup> CDC Report at 5.

<sup>13</sup> *Id.*

<sup>14</sup> *Notice* at ¶ 12 (80% drop in TTY minutes).

The *Notice* asks a number of questions about whether to require wireline VoIP networks to support the use of RTT applications on smartphones, tablets, and computers.<sup>15</sup> These questions seem to conflate the VoIP services provided by cable operators and other providers with the broadband Internet access services provided by those same companies. On cable networks, VoIP is offered as a managed service, with VoIP traffic handled separately from other Internet traffic. Smartphones, tablets, and computers are devices that most commonly are used with the broadband service, not the VoIP service. This is yet another reason why a mandate for wireline VoIP networks to support RTT would be of questionable value.

Due to the lack of specificity in the *Notice* as to what it would mean to require wireline VoIP providers to “support” RTT, the *Notice* has triggered more questions than answers from the technical experts within the cable industry. Wireline providers generally do not provide the devices used by the customer, nor do they have information regarding how many devices are tied to a telephone number or the capabilities of those devices. A wireline provider therefore has no ability to ensure that a customer will be able to use texting capability.

In addition, a critical difference between wireless and wireline voice services is that each wireless device has its own telephone number, whereas wireline voice service may support multiple devices in a single location with a single telephone number. These differences raise a variety of operational issues: How will a provider know whether outgoing calls are voice calls or RTT calls, and how would the latter be routed? How will a provider be able to route incoming RTT calls to text-capable devices and voice calls to voice-capable devices if it has no information on the devices in the home? How will voice mail and other features work with RTT

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<sup>15</sup> *Id.* at ¶ 97.

devices? This is just a brief sampling of the many operational issues that the *Notice* has triggered for cable network engineers.

Given the lack of demand, limited benefits, and unresolved operational issues presented by the use of RTT on wireline VoIP networks, NCTA suggests that the Commission should defer consideration of any new rules for such networks at this time. Such an approach will not jeopardize the ability of deaf and hard of hearing users to communicate effectively over wireline networks. Wireline VoIP providers continue to support TTY and have not sought to be relieved of the obligation to do so. Contrary to suggestions in the *Notice*,<sup>16</sup> we are not aware of customers experiencing problems with their TTY services over cable VoIP networks.<sup>17</sup>

In addition, in any area where a cable operator offers wireline VoIP service, it also will offer wireline broadband service. Consequently, if wireless service is not available, a customer that subscribes to wireline broadband service should be able to use third party messaging applications on a tablet, including RTT apps that already are available in the marketplace.<sup>18</sup> While wireline broadband operators would have no control over the operation and performance of these third-party applications, they generally should have the same features and functionalities that they do when used on smartphones over wireless networks.<sup>19</sup> Given the functionality that these third-party applications can offer to consumers over wireline broadband networks, there is no reason for the Commission to prematurely impose mandates on wireline VoIP networks.

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<sup>16</sup> *Id.* at ¶ 95.

<sup>17</sup> The *Notice* states that wireless carriers have committed to ensuring that their RTT services are backwards compatible with TTY, *id.* at ¶ 61, so customers using TTY on wireline networks should be able to communicate with RTT customers on wireless networks.

<sup>18</sup> For example, Beam Messenger, a real-time texting app which won the FCC Chairman's award for advancements in accessibility in 2015, is available on iOS and Android devices, including tablets.

<sup>19</sup> They will have the same limitations as well. To the extent a caller is trying to reach a party that does not have the ability to receive RTT communications, a tablet using a wireline broadband connection will face the same challenges as a smartphone using a wireless connection.

**CONCLUSION**

For all the reasons explained above, the Commission should defer consideration of any RTT mandate for wireline voice networks.

Respectfully submitted,

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