Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of:	)	
Misuse of Internet Protocol (IP) Captioned Telephone Service	)	CG Docket No. 13-24
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities	)	CG Docket No. 03-123

Comments (Notice of Inquiry) of
Hearing Loss Association of America (HLAA)
Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI)
National Association of the Deaf (NAD)
Association of Late-Deafened Adults (ALDA)
Cerebral Palsy and Deaf Organization (CPADO)
American Association of the Deaf-Blind (AADB)
Deaf Seniors of America (DSA)
California Coalition of Agencies Serving the Deaf and Hard of Hearing, Inc. (CCASDHH)
Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN)
Deaf/Hard of Hearing Technology Rehabilitation
Engineering Research Center (DHH-RERC)
Rehabilitation Engineering Research Center on Inclusive ICT (IT-RERC)

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Summary

For many Americans who are hard of hearing, deaf, or DeafBlind, including those who have other disabilities, there is no substitute for IP CTS. IP CTS allows hundreds of thousands of people to communicate with family and friends, maintain an independent lifestyle, and remain in the workforce. Within the broader landscape of TRS, IP CTS has increasingly become an important part of the fabric of communication for people who are deaf, hard of hearing, or DeafBlind, including those who have other disabilities.

We strongly support the Commission's decision to institute a proceeding aimed at establishing performance goals and standards for such a vitally important service. Functional equivalence, the keystone of the civil right to communications access codified in Section 225, must be the first goal for IP CTS. The Commission's goal of efficiency—which it defines as decreasing instances of waste—must not outweigh the goal of functional equivalence. We support the Commission's goal of spurring technological advances, but those technological advances must be in service of providing functionally equivalent service based on the metrics established by the Commission.

However, rather than commenting on the specific metrics for accuracy that the Commission has proposed, we urge the Commission to establish broad principles for these metrics so that they best serve the consumers who use IP CTS, while engaging in further research to define the specifics of the metrics. The Commission must pursue and support both goals with the utmost of haste.

Finally, the Commission should adopt its suggestion to publish performance metrics achieved by all providers, and to develop a system where IP CTS users can rate the quality of calls. The Commission should also maintain one standard of accuracy and quality for all calls made or received on IP CTS instead of establishing a higher standard of accuracy for calls made to legal, medical, or other professional services. The Commission also should ensure that methods for measuring accuracy are performed by third parties, rather than allowing IP CTS providers to self-measure or self-report.

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Discussion

The Hearing Loss Association of America (HLAA), Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), the National Association of the Deaf (NAD), the Association of Late-Deafened Adults (ALDA), the Cerebral Palsy and Deaf Organization (CPADO), the American Association of the Deaf-Blind (AADB), Deaf Seniors of America (DSA), the California Coalition of Agencies Serving the Deaf and Hard of Hearing, Inc. (CCASDHH), and the Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN) ("Consumer Groups") and the Deaf/Hard of Hearing Technology Rehabilitation Engineering Research Center (DHH-RERC) and the Rehabilitation Engineering Research Center on Inclusive ICT (IT-RERC) respectfully comment on the Commission's Notice of Inquiry ("NOI") in the above-referenced docket.[1]

Consumer Groups represent and advocate for the interests of 48 million Americans who are hard of hearing, deaf, or DeafBlind, including those with other disabilities, with the help of the research outputs and technical guidance of the RERCs. We have been in direct contact with current and potential IP CTS users via email, letters, social media, and conferences. We have worked closely with IP CTS providers and Commission officials who oversee the national TRS program. Our filings over the past several decades, including the 2011 TRS Policy Statement from many of the Groups,[2] reflect our unique expertise and experience in representing the community of consumers that benefit from using IP CTS, which has empowered their communicative relationships with family, friends, and coworkers.

In the NOI, the Commission has instituted a proceeding aimed at establishing performance goals and metrics for the IP CTS program.[3] We urge the Commission to seriously consider the

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[1] *Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services, and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Report and Order, Declaratory Ruling, Further Notice of Proposed Rulemaking, and Notice of Inquiry, CG Docket Nos. 13-24, 03-123, , (June 8, 2018) ("*2018 FNPRM*," "*2018 Declaratory Ruling*," and "*2018 NOI*").

[2] *See generally* Consumer Groups' TRS Policy Statement (April 12, 2011), https://ecfsapi.fcc.gov/file/7021748013.pdf ("TRS Policy Statement").

[3] *See generally 2018 NOI.*

comments from consumers and consumer groups whose members rely on IP CTS and are thus the people best positioned to understand the impact of performance goals and standards for the service. NASRA, for instance, has stated that consumer groups representing hard of hearing, deaf, or DeafBlind Americans should take the lead on helping the Commission to establish quantifiable performance metrics for the service.[4]

In addressing the questions raised by the NOI, the Commission should:

- Establish functional equivalence as the first priority for IP CTS;
- Establish technological advances as the second goal for IP CTS, so long as those technological advances can be measured for functional equivalence;
- Establish efficiency as the third goal for IP CTS, so long as efficiency is defined as working to reduce instances of waste while producing the desired effect of a functionally equivalent service and so long as efficiency does not outweigh the primary goal of functional equivalence]
- Engage in and support further research to articulate more specific metrics for comment;
- Establish broad principles for performance metrics to ensure that they serve the needs of consumers who use IP CTS;
- Adopt the definition of functional equivalence as stated in the Consumer Groups' *2011 TRS Policy Statement*;
- Publish performance metrics achieved by providers and establish a ratings system for calls made on IP CTS;
- Maintain one standard of accuracy for all calls made on IP CTS and;
- Ensure independent testing to measure providers' metrics.

[4] Comments of National Association for Relay Administration, CG Docket Nos. 03-123, 13-24 (September 13, 2018).

I. Functional equivalence must be the Commission's first priority when promulgating IP CTS performance goals. (¶ 158)

The Commission seeks comment on appropriate performance goals for the IP CTS program and how those goals can be measured.[5] Specifically, the Commission asks whether functional equivalence should be established as the first and foremost goal for IP CTS.[6]

Functional equivalence must be the first priority for IP CTS performance goals. Indeed, functional equivalency is that standard mandated by Section 225: it is self-evident that no other goal can be placed above functional equivalence.[7] Functional equivalence must be the baseline by which all other goals and standards are measured, and consumers who utilize the service are the ones who are best positioned to aid in creating quantifiable standards to measure functional equivalence.

First, the Commission must adopt a definition of functional equivalence as stated in the Consumer Groups' 2011 TRS policy statement.[8] The Commission must also take a step back and engage in more research to fully flesh out the definitions and practical considerations of these metrics rather than promulgating rules based on the metrics proposed in the *NOI*. Finally, the Commission should establish broad principles for these metrics grounded in serving the consumers who utilize IP CTS. Americans who are hard of hearing, deaf, or DeafBlind cannot have equal access to communications services without accurate transcription defined by metrics grounded in research and a definition of functional equivalence that best serves their needs.

A. The Commission should adopt the definition of functional equivalency as stated in the Consumer Groups' 2011 Policy Document. (¶158)

The Commission must adopt the definition of "functional equivalence" as established by the Consumer Groups in our 2011 TRS Policy Statement.[9] "Functional equivalence" occurs when:

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[5] *2018 NOI* at ¶ 156.
[6] *Id.*
[7] 47 U.S.C. § 225(a)(3).
[8] TRS Policy Statement at 1.
[9] *Id.*

> "Persons receiving or making relay calls are able to participate equally in the entire conversation with the other party or parties and they experience the same activity, emotional context, purpose, operation, work, service, or role (function) within the call as if the call is between individuals who are not using relay services on any end of the call."[10]

This definition would best serve the Commission's mandate to provide functionally equivalent services for Americans who are hard of hearing, deaf, or DeafBlind, and we urge the Commission to adopt this stringent standard for equivalency. By adopting such a definition, the Commission will be able to work within its contours in articulating metrics, allowing for a better provision of functional equivalency and a better method for metrics by which to measure it.

B. The Commission must complete more research and propose more specified performance metrics. (¶ 161-175)

The Commission seeks comment on whether and how various metrics should be used to measure IP CTS service quality.[11] The Commission asserts that defining these measurements will enable it to track the progress and success of the IP CTS program and provide valuable empirical evidence to effectively implement and oversee IP CTS.[12]

While we support the Commission instituting this proceeding to establish performance metrics for IP CTS, the insufficiency of the proposed standards and lack of data about the practical outcomes of these standards leaves us unable to give more specific input. To remedy this, the Commission must engage in more research to propose more specific performance metrics no later than December 2019, per the recommendation of the Commission's Disability Advisory Committee ("DAC").[13]

For example, the Commission asks whether "readability" should be used a metric to determine the accuracy of an IP CTS call.[14] However, the Commission does not define the term. Does

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[10] *Id.*

[11] *2018 NOI* at ¶ 164.

[12] *Id.* at ¶ 151.

[13] DAC Recommendation on Internet Protocol Captioned Telephone Relay Service Metrics at 3-4 (October 3, 2018) (DAC IP CTS Metrics Recommendation), https://www.fcc.gov/document/internet-protocol-captioned-telephone-relay-service-metrics-0

[14] *2018 NOI* at ¶ 166.

"readability" refer to an average of all IP CTS conversations? Or does it refer to "readability" as it would be defined for a certain subset of the population—i.e., will a transcription be considered "readable" if it is fully understood by adults aged 18-35? Without knowing how the Commission means to construe the term, we are unable to offer comment on whether it should be included as a metric for determining IP CTS transcription accuracy.

The *NOI* is replete with proposed metrics that lack definitional specificity. For example, the Commission seeks comment on whether it should differentiate between completeness and accuracy.[15] But the Commission does not explain how this differentiation will be implemented or work in practice. Without knowing the details of potential metrics for accuracy proposed by the Commission, we are again limited in our ability to offer insight.

Suggestions to establish transcription synchronicity, transcription speed, speed of answer, and dropped or disconnected calls as metrics to evaluate service quality are left similarly undefined and without any explication of their practical effects.[16] To solicit comments and suggestions on performance metrics, the Commission must engage in more research to better define and better understand the outcomes of these metrics no later than December 2019.

C. The Commission must adopt general principles for metrics used to measure accuracy. (¶165-166)

While engaging in further research to better define the metrics it has proposed for accuracy, the Commission should in the short term establish general principles for these metrics. Establishing broad principles for the metrics used to measure accuracy is the best way to ensure a service that is truly functional equivalent and serves the needs of the consumers who rely on it. Specifically, the Commission must ensure that metrics are:

- Aligned with and relevant to the user experience;
- Understandable to ordinary consumers so they can understand what is being measured and how it relates to their use of IP CTS;

[15] *See id.* at ¶ 166.
[16] *See id.* at ¶ 168, 170, 171, 172.

- Standardized so that data is consistently defined and amenable to comparisons;
- Not unduly complicated to track or measure; and
- Resistant to being gamed, circumvented, or otherwise bypassed.

II. The Commission must ensure that technological advances serve functional equivalency. (¶ 159)

The Commission asks whether it should establish its second performance goal for IP CTS as ensuring that the service utilizes technological changes and advances in the telecommunications industry to the greatest extent possible.[17] The Commission proposes that establishing a goal to ensure that technological advances are utilized within IP CTS to the greatest extent possible will achieve a more functionally equivalent IP CTS service.[18]

We support the Commission recognizing technological advances as a secondary goal for IP CTS. However, the Commission must ensure that technological advances are deployed widely only when they have been proven to provide functionally equivalent service. Implementing technology for IP CTS use without metrics to evaluate its functional equivalency will undoubtedly work against the primary goal of functional equivalence.

For instance, in the *NOI*'s associated *Declaratory Ruling*, the Commission established Automated Speech Recognition, or ASR, as a service eligible for compensation from the TRS fund and thereby for use within the IP CTS system.[19] The *NOI*'s ultimate resolution may be years away, during which there will be no standards or metrics to judge the extent to which ASR satisfies the statutory standard for functional equivalency or its definition and implementation by the Commission.

The Government Accountability Office has recognized that "the lack of specific performance goals [and measures make it] difficult to determine in an objective, quantifiable way if TRS is making

[17] *See id.* at ¶ 159.
[18] *See id.* at ¶ 159.
[19] *2018 Declaratory Ruling* at ¶ 148.

available functionally equivalent telecommunications services . . . ."[20] The lack of "objective, quantifiable" metrics to evaluate the technology will leave consumers with a technology that may well hinder the provision of functional equivalence. The Commission must continue to encourage technological advances within IP CTS, but only if there are metrics in place to evaluate these technological advances for functional equivalency.

III. The Commission must ensure that the goal of efficiency does not outweigh the primary goal of functional equivalence nor deter legitimate IP CTS use. (¶ 160)

The Commission asks whether the third goal for IP CTS should be to improve the efficiency of the program and reduce its incidents of waste, fraud, and abuse, and seeks comment on how this goal should be balanced against the goal of ensuring the provision of a functionally equivalent communications experience.[21]

We support elimination of any waste, fraud, and abuse found within the IP CTS program, but the Commission cannot deem a more expensive service wasteful solely because of its cost. The Commission must not let the goal of efficiency outweigh the primary goal of functional equivalence or deter legitimate IP-CTS use.

For instance, if a particular technology is the highest quality way to provide functional equivalency for IP CTS users but is more expensive than another technology, the Commission must not give more weight to efficiency by tailoring its metrics to the less expensive, which would result in a cheaper but less functionally equivalent service. Efficiency within IP CTS cannot only be concerned with the reduction of effort, expense, or waste; efficiency must be defined as working to reduce instances of waste while still producing the desired effect of a functionally equivalent communications service.

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[20] Telecommunications Relay Service: FCC Should Strengthen Its Management of Program to Assist Persons with Hearing or Speech Disabilities, *U.S. Government Accountability Office,* GAO-15-409 (April 2015), https://www.gao.gov/assets/680/670005.pdf.; *see also* DAC IP CTS Metrics Recommendation at 2.

[21] *2018 NOI* at ¶ 160.

The Commission must also ensure that the goal of efficiency does not deter legitimate IP CTS use by placing undue burden on consumers who rely on the service. The *NOI*'s associated *FNPRM*, for example, seeks comment on changing the requirement for IP CTS eligibility in the name of efficiency.[22] As we explained in our comments on the *FNPRM*, changing the eligibility requirements for IP CTS is a burden on consumers that inhibits functional equivalency.[23] We believe that efficiency is a commendable goal for IP CTS, but only if it does not increase consumer burden by taking priority over functional equivalence.

IV. The Commission should publish performance metrics achieved by providers and develop a system by which IP CTS users can rate the quality and performance of IP CTS calls to increase competition. (¶163)

The Commission asks whether it should publish the metrics achieved by each provider in order to aid IP CTS users in their selection of service providers and seeks comment on the merits of developing a system by which IP CTS users can rate the quality and performance of IP CTS calls.[24] The Commission suggests that publishing provider metrics and developing a ratings system for IP CTS will increase competition between providers and thus create a more robust service that truly serves the needs of its users.[25]

We strongly support the joint endeavors of publishing metrics achieved by each provider and establishing a system where IP CTS can rate the quality and performance of IP CTS calls. IP CTS users currently cannot weigh the pros and cons of different service providers the way that their hearing counterparts can because IP CTS providers are not required to release the metrics achieved by IP CTS calls on their services.

Without access to harmonized performance metrics achieved by each provider, IP CTS users are left without the most important information for choosing a provider. Publishing performance

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[22] *2018 FNPRM* at ¶ 117-119.
[23] Comments of Hearing Loss Association of America (HLAA), Telecommunications for the Deaf and Heard of Hearing, Inc. (TDI), et al., CG Docket Nos. 13-24, 03-123 (Sept. 17. 2018)
[24] *2018 NOI* at ¶ 163.
[25] *Id.*

metrics and developing a rating system for IP CTS providers will not only increase the transparency of and competition within the IP CTS program, but serve to bolster the Commission's first goal of functional equivalence.

V. The Commission should not adopt different standards of accuracy for IP CTS calls placed to medical, legal, or other professional services. (¶ 165)

The Commission asks whether it should establish different measures of accuracy for calls placed to medical, legal, or other professional services.[26] This potential differentiation between the types of calls placed on IP CTS seems to be predicated upon the idea that calls placed to "professional" services are inherently more important than other calls.

The Commission should maintain a standard measure of accuracy across all calls made using IP CTS. The Commission has identified no clear legal or technological mechanism for differentiating between calls made to medical, legal, or other professional services and calls that are not. Moreover, *all* calls placed on IP CTS are important to IP CTS users, not just calls to "professional" services. Maintaining one standard of quality across all calls placed on IP CTS is the best way to bring about a high-quality, fully functional service for the Americans who rely on it to communicate.

VI. The Commission must ensure independent testing regardless of the method it uses to evaluate transcription accuracy. (¶ 167)

The *NOI* asks what tools should be used to measure transcription accuracy given that providers cannot retain content of a conversation beyond a call.[27] It seeks comment on whether it should utilize anonymous test-callers or third-party callers with scripts to measure accuracy.[28]

The Commission, regardless of what method it chooses to use, must ensure:

- That the assessment accuracy of IP CTS calls is fully independent;
- That providers are not allowed to self-measure or self-report accuracy;
- That assessment methods are reproducible and,

[26] *Id.* at ¶ 165.
[27] *Id.* at ¶ 167.
[28] *Id.*

- That testing content will not be disclosed to IP CTS providers in advance.

Adopting these principles will allow the Commission to offer a service that is functionally equivalent to the best of its ability, and a service whose metrics are established with consumers in mind.